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Tense, Mood, and Aspect in Suriname

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Various proposals have been made with regards to stability, or conversely borrowability, of particular aspects of languages' lexicons and structures. In this paper, we investigate the stability and borrowability of forms and patterns of tense, mood, and aspect systems of the Surinamese creoles, Surinamese Dutch, Sarnami, and Surinamese Javanese. Our investigation reveals that Sranan and Dutch tend to be the source language in the cross-linguistic transfer of forms and patterns in the Surinamese context, and that typological distance and socio-cultural factors play a role in determining contact induced developments in the languages studied. This suggests that, although our results loosely match various stability scales, language system external considerations so far largely preclude the construction of universally applicable stability and borrowability scales.

1. Introduction

The general aim of this chapter is to investigate the stability of forms, meanings, and structural patterns surrounding the expression of tense, mood, and aspect (TMA) in the languages of Suriname. Despite its prominent position in the creolization debate and occasional mentions in the literature on linguistic areas, studies on TMA in (non creolization) contact settings are relatively few. TMA is well studied in the world's language, in descriptive terms (Bakker et al. 1994, Barbiers et al. 2002; van den Berg and Aboh 2013, Essegbey et al. 2013), in typology (Dahl 1985, 2000; Dahl and Velupillai 2011a-d; Dryer 2011), and historical development & grammaticalization (Bybee et al. 1994). In a relatively short period of time, Suriname has seen numerous, often radical, linguistic developments due to its many languages, pervasive multilingualism, and well distributed array of contact scenarios. We will investigate the vulnerability of features to contact induced changes in the TMA systems of the Surinamese creoles, Surinamese Dutch, Sarnami, and Surinamese Javanese

Although some linguists believe that any type of borrowing or structural influence is possible in a contact setting (e.g. Thomason and Kaufman 1988), much work has been done in attempting to determine which forms are most borrowable (e.g. Muysken 1981, via van Hout and Muysken 1994) and which structures are most stable (e.g. Cysouw et al. 2008). Despite this, there are some areas within borrowability and stability hierarchies where there is still little agreement. These points will be discussed in more detail below.

1.1 Borrowing hierarchies

Several general borrowing hierarchies have been proposed for concrete lexical or morphological forms (e.g. Haugen 1950, Weinreich 1953, Muysken 1981, Thomason and Kaufman 1988, Matras

2007). Muysken (1) and Matras (2), for example, propose hierarchies based on case study data. Muysken's study investigates Spanish borrowings in Quechua, while Matras' findings are based on a wide range of geographic areas and genetically affiliated areas specifically targeting structural effects in language contact scenarios. Though they arrive at somewhat different outcomes, there are some important similarities, e.g. nouns are most borrowable while bound functional elements tend to be more difficult to borrow. Other methods also provide inconsistent results for general borrowability scales.

(1) *van Hout & Muysken (1994:41)*

nouns > adjectives > verbs > prepositions > coordinating conjunctions > quantifiers > determiners > free pronouns > clitic pronouns > subordinating conjunctions

(2) *Matras (2007:61-62)*

nouns > conjunctions > verbs > discourse markers > adjectives > interjections > adverbs > other particles, adpositions > numerals > pronouns > derivational affixes > inflectional affixes

Other work, e.g. Tadmor et al. (2010), shows similar trends, where nouns are more borrowable than verbs and content words more borrowable than function words. They also demonstrate that grammatical categories are not the only factor determining borrowability; certain semantic fields are more frequently borrowed than others. Others (Pagel and Atkinson 2007, Pagel 2009:411) suggest that the frequency with which words are used predict their resistance to change.

Perhaps because TMA is expressed through a variety of means in different languages – e.g. supersegmentals, adverbs, clitics, inflectional morphology – and within individual languages, it plays, at most, a marginal role in the proposed borrowing hierarchies and discussions on vocabulary stability.

1.2 Further distinctions: MAT and PAT

Borrowability (the likelihood that a language will take a form from another language) and stability (resistance to change) are fundamentally different since one necessarily involves language contact and the other does not. Borrowing and stability are different in that studies on the former tend to deal with external processes involving some component of language contact while the latter tend to target internal developments. Matras and Sakel (2007) have helped refine our perception of borrowability by systematically distinguishing borrowing of forms and copying of patterns in contact settings. Based on their 27 language sample, Matras (2007) proposes a number of micro-hierarchies for matter and pattern replication. Of particular relevance here are those relating to TMA. Modality is more susceptible to contact induced change than aspect, which is more susceptible than future tense, etc. A further hierarchy was also posited for modal categories.

(3) Matras 2007:45-46

a. TMA: modality > aspect > future tense > other tenses

b. modality (esp.MAT): obligation > necessity > possibility > ability > desire

With this, Matras provides yet another possible hierarchy for the borrowability (and by implication, stability) of both forms and structures in the realm of TMA.

1.3 Stability of structures

Recently, linguists have taken an interest in stability of linguistic structure with the idea that certain features are more resistant to change. Structural features would thereby provide insights into language evolution at a greater time depth than possible through the comparative method (cf. Dunn et al 2005). While others (e.g. Greenhill et al. 2010) contend that structure is more susceptible to

change than vocabulary, a number of efforts have been made to determine whether there are universally stable linguistic structures (and if so, what are they), and/or whether stability of particular features depends on language families. Since the methodologies and results of these studies do not always lend themselves to user friendly comparison, Dediu and Cysouw (2013) have reviewed a number of such studies and made their outcomes comparable through statistical conversion. Each of the works they included applied measures to data from the World Atlas of Linguistic Structures and despite that all used the same source of data, none concluded with the same stability hierarchy. Those WALS features pertaining to TMA have been extracted from the studies in Dediu and Cysouw (2013) and are presented in (4)–(8), from most to least stable.

(4) *Cysouw, Albu, and Dress (2008)*

Congruence test: position of tense-aspect affixes > past tense > morphological

imperative > future tense > perfect > epistemic possibility > perfective / imperfective > overlap b/w situational and epistemic modal marking > imperative-hortative system > prohibitive > optative > situational possibility

Coherence method: optative > imperative-hortative system > morphological imperative > situational possibility > position of tense-aspect affixes > future tense > perfective / imperfective > epistemic possibility > perfect > prohibitive > overlap b/w situational and epistemic modal marking > past tense

Rank method: optative > future tense > perfective / imperfective > perfect > imperative-hortative system > position of tense-aspect affixes > situational possibility > morphological imperative > past tense > overlap b/w situational and epistemic modal marking > epistemic possibility > prohibitive

- (5) *Dediu (2011)*
 optative > perfective / imperfective > future tense > past tense > overlap b/w situational and epistemic modal marking > morphological imperative > perfect
- (6) *Parkvall (2008)*
P1 (all families contained in WALS): position of tense-aspect affixes > past tense > optative > morphological imperative > prohibitive > imperative-hortative system > future tense > situational possibility > overlap b/w situational and epistemic modal marking > perfective / imperfective > epistemic possibility > perfect
P2 (subset of “most widely accepted families” in WALS): position of tense-aspect affixes > past tense > morphological imperative > perfective / imperfective > prohibitive > situational possibility > future tense > imperative-hortative system > epistemic possibility > optative > perfect > overlap b/w situational and epistemic modal marking
- (7) *Wichman and Holman 2009*
 optative > past tense > position of Tense-aspect affixes > perfective / imperfective > situational possibility > epistemic possibility > future tense > morphological imperative > prohibitive > perfect > imperative-hortative system > overlap b/w situational and epistemic modal marking
- (8) *Maslova (2002, 2004)*
 optative > perfective / imperfective > position of Tense-aspect affixes > future tense > past tense > situational possibility > imperative-hortative system > morphological imperative > epistemic possibility > perfect > prohibitive > overlap b/w situational and epistemic modal marking

With just a glance at these hierarchies, one will notice that there are important trends and contradictions among them. Dediu and Cysouw used a principal component analysis to rank shared

features according to their stability and relative consistency in each of the methods they investigated combined. The TMA features they mention can be ranked as follows:

(9) *Dediu and Cysouw (2013)*

optative > past tense > perfective / imperfective > future tense > perfect > overlap b/w
situational and epistemic modal marking

Each of the eight methods applied to the same (sub)set of data has produced a unique result and Dediu and Cysouw's (2013) analysis of the eight combined outcomes provides yet a ninth ranking of the features. This suggests that a universal scale of feature stability either (a) does not exist, or (b) has not been satisfactorily demonstrated by quantitative methods. None of the methods mentioned in this section have accounted for social factors, such as frequency of use of particular linguistic features or the broad socio-cultural setting in which speakers of a particular language find themselves. Thus another possibility is that (c) universals of feature stability are (partially) determined by the social setting of the languages speakers.

1.4 The present study

The present study specifically targets stability / borrowability of TMA systems in situations of intense language contact by investigating both the transfer of forms and the patterns surrounding realization of TMA in a sample of Surinamese languages: the creole languages of Suriname (Anglo-creole), Surinamese Dutch (Germanic), Sarnami (Indic), and Surinamese Javanese (Austronesian). While the sample is much too small to propose yet another hierarchy for borrowing / stability tendencies in TMA systems in general, we will be able to provide detailed inter- and intra- language family developments within a single multilingual society.

Our investigation is mainly diachronic, in that we intend to trace the development of the various TMA systems, though we also use a large set of synchronic data to supplement our findings, and in some cases, propose possible changes in progress. For some languages, diachronic data is available e.g, Sranan and Saramaccan, while for the other Surinamese creoles, we have to rely on reconstructions based on synchronic linguistic data, socio-historical data, and what we know about early Sranan (from which all Surinamese creoles appear to descend). In the other cases, Dutch, Sarnami, and Surinamese Javanese, a diachronic component can be inferred from comparison with closely related / ancestral varieties of the Surinamese variety, i.e. European Dutch for Surinamese Dutch; Avadhi, Bhojpuri, and other overseas Hindi varieties for Sarnami; Javanese as spoken on Java for Surinamese Javanese.

Suriname affords us a great opportunity to investigate a number of typologically different languages as well as several genetically related languages (creoles). Our sample covers reflects the spectrum of contact scenarios: maintenance, shift, stable bilingualism, and creole formation within a single multilingual society. Conveniently, the TMA systems have been somewhat of an obsession of creolists. Similarities in creole TMA systems had been initially noted as evidence supporting the monogenesis hypothesis. But TMA (sub)systems were later also provided as evidence for other theories of creole genesis (e.g. superstratist, substratist, bioprogram). We see creole formation as an ongoing complex layering of contact processes, involving elements from both substrate and superstrate as input, as well as language internal developments. The creoles continue to develop under pressure from contact with other creole and non-creole languages. Therefore, it is worth systematically tracing the TMA developments in the creole languages for comparison with other languages with which they interact.

The other three languages in our sample will help us to determine the extent to which the structure independent factors determine borrowability / stability of TMA forms and patterns. While the specifics of social, attitudinal, and practical aspects surrounding the Surinamese creoles, Dutch,

Sarnami, and Surinamese Javanese differ, each languages is an integral part of Surinamese society. And since universals are hardly agreed upon (see above), parallels we see across the languages of Suriname are more likely indicative of a strong influence of the languages' setting rather than universal tendencies or purely internally driven developments.

In section 2 we will provide general definitions of tense, mood, and aspect. Section 3 will describe the development of TMA in the Surinamese creoles. Surinamese Dutch TMA will be contrasted with European Dutch in section 4, followed by developments of Sarnami and Surinamese Javanese in sections 5 and 6. We will then summarize and compare the developments in order to see (a) where changes have occurred in TMA systems and (b) if those developments can be attributed to contact or internal development.

2. Definitions and methodology

2.1 Definitions

Despite relatively agreed upon theoretical definitions, TMA categories are not always neatly separable in practice. Markers of TMA often overlap. For example, multiple categories can be conveyed with a single form, or meanings of one category can be conveyed by a marker of another depending on context. Tense and aspect are particularly linked in this respect; they both express types of temporal relationships. Temporal meaning can also be inferred from modal categories. TMA markers (or lack thereof) are often combined to derive additional meanings. Further, lexical semantics, aktionsart, stativity/dynamicity, discourse context, and others all play a role in the conventionalized expression of temporal relations and speakers' perception and intention. Nonetheless, we are able to differentiate the concepts of tense, mood, and aspect and in some cases exemplify them in a less blurry fashion than is evident in everyday spoken language. The following

subsections provide basic definitions of TMA, though for convenience, Tense and Aspect will be discussed in sequence and modality saved for the end.

2.1.1 Tense

Tense refers to one way in which languages conventionalize the expression of an event in time. As Mueller (2013:29) puts it, tense ‘is a representation of the relationship between three points in time’. These three points, first coined by Reichenbach (via Mueller 2013, Boland 2006), are the points of speech (S), event (E), and reference (R). In some cases, the point of reference coincides with one of the other points, or according to Comrie (1985), is absent, called absolute tense.

