Areal Features and Linguistic Areas: Contact-induced Change and Geographical Typology

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1. Preamble

What are the reasons for similarities between languages? Linguistic categories can be similar because they are universal—for instance, every language has some way of asking a question or framing a command. Occasionally, two languages share a form and meaning combination by pure coincidence. Goemai (Angas-Goemai subgroup of Chadic, Afroasiatic: Birgit Hellwig, p.c.) and Manambu, a Ndu language of the Sepik area, happen to use a:s for ‘dog’. The word for ‘tail’ in Kwoma, from the Sepik area, is *kinjil* ‘tail’, and that in Manambu is *goñi*—a spurious similarity with Yidiñ (Australian) *gini* ‘penis’ is striking. And numerous languages of the world have a negator *ma*; just like Manambu, or unrelated Tariana, an Arawak language from Amazonia.

Distribution of typological features can vary in significance. Marked nominative systems are concentrated in eastern Africa. In the border region of Uganda, Kenya, Ethiopia and Sudan, nearly all the languages—both Nilo-Saharan and Afroasiatic—with case-marking display this pattern. It is extremely likely that this shared pattern results from diffusion and numerous instances of language contact, and may be considered an areal property (König 2008a, 2008b). König hypothesizes that the direction of spread of marked nominative-patterns was predominantly from Afroasiatic languages into Nilo-Saharan languages. That Berber languages spoken to the north of the cluster of marked nominative languages also have a marked nominative system is significant: the pervasiveness of this property in Berber points to its antiquity in Afroasiatic.

In contrast, the fact that Yuman languages spoken in southern California also have a marked nominative system bears no conceivable connection: it is a curious typological coincidence.

Similarities due to universal properties of language and typological coincidences are of interest for general linguistics, while chance coincidences are no more than curious facts. These two kinds of similarities tell us nothing about the history of languages or their speakers.

This is in contrast to other types of similarities: those due to common linguistic origin or genetic inheritance, those due to contact, and interactions
thereof. The fact that Kwoma, a neighbour of Manambu (but not demonstrably related to it), uses the form *at(a) for ‘dog’ is likely to be more informative than a spurious coincidence between Manambu and Goemai.

If a shared feature is based on common linguistic origin, the languages can then be shown to have descended from the same ancestor (this is achieved by using the rigorous procedures of historical and comparative linguistics).

It is also known that related languages ‘will pass through the same or strikingly similar phases’: this ‘parallelism in drift’ (Sapir 1921: 171-2) accounts for additional similarities between related languages, even for those ‘long disconnected’. The similarities are due to independent, albeit parallel, development. This is another option for explaining why related languages may share a feature—for instance, why the Proto-Ndu plural marker *bad developed a meaning of ‘associative plural’ in Manambu, and also independently in Abelam-Wosem.

Alternatively, shared features may result from geographic proximity, contact and borrowing. If two or more languages are in contact, with speakers of one language having some knowledge of the other, they will come to borrow linguistic features and forms of all kinds. The extent of this varies; but no feature is absolutely borrowing-proof. The likelihood of borrowing—or transfer—of a grammatical feature or of a form is determined by a complex interaction of sociolinguistic factors and an array of linguistic and usage-based factors (see Alkhenvald 2006a and references there).

Parallel development and shared archaism can be reinforced if languages are in contact or spoken within one geographic area. The suppletive imperative of the verb ‘come’ was previously considered a feature of the Ethiopian linguistic area (G17 in Ferguson 1976; Tosco 2000: 349-50). This is a feature inherited from Proto-Afroasiatic (Newman 1980: 21), and the form employed is archaic. However, the density of its representation in most Afroasiatic languages in Ethiopia may suggest reinforcement of an archaic pattern. Suppletive forms of ‘come’ are found in Egyptian, and in some Chadic languages—in Margi, a Chadic language spoken in Nigeria, in Hausa (Newman 2000) and in Kanakuru (Paul Newman, p.c.). But there are no traces of this suppletion in Chadic languages spoken in Cameroon. This may lead us to believe that this archaic feature was lost in the Chadic languages of Cameroon, but survived in other Afroasiatic branches centered on Ethiopia.

Languages may share features, or, better, combinations of features, as representatives of extensive linguistic areas. The classic definition of a linguistic area comes from Emeneau (1956: 16) (also see Masica 2001: 209; Sherzer 1973):

“... an area which includes languages belonging to more than one family but showing
traits in common which are found not to belong to the other members of (at least) one of the families.”

The ‘why’ and the ‘how’ of linguistic similarities within an area may be quite diverse. Languages which are not in contact with each other may have borrowed the same form, or the same pattern, from some common source, or from different sources. In his reappraisal of Ethiopia as a linguistic area, Tosco (2000) remarks that a substantial number of similarities among the languages of Ethiopia result from long-standing separate substrate influence from Cushitic into Semitic: that is, similarities within the geographical area are due to a similar type of influence, each time from a different source.

‘Traceable affinities between (a) cultural and behavioural norms and (b) large-scale linguistic patterns’ may be seen as creating a motivation for the spread of a grammatical pattern (Ameka 2004). The cultural practice of ‘triadic communication’—that is, the art of communicating with another through a third party—in West Africa spans a number of established linguistic groups including Kwa, Nilo-Saharan and also Chadic. It is possible that logophoric marking was acquired through the spread of this cultural practice (cf. Von Roncador’s (1992: 174) suggestion that ‘translation borrowing might [...] explain the areal distribution of logophoric marking across unrelated or only remotely related languages’; also see Gueldemann 2003). A common trading pattern may thus constitute the basis for spread of a way of saying things—that is, a grammatical pattern.1

This is similar to the spread of personal and totemic names—and formatives which mark them—across the Sepik River Basin: across the area these are tokens of wealth (like shell valuables), and they are exchanged through trade, and become indicative of Sepik languages and cultures (Harrison 1990; Newton 1971).

The mechanisms of formation of a large linguistic area with no demonstrable traces of contact between individual groups (cf. Tosco 2000) are not easy to ascertain. We now turn to the issue of macro-areas—constellations of linguistic features (and sometimes also forms) (see Heine and Nurse 2008b: 9–10).

2. Macro-areas, and their features

Macro-areas—including Africa as a whole, Ethiopia, South Asia, the Caucasus, Meso-America, Amazonia and the Andean region—orient us

1 Prolonged areal diffusion may involve convergence towards a ‘common type’. This is what we seem to find in South Asia (Emeneau 1956; on India as a linguistic and cultural area, and also as a ‘translation area’).
towards a broader picture. Two languages situated within one macro-area may not have ever been in contact with each other, and the mechanisms which led to their becoming similar may be very different.

