

The Interaction of Declarative & Procedural
Memory in the Process of Creolization: The
Case of the Sierra Leone Krio

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Cognitive Models of Memory & the Nature of Second Language Acquisition



- ❧ Paper explores view of creolization as process of second language acquisition and explains notion of Creole genesis within framework of models of declarative and procedural memory.
- ❧ Declarative/Procedural (DP) Model: Interaction of 2 independent brain memory systems in language development & use.
- ❧ Declarative memory system is specialized for learning and storing arbitrarily related information (Ullman 2001, 2005) and governs a memorized mental lexicon (i.e. the vocabulary system). This memory is sometimes referred to as explicit or conscious knowledge and is acquired consciously.

Cognitive Models of Memory & the Nature of Second Language Acquisition



- ❧ Procedural memory system: Exists in tacit form & mostly concealed from conscious awareness (Litman & Reber 2005), & is activated in acquisition of cognitive skills (including linguistic) through practice and experience.
- ❧ It specializes in acquisition of rule-governed & systematic aspects of language, including grammatical rules and constraints that generate morphological transformations, complex words, phrases, and sentences in a language.
- ❧ Sometimes referred to as implicit memory and involves the efficient and automated processing of information (Anderson 1980; Gupta & Dell 1999; Litman & Reber 2005; Ullman 2001, 2004, 2005).

The DP Model, Cross-Linguistic Influence & Process of 2nd Language Acquisition



- ❧ Procedural memory becomes less efficient with age; acquisition of L2 procedural memory becomes more challenging. Adults become reliant on L1 procedural memory and compute complex L2 grammatical forms consciously using L1 procedural memory.
- ❧ Anderson (1980): L1 cognitive knowledge influences L2 cognitive knowledge negatively when procedural memory systems are directly incompatible (when a skill is placed in direct conflict with a well-engraved old skill" (247)). Negative transfer "can be quite significant".
- ❧ Paradis (2009, 134): "A small system of artificial grammar rules may be syntactically instantiated ... in a way that strongly resembles native-like sentence processing.

Pidginization & Creolization as Processes of Second Language Acquisition (SLA)



- ❧ Enslaved Africans were adult native speakers of Substrate West African languages (primarily Kwa family) with minimal or no grammatical competence in English and usually placed in linguistically diverse groups and prohibited from using native languages in effort to quell conspiracies to rebel or escape. See Arends (1993) Mather (2006), Myers-Scotton (2002) & Siegel (1999) for details.
- ❧ Evidence of systematic morpho-syntactic parallels in substrate & Creole languages as well as the social contexts of creolization and adult L2 acquisition.
- ❧ Adult non-native speakers were predominant users of emergent Creoles and transferred features of substrate languages into Creoles over multiple generations.

Pidginization & Creolization as Processes of Second Language Acquisition (SLA)



- ❧ Pidginization/creolization & SLA start with limited input and limited output, which generally involves simplification of input received from target language.
- ❧ Pidginized grammar is initially developed primarily from declarative memory of properties of target language.
- ❧ Simplified input is inadequate to serve communicative needs of users.
- ❧ Expansion of initial grammar is triggered in part by linguistic resources available through knowledge or memories of previously learned languages.
- ❧ That is, linguistic memory from L1 or substrate languages is transferred and utilized in attempts to become more expressive in the target language.

Substrate Influence: The Case of the Sierra Leone Krio



- ❧ Opala (1987): Enslaved people and descendants developed pidgin in plantations in American South East which later became Gullah Creole – mixture of English (vocabulary) and West African languages (structure, pronunciation & intonation, and idiomatic expressions.
- ❧ Huber (1999, 2000): Creole brought by Jamaican Maroons in 1796 had significant input into what evolved into present-day Krio.
- ❧ Re-captives from intercepted slave ships along West African coast were resettled in Freetown peninsula. They brought along a variety of West African languages, with Yoruba being the most influential. Yoruba is second to English as largest contributor to Krio lexicon.