Consider (10)–(12), from Good and McWhorter (2013:118-121), where there is a simple relationship between S and E, past, present, and future, respectively.

- | | | |
|------|--------------------------------|---------|
| (10) | <i>Mi á bi ké'</i> | Saamaka |
| | 1SG NEG PST want | |
| | ‘I didn’t want it (to be so).’ | |
| (11) | <i>Mi lobi ẽ tuútuu</i> | Saamaka |
| | 1SG love 3SGO true | |
| | ‘I love him so much.’ | |
| (12) | <i>Mi seéi ó bói ẽ</i> | Saamaka |
| | 1SG self FUT cool 3SGO | |
| | ‘I will cook it myself.’ | |

Comrie distinguishes absolute tense from relative tense, where all three points are distinguished. In (13, Good and Mcwhorter 2013:118), the use of the marker *bi* with a non-stative verb indicates past before past. In other words, R precedes S but is later than E.

- (13) *u bi si písipísi fěě aki kaa* Saamaka
 1PL PST see piece POSS.3SGO here COMP
 ‘we had seen pieces scattered around here’

Another collocation, in (14, Winford and Migge 2004:504), demonstrates another order whereby R and E are also both pre S but the E takes place after the R.

- (14) *Efu mi ben abi moni mi bo bai wan oto* Sranan
 if 1SG PST have money 1SG PST.FUT buy DET car
 ‘If I had money, I would have bought a car.’

Languages differ in the means by which they mark tense. English for example has a tendency to use inflectional suffixes to mark past and unmarked verbs are interpreted in the present. In the Surinamese creoles however, unmarked dynamic verbs are interpreted as past events and past is marked on stative verbs by a preverbal auxiliary. Similarly, languages differ in the number of grammaticalized strategies for marking different time references. Mueller (2013:46-57), for example, discusses a number of South American indigenous languages that morphologically mark several levels of temporal remoteness (e.g. in the past, just now, weeks/months ago, years ago).

2.1.2 Modality

Of the three TMA categories, modality is by far the most difficult and disagreed upon category of TMA. Most basically, modality is a “grammaticalization of speakers’ (subjective) attitudes and opinions.” (Palmer 1986:16). Modality “presents a statement about the truth or realization of a state or event. It refers to the attitude of the speaker or one of the persons involved in the situation

described” (Bakker and van der Voort 1994:247). Beyond these most basic types of definitions, the specifics of modality become muddled with a multitude of strategies and sets of terminologies from different disciplines which tend to only partially overlap and outright conflict with each other.

Boland (2006) presents modality, quite clearly, as an interplay between three parameters: sense, source, and scope. Sense consists of a linear continuum, and though she acknowledges that the number of distinctions made in the continuum depend on the language, Boland (2006:69) lists those four distinguished by English: possibility, disposition, weak necessity, and necessity. The source describes the origin of modality. Boland (2006:72) describes 3 sources: Epistemic (having to do with knowledge), speaker-internal (where modality is ascribed to some internal characteristic of the participant), and speaker external (where modality is ascribed to external characteristics of the participant). The latter can also be divided into two sub types: deontic, i.e. necessity or possibility of acts preformed by morally responsible agents, and non-deontic. The interaction of sense and source are detailed in Table 1.

According to Boland (2006:74) the various combinations of sense and source account for the majority of modal distinctions, but in some cases, a third parameter –scope– is useful for understanding more fine grained semantic distinctions. Scope refers to which part of the utterance a modal governs. There are three possibilities of scope: the predicate (where “the description of the relation or property predicated of the argument(s) is modified” thereby defining the relationship between the participant and the state of affairs in which it is involved, also called participant oriented or inherent modality), the predication (“the event is situated in the real or imaginary world” also called event oriented or objective modality), or the proposition (“the truth of the propositional content is evaluated” also called proposition-oriented or subjective modality). Scope also combines with sense and source, though there is some disagreement on the possibilities. One point of contention is whether there is a one to one correspondence between scope and source – i.e. epistemic modality would be proposition oriented. Further not all logical combinations of scope and

source are possible, e.g. participant internal modality can only be participant oriented. See Boland (2006) for an extensive discussion of the different types of modality.

Table 1. Interaction of modal parameters *sense* and *source* (Boland 2006:73)

source	sense			
	potential	disposition	weak necessity	necessity
Internal	ability	volition	weak internal need	internal need
External deontic	permission	disirability	weak obligation	obligation
External non-deontic	root possibility	root-disposition	weak root necessity	root-necessity
Epistemic	epistemic possibility	epistemic disposition	epistemic probability	epistemic necessity

2.1.3 Aspect

While tense locates an event in time, aspect specifies the temporal structure of an event itself (Comrie 1976:3). Like tense, languages differ in the number of aspectual categories they distinguish and the means by which aspect is conveyed. Commonly, two macro categories are often utilized by tyologists: perfective and imperfective. The former conveys an event as a whole, while the latter “pays essential attention to the internal structure” of an event (Comrie 1976:16). Examples (15)–(16) (Sranan from Winford 2006:91) exemplify this difference.

- (15) *A djuku wan man boro en here bere* Perfective
 3SG stab ART. man cut.open 3SG.POSS whole belly
 ‘He stabbed the man and cut open his whole belly.’
- (16) *Wan tu fu den pikin fu owma e wroko gron now ooktu* Imperfective
 one two of the-PL child of granny IPFV work ground now too
 ‘Are some of granny’s children also cultivating the land now too?’

In the Surinamese creoles, unmarked verbs are read with perfective aspect (15). . Preverbal *e* marks imperfective aspect in Sranan and Eastern Maroon creole (16). The Surinamese creoles will be discussed in more detail in the following section. A more fine grained reading of perfective aspect can be attained by use of a post verbal completive / perfect marker *kaba* (17)

- (17) *A alen disi kan stop now. Yongu, a kon tumisi furu **kaba**, yere* Perfect
 the rain this can stop now man it come too full already hear
 ‘This rain can stop now. Man, it has already rained more than enough.’

In some languages, the imperfective can be further split into subcategories, such as habitual, continuous, or iterative (Comrie 1976:25), though these distinctions will not play a role in our investigation.

2.2 Methodology

This article relies on linguistic data gathered in Suriname in 2011-12 by Robert Borges, Kofi Yakpo, and Stanley Hanenberg as part of the ERC project “Traces of Contact” at Radboud University Nijmegen. Additional control data was collected by Kofi Yakpo in New Delhi, India in 2010 with speakers of Hindi, Awadhi, Bhojpuri, Maithili, and Magahi. Indonesian Javanese control data was collected in 2012 for comparison with Surinamese Javanese by Riski Lestiono, a collaborator of the ERC project and himself a native speaker of Indonesian Javanese, and Sophie Villerius during a Fieldwork Methods course in Leiden University. All language examples in this paper that come without a bibliographical reference stem from our own field data.

The data consists of elicited material gathered through the use of visual stimuli such as pictures, picture books (e.g. Mayer’s 1969 *Frog where are you?*), and a variety of video clips¹⁶ assembled as a standard elicitation kit for the Traces of Contact research group. We also collected more naturalistic data through semi-structured interviews and (un)guided conversations. Data was

¹⁶ Video clips were selected from the following

collected from various parts of the coastal area and the interior, from members of the different linguistic communities, speakers from ages fifteen to ninety years, and is somewhat gender-balanced.

3. The creole languages

There are seven creole languages that developed in Suriname and are still spoken there today. Sranan, which presumably was formed in the latter half of the 17th century, is traditionally the language of the Creole population (i.e. Afro-Surinamese non-Maroon), though the language is also currently used by a large number of other people in Suriname as one of the main languages of interethnic communication. The other six languages are spoken by Maroons, Afro-Surinamese groups whose ancestors fled plantation slavery and formed independent communities outside the plantation area. As these communities became somewhat isolated from each other, they became differentiated due to unique linguistic developments. These Maroon languages can be further divided into two groups (a) the Eastern Maroon languages: Ndyuka, Aluku, Kwinti, and Pamaka, and (b) the Central Maroon languages: Saamaka and Matawai. There is a high degree of mutual intelligibility within groups (a) and (b), but (b) has a significantly higher proportion of Portuguese functional and lexical elements, as well as an arguably closer affinity to its substrate languages, mostly Gbe and Kikongo. Group (b) is therefore the most distinct from the other Maroon languages and Sranan. Unlike Sranan, the Maroon languages have been largely used as ingroup languages, though it seems that recently a leveled Eastern Maroon variety is gaining ground as a lingua franca in the urban environment.

3.1 TMA in the Suriname creoles.

The core concepts expressed by Surinamese creole TMA systems are mostly marked with preverbal markers (or their absence). The main focus of this section will be on the grammaticalized morphemes that mark concepts of TMA, though a number of auxiliary verbs, adverbs and adverbial clauses are also employed for encoding additional TMA concepts. Discourse position and context also play a large role in determining TMA interpretation in the Surinamese languages (Huttar and Huttar 1994:489-493, Winford and Migge 2007:76).

Examples of categories expressed in Surinamese creoles are past and future tense, perfective and imperfective aspect, and epistemic, deontic, and dynamic modality. The Surinamese creoles largely distinguish the same TMA categories and to some extent draw from the same set of forms to convey these categories, though the distribution of the forms in each language differs to some extent. Since by definition, creole languages are comprised of forms and structures from multiple source languages as well as some degree of restructuring and innovation, the various components of Surinamese creole TMA systems will be presented alongside current views on their development.

3.2 Development of tense in the Surinamese creoles.

Surinamese creoles employ a relative tense system, with reference to the speech act or other reference point. In the modern creoles, there are two tense markers, *be(n)* / *bi* (< English *been*) which locates an event prior to a particular reference point, and *o* for future tense (< English *go*). A difference in meaning is apparent between stative and non-stative verbs with past marking. Stative verbs marked with *be(n)* / *bi* give a simple past reading, while non-statives are interpreted with a past reference in their unmarked form. Non-statives marked with *be(n)* / *bi* convey a past-before-past (pluperfect) meaning. The stative / non-stative distinction does not play a role in the interpretation of verbs marked with *o*; these are always interpreted with future meaning. The expression of tense is not limited to the use of pre-verbal markers, but can also be achieved through

the use of temporal adverbs or time adverb clauses, as well as particular aspect (*e*) and modal (*sa*) markers (Huttar and Huttar 1994:489; van den Berg 2007:185, 188, 191, 196; Winford and Migge 2007:77-79).

Table 2. Tense in Surinamese creoles

tense category	Early Sranan	Saamaka	Ndyuka	Pamaka	Sranan
past	<i>ben</i>	<i>bi</i>	<i>be</i>	<i>be</i>	<i>ben</i>
future	<i>sa, go, de go</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o</i>

Both the modern tense markers are derived from English forms and are attested in other Anglo creoles. The distribution of these forms does not, however, coincide with either English or West African substrate languages. Past marking appears earlier in the sources of Sranan (early 18th century), while *o* is not attested as a future marker until the late 18th century (Winford 2006:105, van den Berg 2007:191, Winford and Migge 2007:95, Migge and Goury 2008:322).

Possibly resulting from the relatively late grammaticalization of *o*, there were several forms used in Early Sranan to express future time reference, as shown in Table 2. There are two hypotheses for the variation and development of future forms in Early Sranan. The first is that *sa* (<Du *zal* ‘shall’ or English *shall*) existed first as a future marker, but began to develop modal meanings in the late 18th century, after which the *go / de go* construction became the preferred construction for indicating future tense (van den Berg 2007:199, Migge and Goury 2008:326). Though neither ‘movement toward a goal’ grammaticalizing into a future morpheme, nor future markers developing into modal markers are cross linguistically rare developments (c.f. Bybee et al. 1994), this hypothesis does not completely account for the order in which these morphemes

developed or the current distribution of *sa* across modal categories in the various Surinamese creoles (Migge and Goury 2008:326).

According to the other hypothesis, by the late 18th century, *sa* and (*de*) *go* may have already developed into sociological salient variables associated with different varieties of Sranan, the Bakratongo (more European) and the Ningretongo variety, (more African), respectively (van den Berg 2007:199, Migge and Goury 2008:326). Migge and Goury (2008:327) cite the high proportion of African slaves to Europeans (24:1 in 1783) as the probable reason that the Nengretongo variant expanded to the Bakratongo variety and later reduced phonologically to *o*. The further development of *sa* as a modal marker will be discussed below.