Geographically, large linguistic areas are often defined by physical features—such as waterways and mountain ranges (Diller 2007; Storch 2006). Interaction within river basins and waterways is particularly conducive to language contact, involving multilingual communication and diffusion of linguistic features. River systems and other waterways facilitate population migration, trade, and interaction of various kinds.

As a result, linguistic areas are frequently centred on river basins. Examples include the Vaupés River basin in Brazil (Aikhenvald 2002 and references there), and the Volta River Basin in Africa, extending from the Nigeria-Benin border as far as Côte d'Ivoire to the west and northwards into Burkina Faso (Ameka 2006) (further examples are discussed in Storch 2006, and 2005). Large river systems have given rise to distinctive language contact profiles across Mainland South-east Asia (see Diller 2007; Enfield 2005).

Other geographical features—such as mountains or swamps—may create geographical barriers for communication between groups, and thus present natural boundaries to linguistic areas.

A major problem in defining a macro-area is delineating its features in a convincing manner. As shown in the study of Meso-America as a linguistic area by Campbell, Kaufman and Smith-Stark (1986: 535-536), not all shared features have the same ‘weight’: ‘highly “marked” exotic, or unique shared traits weigh more than does material that is more easily developed independently, or found widely in other languages’.

Accepted linguistic areas are conceived as the historical products of linguistic diffusion. Thus, shared traits of linguistic areas are those which can be shown to be diffused—and cannot be ascribed to a common ancestor, to chance, or to universals. A highly frequent phenomenon—such as for instance verb-final constituent order, the existence of nasalized vowels, or the presence of a perceptive-imperfective opposition in the aspectual system—would not be assigned as much weight as a more exotic, unusual characteristic. An example of such an exotic feature is the suppletive formation of negative and positive paradigms found in Mande languages, as well as in Songhay and in Hausa (Zima forthcoming; Kasterholz 2002).

Drastic changes in the use of syntactic constructions (as is, for instance, the case for infinitives in the languages of the Balkans), or in morpheme shape in the languages within an area could be seen as a highly distinctive trait, indicative of areal diffusion. Such features may be unusual for a subgroup or a family, without being typologically ‘exotic’.

Thus, Chadic languages in contact with Kwa languages have developed
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languages have developed
a Kwa-like monosyllabic word-structure (Jungraithmayr 2000: 94). Cross-
linguistically, having monosyllabic lexemes is not unusual. But this feature is not found in Chadic languages outside the contact area. Since the source of diffusion (from Kwa to Chadic) can be easily established, this feature can be assigned special weight. A phenomenon found in one branch of a family but not in others immediately calls for contact as explanation (see discussion by Wolff 1983: 216, 218 on contact with Nilo-Saharan and Niger-Congo languages as a possible explanation for tonogenesis in Chadic or in Proto-Chadic).
One typologically well-attested property cannot by itself be considered area-defining. However, the way properties cluster together can be area-specific. In a classic paper, Campbell, Kaufman and Smith-Stark (1986) single out five morphosyntactic features characteristic of the Meso-American area:
(a) nominal possession of the type his-dog the man;
(b) relational nouns (that is, body part nouns used as markers of spatial relationships);
(c) vigesimal numeral systems;
(d) non-verb final basic word order which may correlate with the absence of switch reference;
(e) numerous 'pan-Meso-American' formations, e.g. 'knee' as 'head of the leg', or 'boa-constrictor' as 'deer-snake'.
The absence of a feature may be as important as its presence. Linguistic features almost unheard of in African languages are:
— ergative-absolutive systems (see König 2008a, 2008b, for a discussion),
— numeral classifiers (with the exception of Ogoni languages),
— possessive and relational classifiers, and
— evidential systems (exceptions are Shilluk, and also Lega (Bantu) and Sissala (Gur, Upper Volta), which have small evidential systems).
Languages of the Sepik area of New Guinea do not have tones, evidentials or any ergative patterns. They tend to have complex directional systems and switch-reference. Classification of nouns (be it through genders, numeral classifiers, or extensive systems of noun classes) involves shape. Such a constellation of features is an indicator to a typologist wondering where to look for a particular phenomenon.
In addition to the absence or presence of a feature or of a pattern, macro-areas may share area-specific grammaticalization pathways (or broad

2 Along similar lines, the reciprocal is marked with a suffix on a verb in Oceanic languages on the northwest coast of West New Britain, rather than with a prefix, as in Oceanic languages elsewhere. By itself, this is not an exotic feature. However, the languages of West New Britain share it with their (unrelated) neighbour, a Papuan language Anêm; the obviously diffusional origin of this trait makes it a distinctive characteristic of the area (Thurston 1987: 79-80).
conceptual schemata). A feature of Africa as a macro-area is the widespread development of a comparative of inequality by grammaticalizing the verb ‘pass, surpass’ or ‘defeat’ (Heine and Kuteva 2005: 217-218). This is not the only feature—but it is a highly prominent one, which goes across family boundaries throughout Sub-Saharan Africa.

Areal studies on a macro-scale are useful for a general view of what languages are like. But they communicate little about the precise history of the people involved, or the exact type of language interaction or the type of contact-induced change. They are also useful in orienting linguists towards the distribution of features and concentration of languages of particular type or with particular properties, or lack thereof. And they provide a basis for detailed descriptions and concentrating on smaller scale convergence zones.

Low-tier convergence zones within macro-areas allow us to establish the mechanisms by which matching structures develop, and also to see which feature are resistant to being adjusted. This is where the knowledge of each others’ languages, and contact between groups come into play.

An example comes from the multilingual Vaupés River Basin in northwest Amazonia, against the backdrop of the macro-areal Amazonian ‘type’. Before we turn to this example, we address some widespread mechanisms of contact-induced change.

3. Some widespread mechanisms of contact-induced change

Here I will concentrate on techniques which appear to be prominent in developing matching grammatical categories, and in developing matching word structures. At this point, I won’t mention clause and sentence level phenomena such as constituent order, which is notoriously easy to calque and spread from one language to the next.

We distinguish:

(a) Reanalysis, i.e. a historical process whereby a morphosyntactic device acquires a different structure from the one it originally had, with little or no change to its surface form or semantics. A number of verbs in Udi (a Northeast Caucasian language)—which originally contained noun class agreement markers—were reanalysed as simple stems, as part of the process of losing the noun class system (Harris and Campbell 1995: 66-67).

