COGNITIVE PROCESSES IN APACHEAN ENGLISH*

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Language contact situations are not only living laboratories of diachronic processes shedding light on many questions posed by historical reconstruction but also interlingual performances, in and of themselves, provide a window into the nature of human cognition. While social factors are largely responsible for the competition between superstrates and substrates, psychological processes provide operations to cope with the organization of an environment of coexisting linguistic systems. Salient among the strategies of coming to terms with bidirectional linguistic pressures is the role of the mother tongue; however, it is not the only strategy available. It is the goal of this paper to examine in a language contact situation referred to here as Apachean English (AE) three interlingual constraints of which only one is directly attributable to the transfer from the first language (L1). A second constraint concerns the internal reanalysis or regularization of certain structures in American English (L2), while a third is in no way connected to either the substrate or the superstrate but seems to appeal to independent universal cognitive processes available to humans through an innate bioprogram.

The Apachean languages (Western Apache, Navajo, Mescalero, Jicarilla), especially Navajo with over 140,000 speakers, represent the largest contingent of indigenous speech in the United States; however, by the 1960's and 70's it was evident that English as an L2 was gaining ground. Nowadays, it is frequently the case that the children's first and parents' preferred language

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is English, but it is an English variety whose phonology, grammar as well as semantics have been Indianized by the Apachean substratum.

As in most language contact situations, AE shows most definite traces of interlingual transfer from the substrate on the phonological level. It is not the case in AE that pidginization, as Kay and Sankoff (1974) have argued, has contributed to a uniform CV structure regardless of phonological constraints from the L1 or L2. Even in classic pidginization situations, such as Hawaiian English, L1 phonological transfer seems to be evident (Bickerton and Odo 1976).

Navajo and Western Apache have four basic vowels for which length, nasalization and tone are phonemic:

(1) /a/, /e/, /i/, /o/

Since Apachean languages have no glides, English compound vowels such as /ey/ often become /e/ as in /ple/ for *play* in AE. Also, Apachean nasalization of vowels is at times transferred to English when nasals follow vowels, as in /siyniŋ/ for *seeing*. In addition, there is greater tenseness in the articulation of Navajo vowels than in the case of English. This characteristic, when transferred to AE, often results in audible divergence from standard pronunciation.

Furthermore, six of the English consonantal phonemes — /v/, /f/, /ð/, /θ/, /r/, /ŋ/ — have no proximate correspondents in Apachean languages:

(2)

ɓ	ɗ	dz	dɬ	j	g			
	t	ts	tɬ	ch	k		kw	
	t'	ts'	tɬ'	ch'	k'			'
	s		ɬ	sh	x	h	hw	h
	z		l	zh	gh			
m	n							
				y			w	

As a result, a number of L1 influenced productions involving consonants are present in AE (Bartelt 1981). For example, /θ/ becomes /f/ in medial and final position as in /befwum/ for *bathroom* and /wif/ for *with*; however, it becomes /ɗ/ in initial position, as in /ɗenk/ for *thank*. Also /ð/ becomes /ɗ/ in initial as well as medial position, as in /ɗiyz/ for *these* and /maɗər/ for *mother*. Another example, /v/ becomes /ɓ/ or /f/ in word initial position and becomes /ɓ/ in worndfinal position, as in /ɓerili/ or /ferili/ for *very* and /glaɓ/ for *glove*. In addition, /r/ becomes /w/ or /l/, as in /weɗ/ or /leɗ/ for *red*. Since Apachean languages have limited use of consonant clusters, with none occurring in syllable final position, English consonant clusters /kl/ and /gl/ are approximated to Apachean /tɬ/ and /ɗl/, resulting in AE /tl/ and /dl/.

Few consonants can appear in word final position in Apachean languages; yet, the use of the glottal stop /'/, which is phonemic, is quite frequent in word final position. As a result, productions like /kla'/ for *clock* are quite common in AE; in fact, it is the transfer of this phonological constraint which may be the main contributor to the 'choppy' quality so characteristic of AE.