3.3 The development of modality in the Surinamese creoles

A number of modal categories are distinguished in the Surinamese creoles, however the marking of each category differs according to language (Migge 2006:34; Migge and Goury 2008:309; Migge and Winford 2009, Essegbey et al. 2013). Table 2 details a number of modal categories and the grammaticalized morphemes used to mark each category in several Surinamese creoles. The most variation can be found in the realm of potential. Other categories are marked with relative consistency.

The most variation among the Surinamese creoles is found in within the potential category. These sub categories are marked with the forms *sa*, *man*, *kan*, and *poi*, though the distributions across the different languages are not consistent, reflecting unique developments of each language. Migge and Winford (2009:129) argue that the potential categories of Maroon creoles are largely modeled on Gbe patterns, while Sranan exhibits additional internal developments and effects of contact with Dutch.

A number of complex developments have led to the makeup of the modern modal system in the Surinamese creoles. In the early sources, modality seems to have been largely modeled on

Dutch (and possibly English). The meanings of early forms correspond to their etyma, though increased contact with Dutch and substrate languages forced developments of Sranan and the Maroon creoles in different directions. As *sa* was losing ground to (g)o as a tense marker in Suriname and acquiring modal meaning, Dutch had a stronger influence on Sranan which led to Sranan's modal system being modeled on the Dutch one. Modern Sranan *sa* and Dutch *zullen* share a similar range of modal meanings (Migge and Winford 2009:146-148).

Table 3. Creole modal categories and markers

modal category	Early Sranan	Saamaka	Ndyuka	Pamaka	Sranan
Potential					
Physical ability +	<i>kan, man va</i>	<i>sa</i>	<i>sa</i>	<i>sa</i>	<i>man/kan</i>
Physical ability -	<i>kan</i>	<i>sa</i>	<i>poi</i>	<i>man</i>	<i>man/kan</i>
Deontic (root) possibility +	<i>kan</i>	<i>sa</i>	<i>sa</i>	<i>sa</i>	<i>kan</i>
Deontic (root) possibility -	<i>kan</i>	<i>sa</i>	<i>poi</i>	<i>man</i>	<i>kan</i>
Permission +	<i>kan, mag</i>	<i>sa</i>	<i>sa</i>	<i>sa</i>	<i>man/kan/mag</i>
Permission -	<i>kan</i>	<i>sa</i>	<i>poi</i>	<i>man</i>	<i>man/kan/mag</i>
Epistemic possibility + / -	<i>(kan)</i>	<i>sa, kande</i>	<i>sa, kande</i>	<i>sa, kande</i>	<i>kande</i>
Necessity					
deontic necessity or obligation	<i>mus(u),</i>	<i>musu, musu u</i>	<i>mu, musu fu</i>	<i>mu, musu</i>	<i>musu, sa</i>
epistemic necessity	<i>musu</i>	<i>musu</i>	<i>musu</i>	<i>musu</i>	<i>sa</i>

NOTE: this table is adapted from Migge (2006:34), Migge & Goury (2008:309), and Migge & Winford 2009.

There are several reasons to suggest substrate influence on the Maroon creoles' use of *sa*. Firstly, Western Gbe languages have a potential future marker *lá / á* which also invokes a range of modal meanings that correspond to potential categories in the Maroon creoles (Migge and Winford 2009:149). Secondly, the Gbe system of potential modality indexes the same categories as the Maroon creoles and several Gbe varieties (Aja, Xwela, Xwla) formally distinguish positive and negative potential categories, which would explain the use of *man* (Pamaka) and *poi* (Ndyuka, <Portuguese *pode* '3sg can') in negative contexts (Migge and Winford 2009:150). Essegbey et al.

(2013) also point out the formal distinction between inherent and acquired ability, marked with imperfective *e* and modal *sa* respectively in the Maroon creoles, which reflects patterns found in several Gbe languages.

The marker *kan*, on the other hand, appears to have been modeled on the usage patterns of Dutch *kunnen*, indicating root possibility, ability, and permission in both 18th century and modern Sranan (Migge and Winford 2009:141-142). *Kunnen* is also used to indicate epistemic possibility in Dutch, and Migge and Winford (2009:142) suggest that the marginal use of Sranan *kan* in such contexts is a recent development. Dutch is also clearly the source of *mag*, indicating permission, though its use is quite marginal in 18th century Sranan, suggesting that this is a somewhat later development (van den Berg 2007:217, Migge and Winford 2009:142). Grammaticalization also played a role in the modal system of Sranan and Pamaka, as evidenced by the status of *man* as an auxiliary which developed from its use as a noun (van den Berg 2001:249-252, van den Berg and Arends 2004:26-28).

Our data from 2010-11 show suggest that developments in the modal system of Ndyuka (and possibly other Maroon creoles) continue to develop. We have noticed differential marking of modal categories between urban and rural dwelling Ndyuka speakers, with the former tending to align themselves with Sranan patterns. Likely due to an increasing number of Maroons in the city in the past decades, their increased exposure to Sranantongo, frequent interaction with Maroons from other ethnic groups and non-Maroons, and perhaps the inclination to establish an identity independent of their traditional ethnicity (see Migge 2007; Migge and Léglise 2013; Léglise and Migge to appear), Maroon languages have come under influence of each other and Sranantongo. Ndyuka speakers themselves are also aware of Sranantongo's influence on their language. One informant explained that the closer you get to the coast, the more 'developed' the language is. Others describe the influence more defensively; coastal Ndyuka is *moksi* 'mixed' or *basaa* 'bastardized'. An urban dwelling informant describes the difference in terms of "modern" Ndyuka

along the coast versus a more traditional variety in the interior. Language attitudes aside, speakers are well aware that there is a difference between urban and rural varieties, though it is often difficult for informants to pinpoint particular features, and several informants claimed to switch between varieties depending on their environment. Table (4) illustrates how the modal categories of Urban Ndyuka appear to have been influenced by Sranantongo:

Table 4. Modal particles in rural and urban Ndyuka

Modal category	Sranantongo	Urban Ndyuka	Rural Ndyuka
positive potential	<i>Sa</i>	<i>Sa</i>	<i>Sa</i>
negative potential	<i>kan/sa</i>		<i>Poi</i>
positive possibility	<i>kan</i>	<i>Kan</i>	<i>Sa</i>
negative possibility	<i>man/kan</i>	<i>man</i>	<i>Poi</i>
positive permission	<i>kan/mag</i>	<i>Kan</i>	<i>Sa</i>
negative permission	<i>kan</i>	<i>Man</i>	<i>Poi</i>
Positive physical ability	<i>kan</i>	<i>Kan</i>	<i>Sa</i>
negative physical ability	<i>man</i>		<i>Poi</i>

NOTE: Sranan and Rural Ndyuka columns come from the same sources as Table 4. The Urban Ndyuka column is based on our data.

The following two examples contrast the rural Ndyuka form *poi* (18) with the urban form *man* (19). Both forms may express negative permission (the former only in combination with verbal negation), and in this context, they thus share the same function. However, *man* is not the conventional form used in upriver Ndyuka. Compare the Sranantongo example in (20):

(18) *mi be taigi den pikin kaba, yu á poi wakago a busi*
 1SG PST tell DEF.PL child COMPL 2SG NEG MOD walk go LOC forest
 ‘I told those kids they may not go into the forest [alone]’ (rural Ndyuka)

(19) *i no man oli en moro.*
 2S NEG MOD hold 3SG more

'You may not keep it anymore.' (urban Ndyuka)

(20) *un no man taki soso Sranantongo.*

1/2PL NEG MOD talk only Sranantongo

'You [PL] may not talk only Sranantongo.'

The following examples illustrate the phenomenon with respect to the expression of physical ability. The conventional form for expressing this modal category in rural Ndyuka is the preverbal particle *sa*, as shown in (21). Urban Ndyuka speakers however freely employ the Sranantongo derived auxiliary verb *kan* instead, as in (22). Compare the Sranantongo use of *kan* in (23):

(21) *a taanga, a sa diki wan ondoo kilo.*

3SG be.strong 3SG MOD lift one hundred kilo

'He is (very) strong, he can lift 100 kilos.' (Winford and Migge 2004:30)

(22) *i kan go meke wan film.*

2SG MOD go make INDF film

'You can go make a film. (urban Ndyuka)

(23) *a kan doro fu broko a apra.*

3SG MOD reachPREP break DEF.SG apple

'He can manage to pick the apple.'

It is important to note here that the phenomenon presented cannot be described as a complete change; variation is the norm. Many of our urban informants were recorded using both rural Ndyuka forms next to urban forms, though this was not the case with upriver speakers. With two geographic points of reference in our Ndyuka sample, Paramaribo and the upriver Tapanahoni, the data suggest that Sranan is the main source of urban features in Ndyuka; however contact with

highly intelligible eastern Maroon varieties should not be ignored. In fact, it is often difficult to determine the origin of a particular feature, such as the case of *man* in examples (18)–(20). Pamaka is not represented in our sample, though Migge and Goury (2008:309) tell us that *man* is also employed for several modal categories in that language. *Kan* on the other hand appears to be an addition to the repertoire of urban Ndyuka originating from Sranan. While etymologically indeterminate features such as *man* might weaken our argument for an urban influence on Ndyuka, it should be noted that the important changes in traditional Maroon societies associated with coastal life in Paramaribo and urban centers along the Marowijne that have set the stage for the blurring of traditionally salient differences among Maroon varieties, as well as influence from Sranan.

3.4 Development of Aspect in the Surinamese creoles

Verbs that are not marked with an aspect marker are interpreted as perfective. Imperfective aspect is marked with preverbal *e* in Sranan and Eastern Maroon creole, and *ta* in Saamaka. Completive aspect is marked in all creoles with a verb phrase final *kaba* (<Port. *acabar* ‘to finish’) which is homophonous to a main verb ‘to finish’. Aspectual categories and their markers are detailed in Table 5.

Table 5. Aspectual marking in the Surinamese Creoles

aspect category	Early Sranan	Saamaka	Ndyuka	Pamaka	Sranan
PFV	∅	∅	∅	∅	∅
IPFV	<i>de</i>	<i>ta</i>	<i>e</i>	<i>e</i>	<i>e</i>
COMPL	<i>kaba</i>	<i>kaba</i>	<i>kaba</i>	<i>kaba</i>	<i>k(a)ba</i>

Winford and Migge (2007:83) argue that the perfective interpretation of unmarked verbs is modeled primarily on the Gbe languages. The two language groups share a “more or less identical range of

meanings and uses” with respect to unmarked verbs, including: property items and other stative verbs, non stative verbs with past reference, and non stative verbs with current relevance (Winford and Migge 2007:81). Substrate influence also plays the primary role in the development of the completive marker. Like the Surinamese creoles, Gbe languages also have a completive category, conveyed with a verb phrase final marker derived from the verb ‘to finish’ (Winford 2006:102, Winford and Migge 2007:84-85). However, *kaba* is compatible with stative and non-stative situations, while the Gbe marker is only compatible with non-stative situations, suggesting some additional processes of grammaticalization in the Surinamese creoles (Winford and Migge 2007:85, van den Berg and Aboh 2013).

Imperfective markers *e* and *ta* are derived from the locational copula *de* and the verb *tan* ‘to stay, to wait’. In the early texts these forms are used to mark progressive aspect, but only rarely habitual aspect, according to Winford and Migge (2006:85), evidence which they use to suggest that imperfective aspect was a late categorical development dependent on the further grammaticalization of the progressive marker to an imperfective marker. However, van den Berg (2007:200, to appear) states that *de* in Early Sranan covers several imperfective sub-categories: continuous, habitual, progressive, and ingressive. This suggests that, contrary to Winford and Migge’s (2007) claim, imperfective was already a grammaticalized category early on, and was not modeled on the Gbe aspectual system which lacks a macro imperfective category as in the Surinamese creoles.

3.5 Discussion

A number of different structures in various substrate and superstrate languages, along with innovation and grammaticalization are responsible for the composition of the Surinamese creoles’ TMA systems as they are today. Table 6 summarizes the processes involved in the development of each TMA marker.

Table 6. Developments of TMA in Surinamese creoles

category	marker	process
tense	<i>be</i>	Grammaticalization of English <i>been</i>
	<i>o</i>	Grammaticalization of English <i>go</i>
mood	<i>sa</i>	Grammaticalization of Dutch <i>zal</i> ‘shall’ (or English <i>shall</i>) to future marker and later to modal marker Sranan dynamic <i>sa</i> modeled on Dutch patterns Maroon languages potential <i>sa</i> modeled on substrate (Gbe) patterns
	<i>poi</i>	Modeled on substrate patterns
	<i>man</i>	Grammaticalized from noun – later spread to urban Maroon varieties
	<i>kan</i>	modeled Dutch patterns in Sranan – relatively recent spread to urban Maroon varieties
aspect	<i>mag</i>	Modeled on Dutch, increased use due to recent contact
	\emptyset	substrate influence
	<i>kaba</i>	substrate influence + later grammaticalization
	<i>e</i>	substrate influence - marker grammaticalized from locational copula grammaticalization - substrate languages distinguish several sub-types of ipfv categories

Various aspects of all the Surinamese creole languages’ TMA systems can be attributed to substrate influences, though this is more apparent in the Maroon creoles. English superstrate influence, contact with Dutch, and grammaticalization have also played a prominent role in the development of Surinamese creoles.. Finally, we suggest that the creole languages are now influencing each other’s development, as indexed by urban Ndyuka modal marking that patterns with Sranan in our data.