(b) Reinterpretation, or extension, of already existing morphemes and categories, whereby they start being used in a variety of new contexts (see Harris and Campbell 1995: 66-67). Formally unmarked verb forms in Tariana were reinterpreted as having present-tense value (see below).

(c) Grammaticalization, that is, ‘the development from lexical to
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grammatical forms and from grammatical to even more grammatical forms' (Heine and Kuteva 2002: 2), as is the case for the development of proximate aspect using the verb ‘become’ in Nandi, a Nilotic language, under the influence of the Bantu language Gusii (Kuteva 2000). Another spectacular example comes from Luo, a Western Nilotic language (Dimmendaal 2001: 100). A set of proclitic tense markers in Luo has been recently grammaticalized from independent time words, mirroring the prefixed tense system in the neighboring Bantu languages (a similar phenomenon has been attested in Kalenjin, a Southern Nilotic language, also in contact with Bantu: 92-93). Unlike Bantu, the tense markers precede the person markers; but in contrast to other Westen Nilotic languages, information on tense is contained within the verbal word. Contact-induced grammaticalization of lexical items in its many guises is the focus of Heine and Kuteva (2005).

(d) **Grammatical accommodation** involves a change in meaning of a morphological marker or a syntactic construction based on superficial segmental similarity with a marker or a construction in a different language. That is, a native morpheme can be reinterpreted on the model of the syntactic function of a phonetically similar morpheme in the source language. This is also known as ‘shift due to phonetic similarity’ (Campbell 1987). Watkins (2006: 58) shows how the influence of the Hittite imperfective marker -ske- on Eastern Ionic Greek resulted in the development of an imperfective meaning for the homophonous Greek morpheme. In Pipil, a Uto-Aztecan language (Campbell 1987: 263-264), a marker of possession -pal was originally a relational noun, as in mu-pal ‘mine’, mu-pal ‘yours’ and so on. On the basis of similarity with Spanish para ‘for, in order to’, this morpheme can now appear without any prefixes and have the meaning of ‘in order to, so that’, being used to introduce a subordinate clause (see similar examples in Aikhenvald 2002: 225-226).

Present progressive aspect in Likpe is expressed with a periphrastic construction consisting of the verb ë hold’ and a nominalized verb. This construction evolved under the influence of the Ewe present progressive marked with the Likpe’s look-alike ë be at: present’. This is another example of grammatical accommodation (Ameke 2006).

A lexical form can undergo accommodation. Baale, a south-west Sursic language, borrowed extensively from Tirna and Chai, of the south-east Sursic group. And in some cases this resulted in what Dimmendaal (2006: 363) calls ‘correspondence mimicry’. For instance, the loss of the final nasal ë in the Baale word mád ‘water’ is ‘not part of a regular historical rule’. Rather, this is the result of Baale’s ‘adjusting’ to a Chai form maa. (The regular reflex would
be expected to be *maam*, as in Didinga, from the same subgroup as Baale). And the speakers of Tariana in Periquitos say *wahsá* ‘come on, let’s go’, influenced by Wannu *bašsá* ‘let’s go’ (instead of the Tariana ‘proper’ form *wasá* ‘let’s go!’).

These mechanisms are closely linked. Both *reanalysis* and *grammatical accommodation* most often go together with reinterpretation of categories and forms. Whether grammaticalization and reanalysis are to be considered separate mechanisms remains a matter for debate (see Harris and Campbell 1995: 92, for a summary). While it can be argued that every instance of grammaticalization involves reanalysis, reanalysis can occur without grammaticalization. This provides justification for distinguishing the four processes outlined above.

Intensive language contact can also increase *productivity* of a device, or of a construction. Kalenjin, a Southern Nilotic language in contact with Bantu, has a much more extensive system of expressing semantic roles on the verb (such as dative/benefactive, instrument and others) than its Southern Nilotic relatives. This wealth is reminiscent of what one expects in a Bantu language (Dimmendaal 2001: 92). Along similar lines, the system of classifiers in Tariana is larger and more extensive than in closely related Baniwa: the Tariana classifier systems expanded to fit in with the Tucanoan mould.

4. Convergence zones and mechanisms of areal diffusion: an Amazonian example

4.1. Backdrop: Amazonian versus Andine linguistic types

Two broad linguistic types have been recognized in South America: Amazonian and Andine. Amazonia can be recognized as a linguistic area in terms of a number of features which are shared by all (or most) languages in the area. A comparison between the typological characteristics of the Amazonian linguistic area in Lowland South America, with those of the Andean linguistic area in the adjacent mountains—which comprises the Quechua and Aymara families—shows that these Andean languages are clearly different.

A few representative features of Lowland Amazonian languages are summarized in the first column of Table 1, with Andine features in the second column (Aikhenvald 2007). Other features, exceptions to pan-Amazonian tendencies and regional areal characteristics are discussed in Dixon and Aikhenvald (1999). There is no sharp boundary between the Andean and Amazonian linguistic areas—they tend to flow into each other. (For instance, Andean features such as lack of prefixes and an accusative technique for

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\(^3\) Whether Quechua and Aymara belong to the same linguistic type as other languages spoken outside the Amazonian Lowlands (such as Mapuche, Leko, Cholón and Uru-Chipaya) is an open question.
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"Come on, let's go", [ariana 'proper' form.

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Table 1. Lowland Amazonian and Andean languages: a comparison

<table>
<thead>
<tr>
<th>LOWLAND AMAZONIAN</th>
<th>ANDIAN</th>
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<tbody>
<tr>
<td>(a) The majority of languages are polysynthetic and head marking; agglutinating with little fusion.</td>
<td>Andean languages are synthetic, and combine head and dependent marking; basically agglutinating with some fusion (subject, object and tense suffixes to the verb may be fused).</td>
</tr>
<tr>
<td>(b) Typically one liquid phoneme, which is frequently a flap; usually more affricates than fricatives. The high unrounded central vowel i is frequent. A typical Amazonian vowel system has five members: i, e, a, i, u/o. There is typically contrastive nasalization of vowels.</td>
<td>Two or three liquids; fricatives rather than affricates; and a three vowel system i, a and u, with no contrastive nasalization.</td>
</tr>
<tr>
<td>(c) Many languages have extensive classifier and/or gender systems. Gender assignment is often semantically transparent, and is not overly marked on the head noun.</td>
<td>No genders or classifiers.</td>
</tr>
<tr>
<td>(d) There are few oblique cases (often a locative and an instrumental/comitative), but hardly any core cases.</td>
<td>Extensive set of core and oblique case markers.</td>
</tr>
<tr>
<td>(f) Just one core argument is typically cross-referenced on the verb. There may be different bound pronominal paradigms depending on which core argument is being cross-referenced in each particular instance.</td>
<td>Two core arguments are marked on the verb.</td>
</tr>
<tr>
<td>(g) The rules for which the core argument is cross-referenced can be complex (relating to the meaning of the verb, clause type, etc.) often giving rise to a 'split-ergative' system. Fully accusative systems of marking for predicate arguments are rarely encountered.</td>
<td>Fully nominative/accusative systems.</td>
</tr>
<tr>
<td>(h) Most (although not all) languages have prefixes; there are typically fewer prefix than suffix positions.</td>
<td>No prefixes.</td>
</tr>
<tr>
<td>(i) There is generally only a small class of lexical numbers.</td>
<td>Full set of lexical numbers.</td>
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</table>

marking syntactic function are found in languages of the Tucanoan family, which are in Amazonia but fairly close to the Andes.)