The Apachean languages share a number of morphological characteristics which are widespread Native American traits. Prominent among these are the highly synthetic processes in both the nominal and verbal phrases. Typically, the root, which is often monosyllabic ,takes on a number of affixes to produce rather complex forms. For example, in Navajo a root noun takes on a pronominal prefix to express possession as in

(3) béégashii bitsee' — the cow's tail
(cow his-tail)

Even Navajo pronouns can take on an affix, representing such categories as postpositions, which function like prepositions in most Indo-European languages, as in

(4) kin bich 'į' yisháát — I am walking toward the house
(house it-toward I am walking)

Thus, postposition suffixes can occur with pronominal prefix forms usually attached to nouns as possessives.

Also, question formation is accomplished in part by using affixes on nouns. Since Navajo employs tone to distinguish meaning as in '*azéé*' (mouth) and '*azee*' (medicine), the use of word pitch to indicate interrogation is not available. Instead, the particle *da*' and nominal suffix *-ísh* signal a question. Thus, a declarative such as

(5) naaltsoos tsé bik'idah siłsooz —
the piece of paper is on the rock

can become an interrogative without rising intonation:

(6) da' naaltsoosísh tsé bik'idah siłsooz —
Is the picee of paper on the rock?

Apachean verbal complexes are composed of stems which are inflected for mode and aspect and to which elements, such as subject and object pro-

nominal forms can be prefixed. For example, Navajo verbs incorporate pronouns representing the pronoun subject and the pronoun object of the verbal action, even though a free form subject or object may be present in the sentence, as in

(7) bilagáanaa bizaad bíhoosh'aah —
I learn English (white man his-language it-I-learn)

Thus, the verbal complex incorporates the pronoun subject prefix *-sh-* and the pronoun object prefix *bí-* with the verb stem occurring in sentence final position. A verb stem by itself has actually only a very abstract meaning but is modified by inflections and prefixes for meanings usually represented by unrelated verbs in Indo-Euorpean languages.

The verb *'aah* in (7) contains an imperfective mode inflection; however, its temporal meaning cannot be translated as strictly present tense, rather, the action is thought of as being incomplete and in the act of being accomplished. In other words, manner and kind of action instead of time are emphasized in modes and aspects.

Modes and aspects combine quite commonly in Apachean languages, resulting in additional verb stem inflections. For example, the imperfective mode may also be continuative in aspect expressing that an action has begun, that it has not been completed and that it will continue over an indefinitely long period of time. The stem form in the continuative aspect of the imperfective mode changes to *—'á* as in

(8) béésh naash'á — I carry a knife

The perfective mode is used when the action is complete but it does not necessarily imply a specific point in past time. The verb stem form is -á as in

(9) taah yí'ą́ — I completed the act of putting it into the water

The progressive mode implies that the action is in progress and the stem form -áál as in

(10) yish'áát — I am carrying it along

The usitative mode refers to an action which is performed habitually and the stem form is *-'ááh* as in

(11) taah yish'ááh — I habitually put it in the water

The iterative mode describes repetition of an action and requires the same stem form *-'ááh* as the usitative; however, the iterative prefix *ná*, connoting repetition is added:

(12) taah násh'ááh — I repeatedly put it in the water

The optative mode is used to express desire or wish and is realized through the stem form *-'aał* and the prefix gho- as in

(13) taah ghósh'áát — I might put it in the water

The semelfactive aspect denotes an action which occurs once and is neither continued nor repeated as in

(14) sétał — I gave him a kick

The repetitive aspect, on the other hand, refers to an action that is repeated several times as in

(15) nánéétáál — I gave him a succession of kicks

Some speakers of Apachean languages may use the repetitive aspect and the iterative mode interchangeably, since the difference between the two is very subtle.

The Apachean verb stem, then, denotes an action or state in a generalized or abstract sense and expresses specific verbal ideas only when it is modified by modal and aspectual inflections and prefixes representing pronoun subjects, objects and other elements. Time of the action is generally of secondary concern; however, it certainly can be expressed by the use of such free form time adverbials as *ńt'éé'* for past time and dooleeł for future time as in

(16) yisháát ńt'éé
(I am walking along it was)

(17) yisháát dooleeł
(I am walking along it will be)

Thus, the Apachean languages share a number of North American areal features such as affixation of many types of elements, especially the prefixation of pronoun markers to nominal roots and verbal stems. An additional widespread Native American characteristic, the weak difference between mode and tense, is also present in Apachean.