4. Surinamese Dutch

Surinamese Dutch (SD) is spoken both in Suriname and in the Netherlands, the colonizing country to which many Surinamese have migrated. It is a widely recognized ethnolect in the Netherlands (cf. Muysken 2013), and some of its features have led to ethnic stereotypes. It has also been described on a number of occasions, in part under the rubric of ‘mistakes’ of Surinamese children in the Dutch classroom. Charry (1983) is still the most sophisticated study focusing on phonological variation in this variety in the Dutch context, which requires much more investigation. De Kleine (2007) is an extensive morphosyntactic study of SD as spoken in Surinam. In Suriname, paradoxically, SD is not an ethnolect but an ethnically neutral national variety.

It should be noted that many of our elicitations in Suriname did not produce very informal speech. Some of the speakers recorded felt that they had to put on their best Dutch, i.e. as close to ED as possible. In spite of this, the data reveal a surprising number of innovative features. Another issue is whether the SD recorded represents a stable variety in its own right or simply a gathering of second language speech samples. To some extent it is the latter, as some of the consultants recorded are clearly second language speakers. However, the fact that there are 15 analyzed samples (leaving aside the word list recordings) makes it possible to see how wide spread a feature is across samples and how frequent within a sample. Some of innovative properties are quite general, as can be seen from Table 8, suggesting that they are entrenched within the SD speech community.

In 4.1 we present the basic outlines of the European Dutch (ED) system, 4.2 contains the actual sketch of TMA in SD, and in 4.3, a more general perspective is introduced.

4.1. The TMA system of European Dutch

The TMA system of ED is not very rich in fully grammaticalized categories, but there are numerous auxiliaries and semi-auxiliaries, and some specialized constructions. The basic distinction in verbal morphology is that between past and non-past. In (24) an example is given with a regular (weak) verb, and in (25) with an irregular (strong) verb:

- (24) a. *Zij hoop-t op een beter-e toekomst.*
she hope-3SG on a better-AI future
'She hopes for a better future.'
- b. *Zij hoop-te op een beter-e toekomst.*
she hope-3SG.PA on a better-AI future
'She hoped for a better future.'
- (25) a. *Zij loop-t op straat.*
she walk-3SG on street
'She walks in the street.'
- b. *Zij liep op straat.*
she walk.PA.3SG on street
'She walked in the street.'

The shape of the basic roots involved in these examples is the same; the status of a verb as 'weak' or 'strong' is not phonologically conditioned.

The basic temporal distinction, as noted, is past/non-past. Future tense reference is ordinarily marked with a simple non-past:

- (26) *Morgen koop ik een fiets.*
 tomorrow buy.1SG 1sg a bike
 ‘Tomorrow I will buy a bike.’

There is a specialized construction to mark progressive aspect, *aan het X-INF zijn* ‘be at X-ing’:

- (27) *Zij is schoen-en aan het kop-en.*
 she is shoe-PL at DET buy-INF
 ‘She is buying shoes.’

Table 7. *Some ED auxiliaries and semi-auxiliaries with their main uses*

Form	Gloss	Uses	Category	Comments
<i>zijn</i>	be	a. With past participle, past/perfect with telic verbs b. With past participle, completive passive with transitive verbs c. As mentioned, progressive in the <i>aan het X</i> construction	TNS ASP	
<i>worden</i>	‘become’	a. In passive sentences b. To mark change of state with non-verbal predicates	ASP	
<i>zullen</i>	shall	Future with modal connotations (assured prediction, obligation)	MOD	Less frequent than in English
<i>moeten</i>	must	a. Deontic modal of obligation b. Epistemic modal of inference c. Evidential inference of hearsay	MOD EVI	
<i>mogen</i>	may	a. Deontic modal of permission b. Epistemic modal of possibility	MOD	
<i>gaan</i>	go	Intention, immediate future	TNS ASP	Frequent in child language and L2 varieties
<i>doen</i>	do	habitual	ASP	Frequent in southern ED

There is also a ‘have’ + past participle perfect, which is often used in ordinary past tense contexts, unlike its use in English:

(28) *Zij heeft gisteren schoen-en gekocht.*

she has yesterday shoe-PL buy.PP

‘She bought shoes yesterday.’

Furthermore, there is a whole range of auxiliaries and semi-auxiliaries. In Table 7, we present some of them with their main uses.

4.2. A sketch of TMA in Surinamese Dutch

The SD data show a number of innovative features concerning the expression of TMA categories when compared to ED.

4.2.1 Tense

In the general area of Tense, there are some cases (in two samples) where past marking on verb is innovative in comparison with ED. These include double marking (strong + weak past, as in (29)), and weak instead of strong marking, as in (30):

(29) *En dacht-te en pak-t dus, dacht-te, pakt dus een paar*

and thought-PA and grab-3SG thus, thought-PST, grab-3SG thus a few

houders vast aan een paar tak-ken

hold-PL tight on a few branch-PL

‘and thought and grabs thus, thought, grabs a few holds tight on a few branches’

(30) *En hij ging daar uit het huis en pak-te hem en*

and he go.3SG.PA there out DET house and grab-3SG.PA him and

houd-de hem strak vast en z'n, z'n, om hem heen

hold-3SG.PA him tight straight and his his around him all

‘and he went there out of the house and grabbed him and held him tight and his, his, around him’

The irregular past tense marking may be linked to a more general issue concerning tense organization in SD. In the following Frog Story recounting the speaker jumps from [perfect] to [present] to [present] to [past] to [present] to [past] to [present] to [past] to [present] to [perfect] to [past] to [past].

(31) story book description (Frog story)

- a. *John, Johnny heeft een kikker gehad en heeft ook een hond-je*
John, Johnny have.3SG a frog have.PP and have.3SG also a dog-DIM.
‘John, Johnny has had a frog and also has a little dog.’
- b. *Johnny houd-t van de kikker; maar toen hij sliep met die hond*
Johnny love-3SG of the frog, but when he sleep.PA with that dog
ging die kikker stiekem weg
go.3SG.PA that frog secretly away
‘Johnny loves the frog, but when he slept with the dog the frog secretly ran away.’
- c. *Toen het morgen, toen het ochtend wordt kon, kan Johnny*
whenit tomorrow when it morning becomes could,can Johnny
die kikker niet vinden
that frog not find.INF
‘when the morning comes Johnny could, can not find the frog any more.’
- d. *Johnny keek naar buiten en de, enne, roep-t naar eh, naam van de kikker*
Johnny look.PA to outside and the, one, call-3SG to eh, name of the frog.’
‘Johnny looked outside and the, and, calls to, eh, the name of the frog.’

- e. *Johnny heeft een gat in de grond gevo... eh gezien en dacht*
 Johnny have.3SG a hole in the ground fi.PP.... eh see.PP and think.PA
dat het kikkertje daar binnen was en riep die kikker
 that the frog.DIM there inside was and call.PA that frog
 ‘Johnny has found, seen a hole in the ground .and thought that the little frog was in there and called the frog.’

De Kleine (2007) contains a detailed analysis of the TMA categories in SD as compared to ED. We will only mention a few of the points she makes. Regarding past tense marking, a very complex picture is given. De Kleine comments (2007:69): ‘The pattern that emerges from the data shows that the rules for past tense marking in SD, unlike ED, are governed by discourse rather than grammar.’ And further on (2007:75): ‘It should be emphasized that there is a significant amount of variation regarding past tense marking in the data.’

In fragments where both *gaan* ‘go’ and *zullen* ‘shall.INF’ occur, *gaan* refers to more definite and immediate events, and *zullen* to more uncertain events (2007:63):

- (32) ... *ze gaat boos op je worden, misschien maanden lang. Maar*
 ... she go.3SG angry on you become, perhaps month.PL long. But
ze zal eens inzien dat je gelijk had, toch?
 she shall once see that you right had, right
 ‘... she is going to get mad at you, maybe for months. But one day she will see that you were right, right?’

This difference may reflect the distinction between *sa* and *o* in Sranantongo (see section 3 above).

However, the past form *zullen*, *zou* ‘should’ does have definite reference (2007: 64):

(33) ... *half tien zou dat feestje beginnen.*

... half ten should that party begin

‘at half past nine that party was going to start.’

The ED system of marking unreal conditionals with past perfect forms is replaced by simple past (2007: 81):

(34) *En als je niet zoveel bij je had?*

And if you not so.much with you **had**

‘And if you **had** not **had** so much money on you?’ (cf. ED: *En als je niet zoveel bij je had gehad?*)

The absence of final placement of the infinitive verb after *gaan* and *worden* is illustrated in the next examples from the our corpus:

(35) *Hij gaat zitten op een stoel.*

he go.3SG sit-INF on a chair

‘He goes and sits on a chair.’ (cf. ED *Hij gaat op een stoel zitten.*)

(36) *Ligg-en wortel-en op de tafel en ze worden gebroken in twee stukk-en*

lie-3pl carrot-PL on the table and they become break.PP in two piece-PL

‘Carrots lie on the table and they are broken into two pieces.’ (cf. ED *ze worden in twee stukken gebroken*)

This suggests that, contrary to ED, there is a tendency to view the auxiliary and the verb as a single cluster.

The overgeneralization of the *aan het* progressive construction is illustrated in (37), where the stative verb *slapen* ‘sleep’ is marked with *aan het*:

- (37) *Een muis is aan het slap-en.*
a mouse is at the sleep-INF
‘A mouse is sleeping.’

With other speakers we find overgeneralization of *bezig zijn te X* ‘be busy to X’ with the same meaning.

- (38) *Een vrouw zit op de grond en ze is bezig te et-en.*
a woman sit.3SG on the floor and she is busy to eat-INF
‘A woman sits on the floor and is eating.’

- (39) *Een muis was bezig te lez-en en hij word-t gestoord en daarom*
a mouse was busy to read-INF and he become-3SG disturbed and therefore
word-t hij boos.
become-3SG he angry
‘A mouse was reading and he is disturbed and therefore he gets angry.’¹⁷

In both cases the precise semantics of the predicate and the nature of the semi-grammaticalized auxiliary are treated differently in SD from ED.

A feature shared with some varieties of ED is the use of generic *doen* ‘do’:

¹⁷ Notice the jump from past to present tense marking in this example.

(40) *Ja, ik doe voetball-en.*

yes I do football-INF

‘Yes I play football.’

(41) *En aan de bovenkant van de saxofoon, vingerzetting is linkerhand boven*

and on the top.side of the saxophone, finger.setting is left.hand top

en rechterhand doe je lager te doen

and right.hand do you lower to do.INF

‘And on top of the saxophone, the finger setting is left hand on top and right hand you do lower.’

4.3 Conclusions and discussion

Table 8 gives an overview of our main findings. First the number of samples is mentioned, then whether the feature is also indicated in the earlier studies of Essed-Fruin (1983), De Kleine (2007), and De Bies (2008). Finally we indicate whether the feature is similar to a Sranan feature (+), different from the relevant property of Sranan (-), or not linkable to Sranan either in positive or a negative sense (0). If the feature does not correspond directly to Sranan, but have emerged through indirect Sranan influence, it is (+).

Table 8.

Variable in our corpus	# samples	Essed-Fruin	De Kleine	De Bies	Sranan
Absence of verb final after <i>gaan</i> and <i>worden</i>	5				(+)
Overgeneralization of <i>aan het V</i>	1				(+)
Overgeneralization of <i>bezig zijn</i>	1				(+)
Tense organization	4		66-79		+
Generic <i>doen</i>	1	133		41	-

We can assume indirect Sranan influence in the case of the absence of verb final because Sranan has S Aux (=gaan/worden) V O constituent order. The overgeneralization of *aan het V* and *bezig zijn* could be linked to the general presence of progressive *e* in Sranan with activity verbs.