Procedural Memory & Transfer of Substrate Lexical Properties in Exocentric Compounds: The Case of Krio

- ❧ Procedural memory of complex lexical concepts developed in substrate L1 were transferred into Krio
- ❧ Igbo: *anya uku* (eye + big) 'greed' Krio: *big yay* (big + eye) 'greed'
- ❧ Yoruba: *ehnu didu* (mouth + sweet) 'persuasiveness'
- ❧ Ga: *na mo* (sweet + mouth) 'flattery'
- ❧ Twi: *ano yehdeh* (mouth + sweet) 'flattery'
- ❧ Krio: *swit mot* (sweet + mouth) 'persuasiveness'
- ❧ Krio: *swit yay* (sweet + eye) 'womanizing'
- ❧ Krio: *swit pis* (sweet + urine) 'diabetes'
- ❧ Kikongo: *kanga ntima* (tie + heart) 'adamant'
- ❧ Krio: *tranga at* (strong + heart) 'adamant'
- ❧ Krio: *big-at* (big + heart) 'proud'; *bad at* (bad + heart) 'envy'

Procedural Memory & Transfer of Substrate Morpho-Syntactic Properties in Creoles: Focused (Cleft) Constructions

- ❧ Nominal Clefting: Use of complementizer is optional in English but prohibited in Creoles and substrate languages.
- ❧ English: It was John (whom/that) we saw
- ❧ *Krio*: na ʒɔn wi bin si
- ❧ *na ʒɔn we wi bin si
- ❧ It-is John we PAST see
- ❧ ‘It was John (whom/that) we saw’
- ❧ *Sranan* (Alleyne 1980)
- ❧ a so a pisi tori kom kaba
- ❧ It-is so the piece of story come finish
- ❧ “So the story ends”

Focused (Cleft) Constructions (Nominal Clefting): Substrate Languages



❧ *Twi* (Alleyne 1980)

❧ kwadwo na ɔ baa ha

❧ Kwadwo it was came here

❧ 'It was Kwadwo who came here'

❧ *Yoruba* (Holm 1988)

❧ aso ni mo ra

❧ cloth it was I bought

❧ 'It was cloth that I bought'

Focused (Cleft) Constructions (Wh-Interrogatives): Creoles



- ❧ Overt complementizer is prohibited. Not allowed in English but productive in Atlantic Creoles and substrate languages:
- ❧ *Krio*
- ❧ na wetin den de du
- ❧ It-is what they PROG do
- ❧ ‘What are they really doing?’
- ❧ *Jamaican Creole (Alleyne 1980)*
- ❧ mi no nuo a we im go
- ❧ “I don’t know (it is) it is where he has gone”
- ❧ *Guyanese Creole (Alleyne 1980)*
- ❧ a wisaid dem da lib naw
- ❧ It-s which-side they Prog live now (“Where do they live now”)

Focused (Cleft) Constructions (Wh-Interrogatives): Substrate Languages



❧ ***Twɪ* (Alleyne 1980)**

❧ hae na o huu o

❧ whom it-is he saw him

❧ ‘Whom did he see?’

❧ ***Yoruba* (Alleyne 1980)**

❧ ti taa ni

❧ for who it-is

❧ ‘Whose...?’

Predicate Clefting (Focused Constituent is Verbal or Adjectival Predicate): Creoles



↻ Overt COMP is prohibited. Focused constituent is both fronted and copied in original position. Productive in creoles and substrate languages. Not allowed in English.

↻ *Krio*

↻ na waka nɔmɔ wi bin de waka

↻ it-is walk only we PAST PROG waka

↻ 'We were only walking around'

↻ *Jamaican Creole (Alleyne 1980)*

↻ a wan ple mi bin ple

↻ It-is one play I Past play ("I really played")

↻ *Sranan (Alleyne 1980)*

↻ a soso pley mi ben pley

↻ It-is mere play I Past play ("I merely played")

Predicate Clefting (Focused Constituent is Verbal or Adjectival Predicate: Substrate)



☞ *Yoruba* (Alleyne 1980)

☞ mi mu ni won mu mi
☞ me take it-is they took me

☞ 'They actually arrested me'

☞ *Twi* (Alleyne 1980)

☞ hwe na kwasi hwe ase
☞ fall it-is Kwasi fell down

☞ 'Kwasi actually fell'

☞ *Nupe* (Allsopp 1976)