Quite a few grammatical phenomena are shared by some but not all Amazonian languages. Among such phenomena are phonological tones, lack of rhotic or lateral phoneme, extensive systems of evidentials (cf. Alkhendrvald and Dixon 1998), complex classifier systems and nominative-accusative patterns. Alternatively, they can be detected as characteristic of several unrelated languages in certain regions, and can help to establish areal characteristic of each of these.
4.2. The Multilingual Vaupés River Basin as a low-tier linguistic area

The multilingual Vaupés River basin in north-west Amazonia (spanning adjacent areas of Brazil and Colombia) is a well-established linguistic area. Its major social feature is an obligatory societal multilingualism which follows the principle of linguistic exogamy: “those who speak the same language with us are our brothers, and we do not marry our sisters”. Language affiliation is inherited from one’s father, and is a badge of identity for each person.

Languages traditionally spoken on the Brazilian side of the area belong to three unrelated genetic groups: East Tucanoan, Arawak and Makú. Speakers of East Tucanoan languages (Tucano, Wanano, Desano, Tuyuca, Barasano, Piratapuya, Macuna and a few others), and of an Arawak language, Tariana, participate in the exogamous marriage network which ensures obligatory multilingualism.

A striking feature of the Vaupés linguistic area is a strong cultural inhibition against language mixing viewed in terms of borrowing forms. Long-term interaction based on institutionalized multilingualism between East Tucanoan languages and Tariana has resulted in the rampant diffusion of grammatical and semantic patterns (rather than forms) and the calquing of categories. This is not to say that there are no borrowed forms: but they are few, hard to recognize (often disguised as bound forms) and generally avoided.

In terms of patterns of subsistence and life-style, there is a sharp divide between River-dwellers—the Tariana and the East Tucanoans—and the Jungle-dwellers, the Makú. The major source of protein for the River-dwellers is fish, they have a good knowledge of canoes, and are known to have been aggressive. They also have swidden agriculture.

In contrast, the Makú live inland from the big rivers, and mostly hunt. They are nomadic and do not have gardens of their own. The Makú are despised by those who live along the banks of the Vaupés River and at the same time feared—they are said to be sorcerers. The symbiotic relationship between the two groups hinges upon the fish poison produced by the Makú with their magic. There is no intermarriage between the River-dwellers and the Makú (who are considered to be ‘like dogs’ because ‘they marry people who speak the same language’, as Leonardo Brito, a Tariana elder, put it).

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4 The patterns of diffusion, and in particular, their impact on the Tariana language (as compared to genetically related Arawak languages outside the area, e.g. Baniwa of Ipana and Piapoco) have been discussed in Aikhenvald (2002, 2006b). (Sorensen (1967/1972 is not relevant here, since he focusses just on the East Tucanoan languages in the Colombian part of the Vaupés area.) East Tucanoan languages are typologically similar and closely related; as a result, similarities between them can be accounted for by shared heritage, and Sapir’s ‘parallelism in drift’ reinforced by contact. Disentangling the impact of these factors is a daunting—if not impossible—task.
There are strong indications that some Makú-speaking groups of Jungle-dwellers were absorbed by the Tariana, in particular, the Wamiariikune group, the only one who still speak Tariana. The contact between East Tucanoans and the Makú pre-dates that between the East Tucanoans and the Tariana.

The Wamiariikune variety of Tariana, the only one still spoken, bears a strong structural impact from East Tucanoan. Many of the shared patterns are also attested in the adjacent Jungle-dwellers’ Makú languages (see Epps 2006; Ospina Bozzi 2002, and a summary in Aikhenvald 2006b). It is possible that this impact is due to a combined effect of Makú substrata and subsequent layers of constant Tucanoan influence in the Wamiariikune Tariana.

A combination of properties defines the multilingual linguistic area of the Vaupés River Basin in Brazil and Colombia with languages belonging to genetically unrelated Tucanoan, and Arawak languages as core members and Makú as marginal members. Some of these are listed in Table 2. The last column shows how these languages ‘fare’ with respect to the Amazonian ‘prototype’. In addition, languages share numerous identical formations, e.g. ‘father of goods’ = ‘rich man’.

Table 3 contrasts Proto-Tucanoan and Proto-Arawak. The features developed by Tariana under Tucanoan influence are in italics. So, for instance, dependent marking (that is, cases) in Tariana result from the influence of Tucanoan.

We now turn to the mechanisms by which languages of the Vaupés are becoming more and more structurally similar.

4.3. Parallel grammaticalization: the comparative construction

Comparative constructions in East Tucanoan languages, Tariana and Hup (Makú: Epps 2006) show rather striking similarities.

Comparative constructions in Tucano involve a contiguous serial verb construction (traditionally called V-V compounding structure), with the verb ‘be more, pass, surpass’. This is pronounced as one phonological word, but the second component appears to have a secondary stress, and nasal prosody does not operate across boundary (in practical orthography serial verbs are written separately). Note that the Tucano verb ‘be more, pass’ in comparative constructions contains the suffix -o-‘transitivizer/intensifier’—see (1).