Essed-Fruin (1983: 122-137), in a very interesting early exploratory study, distinguishes three types of ‘deviations’ from ED within SD:

- Idiomatic deviations
- Deviations from the conventional system
- Deviations from the essential system

The changes in word order and the irregular marking of past tense morphology reflect deviations from the conventional system, while changes in progressive aspect marking and the relation between past and present tense probably reflect more deep-seated deviations from the essential system

De Kleine (2007), in a much more recent thesis defended at CUNY in New York, follows the classic distinction between External change (2007: 134) and Internal change (2007: 132), which in turn can be divided into Simplification through loss of forms (2007: 132) and Simplification through change of forms (2007: 133). It is clear that formal simplification and restructuring can be attributed to these types of change. External change in turn can involve either Transfer of grammatical functions (2007: 136) or Transfer of grammatical structures (2007: 139). The first case, transfer of grammatical functions, is the most frequent. A particular element already existing in ED, such as the use of *aan het*, is given a wider semantic range. This type of transfer leads to Syntactic camouflage (2007: 136), the term De Kleine cites from Spears (1982): an SD form which looks like an ED form has a different meaning. This parallels Spears’ Word camouflage, where an existing word is used with innovative meanings. These types of camouflage can lead to what Stewart (1990) has labeled *pseudocomprehension* within Caribbean societies. People from different ethnic or social backgrounds roughly, but perhaps not quite, understand each other’s meanings.

5. Sarnami

Grammatical features and the lexicon of the language indicate that Sarnami is the result of the mixing of a number of northern Indian languages. Some languages that contributed to Sarnami are Bhojpuri, Magahi and Maithili, spoken in the present-day Indian federal states of Uttar Pradesh, Bihar, Jharkhand and West Bengal. These three languages are generally classified as the Bihari subgroup of Indic, hence separate from Hindi (cf. Masica 1993: 12ff.). The grammar and lexicon of Sarnami also reflect in varying degrees the influence of Braj and Kannauji, which are seen as eastern varieties of Hindi, (ibid.) as well as Awadhi, generally seen as a variety more distinct from Hindi albeit closely related. Sarnami shows the characteristic effects of koineization that have been widely documented in the literature (e.g. Kerswill 2002), namely mixing, leveling, simplification and reallocation. For example, Yakpo and Muysken (in press, 2013) show that the Sarnami perfective/past suffixes have multiple sources in the contributing languages listed above (cf. Damsteegt 1988 for an overview of other koineization effects in Sarnami). At the same time, leveling has been responsible for specific past/perfective forms being picked out while others have not survived the koineization process (e.g. *kar-is* ‘s/he did’ [do-3SG/PL.PFV] < Awadhi; *kar-le* ‘you did’ [do-2SG/PL.PFV] < Maithili).

Our data and sociolinguistic interviews show that Sarnami is extremely vital, used by all generations in the Indo-Surinamese community of Suriname in a pattern of trilingualism involving Sarnami, Sranan and Dutch. Entrenched multilingualism in the Indo-Surinamese community has however led to contact induced change in Sarnami, some of which is quite far-reaching. The most obvious changes are lexical in nature: Sarnami has acquired numerous lexical items from Sranan and Dutch, and also features calques from these two languages (cf. Yakpo & Muysken, in press). However, there are also contact induced changes in the grammar of the language. One change that

has been identified is an ongoing shift from SOV basic word order to a mixed pattern in which SVO is nearly as common as SOV (Yakpo & Muysken, in press). In the following, we document further contact induced changes in the TMA system of Sarnami.

The core TMA system is constituted by markers which instantiate central tense, aspect and mood categories. We will see that the most profound changes can be witnessed in the non-core system. This is to be expected since the non-core system is by definition paradigmatically and syntagmatically less tightly organized and expresses more specialized (hence more peripheral) semantic notions. Given the medium to short time depth of contact between many of the languages of Suriname – this concerns first and foremost the immigrant languages of the Asian-descended communities – we would expect the impact of language contact to make itself felt first in the non-core system.

5.1 The TMA system of Sarnami and its contributing languages

Sarnami has a TMA system that is characteristic for the Indo-Aryan languages of north-eastern India. Sarnami The core TMA system makes use of verbal suffixes, hence bound morphology with support from the auxiliary verb ‘to be’ for the expression of composite tense/aspect notions.

Table 9. Perfective/past suffixes in Sarnami and north Indian languages

	Sarnami	Southern Bhojpuri	Sadani Bhojpuri	Maithili	Magahi	Lakhimpuri Awadhi
1SG	<i>-li, -lin</i>	<i>-lĩ</i>	<i>-lõ</i>	<i>-li</i>	<i>-li</i>	<i>-eũ</i>
1PL	<i>-li, -lin</i>	<i>-lĩ</i>	<i>-lĩ</i>	<i>-li</i>	<i>-li</i>	<i>-en</i>
2SG	<i>-le</i>	<i>-lā, (-liu)</i>	<i>-lis</i>	<i>-le, -lẽ</i>	<i>-la</i>	<i>-ē, -isi</i>
2PL	<i>-le</i>	<i>-lā, (-liu)</i>	<i>-lā</i>	<i>-le, -lẽ</i>	<i>-la</i>	<i>-eu</i>
3SG	<i>-l, -is</i>	<i>-l, (-li)</i>	<i>-lak</i>	<i>-l, -lək</i>	<i>-l, -lak</i>	<i>-isi</i>
3PL	<i>-l, -is, -lẽ</i>	<i>-lẽ, (-lini)</i>	<i>-aĩ</i>	<i>-l, -lək</i>	<i>-l, -lak</i>	<i>-ini</i>

(Sources: Saksena 1971 for Awadhi; Tiwari 1960 and Shukla 1981 for Bhojpuri; Jordan-Horstmann 1969 for Sadani Bhojpuri; Yadav 1996 for Maithili; Verma 1985 for Magahi)

Table 9 compares the past/perfective suffixes of Sarnami with those found in five of its contributing languages of India. In all five varieties listed in the table above the template for the formation of composite tense/aspect categories is virtually identical. For example, past progressive is instantiated in a construction in which the lexical verb occurs in an imperfective participial form in order to express an ongoing situation (42), and a form of the verb ‘to be’ is inflected for past tense and person-number in order to express the termination of a situation (43). The past tense suffix on the ‘to be’ auxiliary is, in turn, itself a perfective participial morpheme. Hence only the form in its entirety, i.e. the auxiliary + the perfective affix, indicates past tense. Compare the following examples of the formation of past progressive in Sarnami, Maithili and Magahi respectively:

(42) *ham soc-at rah-il-i joga* Sarnami

1 think-IPFP be-PFVP-1 yoga

‘I was thinking (that this was) yoga.’

(43) *Ram kha-it ch-əl-ah* Maithili; Yadav 1996: 155; gloss adapted

Ram eat-IPFP be-PFVP.3HON

‘Ram was eating.’

(44) *tu sut-ait ha-l-a* Magahi; Verma 1985: 55; gloss adapted

2SG sleep-IPFP be-PFVP-2SG

‘You were sleeping.’

In the non-core system, auxiliaries combine with lexical verbs in order to express less central aspectual and modal notions in auxiliary constructions. In all the languages including Sarnami, the group of auxiliaries encompasses items ranging from little grammaticalized lexical verbs to highly grammaticalized ‘vector verbs’ (cf. Masica 1993: 266). Although an etymological relation between vector verbs and lexical verbs can in many cases be established, the former may express specialized

aspectual and spatial notions with only remote semantic connections with their lexical counterparts. One such example is the verb *lag-*, whose source meaning is ‘(to) attach’, as shown in the following example from Sadani Bhojpuri:

- (45) *kona mē rʌtʌn kʌr gheir lagʌl ahe*
 ‘In the corner a mass of jewels is heaped up (lit. ‘is attached’).’
 (Sadani Bhojpuri; Jordan-Horstmann 1969: 86, no gloss provided)

In all the Bihari languages as well as in Sarnami, *lag* also occurs as an auxiliary verb in a dative experiencer construction. This function of *lag-*, although more grammaticalized, is still somehow transparently connected to the etymology of ‘(to) attach’. Compare the following examples from Maithili and Sarnami respectively:

- (46) *Mohan ke əhā nik lag-əl-iəeik* Maithili; Yadav 1996:183; gloss adapted
 Mohan ACC/DAT 2SG.HON good attach-PFVP-(2SG.HON+3SG)
 ‘Mohan liked you.’ (lit. ‘you were well attached to Mohan.’)
- (47) *u film, la rka-n ke d ar e lag-e hai.* Sarnami
 DIST film child-PL ACC/DAT fear ‘attach’-INF be.PRS
 ‘As for this film, the children are afraid.’ (lit. ‘fear is attached to the children.’)

In its most abstract and grammaticalized function, *lag-* is employed as an aspectual auxiliary verb with the meaning ‘(to) begin’. In its auxiliary function *lag-* is inflected like any other full lexical verb. Compare the following two examples from Sadani Bhojpuri and Sarnami respectively:

- (48) *u kandek laglak* Sadani Bhojpuri; Jordan-Horstmann 1969: 101, no gloss provided
 ‘s/he started crying’
- (49) *ekwá-ekwá ke mur i-yá men khoj-e lag-al.* Sarnami
 other~RED ACC/DAT head-DEF in look.for-INF attach-PFVP
 ‘One has begun searching (lice) in the head [hair] of the other.’

In the following section, we concentrate our analysis on contact-induced developments to the non-core TMA system of Sarnami.

5.2 Contact-induced changes in the TMA system of Sarnami

In Sarnami, the core TMA system makes use of monosyllabic verbal suffixes, hence bound morphology with support from the auxiliary verb *rahe* ‘to be’ for the expression of composite tenses. In the non-core system, auxiliary verbs combine with lexical verbs in order to express less central aspectual and modal notions in auxiliary constructions. These auxiliary constructions are of course also essential for the constitution of well-formed discourse in Sarnami. However, they are not essential for the constitution of well-formed clauses, because they do not express any of the highly grammaticalized, obligatory categorial oppositions that the core system expresses.

Table 10 summarizes contact-induced developments in the non-core system of Sarnami:

Table 10. Developments in the non-core TMA system of Sarnami

Aspect/modal reading	Non-native structure	Gloss	Native equivalent	Gloss
Continuative	doro já	‘through go’	áge bar he/cale	‘forward move/go’
Ingressive	bigin kare	‘begin do’	lage	‘come in contact’
Completive	af-	‘off-’	cuk-	‘completive’
Conative	pruberi/probeer kare	‘try do’	kosis kare	‘effort do’

5.2.1 Continuative

In our Sarnami corpus, continuative aspect is exclusively expressed via a construction involving non-native material. The adverb/particle *doro* ‘through’, of Sranan origin, may appear in combination with the Sarnami verb *já* ‘go’ to express the notion ‘go on, continue’, as shown in 50 below. The construction therefore features a mixture of matter and pattern borrowing:

- (50) *en doro ga-il bajá-we.*
 and CONT go-PFVP play.music-INF
 'And he continued playing music.'

The element *doro* is also found to express a continuative reading on its own without addition of the verb *já*. An example for the use of this adverbial strategy can be found in 51:

- (51) *doro bajá-we hai.*
 CONT play.music-INF be.PRS
 '(He) continues playing music.'

The continuative construction in Sarnami exemplifies very well the complex multidirectional transfer processes that characterize the Surinamese linguistic area. For one part, the continuative construction is a direct calque from a corresponding construction in Sranan. In Sranan too, an adverbial element *doro* as well as a lexical verb *go* collocate to express a continuative reading, as can be seen in example 52. The syntactic differences between Sarnami and Sranan can be attributed to the corresponding differences in clause-linking strategies available to the two languages. In Sarnami (cf. (50) above) the lexical verb is an infinitival complement to the auxiliary construction. But in Sranan (cf. (52) below) we instead find a serial verb construction in which the aspectual

‘auxiliary’ follows the lexical verb without any overt sign of subordination:

- (52) *a bigi wan plèy go doro nanga a bal.*
DEF.SG big one play go CONT with DEF.SG ball
‘The big one continues playing with the ball.’

In Sranan, as well, the adverbial *doro* alone can express a continuative notion, as shown in 53:

- (53) *a moysmoysi e leysi en buku doro.*
DEF.SG mouse IPFV read 3SG.INDP book CONT
‘The mouse continues reading its book.’

The continuative construction is however not native to Sranan either. It is in fact in itself a fully nativized borrowing, and originally a calque from the Dutch particle-verb collocation *door-gaan*, lit. ‘through-go’, best translated as ‘continue’. Syntactically, the Dutch construction differs from the corresponding Sarnami and Sranan ones. In Dutch, the lexical verb specified by the continuative auxiliary is expressed as a prepositional phrase, a clausal adjunct:

- (54) *en hij gaat door met spelen.*
and he goes through with play
‘And he continues playing.’

Unsurprisingly, Dutch also features the use of *door* alone in constructions such as 55, in which the adverbial alone express a continuative notion:

- (55) *hij gooit dan die drum weg om dan rustig weer door te lezen.*
 he throws then that drum away in.order.to then calm again through to read
 ‘He then throws that drum away in order to then calmly continue reading.