☞ wuwu a wu wun o
☞ kill-kill they kill + emphatic terminal

☞ 'He was definitely killed'

Verb Serialization: Creoles



- ❧ One syntactic subject & series of lexical verbs not linked by overt conjunction or complementizer. One verb does not serve as auxiliary or infinitival complement to other verbs in series.
- ❧ *Krio*
- ❧ i bai klos gi im pikin
- ❧ he buy clothes give his child
- ❧ 'He bought some clothes which he gave to his child'
- ❧ *Jamaican Creole (Alleyne 1980)*
- ❧ im tak naif kot me
- ❧ he took knife cut me ("He cut me with a knife.)
- ❧ *Saramaccan (Alleyne 1980)*
- ❧ de suti en kii
- ❧ they shot him killed ("The shot him to death")

Verb Serialization: Substrate



☞ *Yoruba* (George 1975)

☞ ajao ra epa je

☞ Ajao bought peanuts ate (Ajao bought peanuts & ate them')

☞ *Nupe* (George 1975)

☞ tsoda gi je afunin

☞ Tsoda ate food full ('Tsoda ate and he is full')

☞ *Akan* (Schachter 1974)

☞ kofi yεε adwuma wiee

☞ Kofi did work finished ('Kofi finished working')

☞ *Ewe* (Lord 1973)

☞ e no tsi ku

☞ he drank water died ('He drowned')

Sentential Complementizer /se/: Homophonous with Lexical Verb Meaning *say* but also functions as Sentential Complementizer



- ❧ *say* is used marginally as sentential COMP in few non-standard English dialects. Fundamental differences between English *that* and Creole *se*. Can be stranded when verbal/adjective complement is questioned and obligatorily overt in Creoles. Not so in English.
- ❧ *Krio (se stranded)*
- ❧ *wetin yu memba se (what you think that)*
- ❧ ‘What did you think?’
- ❧ *wetin i laikli se (what it-is likely that)*
- ❧ ‘What is likely?’
- ❧ *Jamaican Creole (se stranded) (Joseph Farquharson “CreoleTalk”)*
- ❧ *a we yu plan se? (“What kind of planning is that?”)*
- ❧ *a we yu a rait se (“What kind of writing is that?”)*

Sentential Complementizer /se/:


Creoles: Obligatorily Overt



- ❧ *English*: John told me (that) Fred broke his leg. I thought (that) they won the lottery
- ❧ *Krio*
- ❧ a tɛl am se yu dɔn go na os (*a tɛl am yu dɔn go na os)
- ❧ I tell him that you Perf go Loc house ('I told him (that) you've gone home')
- ❧ *Jamaican Creole* (Alleyne 1980)
- ❧ i fieba sɛ ... ("It seems that ...")
- ❧ a how sɛ yu no nuo im? ("How (is it) that you don't know him?")
- ❧ *Bislama* (Gerry Beimers "CreoleTalk").
- ❧ Peter I talem long mi se hem I gat sam watu ("Peter told me that he had some money")
- ❧ Hem i promis se tumora ("She promised that it will be tomorrow")

Sentential Complementizer /se/:

Substrate



❧ *Twi* (Lord 1993)

❧ εye nokware se wo yare

❧ it-be fact that they be-ill ('It is a fact that they are ill')

❧ *Ewe* (Alleyne 1980)

❧ Kofi wo susu be ye a yi ape

❧ Kofi made up his mind say/that he go home

❧ *Ga* (Lord 1993)

❧ tete le ake aye tsu nii le

❧ Tete know say Ayi work thing the ('Tete knows that Ayi did the work')

❧ *Yoruba* (Lord 1973)

❧ o so kpe ade lo

❧ He say (say) Ade go ("He said that Ade went")

Concluding Remarks



- ❧ Declarative/Procedural Model of Memory to account for incorporation of linguistic features of West African substrate languages in Creoles (including the Sierra Leone Krio). New, and for the most part complex, linguistic information was transferred from substrate languages and integrated into the emergent and later Creoles conditioning a restructuring and reorganization of the linguistic system until this knowledge became more subconscious and automated with practice and experience (i.e. procedural memory).
- ❧ *THANK YOU (AKWAABA)*

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