As shown in (7) Navajo verbs incorporate pronoun subjects and object in OSV order; however, when the subject and object are also represented by nouns the order is generally SOV in the verbal complex as well is in the proposition

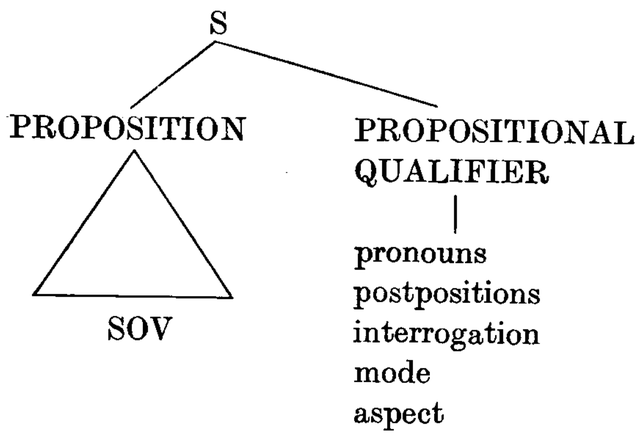
(18) 'ashkii shash yiyiiłtsą́ — the boy saw the bear (boy bear he-it-saw)

Sentences which contain object nouns but no subject nouns also maintain (S)OV word order as in

(19) tsé néidii'ą́ — he picked up a rock (rock he-it-picked up)

The Apachean morphological and syntactic characteristics discussed so far can be represented as in

(20)



Of the many morphological and syntactic idiosyncracies in AE, only a few structures can be isolated with some degree of certainty as the result of interlingual transfer. For example, traces of SOV order are evident in AE

(21) that teacher, I seen her at the store.

Considering that the subject pronoun would be part of the verb in Apachean, this sentence maintains (S)OV order. Also, the redundant use of the masculine gender in AE

(22) the dog he barks

reflects Apachean third person marking which disregards gender and analogizes subject pronoun incorporation in the verbal complex.

However, it is not clear whether other morphological and syntactic characteristics in AE are due to substrate constraints. For instance, the omission of plurals, possessives, agreement, infinitives, gerunds, might actually be the reduction of English surface structure, resulting in the derivational shallowness or internal regularization so common in most contact situations. Studies on another Indian English variety — Isletan English — might illustrate this point. Initially, Leap (1973) was convinced that the English spoken at Isleta Pueblo (New Mexico) was shaped by the phonological and syntactic properties of Tiwa (Aztec Tanoan). Leap even went as far as suggesting that Isletan English be considered a variety of Tiwa and that Isletans were not bilingual in the sense that they controlled two separate linguistic systems. Instead, Leap proposed, they controlled only two separate lexicons which were brought together under a single system of phonological and syntactic rules. In subsequent studies, however, Leap (1976a) qualified this claim when he noticed that L1 constraints did not always take precedence over L2 conventions.

For example, the use of double negatives as in

(23) You *don't* record *none* of your wills or any of your transactions with the BIA

was regarded by Leap as an extension of L2 instead of direct transfer from L1. Yet, he pointed out that nonstandard conventions such as double negation do not always conform to the often assumed uniformity of nonstandard speech. Thus, there is a semantic contrast with single negation in (23), motivated by a similar L1 distinction.

A case of Isletan English grammar which does not have even indirect input from Tiwa is the extension of English number marking on nouns to number marking on verbs as well. As a result, pluralized subjects occur with singular verbs, while singular subjects consistently appear with pluralized verbs as in

(24) There are some *parties* that *goes* on over there
(25) Some *peoples* from the outside *comes* in
(26) Maybe the *governor go* to these parents' homes
(27) About a *dollar* a day *serve* out your term

Leap had at first interpreted these patterns on the basis of transfer of L1 structures but realized later (1976c) that there was an alternative interpretation. He postulated that what was really happening was a kind of re-analysis of English syntax in order to make it conform to underlying Isletan English syntactic motivations such as an appeal to the naturalness of markedness principles. For instance, if number concord in standard English and Isletan English is contrasted, as in

(28) $[\alpha M]_{NP} \rightarrow [-\alpha M]_{Vb}$
(29) $[\alpha M]_{NP} \rightarrow \quad [\alpha M]_{Vb}$

(29) would have to be considered more natural than (28). Therefore, underlying motivations for productions such as (24)—(27) may not necessarily be tied to L1 constraints.