In Dutch, as in other Germanic languages including English (cf. e.g. Müller 2002), there are scores of such complex predicates in which an adverb or particle collocates with a verb to render a large range of spatial, Aktionsart and idiomatic meanings. In contrast to Dutch, Sranan has but a handful of complex predicates of this kind, all of which are more or less nativized calques from Dutch. Sarnami does not have native layer of verb-particle complex predicates either. We therefore interpret the presence of the continuative construction in Sranan and Sarnami as a transfer from Dutch. Interestingly, the Sarnami equivalent of this construction may well have entered the language via Sranan. The evidence is the phonological shape of *doro*, which features a paragogic final vowel. Nevertheless, the consolidation of the construction in Sarnami certainly owes just as much to its presence in Surinamese Dutch.

5.2.2 Ingressive

We now turn to a second contact-induced change found in our data: The Sranan verb *bigin* ‘begin (to)’ is preferred in as an auxiliary in a construction serving to express ingressive aspect over an equivalent native construction. This frequency is fairly evenly distributed among speakers, however with a clear preference for the non-native structure by speakers under 25 years, where the non-native construction figures in over 80% of all cases.

Example (56) shows how Sarnami speakers make use of *bigin* for the expression of ingressive aspect, which we define here as the entry into the situation described by the main verb. Taking a closer look at the auxiliary construction, we remark the presence of the verb *kare* ‘do’.

- (56) *aur bigin kar-il o-ke kát -e ke.*
 and begin do-PFVP DIST-ACC/DAT cut-INF ACC/DAT
 'And (she) has begun to cut it.'

With the help of the generic verb *kare*, any non-native verb and, in fact members of other word classes as well, may be accommodated within Sarnami clause structure. The use of generic verbs in such constructions has been well documented for most, if not all, Indo-Aryan language (cf. e.g. McGregor 1995:63). The extensive presence of compound verbs formed in this manner in the language family constitutes an analytic alternative to verb derivation, in order to make up for the absence of verb-deriving morphology beyond that involved in valency operations. The non-native ingressive construction parallels a native one, shown in (57). This construction also involves the generic verb *kare*, preceded by the (native) noun *suru* ‘beginning’:

- (57) *tab suru kar-is eerste aurat-iyá doorstuur kar-e ke.*
 then beginning do-PFVP first woman-DEF pass.on do-INF ACC/DAT
 'Then the first woman began to pass (it) on, (and) the thing that was in the person's
 hand.'

The comparison between the non-native ingressive construction in (56) and the native one in (57) however also shows that the former construction features a verb where the latter has a noun. In fact, we do not usually find native verbs in the (object) position before the generic verb *kare*. This is therefore a specific adaptation mechanism for loanwords.

The existence of the construction in (57) above notwithstanding, the far more common native structure for expressing an ingressive notion is very different from the two above. It involves a highly grammaticalized, largely desemanticized auxiliary *lage*, for which the etymology ‘touch,

come in contact with' can be established. The auxiliary is postposed to the verb it specifies and is found in a position, in which other so-called “vector verbs” in Sarnami and other Indic languages are found. Such vector verbs express various types of aspectual and spatial notions in very much same way as verbal particles in Germanic (cf. (55)).

- (58) *aur daarna khá-e lag-al*
 and afterwards eat-INF attach-PFVP
 ‘And afterwards (he) starts to eat (it).’

5.2.3 Completive

The regular way of expressing a completive aspectual reading is via a native auxiliary construction. Nonetheless speakers may opt for other, non-native means as well. The native construction involves the use of the aspectual auxiliary *cuk-*, which is highly grammaticalized and probably has a common etymology with the verb *cuke* ‘(to) lack’. Although the auxiliary has no lexical meaning of its own, it is inflected like any other Sarnami lexical verb. At the same time, the preceding lexical verb appears in the non-finite form conjunctive participial form, which is only overtly expressed via the suffix *-i* in vowel-final verb stems. Compare examples (59) and (60):

- (59) *kát cuk-al dui pisi men aur dhar de-il*
 cut COMPL-PST.P two piece LOC:in and put give-PST.P
 ‘(She) has finished cutting it into two pieces and has put it (down).’

- (60) *ondertussen sab aurat-iyá-n sab hán th milá-i cuk-al*
 meanwhile all woman-DEF-Pl all hand join-CONP COMPL-PFVP
 apne men , oh, apne men elkaar, ja
 REFL in oh REFL in RECP yes

'Meanwhile all the women have finished shaking all hands, (with) each other, oh, (with) each other, each other, yes.'

There is however another non-native rendering of completive aspect in the data. This possibility is, however, not fully productive, since it is lexically restricted to calques of Dutch complex verbs that incorporate the terminative *Aktionsart* affix *af*, lit. 'off'. The following example shows how the affix may be ingeniously pressed into its (lexical) aspectual function. The example features the Sarnami verb *banáwe* '(to) make' preceded by the Dutch terminative affix. The entire predicate is a lexically mixed calque of the Dutch predicate *af-maken* '(to) finish (off)':

- (61) *en voor de rest ham apan ot o kin-t-i ekád-go apan*
 and for the rest 1 REFL.POSS car buy-IPFP-1 some-CLFREFL.POSS
 ghar af-bana-it-i
 house TERM- make-IPFP-1
- 'And as for the rest, I'd buy my car, (with) some, I'd finish my house.'

5.2.4 Conative

Conative modality, hence the rendering of the equivalent of 'try (to)' in English is normally expressed via the use of a non-native verb in Sarnami. In all but one case recorded in the data, speakers opt for the Sranan verb *pruberi* or the Dutch equivalent *probeer*. As in other cases involving Dutch verbs, speakers use a 'frozen' verb form, namely the 3sg present tense form, when integrating the Dutch verb (rather than another form, e.g. the infinitive *proberen*). Here too, speakers make use of the light verb construction featuring the auxiliary *kare*. Compare the following example with Dutch *probeer*:

- (62) *olifant-wá probeer kar-e stop kar-e geluid bana-i kar-ke,*
 elephant-DEF try do-INF stop do-INF noise make-CONP do-ACC/DAT
ma mus-wá ke ná hinder ho-we hai.
 but mouse-DEF ACC/DATNEG prevent be(come)-INF be.PRS
 'The elephant tries to stop (the mouse) by making noise, but the mouse is not prevented [from reading].'

The Sranan verb *pruberi* appears in the same kind of construction, as shown in (63) below.

- (63) *pruberi kar-e hai uppar big-e ke maar punah se gir ga-il*
 try do-INF be.PRS upperside throw-INF ACC/DAT but again ABL fall go-PFVP
 'It tries to throw it up, but it has fallen again.'

An equivalent native way of expressing conative modality involves the usual *kare* light verb construction. However, it involves a nominal complement (here *kosis* 'effort' rather than a verbal one as is the case in the two preceding examples involving non-native elements. In altogether 30 instances of conative modality, only 2 involve the use of the native structure in (64):

- (64) *aurat-iya-n kosis kar-e hai mardan-wa-n ke*
 woman-DEF-PL effort do-INF be.PRS man-DEF-PL ACC/DAT
chu-we ke, pakar -e ke
 touch-INF ACC/DAT hold-INF who
 'The women are trying to touch, to grab the men.'

5.3 Conclusion

We have shown that Sarnami shows some significant contact-induced developments in its non-core TMA system: Some important aspectual and modal notions are primarily expressed via constructions that contain elements borrowed from Sranan and Dutch. The status of Sarnami as an independent variety of the Bihari languages is therefore not only confirmed through the innovations it has acquired in the process of koineization. Sarnami also stands out in the degree to which the language appears to make use of Sranan and Dutch items in its lexicon and grammar. Further research will have to show how much paradigmatically more tightly organized parts of the grammar, including the core TMA system also show signs of transfer from Sranan and Dutch.

6. Surinamese Javanese

Immigration of contract laborers from the Indonesian island of Java into Suriname has started around 1890, and continued until around 1939 (Carlin and Arends 2002). Today, this community has around 60,000 members in Suriname, which is around 16% of the total Surinamese population. Until quite recently, this community had been quite closed and self-contained, which is one of the reasons it had been able to preserve much of its cultural traditions, including the Javanese language. Nowadays, however, young Surinamese Javanese are increasingly proficient in Dutch and Sranan which they also use among themselves, while Javanese is regarded more as a language spoken with (grand)parents, in restricted contexts.

Since Javanese in Suriname is spoken in a highly multilingual environment, changes due to language contact are expected to occur in this heritage language. This section will provide an explorative overview of TMA marking in the Javanese language as it is spoken in Suriname. By comparing Surinamese Javanese material (the heritage language) with Javanese material from Java

(the ‘baseline’ language), changes which are possibly due to language contact will be identified, and when possible, an explanation will be given for how these changes could have come about.

Since most speakers of Javanese nowadays are multilingual, changes in this system might be expected to be introduced by these speakers, e.g. in the direction of a simplification. A certain amount simplification compared to Javanese as spoken on Java has already been observed in other aspects of the language, most notably the speech levels, which are less differentiated in Surinamese Javanese than in the Javanese of Java (Wolfowitz 1991). It is important to note that the Javanese as spoken on Java is not a homogeneous language and that it has traditionally been divided into three dialects in the literature: western, central and eastern Javanese. The dialect as spoken in Surakarta and Yogyakarta (central Java) has been generally accepted as Standard Javanese (Dudas 1976:iv). Available information suggests, however, that dialects differ mostly in phonology, rather than in morphosyntax or semantics of TMA.

Another important remark to make about Javanese is regarding the speech styles, which are strictly observed among baseline Javanese speakers (Ras 1985). The most informal speech level is *Ngoko*, used with friends and relatives. On the other side of the spectrum is the formal speech level *Krama*, used in dialogues with highly placed individuals and strangers. In between these two speech levels there are even more fine-grained differentiations, depending on the position of the interlocutors. However, these speech styles only differ in lexicon (and some affixes might be different), but not in syntax or morphology, and since *Ngoko* is the most widely used style (virtually the only style used in Suriname), examples presented here will be taken from *Ngoko* speech.

6.1 TMA in Java

Javanese verbs are not marked for person or number and the Javanese language is not rich in morpho-syntactic marking for TMA-categories. According to Robson (1992:64), most TMA-categories in Javanese are marked by auxiliary words, which occur in pre-verbal position. One of

the arguments he gives for considering these as auxiliary words, and not as clitics for example, is the fact that they can be separated from the verb, for example by a negative adverb as in the following example which involves the auxiliary *bakal* and the verb *lungo* ‘go’:

- (65) aku **bakal** ora **lungo**
 1SG IRR NEG go
 ‘I will not be going.’ (Robson, 1992: 66)

Table 11 provides an overview of TMA-marking words and suffixes on the basis of different sources (Robson 1992, Adelaar 2011, Vander Klok 2008, Vander Klok 2010). This table is followed by an explanation of the use of the different markers in Javanese. It should be mentioned that the status of some of the markers is not agreed upon. For example *wis*, is considered a tense-marker instead of an aspect-marker by Vander Klok (2008). A similar example is *bakal*, which might be a tense marker comparable to *arep* according to Vander Klok (2010: 2). These points will be elaborated below

Table 11. Overview of TMA-markers (auxiliary words and suffixes) in Javanese

Category	TMA-marker	Meaning	Gloss
Tense	<i>arep</i>	‘want/will’	FUT
Aspect	<i>lagi</i>	‘just’	PROG
	<i>wis</i>	‘already’	PFV
Modality	<i>bakal</i>	‘be going to’	IRR
	<i>entuk/olèh</i>	‘may/be permitted’	DEONT.may
	<i>isâ</i>	‘capable/to be able’	can
	<i>kudu</i>	‘must/have to’	DEONT.must
	<i>mesti</i>	‘certainly/inevitable’	EPIST.must
	<i>ungkinan</i>	‘perhaps/possibly’	EPIST.may

6.1.1 Tense

Javanese does not have a rich set of forms for tense marking. It is also important to note therefore that in Javanese, tense is often inferred from the context in zero-marked phrases, e.g. with the use of an adverb of time as in (67). Without further morphemes or adverbs that give information on the time of the event, this will always be interpreted as present, as in (66).

(66) aku m-angan

I ACT-eat

‘I eat.’

(67) **wingi** aku m-angan

yesterday I ACT-eat

‘I ate yesterday.’

Future tense is marked with *arep* (68) which is also regularly used in the meaning of ‘to want’ conveying participant-oriented modality (volitional modality) rather than tense. Modal use of *arep* will be discussed in the following subsection

(68) aku arep ng-oreng sego

1SG FUT ACT-fry rice

‘I will fry the rice.’ (Vander Klok 2010: 1)

As Hengeveld (2011: 592) argues, volitional modal markers are indeed a potential source for (absolute future) tense markers, and it is therefore highly likely that the modal meaning of *arep* was the original meaning, and that this tense marker developed only later.