In Tariana, the same is also achieved with a contiguous serial verb construction (in square brackets). Each of the components contains markers of personal agreement. Contiguous serial verb constructions are almost like one word in many ways: no other word can intervene between the components, you cannot pause in-between components, and they take one marker of any category (including one nominalizer per construction)—see (2). The interlinear gloss is almost identical. The verb ‘pass’ used as a marker of comparative is in italics.
Table 2. Selected features of the languages of the Vaupés area

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>TUCANOAN</th>
<th>TARIANA (ARAWAK)</th>
<th>HUI, YURUP (MARI)</th>
<th>AMAZONIAN TYPE (TABLE 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Vowel nasalization</td>
<td>as a word prosodic feature</td>
<td></td>
<td></td>
<td>yes: cf. (b) contrastive nasalization of vowels</td>
</tr>
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<td>(ii) Evidentiality</td>
<td>(ii) four to five evidentials marking the way in which the speaker has acquired the information (whether seen, heard, inferred, assumed, or learnt from someone else)</td>
<td></td>
<td>yes: a feature of Amazonia and of Andean languages</td>
<td></td>
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<tr>
<td>(iii) Classifiers</td>
<td>numerous classifiers used with demonstratives, numerals and in possessive constructions</td>
<td>incipient optional classifiers</td>
<td></td>
<td>yes: cf. (c) extensive classifier systems</td>
</tr>
<tr>
<td>(iv) Genders</td>
<td>small systems of genders in verbal agreement: three genders</td>
<td>small systems of genders in verbal agreement: two genders</td>
<td>no genders</td>
<td>yes: (e) gender systems</td>
</tr>
<tr>
<td>(v) Case marking</td>
<td>nominative-accusative profile and differential object marking</td>
<td></td>
<td></td>
<td>no: cf. (d) and (g); the languages diverge from the Amazonian ‘prototype’</td>
</tr>
<tr>
<td>(v) Locative cases</td>
<td>one locative case covering direction (‘to’), location (‘in, at’), and source (‘from’), Numerous locative postpositions</td>
<td></td>
<td>yes/no: cf. (d) few oblique cases or adpositions</td>
<td></td>
</tr>
<tr>
<td>(vi) Verb compounding</td>
<td>extensive single word serialization (or verb compounding)</td>
<td></td>
<td></td>
<td>yes/no: cf. (d) few oblique cases or adpositions</td>
</tr>
<tr>
<td>(vii) Comparatives</td>
<td>comparative involving the verb ‘pass’</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>
Table 3. Proto-Tucanoan, Proto-Arawak, and Tariana

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Proto-Tucanoan</th>
<th>Proto-Arawak</th>
<th>Tariana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefixing/suffixing</td>
<td>suffixing</td>
<td>some prefixes and many suffixes: prefix: A=S^p, possessor; relative ka-, negative mo-</td>
<td>suffixes or clitics: other categories</td>
</tr>
<tr>
<td>Dependent- or head-</td>
<td>dependent; some</td>
<td>head-marking</td>
<td>head and dependent marking</td>
</tr>
<tr>
<td>marking</td>
<td>head-marking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core cases</td>
<td>yes</td>
<td>no</td>
<td>yes: differential object marking</td>
</tr>
<tr>
<td>Accusative/ergative</td>
<td>strictly nominative/accusative</td>
<td>active/stative: A=S^n; O=S^p</td>
<td>mostly nominative-accusative; some active/stative patterns</td>
</tr>
</tbody>
</table>

Tucano (Ramirez 1997, Vol. 1: 186)

(1) Pêduru Yûnu-re [buti ye'î-o-mî]
Pedro João-TOP.NON.A/S be.white be.more/pass-TRANS-PRES.VIS
‘Pedro is whiter than João’ (lit. Pedro passes/surpasses João in being white)

Tariana

(2) Pedro João-niku [hâlîte di-yena-nuka]
Pedro João-TOP.NON.A/S be.white+NCN:HUMAN 3sgn=be.more-PRES.VIS
‘Pedro is whiter than João’ (lit. Pedro passes (overtakes)/surpasses João in being white)

Hup has a comparative marker which is related to the verb ‘pass’ (Epps 2005b: 564):

(3) nîp mamb'èk pog-àd-ęd-sud nîw-lûn këy-tën-èk
this iron.pot big-PASS=INFERRRED this-TOP.NON.A/S sec-COND-DECL
‘This pot seems bigger if (you) look at that one’ (i.e. this pot is bigger than that one)
(lit. this pot passes (that one) in being big)

Cf. Tariana:

(4) ha-phi pi-ka-ka hane-phi
DEM-CL:POT.LIKE 2sg-sec-when that-CL:POT.LIKE
epsîl-aphi [hanyi-pha di-yena-nuka]
iron-CL:POT.LIKE big-CL:POT.LIKE 3sgn=pass/surpass/be.more-PRES.VIS
‘If you look at this one (pot) that pot is bigger’

The same verb meaning ‘pass, surpass’ in Tariana and in Hup can refer to large quantities of something, and can also be used as a superlative:
Hup (Bpps 2005b: 565)
(5) tegd'ah ?in d'o?-kod-yif?-by
   tree   1pl take-PASS-TELC-DYNAMIC
Tariana
(6) heku-na  wheta  wa-yena-ka  wha
   Tree-CL:VERTICAL   1pl=take   1pl-pass/surpass/be.more-REC.PVIS  we
   ‘We got too many wood poles’

The morpheme expressing the meaning of ‘too much’ and also used as a superlative in Tucano involves the same root as the comparative, but without the transitiviser/intensifier:

Tucano
(7) ba'á  yëri-a-mi
   eat   be.too.much-REC.PAST-VIS
   ‘He has eaten too much’
Cf. Tariana:
(8) di-hëa  di-yena-ka
   3sgnf=eat  3sgnf-be.too.much-REC.PVIS
   ‘He has eaten too much’

We can conclude that Tariana and Hup grammaticalized the same type of verb as did Tucano, with one proviso: the distinction between ‘more’ and ‘too much/many’ (which is marked in Tucano with a transitivizer on the verb) has been lost in Tariana and in Hup.

This goes together with a general assumption that diffusion in micro-areas may involve simplification and structural levelling (cf. Gumpertz and Wilson 1971).

Notably, category ‘calquing’ and structural isomorphism between Tariana and Tucano (and other Tucanoan languages) has gone further than that between Tucano, Tariana and Hup. And here comes one more piece of evidence.
A ‘lesser degree’ comparative is a feature of Tucano and Tariana, but not of Hup:

Tucano
(9) Pédurã Yüön-re  [buti  diha-mi]
Pedro  João-TOP.NOM.A/S  be.white  be.less-TRANS-PRES.VIS
   ‘Pedro is less white than João’
Tariana
(10) Pedro João-nuku halite
Pedro João-TOP.NON.A/S be.white=NCL.HUMAN
di-waru-nuka
3sgn=be.less/diminish=PRES.VIS
‘Pedro is less white than João’

On a day-to-day basis, every speaker of Tariana uses Tucano, and one or more other Tucanoan languages. Not so with Hup. And this is why Tariana and Tucano are more ‘similar’ than Tariana and Hup, or Hup and Tucano.