A similar appeal to natural language properties was made by Leap (1976b) in regard to the use of uninflected BE in Isletan English. Since this seems to be a creole-like feature also found in Black English, monogenesists such as Dillard (1972) have proposed the diffusion of plantation English by escaped slaves who sought refuge among Indians of the Southwest. Leap rejects this interpretation entirely and claims that L2 situations anywhere in a natural fashion will exhibit certain similarities regardless of L1 input. Therefore, in sentences such as

(30) I *be* inside the post office every Thursday at noon

uninflected BE marks a distributive sense often in iterative contexts to

refer to states and events which are periodically discontinued and again resumed. Even though this usage pattern resembles the distributive BE of Black English, Leap (1976b:98) argues for the idea of natural English properties which represent a common potential available to all speakers of English:

> The principle requires the use of an a-temporal verb in deep structure, which is why a consistent agreement in its tense-aspect properties does emerge under formal assessment... The "natural English" argument implies, of course, that any speaker of English could, save for the interference of standard English constraints, use a distributive *be*.

In addition, Leap points out that even standard English speakers use distributive BE when referring to an iterative semantic implication as in

(31) If you don't be quiet, I'm going to spank you!

In short, natural English properties constitute a kind of inter-speech community overlap. These general constraints are in turn controlled by speakers in terms of their idiosyncratic linguistic backgrounds. Stout and Erting (1976:119) add that:

> there are general nonstandard features which operate across ethnic and geographic boundaries — features which may be reflections of universal language properties. These "universals" then interact with specific features from native languages... to yield varieties of nonstandard English... associated with ethnically identifiable communities of speakers...

Thus, Indian English structures may be results of (a) direct L1 transfer, (b) internal reanalysis, sometimes motivated by L1 preferences, and (c) universal processes.

The interaction between these three constraints can be observed especially well in such categories as AUX, as the example of uninflected BE demonstrates. Southwestern Indian languages do not have auxiliary verbs as such but certainly share the universal category of AUX. Steele (1978) has noted that the assumption that AUX is verb-like in all languages may not always be safe. In Apachean, as illustrated in (20), propositional qualifiers like mode/aspectual elements take on the role of auxiliary verbs. In AE productions, indirect L1 AUX constraints seem to surface. This phenomenon, however, cannot be seen in terms of a transfer of certain grammatical structures but as a transfer of semantic notions concerning the nature of states and actions. In traditional Apachean culture, time is viewed not in linear but in cyclical terms based on repetition and predictability of occurring events. Thus, daily activities are scheduled to follow the sun's movements, and it is the repetition of these activities which creates a balance and sense of order. Consequently, tense which reflects linear time such as in Indo-European languages

is of less importance than the type of action, whether it is momentaneous, progressing, continuing, customary, etc.

Several of the modes and aspects in Apachean languages discussed in (7)—(15) express the cyclical nature of Apachean temporality. For example as noted in (11) the usitative mode denotes habituality in performing an act. When this meaning is transferred to AE, the tense sequencing in narrative technique seems to be a manipulation of English tense markers in order to reflect an Apachean sense of temporality. The semantics of the usitative mode surfaces in AE in the use of the English present tense for past contexts:

(32) I *was* working *in* the store this summer.
While working at the store, I *met* many
people ... Always I *have* to put in gas
for the people. Also I *have* to stack
things on the shelf. Every day after
work I *have* to sweep the floor and clean
the counter.

The past tense forms and the reference to *this summer* in the first part of the narrative clearly indicate past context; however, this Navajo L1 speaker shifts to the present tense to describe habitual performances.