6.1.2 Modality

As for the Javanese modals, according to Vander Klok (2008a), these are organized along two axes: quantificational force (either universal - ‘must’ or existential - ‘may’) and type of modal base (either epistemic or deontic). The combination of these two axes results in four modal categories, which are each marked by a different auxiliary. The following classification follows:

Table 12: The classification of Javanese modal markers according to Vander Klok (2008a: 8)

	deontic	epistemic
universal (‘must’)	<i>kudu</i>	<i>mesti</i>
existential (‘may’)	<i>entuk/olèh</i>	<i>mungkin</i>

Apart from these four modal markers described by Vander Klok, I distinguish two more markers for modality in this paper, namely *bakal* (irrealis) and *isâ* (‘can’).

The marker *isâ* can be translated as ‘can/be able to’ and refers to the acquired (physical) ability of the participant to engage in an event:

- (69) di-gâwâni kayu sing luwih gedé, nah saiki isâ, dèké njukuk
 PASS-bring wood REL more big INTJ now can 3SG take
 kain abang iku
 cloth red DEF

‘A bigger piece of wood is brought, now he can, he takes the red piece of clothing.’

In fact, this marker is often used to described the participant’s *inability*, combined with the negative adverb *gak*:

(70) ânâk arèk loro tekâ nyobak njupuk kelambi iku
 exist child two from ACT-try ACT-take clothe DEF
 mencolo~mencolot lugur gak isâ kâyâkané
 jump-RED fall NEG can seem

‘There are two children who try to take the piece of clothing, they jump, they fall, it seems they can’t.’

The marker *bakal* is not easy to classify immediately. According to Vander Kloek (2010: 2), *bakal* might be a tense marker comparable to *arep*, with the difference in the expression of agency: ‘the future marker *arep* appears to convey intention; with intention comes an implication of agency, as the intender is committed to do what can be done to make the proposition true at a future time (Tonhauser, to appear). In contrast to *arep*, *bakal* appears to convey prediction; although the speaker is committed to the truth of the proposition at a future time, there is no implication of agency. We propose that *bakal* marks irrealis modality rather than tense. Consider the following examples from my own fieldwork for an example of the use of *bakal* next to *ate* (the East-Javanese variant of *arep*):

(71) deke ng-angep nèk wong iku **ate** lungo
 3SG ACT-assume COMP person that FUT go

‘He assumes that she will leave.’

(72) deke ora yakìn nèk wong iku **bakal** lungo
 3SG NEG sure COMPperson that IRR go

‘He doubts whether she will leave.’

In these examples, the difference between *ate/arep* and *bakal* seems to be the degree of certainty the speaker has about the truth of the subordinate clause. When the speaker was asked to explain the difference between *ate* and *bakal*, it was confirmed that this was indeed the difference: when contrasting different sentences with *ate* and *bakal*, the speaker declared that in the latter case she felt as if it was less ‘certain’ that the event in the subordinate clause were truly to take place. Since this marker expresses the speaker’s commitment to the truth value of the proposition, *bakal* should be classified as proposition-oriented modality, taking scope over the Episode.

The marker *entuk* or *olèh* (which behave exactly the same) is used to express permission (the deontic existential/’may’). This auxiliary literally means ‘to receive/get’ and can also be used as a lexical verb with this meaning

- (73) *terus olèh apel iku, terus di-pangan*
 then get apple DET then PASS-eat
 ‘Then he gets the apple, then he eats it.’

As a TMA-marker, it is used as a participant-oriented modal marker, taking scope over the Situational concept:

- (74) *Jozi oleh ng-anggo celono neng ng-aji*
 Jozi DEONT.may ACT-wear pants at ACT-read.Qur’an
 ‘Jozi is allowed to wear pants to the reading of Holy Qur’an.’ (Vander Klok 2012: 32)

It can also be used in a more general sense, expressing event-oriented modality, taking scope over the State-of-affairs:

- (75) kulit-e iwak urang oleh di-pangan
 skin-DEF fish shrimp DEONT.may PASS-eat
 ‘Shrimp skin may be eaten.’ (Vander Klok 2012: 32)

The marker *kudu* expresses necessity (universal quantificational force), and is deontic in its modality type (Vander Klok 2008).

- (76) aku kudu nang warong kuwi
 I DEONT.must to store DEF
 ‘I must go to the store.’ (Vander Klok 2008: 4)

Since this modal describes the relationship between the participant and the potential realization of the event (obligation), I would describe this as participant-oriented modality, taking scope over the Situational Concept. In addition to this deontic modal, *kudu* can also express a ‘circumstantial’ modal meaning, based on facts about the world (Vander Klok 2012: 27):

- (77) aku kudu pipis
 1SG DEONT.must pee
 ‘I must pee.’ (Vander Klok 2012: 27)

The marker *ungkinan* has the same epistemic modal base as *mesti*. The difference lies in the quantificational force: whereas *mesti* expresses universal force (‘must’), *ungkinan* expresses existential force (‘may’). It is therefore that the use of *ungkinan* is appropriate in the following context, contrasted with (78), while *mesti* would be infelicitous here:

(78) Context: Ahmed is calling for his dog. The dog is not coming. Ahmed looks for the dog all over the house, but he cannot find him. Then he looks outside in the yard. Ahmed still cannot find the dog, but maybe the dog is locked in the shed. The dog may have escaped.

asu kuwi mungkin wis ucul

dog the EPIST.may PRF get.loose

‘The dog may have escaped.’ (Vander Klok 2010: 10)

As with *mesti*, the marker *mungkin* characterizes the possible occurrence of the event in view of what is known about the world. The marker *mesti* or *mesthi* (allophonic variation) appears to ‘express necessity according to the evidence available to the speaker’ (Vander Klok 2012: 26). Since it relies on evidence available to the speaker, the modal base is epistemic. Vander Klok (2008) defines this modal marker as ‘epistemic universal’, since the quantificational force is universal, ‘must’. As an epistemic modal, the possibility of occurrence of the event is characterized in view of what is known of the world.

(79) Context: Ahmed is calling for his dog. The dog is not coming. Ahmed looks for the dog all over the house, but he cannot find him. Then he looks outside in the yard. Ahmed still cannot find the dog. The dog must have escaped

asu kuwi mesthi wis ucul

dog the EPIST.must PRF get.loose

‘The dog must have escaped.’ (Vander Klok 2010: 9)

6.1.3 Aspect

Progressive aspect is marked by the auxiliary *lagi*, as in the following examples:

(80) anak-é wadon lagi nyuguhaké nyamikan
 child-DEF woman PROG ACT-serve refreshment
 ‘His daughter is serving refreshments.’ (Robson 1992: 114)

(81) arèk wèdok iku lagi dolan piano
 child woman that PROG play piano
 ‘The small girl is playing the piano.’

Perfective aspect is marked by *wis* (Vander Klok 2012).

(82) aku wis m-angan
 I PRF ACT-eat
 ‘I have (already) eaten.’

6.2 TMA in Surinamese Javanese

In this section, we will explore the TMA-system of Surinamese Javanese, and investigate possible changes it has undergone in comparison to the TMA-system of Standard Javanese.

6.2.1 Tense

The future tense is marked by *arep* as in baseline variety. The following meta-linguistic comment from one of the heritage language speakers illustrates the way the speaker understands the usage of this marker:

(83) als we zeggen, ik ga naar de bank: **arep nèng** bank
 if we say 1SG FUT LOC the bank FUT LOC bank
 ‘If we say, I go to the bank, “arep nèng bank”.’

It appears that *arep* also conveys aspectual meanings in the heritage variety. Consider the following examples, which are descriptions of video clips. In the video described in example (84), a man washes his hands, but the event begins after the beginning of the video. The same goes for the video as described in example (85), which starts with the image of a woman standing, after which the woman starts moving out through the window.

- (84) wong lanang arep wisuh tangan-é karo banyu, di-lapi
 person male FUT wash hand-DEF with water PASS-wipe
 tangan-é karo anduk
 hand-DEF with towel

‘A man is going to wash his hand with water, the hand is wiped with a towel.’

- (85) wong wèdok arep metu tekâ jendélâ
 person womanFUT go.out from window

‘A woman is going to go out through the window.’

In the context of the videos, we propose that the most natural translation for this marker here would be ‘is going to’, since it refers to a more immediate future, which actually starts happening during the time of the utterance. Therefore, I would propose that this is not truly a future tense marker, but more of an aspectual marker, specifically prospective aspect.

Speakers of the heritage variety express mark future/prospective with *arep* more frequently and in contexts where the baseline speakers employ other strategies. Although the use of *arep* as a prospective is most probably not novel in Surinamese Javanese, it is not encountered with this meaning in the baseline corpus, and the preference for it therefore seems to be a feature of the heritage variety. The apparent overgeneralization of *arep* is arguably due to influence of

(Surinamese) Dutch and/or Sranantongo, which both categorically and formally differentiate immediate versus more uncertain future: *gaan* ‘go’ vs. *zullen* ‘shall’ in Dutch, and *sa* and *o* in Sranan.

As in the baseline language, tense marking with auxiliaries is not done, but rather it is inferred from context or by the use of temporal adverbs:

(86) aku **mené** masak kènggo anak-ku
 1SG tomorrow cook for child-1SG.POSS

‘Tomorrow I will cook for my child.’

(87) **setu** aku tangi, aku mangan terus adus
 Saturday 1SG wake.up 1SG eat then take.bath

‘On Saturday, I woke up, then I ate and then took a bath.’

(88) *Context: the interviewer asks what the speaker has done last weekend.*

setu aku tangi, aku mangan terus adus
 Saturday 1SG wake.up 1SG eat then take.bath

‘On Saturday, I woke up, then I ate and then took a bath.’

In one interesting example, a heritage speaker uses the Dutch auxiliary *hebben* ‘to have’ in order to express past tense:

(89) ze **hebben** **ng-ewang-i** aku nèng omah
 they have ACT-help-APPL 1SG LOC house

‘They have helped me in the house.’

However, since this type of construction occurs only once in the heritage corpus, it appears that this is simply a case of code-switching

6.2.2 Modality

The heritage variety uses a different form, *inter*, than the baseline variety to mark acquired (physical) ability. The form *inter* is not a loan from Dutch or Sranantongo, but apparently originates from the Javanese word *pinter*, which literally means ‘clever, skilled’.

- (90) njukuk planga eindelijk **inter** n-jukuk kaos-é
 take plank finally can ACT-take shirt-DEF
 ‘He takes a plank, and can finally take the shirt.’

It is often used in combination with the negative adverb *ora*:

- (91) terus arep di-jukuk maar ora **inter**
 then FUT PASS-take but NEG can
 ‘Then it is going to be taken but he cannot.’

Although the form *inter* seems to have completely replaced the form *isâ* from baseline Javanese, there are no differences in its syntactic realization. While curious, *inter* does not appear to be a contact related development.

Irrealis is expressed infrequently in both the heritage and baseline corpora by *bakal*.

- (92) naar het schijnt sing **bakal** pâdâ~pâdâ sing kâyâ volgende weekend
 to it seems REL IRR same~RED REL similar.to next weekend

‘As it seems, it will be the same, which is similar to next weekend.’

In this context, *bakal* is used to express a more uncertain future, since it is a complement of the verb *schijnt* ‘seems’. In the following example, *bakal* is used with the determiner suffix *-e*, as a sort of nominalizing procedure, but still expressing the irrealis category:

- (93) *terus wong-é bereken piyé bakal-é intuk apel-é,*
 then person-DEF calculate how IRR-DEF take apple-DEF
 terus cah-é m-brobos schutting-é kayu terus wong-é
 then child-DEF ACT-trespass fence-DEF wood then person-DEF
 m-ènèk, terus eindelijk inter ng-epèk fruktu-né,
 ACT-climb then finally can ACT-take fruit-DEF
 apel-é, terus dipangan
 appel-DEF then PASS-eat

‘Then the person calculates how to take the apple, then the child trespasses the wooden fence, then the persons climbs, then finally he can take the fruit, the apple, then it is eaten.’

No explicit morphological expression of deontic ‘may’ occurs in the heritage corpus. The verb *entuk* (Surinamese form *intuk*), which is used to express this category in Javanese, is exclusively used by the heritage speakers as a lexical verb with the meaning of ‘receive/get/take’ with a nominal complement:

- (94) *tapiné kâncâ-né kodok iku saiki-né wis éntuk bojo*
 but friend-DEF frog DET now-DEF PRF get wife

‘But now his friend the frog has gotten a wife.’