The conceptual scheme characteristic of Sub-Saharan Africa as a macro-area has made its way into the Vaupés as a micro-area. This is a curious coincidence which reflects a deeply rooted cognitive pathway for development of comparative structures worldwide.

Within the micro-areal context of the Vaupés, parallel grammaticalization of ‘pass’ is part of a general matching of verbal compounds and developing new morphological markers out of compounded verbs.

We now turn to the way in which Tariana and Hup developed evidentials, both modelling their systems on a Tucanoan prototype, and involving matching structures and parallel grammaticalization of compounded verbs—but in a different manner.

4.4. Developing evidentials: different mechanisms, similar results
4.4.1. Evidentials in Tucanoan languages and in Tariana

In East Tucanoan languages, every sentence must indicate how the information was acquired by the speaker—whether they saw the event happen, or just heard it, or know about it because somebody else told them, etc. This is achieved through a set of evidential markers fused with tense (see Barnes 1984 and 1999; Malone 1988). These same distinctions have developed in Tariana, under pressure from East Tucanoan languages. That is, in Tariana or in any East Tucanoan language one cannot just say ‘a dog stole the fish’. There are five ways of saying this, depending on the source of information.

If one saw the dog drag the fish from a smoking grid, (11) (Tucano), and (12) (Tariana) would be appropriate, involving the visual evidential (which is fused with person in Tucano). In Tariana, evidentiality is fused with tense. Alternatively, visual evidential in Tariana can be considered marked with a zero:

Tucano
(11) diäyi wa'í-re yuha-a-mi
dog fish-TOP.NON.A/S steal-REC.P-VIS.3sgn
Tariana

(12) tʃɪnu kuphe-niku di-nitu-ka
dog fish-TOP.NON.A/S 3sgnf-steal-REC.P.VIS
“The dog stole the fish” (I saw it)

If one heard the sound of a dog messing around with the smoking grid, or of the fish falling down, one uses a nonvisual evidential, as in (13)–(14).

Tucano

(13) dïiyi wa’l-re yaha-a-mm
dog fish-TOP.NON.A/S steal-REC.P-NONVIS.3sgnf
Tariana

(14) tʃɪnu kuphe-nuku di-nitu-mha-ka (pronounced as -mha’ka)
dog fish-TOP.NON.A/S 3sgnf-steal-NONVIS-REC.P
“The dog stole the fish” (I heard it)

If the owner of the fish comes into the kitchen area, and sees that the fish is gone, there are bones scattered around and the dog looks happy, the inferred evidential is appropriate:

Tucano

(15) dïiyi wa’l-re yaha-a-mm

dog fish-TOP.NON.A/S steal-REC.P-INF.3sgnf
Tariana

(16) tʃɪnu kuphe-nuku di-nitu-si-ka

dog fish-TOP.NON.A/S 3sgnf-steal-INF-REC,P
“The dog stole the fish” (I inferred it)

And if one learnt the information from someone else, the reported evidential has to be used:

Tucano

(17) dïiyi wa’l-re yaha-a-mm

dog fish-TOP.NON.A/S steal-REC.P-REP.3sgnf
Tariana

(18) tʃɪnu kuphe-nuku di-nitu-pi-da-ka

dog fish-TOP.NON.A/S 3sgnf-steal-REP-REC.P
“The dog stole the fish” (I have learnt it from someone else)

Tucano, a language which is rapidly gaining ground as a lingua franca of the whole Brazilian Vaupés region, has a further evidential used when the
speaker’s statement is based on having seen the result of the action and not necessarily the actual thing happening. The ‘inferred’ evidential is used for statements based on a logical conclusion—as in (15) and (16) above (there, inference is based on general knowledge about how dogs behave).

The assumed or ‘visual traces’ evidential construction involves a nominalization (often marked with ο or a suprasegmental) and the auxiliary nii ‘do, be’ which takes the appropriate tense marker and the visual evidential specification (see West 1980: 75-76, Ramirez 1997: 140-141, 291-292):

**Tucano**

(19) Peduru ui-Ø nii-mi
   Pedro be.afraid+Nom be-PRES.VIS+3sgnf
‘Pedro is scared’ (I assume he is scared because I can see that he is pale)

A similar construction consisting of a copula and a nominalized verb is used with a similar meaning in most other East Tucanoan languages (Malone 1988: 135-137); the form of the copula differs from language to language, e.g. Desano ár-ë, Wanano hi- (Stenzel 2004), etc. The following is from Desano (Miller 1999: 68):

**Desano**

(20) pisadâ wai-re ba-di-gi ár-bi
    cat fish-TOP.NOM.A/S eat-PAST.NOM-masc be-PAST.VIS+3masc.sg
‘The cat must have eaten the fish’ (you can see his paw marks on the ground where he ate it)

Modern Tariana now also has an ‘assumed’, or ‘visual traces’ evidential, used similarly to Tucano. The evidential marker -nhi- has developed out of the anterior aspect marker -nh-. This combines with the recent past -ka and remote past -na. The resulting forms -nhika ‘assumed evidential recent past’ and -nhina ‘assumed evidential remote past’ refer to an action, process or state based on an assumption or inference from the obvious results—see (21), and its Tucano equivalent, (22).

**Tariana**

(21) wa-who-ri-wili-ri hiwysi-ne
    1pl-grandfather-MASC-NOM.PAST-MASC poison-with
di-fami-nhi-na
    3sgnf-die-ANTREM.P.VIS

with the smoking grid, or tial, as in (13)–(14).

sgnf

iced as -mahka)
3C.P

rea, and sees that the fish looks happy, the inferred

f

none else, the reported

ne else)
ground as a lingua franca
evidential used when the
Tucano
(22) isã yê-ki-mihi nimã mo’na
we:xcèl grandparent-MASC-NOM.PAST.MASC poison with
[wêr-‘ki nîl-wî]
die-NOM.MASC.PERF -be-REM.VIS.3sgf
‘Our late elder brother had died through poison’ (we have assumed this, because he
had died suddenly, and this is how people die of poisoning)

In Tariana, just like in closely related Baniwa of Ñçana, n and nh are
different phonemes. Not so in Tucano (where the status of nasals as phonemes
is problematic, since one can argue that nasality is a prosodic feature). Younger
speakers (fifties to thirties) confuse nh and n, and use n where nh is expected
and used by the older generation. This enhances the formal similarity between
the Tucano nîl and the Tariana -ni-.

This is a case of grammatical ‘accommodation’. The Tariana morpheme
-nhi in Tariana -nîhka and -nhina is developing functional similarity with
Tucano nîl due to their phonetic similarity. A complex predicate containing the
copula nîl in Tucano is thus ‘calqued’ into Tariana as one grammatical word.