Another use of the English simple present tense refers to the Apachean imperfective mode as in (7) which indicates that the action is incomplete but in the process of being completed:

(33) I hope you *have* a good Christmas out there. As for our part, all of us families *have* good Christmas. But no white Christmas though.

The use of the present tense form *have* is an expression of the idea that the celebration of Christmas was not quite over at the time of the production of this text. Therefore, the use of the past tense would have seemed inappropriate to an Apachean L1 speaker thinking in terms of imperfective modality.

An example of interaction between L1 transfer and L2 reanalysis can be seen in

(34) As I *was* a small baby ... my mother *used* to fed me. My grandmother *is* the main one that raise me. When they *go* somewhere they *used* to carry me around. Then when I *got* to be a year old then they *take* me to a hospital and I *stayed* in for a year. Finally they *took* me out of hospital and they *took* me home. There at home I *get* into everything. I *used* to make a big mess. And my mother *used* to get after me.

The first shift in tense occurs in the third sentence of this text. However, it is not due to a transfer of an L1 mode or aspect. Instead, a nonstandard English constraint seems to be at play. In the mind of the speaker, the reference

to past time in this sentence indicates that the grandmother is still alive, while reference to past time might imply that she is dead. A native English speaker would, in fact, resort most likely to the same kind of nonstandard tense usage. On the other hand, the omission of *-d* in *raise* seems to be phonologically based (lack of consonants or consonant clusters in word final position in Apachean, see p. 185); nevertheless, past time seems to be implied. Yet, in the fourth sentence the use of the present in *go* is non-native and refers to an action which was performed habitually, hence the transfer of the usitative mode. This same process can also be seen in th sentence 'There at home I *get* into everything' in which the shift in tense is used to separate the action from the others in the narrative sequence to emphasize its habitual performance.

Independent support for the interaction of constraints described above comes from Wolfram's (1984) study on unmarked tense in English productions of Pueblons. He found the use of present tense (unmarked tense) to be heavily favored in habitual contexts as if habituality is preserved to some extent in the unmarking of tense. In addition, phonological constraints such as the reduction of word final clusters in L1, and L2 contraints such as the use of the historical present are also responsible for the unmarking of tense, according to Wolfram.

The third constraint — universal language processes — can also be detected in the AUX structures of AE. One of the most promising directions of research on universal processes is Bickerton's (1981) concept of a bioprogram which seems to surface in creolization and L1 acquisition and which also seems to play a role in L2 acquisition, according to Huebner (1985). The bioprogram refers to a theorized innate blueprint for human language which includes the capacity for sentential complementation, for making a specific/nonspecific distinction, and for developing an AUX which includes a state/process distinction and punctual/nonpunctual distinction. Bickerton (1981:4) claims to see evidence of a bioprogram of human language primarily in those situations of language contact in which continuity of language transmission has been severely affected, and he restricts his use of the word creole to refer to languages which

1) Arose out of a pidgin which had existed for more than a generation.
2) Arose in a population where not more than 20 percent were native speakers of the dominant language and where the remaining 80 percent was composed of diverse language groups.

This rather narrow definition eliminates a number of languages such as Tok Pisin and Réunion Creole which have traditionally been regarded as creoles. Ruled out would also be the countless other contact situations which have produced massive structural changes in various languages such as Middle

English. However, if the existence of a bioprogram is evident in situations as those defined by Bickerton and if parallels can be detected in L1 as well as L2 acquisition, then fragments of it should surface in other language contact situations as well. In fact, Mühlhüusler (1984) mentions that languages such as Papia Kristang share most of Bickerton's bioprogram features in spite of their not meeting his social conditions.