Kudu expresses deontic universal modality, ‘must’ in heritage Javanese, as in the baseline variety:

- (95) kowé **kudu** leri anak-mu nak cilék **kudu** ng-omongjâwâ
2SG DEONT.must teach child-2SG.POSS if small DEONT.must ACT-talk Javanese
‘You have to teach your child that s/he has to speak Javanese when s/he is still small.’

This modal can also be used to express event-oriented modality:

- (96) **kudu** nduwé lespeki karo wong tuwâ
DEONT.must have respect with person old
‘One must have respect for older people.’

No explicit expressions of epistemic modality are attested in the heritage corpus. Volitional modality is marked by the auxiliary *arep*:

- (97) sing liyané ng-golèk iets anders. n-jukuk dingklik,
REL other ACT-search something else ACT-take chair
arep n-jukuk kaos-é
want ACT-take shirt-DEF

‘The other searches something else. He takes a chair, he wants to take the shirt.’

Of the epistemic modals, *ungkinan* and *mesti*, the first does not occur in either corpora. The other epistemic, *mesti*, occurs just three times, of which only one example appears in the heritage

language. In the example, *mesti* combined with the determiner suffix *-e*, where it can be translated as ‘perhaps’ (Vruggink 2001), and thus seems not to express epistemic modality:

- (99) aku durung ng-erti **mesti-né** dolan~dolan karo
 1SG not.yet ACT-know certainly-DEF play~RED with
 kanca-ku dolan~dolan [inaudible]
 friend-1SG.POSS play~RED ***
 ‘I do not yet know if I perhaps play with my friend or play ***.’

One certain contact induced development observable within the category of modality is the borrowing of modal verbs from Sranan. In this case, the Sranan verb *proberi* ‘to try’ (< Dutch *probeer* occurs in position of the native Javanese verb *jajal* ‘to try’. The word order of the construction remains the same (auxiliary + verb/complement) in the baseline language (100) and the heritage variety(101)

- (100) **n-jajal** di-uncal manèh tetep aé sik gak isâ
 ACT-try PASS-throw again still only still NEG can
 ‘He tries to throw it again but still doesn’t succeed.’

- (101)a. cahcah-né **proberi** dyompo
 children-DEF try jump
 ‘The children try to jump.’
 b. arep **proberi** menèh, terus tibâ menèh
 FUT try again then fall again
 ‘[He] is going to try again, then it falls again.’

6.2.3 Aspect

Progressive does not seem to be expressed morphologically by the heritage speakers. In utterances interpreted as progressive, Suriname Javanese speakers seem to use a construction with the existential verb *ènèk/ènèng* (Standard Javanese counterpart *ânâ/ânâk*). Compare the following examples of progressive sentences:

(102) *Javanese (eastern dialect)*

- (a) wong iku **lagi** ng-gambar wit
person that PROG ACT-draw tree

‘The person is drawing a tree.’

- (b) ibu iku **lagi** motong temon
woman that PROG ACT-cut cucumber

‘The woman is cutting the cucumber.’

(103) *Surinamese Javanese*

- (a) **ènèk** wong n-ulis layang
exist person ACT-write letter

‘There is a person writing a letter.’

- (b) **ènèk** wong ng-iris jeruk
exist person ACT-cut orange

‘There is a person cutting an orange.’

It is difficult to establish whether these phrases should truly be interpreted as progressive constructions, or that they should rather be considered presentational constructions with a relative clause, where the relative pronoun is not expressed. In the last interpretation, examples in (103) could be translated as follows: ‘There is a person who writes a letter’ and ‘There is a person who

cuts an orange’. This last possibility might be supported by the fact that when the existential does co-occur with the relative pronoun *sing*, this is only used to in some sense delimit the subject of the clause, as in the following example:

- (104) ènèk wong lanang loro, sing siji ng-ekèki tas karo liyané
 exist person male two REL one ACT-give bag with other
 ‘There are two men, of which one gives a bag to the other.’

However, as argued by Hengeveld (1992: 265), the existential construction can indeed very well have a progressive interpretation. Hengeveld argues that this type of clause should be viewed as a circumstantial adverbial clause, with the translation of ‘There is a person in the circumstance of [verb]ing’, which does indeed entail a progressive interpretation of the verb. The comparative are unconvincing in arguing for contact induced developments. Although the progressive marker *lagi* is not attested in the heritage corpus, it only occurs four times in the baseline corpus. And while the existential construction is used in heritage contexts where baseline speakers use *lagi*, the overall relative frequency of existential constructions is higher in the baseline corpus. However, it does seem uncoincidental that imperfective *e* (which also indicates progressive, among other aspectual meanings) in the Surinamese creoles has grammaticalized from a copula which is also used in existential constructions (Winford and Migge 2007:89).

As in the baseline language, perfective aspect is expressed with the auxiliary *wis*. To emphasize this focus on the relevance of the event in the present, this marker is often combined with *saiki* ‘now’ in the same sentence:

- (105) saikiné bocahé wis temu, temu kâncâné wis bungah menèh
 now-DEF child-DEF PFV find find friend-DEF RSL happy again

‘Now the child had found his friend, he was happy again.’

The meaning of *wis* remains unchanged in the heritage corpus, though it is used more frequently in the baseline language than in the heritage language, in fact even more than twice as often. This may be caused by still lower frequencies of Sranan’s perfective marker *kaba*.¹⁸

6.3 Conclusions

To sketch the picture of the TMA-system in Surinamese Javanese in a unified way, we see that there are different things going on in the different categories. The use of *arep* is more frequent among the heritage speakers, mirroring patterns in Sranan and Dutch. The category of modality seems to have undergone the most changes, although they are still not radical: the forms for the modal verbs ‘try’ and ‘be able to’ have been replaced by new forms in Surinamese Javanese, while the syntactic construction had remained the same. The verb ‘try’, is most clearly the result of language contact, since *proberi* is a Sranan verb. Within the category of aspect, the original Javanese marker *lagi* for progressive aspect seems to be less used, in favor of the construction with the existential verb, also perhaps modeled on similar developments in Sranan. The perfect marker *wis* also seems to be less used in the heritage corpus which is more consistent with perfective marking in Sranan.

7. Discussion: stability and borrowability in Surinamese TMA systems

In this chapter, we have detailed a number of developments in the TMA systems of the Surinamese creole languages, Surinamese Dutch, Sarnami, and Surinamese Javanese. These are summarized in

¹⁸ In a random sample from our Sranan corpus of 12,084 words, *kaba* = 0.2%. Cf. the heritage Javanese corpus *wis* = 0.27%; baseline Javanese, *wis* = 0.65%.

Table 12 along with processes relevant to their transformation. Our exploration of TMA systems in these languages clearly demonstrates the central position of Sranan and Dutch in contact induced language changes in Suriname. These languages not only exchange linguistic forms and patterns, but also provide them in unidirectional transfer to the other languages in our sample. This speaks to the role of factors that are external to the linguistic system in language contact. Had such factors not played a role, we would expect a more symmetrical flow of linguistic features across languages. However, the central position of Sranan and Dutch in Surinamese society, and that they are the two languages that have traditionally functioned as out group languages, means that they both tend to be contributors of linguistic material rather than recipients.¹⁹

Table 12: Summary of TMA developments in the sample of languages.

Language	Tense		Mood		Aspect	
	Change	Process	Change	Process	Change	Process
Surinamese creoles - general	<i>be(n)/bi</i> < Eng. <i>been</i>	reanalysis	<i>sa</i> takes on modal qualities	grammat.	∅	substrate
	<i>o</i> < Eng. <i>go</i>	reanalysis/superstrate	<i>man*</i> modal from noun	grammat./poss. sub-& superstrate	<i>e</i> < LOC <i>de</i>	substrate
	<i>sa</i> < Eng. <i>shall</i> or Du. <i>zal</i>	reanalysis			<i>kaba</i> < Port <i>acabar</i> 'to finish'	substrate
Sranan			<i>sa</i> Du. modal qualities	adstrate		
			<i>kan</i> < Eng. <i>can</i> or Du. <i>kan</i>	super / adstrate		
			<i>mag</i> < Du. <i>mag</i>	borrowing		

¹⁹ This is not to say that in the individual Dutch or Sranan idiolects of speakers of other in group languages in Suriname, no trace of their L1 is detectable, or even that ethnolectal varieties of Dutch and Sranan do not exist in Suriname (but see Lie 1983, Hanenberg in prep, Diagle ms). It is the overwhelming tendency in this and other work that languages other than Sranan and Dutch do not effect Sranan and Dutch in Suriname.

	Tense		Mood		Aspect	
Language	Change	Process	Change	Process	Change	Process
Ndyuka			<i>sa</i> Gbe modal qualities <i>poi</i> <Port. <i>pode</i> shift towards Sranan patterns of modal marking	substrate reanalysis (covert & PAT) borrowing , contact induced grammat.		
Dutch	organization <i>gaan</i> as AUX & loss of verb final after <i>gaan</i>	PAT borrowing grammat. & PAT borrowing			overgeneralization of <i>aan het</i> and <i> bezig zijn</i> constructions	PAT borrowing
Sarnami			<i>pruberi</i> / <i>prubeer kare</i> < Sranan / Du.	MAT borrowing	<i>doro já</i> < Sranan via Du. <i>bigin kare</i> < Sranan <i>af-</i> constructions < Du.	PAT & partial MAT borrowing MAT borrowing MAT & PAT borrowing
Javanese	increase in <i>arep</i> constructions, cf. Sranan <i>o</i> and SD <i>gaan</i>	covert	<i>poberi</i> < Sranan <i>inter</i> in place of baseline <i>lagi</i>	MAT borrowing language internal change	decrease in perfective <i>wis</i> progressive replaced by existential construction	covert PAT borrowing

Clearly linguistic structures also play a role, albeit not a very clear one, in the types of changes attested in our corpus. Consider that the adoption of Sranan forms in the expression of conative modality in Sarnami and Javanese parallel native forms and are therefore relatively easily incorporated into native structures. Similarly, recent developments in formal marking of urban Ndyuka potential modality do not constitute structural alterations since Ndyuka and Sranan index the semantic distinctions within this realm of modality. On the other hand, the core TMA system of

Sarnami remains relatively unaffected, which we suspect is the result of its integration in to the languages rich morphological system and/or typological distance from Sranan and Dutch. Still, this line of thinking does not account for everything we have described. Consider the *af-* constructions in Sarnami in which neither a foreign form is introduced to an existing parallel native structure, nor is the construction introduced to fill a gap in the native system.

Returning to the questions of borrowability and stability in TMA systems – Matras (2007:45-46, see example 3a above) suggests that modality is most borrowable, followed by aspect, future tense, then other tenses. Taking borrowability as converse of stability, Matras' general hierarchy holds for most of our data. Most developments can be seen in the modal systems of our language sample. The exception to this is Dutch, but since a large portion of Sranan's modal system is modeled on Dutch, there's no suitable source by which Dutch could be influenced. Alternatively, our methods of data collection may have simply not elicited the right kind of language use to make Surinamese Dutch modality visible. The aspectual systems in the Surinamese creoles appear to have stabilized rather early on in their development, but the other languages in our sample all show developments in their aspectual systems. Future tense displays the most developments effecting Dutch and Javanese. There appear to be no direct developments in the realm of past tense, though the reorganization of SD certainly effects when past tense is marked. In fact past tense seems to be so prevalent that it gets marked twice in the case of some strong verbs in SD.

Even while adhering to the general trend for TMA borrowability proposed by Matras (2007), the anomaly of lack of change in Dutch modality preceding changes in aspect and tense, along with inconsistencies in the hierarchies in those studies detailed by Dediu & Cysouw 2013, (examples 4-9 above) suggest that language change, at least within TMA, is (a) conditioned by factors external to the language system, and / or that (b) there are no universally stable TMA structures (despite statistical tendencies).

Our investigation has been largely exploratory, and although we have been able to pinpoint a fair number of changes in the TMA systems of Suriname, there is ample room for continued research on the topic. Firstly, developments among urban dwelling Maroons need to be more thoroughly and systematically investigated in terms of leveling of Maroon varieties in the city. Are we witnessing a ‘real’ change toward Sranan (remember that the forms are Sranan but there is no categorical shift and the formal distinction between positive and negative modality appears to be maintained), or something else? Another issue that merits further research is the historical development of SD. Overall, the influence of ED has become stronger when the migrations to the Netherlands took on a massive form in the 1970’s. We can expect earlier forms of SD to show more semantic features that distinguish it from ED. An analysis of the core TMA system of Sarnami would be welcome. And finally, the Javanese section in this paper is perhaps the most exploratory in nature and thus provides a number of avenues to be investigated in more detail: forms used, frequencies, and the particulars of their semantics.

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