The Tucano structure involves a complex predicate containing the copula
nîl marked with visual evidentials and a nominalization. The Tariana structure
does not contain a nominalization—it consists of a verb accompanied by
reanalyzed anterior marker -nhi and past visual evidentials. A connection
between anterior and past is clear and well-attested cross-linguistically.3

The etymology and development of Tariana evidentials is given in
Table 4.

Data from related Arawak languages indicate that, before intensive
language contact with the East Tucanoans, Tariana is likely to have had an
optional reported evidentiality specification. The form -pida is shared with
the closely related Baniwa of Ñçana (which is spoken outside the Vaupés area,
within a larger linguistic area).

After Tariana came into contact with East Tucanoan languages, the
existing optional tense system was reanalyzed as obligatory tense-marking with
present as a formally unmarked member. The existing reported specification
came to be reanalyzed as unmarked present reference, and the newly evolved
tense markers were added to it.

The visual specification is formally unmarked. This is a feature shared

3 The markers -nîhka and -nhina are enclitics which obligatorily take secondary stress; the
complex predicate in Tucano is pronounced as one phonological phrase with a stronger
stress on the first component and a weaker one on the verb ‘be’. This prosodic similarity
is the reason why a complex predicate in Tucano corresponds to one word in Tariana.
Table 4. The development of tense and evidentials in Tariana

<table>
<thead>
<tr>
<th>Category</th>
<th>Reanalysis and reinterpretation</th>
<th>Process Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense: present</td>
<td>unmarked; reanalyzed as a tense marker</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Tense: recent past</td>
<td>reanalysis and reinterpretation of declarative -ka</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Tense: remote past</td>
<td>reanalysis of past/perfective -na as an obligatory tense marker</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Evidentiality: visual</td>
<td>recent past and remote past; formally unmarked; present: unknown; could be grammaticalization of the form nu-ka 'I see'</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Evidentiality: inferred</td>
<td>reanalysis and reinterpretation of -si- or of -si-ka 'dubitative'; then combination of -si- with tense markers</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Evidentiality: reported</td>
<td>reanalysis and reinterpretation of optional reported marker -pida (from Proto-Baniwa—Tariana) as unmarked present; then combination of -pida with tense markers</td>
<td>Reanalysis and reinterpretation</td>
</tr>
<tr>
<td>Evidentiality: nonvisual</td>
<td>combination of the result of grammaticalization of compounded verb -hima 'hear, feel, seem, perceive' with already established tense markers</td>
<td>Grammaticalization of a compounded verb -hima 'hear, feel, seem, perceive' as a nonvisual marker (also found in Desano and possibly Tuyucu)</td>
</tr>
<tr>
<td>Evidentiality: inference based on visual evidence</td>
<td>reanalysis and reinterpretation of a combination -nhi 'anterior' and past tense visual evidentials as a new evidential</td>
<td>Grammatical accommodation: construction arose on the basis of similarity between Tucano nii 'copula' and Tariana -nhi 'anterior' in prosodically matching structures</td>
</tr>
</tbody>
</table>
with Tucanoan languages. We can state that the reinterpretation of formally unmarked verbs as containing a zero marker is contact-induced.

The inferred specification arose as the result of reanalysis of a dubitative marker -si- which is attested in closely related Piapoco (Klumpp 1990: 174), spoken outside the Içana-Vauré area.

The nonvisual specification developed as the result of grammaticalization of a verb of nonvisual perception, -hima ‘hear, feel, seem, perceive’. This is an instance of parallel grammaticalization with neighbouring Tucanoan languages, especially Desano. Compounded verbs meaning ‘seem, be perceived, feel’ often participate in developing the nonvisual evidentiality in East Tucanoan languages, e.g. markers of nonvisual evidentials Desano kari- ‘seem’, Tuyuca -ga- from a relic auxiliary verb meaning ‘seem’ or ‘be perceived’ (Malone 1988: 132).

An additional term, the assumed evidential, is currently being developed under the massive impact of the Tucano language. This involves reanalysis of an anterior aspect now homophonous with a marker of the corresponding construction in Tucano. Grammatical accommodation goes together with reanalysis and reinterpretation.

4.4.2. Evidentials in Makú languages
The two Makú spoken in the Vaupés area, Hup and Yuhup, have an evidential system which is strikingly similar to what we have just seen. Of the other Makú languages, Dáw—located on the periphery of the Vaupés area—has only the optional reportive clitic =moh (Martins 1994: 106). Nadèb—spoken outside the area—has a reported marker mih (Weir 1984: 254).

The following examples illustrate visual, non-visual, inferred, and reported evidentials in Hup (Epps 2005a: 626, 631, 634; 2005b: 778).

(23) mangâ hid-än tow-nih=∅ kâh
Margarita 3pl-OBJECT yell-NEG=VISUAL ADVERSATIVE
‘Margarita didn’t yell at them, actually’ (the speaker saw this)

(24) nasi pa-si-w-iy=ki
boat go.upriver-COMPL-IMPF=NONVIS
‘The boat already went upriver’ (heard but didn’t see it)

2sg-OBJ Curupira suck-exist-IMPF=INFERRED
‘The evil spirit (Curupira) has sucked you (your brain), apparently’

(26) tîh ham-teg=moh
3sg go-FUT=REPORTED
‘He’ll go (he or another said so)’
An additional assumed evidential indicates inference about an event where the result of the event is accessible to the speaker:

\[(27)i\h 3sg\text{-drink-TELIC-SSSUMED-DECL}\]

‘He drank it all up’ (we see from the empty pot)

This evidential is formally quite different from the other evidentials in Hup (the same applies to Yuhup). For instance, unlike other evidentials, it receives the primary stress in the verb word. This makes it look more like verbs than like other evidential markers, which can elicitize to nominal constituents, take tense-aspect suffixes between them and verb roots, and are unstressed. Epps hypothesizes that it developed its use as an evidential fairly recently—that is, later than other evidentials (Epps 2005a: 639).

The -ni- evidential derives from the verb stem ni- ‘be, exist’ which can itself occur as a verbal auxiliary. The parallelism between the assumed evidential in Hup and in Tucano (19) and Desano (20) is striking.

The pathways of historical development of evidentials as products of contact-induced change in Hup and Yuhup are summarised in Table 5.