The American Southwest has never had the social conditions for the creation of ideal creolization models as those envisioned by Bickerton. However, geographic isolation of Indian reservations and a social distance between superstrate and substrate speakers have contributed to a definitely deficient transmission of the superstrate; while, the substrate, of course, continued to be present as a source of input. In Bickerton's definition of social conditions, on the other hand, both the superstrat and the substrate are restricted in availability. Until World War II, the percentage of superstrate speakers on Indian reservations was low and was comprised primarily of government officials, traders, teachers, public health personnel, etc. However, even in the three following decades when off-reservation contact became regular, the ancestral language remained the L1 for most Navajos and Western Apaches (Spolsky and Kari 1974). Thus several generations used a pidginized form of English before children in the mid 1970's began to nativize Indian English. Furthermore, this nativization has occured gradually rather than rapidly as in the classic creolization situation, since American Indians, in the Southwest at least, have been fortunate to be able to maintain communities which range from traditional cultural contexts to rather transitional ones. Therefore, the Indian English situation differs a great deal from the classic creole situation, and even though Indian English differs from the standard, it cannot be labeled a creole in the classic sense. Nevertheless, a number of structures in Apachean English, particularly AUX characteristics regarding tense and aspects, are puzzling when searched for in either the L1 or L2 but seem to make sense when seen as the result of universal processes activated by an innate bioprogram.

In regard to tense and aspect, the bioprogram makes, according to Bickerton's formulations, distinctions between state/nonstate and punctual/nonpunctual. In classic creoles, such as Guyanese, nonpast statives and past nonstatives form a single nonanterior category marked b zero verbal stem forms (Bickerton 1975). On the other hand, past statives are clearly marked and nonpast nonstatives are also marked by the attachment of a nonpunctual marker. The nonpunctual marker never attaches to statives because they are by nature already durative. Bickerton (1981:180) claims that:

> nonpunctuals rather than punctuals are marked because, from a pragmatic viewpoint, nonpunctuals represent the marked case in a Jakobsonian sense: in the real world more actions are punctual than nonpunctual; punctual actions constitute the background against which nonpunctual actions stand out.

Also, on the discourse level, nonpast statives and past nonstatives form a single nonanterior tense with zero verbal stem form since neither one antedates the main topic under discussion.

In AE unmarked verb forms referring to past contexts are not always the result of L1 constraints as discussed in (32) but may reflect cognitive strategies making use of universal processes such as those available through the bioprogram. For example, the zero verb form in AE

(35) The next day we all *gather* in the auditorium

could be attributed to the infrequent cocurrence of final consonant clusters in L1. While that may be a viable explanation for the omission of final —(*e*)*d* past tense markers in regular verb forms, the situation gets bit more complicated in AE productions such as the following:

(36) Borrowing money and *give* it to them because they *help* her a lot when she *was* sick.

First, the zero form of the irregular verb *give* cannot be explained on the grounds of L1 phonological transfer as the zero form in *help* might be. Second, the occurrence of the past form *was* casts some doubts on the possibility of a semantic transfer of the usitative mode or the imperfective mode as in (32)—(34). What seems to be in order is not an interpretation of (36) based on L1 constraints but an appeal to universal processes independent of L1 which emerge when access to the superstrate is limited.

If the stative/constative distinction of the bioprogram is applied to productions such as (36), a pattern begins to emerge. The zero form verbs *give* and *help* can be classified semantically as nonstatives referring to past time and belonging to the unmarked nonanterior tense. The past form verbs *was*, on the other hand, can be classified as a stative in a durative context referring to past time and thus belonging to the marked anterior tense. Incidentally, it must be emphasized that the stative/nonstative distinction is a semantic one and depends not on the dictionary entry of the lexical item but on the proposition in which the lexical item is used. The following examples from Guyanese illustrate this point (Bickerton 1975:30):

(37) tu an tu mek fo — two and two make four
(38) dem mek i stap — they made him stop

While (37) would be considered a stativ e,(38) would be regarded as nonstative, even though the distinction applies to the same lexical item *mek*.

The punctual/nonpunctual distinction is dependent upon the state/nonstate distinction since nonpunctuals interact with nonstatives by attaching aspectual markers reflecting continuative, iterative or habitual contexts to

them. In many Anglo-creoles *-ing* serves as the nonpunctual marker often without copula as in Guyanese (Bickerton 1975:76):

(39) de *bilin* di bilding — they are building the building

Similarly, *-ing* without copula generalizing especially to habitual contexts can be seen quite frequently in AE production such as

(40) I live by the beliefs that *coming* from both the Navajo culture and christianity
(41) and sometime my sister *leaving* a pie or *leaving* a cake in there

While an interpretation of (40) and (41) based on L1 contraints of the Apachean progressive mode as illustrated in (10) might be possible (Bartelt 1983), it might be equally valid to assume that the universal category of nonpunctual has emerged as an *-ing* marker attached to nonstatives which appear to be of an iterative nature.

The stative/nonstative and punctual/nonpunctual paradigms in AE can be represented in the following manner (Bartelt 1986):

(42) $[-\text{anterior}] \rightarrow \emptyset \;/\; \left\{ \begin{bmatrix} +\text{stative} \\ -\text{past} \end{bmatrix} \begin{bmatrix} -\text{stative} \\ +\text{past} \end{bmatrix} \right\}$

(43) $[+\text{anterior}] \rightarrow was \;/\; \begin{bmatrix} +\text{stative} \\ +\text{past} \end{bmatrix}$

(44) $[-\text{punctual}] \rightarrow \text{-}ing \;/\; \begin{bmatrix} -\text{stative} \\ -\text{past} \end{bmatrix}$

The choice of *was* in (43) should be qualified somewhat. Actually, it is not necessarily the only marker for past statives in AE; however, it seems to occur quite frequently, as also reported in Cook (1982:241)

(45) He *was go* to the trading post (Apache)
(46) I *was play* with my brother (Navajo)

Cook's (1982:24) analysis does give a hint in regard to a possible underlying pattern of the use of was:

> "A characteristic tense formation among these speakers is the use of *was* plus the simple form of the verb, as in "was go" for "was going." More frequently than not, however, the form "was going" is not the correct tense but should have been the simple past form "went." It is possible that *was*, for some linguistic reason, is being used as a past marker".

The reason when seen from the stative/nonstative distinction perspective becomes clear: *was* functions as a marker of past statives much the same way that *bin* takes that role in Anglo-creoles such as Guyanese (Bickerton 1975 - 35):

(47) dem *bin* gat wan lil haus — they had a little house

In any case, the point is that universal processes seem to be available also in language contact situations other than classic creoles, because some disruption of language transmission (even self-imposed! see Schuman 1976) is invariably present.

In conclusion, this paper has suggested that the processes of L1 transfer, L2 reanalysis and the emergence of universals reveal not only the opportunistic nature of interlingual systems but also the very efficient use of what amounts to the same cognitive process, namely a reliance on prior knowledge, for all three constraints. This strategy of using the known to get to the unknown is most obvious in L1 transfer, especially on the phonological level, as AE and countless other language contact situations have shown. Thus, in AE one of the salient phonological characteristics is the use of glottal stops in word final position, since by analogy they are the closest to English consonant clusters in syllable final position. Similarly, the occurrence of (S)OV sentence order in AE reflects the prior knowledge of such priorities in Apachean. On the semantic level, in this case the use of unmarked verb stems for tense and aspect, the L1 represents only one of several possible sets of prior knowledge, as in the transfer of the Apachean usitative mode in order to preserve habitual contexts. In addition, two other sources of prior knowledge are tapped to resolve linguistic problems. L2 reanalysis, such as the extension of natural English potentials, is due to the bilingual's efforts toward code regularization which is carried out by over-generalization. In other words, the bilingual, in attempting to arrive at a logical or "natural" system, regularizes the input by using only certain features critically and ignoring others and thus overgeneralizes for the purposes of creating associations with previous knowledge. Finally, the access to such paradigms as anterior/nonanterior is only possible if universal processes, such as the state/nonstate and punctual/nonpunctual distinctions are postulated to exist as innate knowledge available to all humans when language transmission is affected. Strong indications for the existence of such innate knowledge also come from L1 acquisition (Bickerton 1981). In fact, if it is theorized that processing can only take place by comparing input to previously accumulated structures, then the presence of a bacic innate structure or bluerint becomes a necessary assumption. In short, AE shows the opportunism (Dechert 1983) so characteristic of dynamic systems by letting various constraints interact and selecting the one which is perceived to be the most efficient for doing

a particular job with a minimum of effort but which is part of the common underlying strategy of proceeding from the known to the unknown following a process of association and generalization.

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