<table>
<thead>
<tr>
<th>TYPE OF EVIDENTIAL</th>
<th>MARKING</th>
<th>PROCESS INVOLVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidentiality: visual</td>
<td>no formal marking</td>
<td>reinterpretation of a formally unmarked verb</td>
</tr>
<tr>
<td>Evidentiality: inferred</td>
<td>(=\text{ni}) (=\text{sud})</td>
<td>grammaticalization of (=\text{sud}) ‘be inside’</td>
</tr>
<tr>
<td>Evidentiality: reported</td>
<td>(=\text{mah})</td>
<td>inherited from proto-language</td>
</tr>
<tr>
<td>Evidentiality: nonvisual</td>
<td>(=\text{h3})</td>
<td>grammaticalization of compounded verb (=\text{h3}) ‘produce sound, make noise’</td>
</tr>
<tr>
<td>Evidentiality: assumed</td>
<td>-ni-</td>
<td>grammatical accommodation: construction arose on the basis of similarity with Tucano (\text{nif} ‘copula’; the verb ni- ‘be, have’ attested in other Makú languages</td>
</tr>
</tbody>
</table>

We conclude that:

(i) Tariana, Tucanoan languages and Hup-Yuhup share formally unmarked visual evidential (this in itself is scarcely surprising but it would not be assumed in advance). This is an instance of contact-induced reinterpretation of zero (other Makú languages outside this area do not have this feature).
(ii) Tariana, Tucanoan languages and Hup-Yuhup display parallel grammaticalization in developing non-visual evidentials. However, the exact verbs are rather different, formally and semantically. In Desano, Tuyuca, and Tucano they developed from the verb meaning 'seem, perceive, feel'; in Tariana from 'hear, feel, understand', and in Hup-Yuhup from 'produce sound, make noise'. Each grammaticalization path is typologically well-attested.

(iii) Finally, the development of the new term, the assumed evidential (based on visual evidence) is the most complex one: it involves grammatical accommodation, contact-induced reanalysis of a copula construction, and also borrowing a morpheme.

The ways in which the new assumed evidential was developed in Tariana and in Hup-Yuhup and how it correlates with the Tucanoan languages is shown in Scheme 1.

*Scheme 1. The origin of assumed evidential in Tariana and in Makú languages*

- Tucano: *nii* 'copula ‘be’, ‘have’ also used in construction with meaning of ‘assumed evidential’ (accompanied by tense markers)
  - Desano: *ôri* 'copula ‘be’, ‘have’ also used in construction with meaning of ‘assumed evidential’ (accompanied by tense markers)
  - Hup, Yuhup (Makú): *ni* 'copula ‘be’, ‘have’ used as a marker of ‘assumed evidential’
  - Tariana: *-nôli* 'anterior'—tense markers ‘assumed evidential’
  - *acila* 'copula “be, have”'

Inferred evidential developed differently in Tariana and in Hup-Yuhup. BUT the outcome is strikingly similar, semantically and formally.

5. To conclude

Numerous large geographical zones can be convincingly defined as linguistic areas. There, we expect sharing of rather abstract features or patterns, often describable as +/- presence of a category or feature. Within many linguistic areas, we have to recognize ‘zones’ of convergence, where languages share more than just features: this is where we expect to find morpheme-by-morpheme intertranslatability (contrary to Masica 2001: 215).

Language contact on a micro-scale brings about gradual convergence resulting in structural isomorphism, whereby the grammar and semantics of one language are almost fully replicated in another (cf. Gumperz and Wilson 1971; Nadkarni 1975; Friedman 1997).
hup display parallel evidentials. However, y and semantically. In from the verb meaning ear, feel, understand', ' make noise'. Each attested.
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\[ \text{copula 'be', 'have' also used with meaning of 'assumed} \]

\[ \text{panyed by tense markers) / arr 'copula 'be, have''} \]

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: convincingly defined her abstract features or gory or feature. Within ' of convergence, where here we expect to find y to Masica 2001: 215). ut gradual convergence umar and semantics of cf. Gumperz and Wilson

While macro-areas give us a bird's eye view, low-level language contact situations hold a clue to the mechanisms and ways of diffusional development, the 'how', and to the reasons and motivations, the 'why'. Rather than being 'notoriously messy' (Thomason and Kaufman 1988: 95), micro-areas, or convergence zones, can be neat and orderly—one just needs the facts and the histories.

Many more crucial questions arise. How long do large linguistic areas, or smaller convergence zones last? (see Storch 2006). And how long do areal features stay visible? Processes of language obsolescence work against us. When I described Bare, a major Arawak language in the Upper Rio Negro area, working with the last speaker in 1991, it struck me as a highly strange language for the area: it had no evidentiality or agreement gender. However, older sources showed that Bare did have these: it is the later contact with a local Lingua Franca called Linguas Gerak and with Spanish and Portuguese which 'erased' these features in the case of the last speaker.

And now, turning to the major issue of our conference: With its linguistic diversity in terms of genetic groupings, areal clusters and Sprachbunds of varied extent and antiquity, the African continent remains the most challenging testing ground for such studies. As Zima (2000: 3) put it, quoting an ancient Latin inscription, *ex Africa semper aequalis novi*.

**Abbreviations**

f—feminine; FUT—future; IMPF—imperfective; INFR—inferred; masc, MASC—masculine; NCL—noun class; n—non-feminine; NOM—nominalization; NOM.PAST—nominal past; NONVIS—nonvisual; PERF—perfective; PRES—present; REC.P—recent past; REM.P—remote past; REP—reported; TOP.NON.A/S—topical non-subject; TRANS—transitivizer; VIS—visual

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**References**


Emeneau, Murray B. 1956. “India as a linguistic area”. *Language* 32. 3-16.
tical relations in the
ross-linguistic typol-
eds). Oxford: Oxford

Ameri Ama and M. Krauss

ral typology: a case
-257.
genetic inheritance.

the grammaticalization-
nguages”. Journal of

in (West Africa): on
mns in contact: a
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on, R.M.W. and A.Y.
ernational Journal of
Meso-America as a

gy and language his-
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( Bangkok,
Paul Sidwell (eds).

logical convergence
frica, Derek Nurse
ice: an African per-
the Amazonian
 (eds). Cambridge:
nguage 32. 3-16.


ity Press.

Tuyuca evidential”. 19-140.

Dàw (Maki-Kamá) e ade Federal de Santa
methods, pitfalls, and of South Asia as a lin-ages and Linguistics, ications. 205-268.
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Afroasiatic. Leiden:
reference grammar.

Religious Art of the m of Primitive Art.

Gramática. Manaus:

nd World.
Northwest Amazon”.

Sociolinguistics, th: Penguin Modern
D Thesis. University
nsmission typologies as”. Research Project


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