

Pidgin Genesis and Optimality Theory

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A source of evidence for synchronic constraints of grammar: pidgins

Pidgin genesis “reverses” the diachronic processes that are often appealed to in explaining typological distributions. Yet pidgins reveal massive evidence of the emergence of the unmarked.

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An objection to the conception of OT advanced here:

Much of the grammatical structure found in existing languages is the conventionalized residue of external pressures on historical change, which are no longer active synchronically. Present-day speakers have no knowledge of typology, nor of the external pressures that have affected typological distributions—and their mentally represented grammars reflect this.

The burden of explaining the recurrent syntactic effects of markedness on languages should therefore be shifted from synchronic grammar to diachrony: In the case of reduced pronouns, such as clitics and pronominal inflections, we know that they arise from specific paths of historical change and grammaticalization, in which grammar-external pragmatic factors such as topic continuity play a role (Givón 1976). Why then should we assume the presence of the same kinds of constraints internal to synchronic grammars?

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Pronouns in pidgins

—arise in certain contact situations as a conventionalized basic means of communication between groups of adult speakers of different vernacular languages (Thomason 1997).

—In one widely popularized view (Bickerton 1981, Pinker 1994) pidgins are heavily depreciated as linguistic systems because of their variance across speakers and lack of consistency. Yet stable pidgins belie this stereotype (Mithläusler 1986, Siegel 1986).

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—Crosslinguistically, pidgins have a diversity of structural forms often including some unusual or marked structures from their source languages, as well as recurring universal properties, such as the preponderance of analytic syntax, CV syllable structure, and generic lexical semantics (Thomason and Kaufmann 1988, Foley 1988, Holm 1989, Bakker 1995). *In particular, there is a vast prevalence of free pronouns in pidgins.*

“Pidgins prefer free pronoun forms to bound ones.”

—Mithlähüslar and Harré (1990: 262)

Why should this be?

Hypothesis I: Pidgin pronouns resemble those of the language that provides most of their lexicon (their lexifier).

—many of the languages which provide the lexicons of well-known pidgins are European, arising from European exploration, missionary settlement, trade, colonization, plantation agriculture, commercial whaling expeditions, and the like.

Example: the English-lexifier pidgin of New Guinea, Tok Pisin, employs freestanding pronouns, because English employs free pronouns.

The syntax of Ndyuka-Trio Pidgin, a contact language of Suriname used by the Ndyuka (a “Bushnegro” society) and the Trio Indians, closely follows that of the indigenous Indian language, while the larger part of its lexicon, including its freestanding pronouns, comes from the Ndyuka’s language, which is an English-lexifier creole (Huttar and Velantie 1996).

Pidgins with bound-pronominal lexifier languages:

Pidgin	Lexifier	Other source languages
Yimas Pidgin	Yimas (Papuan)	Aratundi, Alamblak, other Papuan
Broken Oghibweya (early 19th c.)	Ojibwe (Algonquian)	Wisconsin Amerindian, English, French
Mobilian Jargon (late 17th to 20th c.)	Choctaw, Chickasaw (Muskogean)	S.E. Amerindian
Hiri Motu	Motu (Austronesian)	Papuan, Austronesian, English, Melanesian
Eskimo Pidgin	W. Greenlandic	Danish, English, French, Russian
Chinook Jargon (19th and 20th c.)	Chinook, Nootka (Chinookan, Wakashan)	N.W. Coast Amerindian, English, French
Pidgin Delaware (17th c.)	Unami Delaware (E. Algonquian)	Dutch
Pidgin Hawaiian (late 18th to early 20th c.)	Hawaiian	English, Portuguese, German, Cantonese

All of these indigenous-lexifier pidgins have free pronouns.

An example from Mobilian Jargon compared to its lexifier Choctaw, spoken in the Southeastern United States (Drechsel 1997: 300):

Mobilian Jargon:	Choctaw:
‘I want water./I am thirsty.’	‘I am thirsty.’
<i>oka eno banna</i>	<i>oka sa-banna-h</i>
water I want	water 1SG-want-PREDICATIVE

Mobilian Jargon uses freestanding syntactic pronouns where Choctaw uses bound pronominals.

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Compare Pidgin Hawaiian with its Hawaiian lexifier. The possessive pronominals of Hawaiian can occur either postnominally as analytic pronouns or prenominally, bound to the definite article. These pronouns express alienable/inalienable distinctions through the thematic vowel *o/a*. In Pidgin Hawaiian, however, only the freestanding pronoun occurs in possessives, and it lacks case or alienable/inalienable distinctions.

Pidgin Hawaiian: 'your hat'	Hawaiian:
<i>kela papale oe</i>	<i>ka pa:pale a:u</i>
DEF hat you	DEF hat ALIENABLE.you.POSS
	<i>k-a:u</i>
	DEF-ALIENABLE.you.POSS hat

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Hypothesis II (formalist version): Free pronouns represent the default parameter setting of Universal Grammar, which characterizes the initial state of the language learner. Stable pidgins have free pronouns because they reflect the initial state of the language learner.

Hypothesis II (functionalist version): Free pronouns are unmarked pronominal forms crosslinguistically. The isolating, analytic, uniform syntactic structures of pidgins can be explained in terms of their extreme syntactic unmarkedness, which facilitates learning.

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Further, languages with bound pronominals have the typological property that their (strong) free pronouns appear to be specialized for focus uses (Schwartz 1986, Bresnan and Mchombo 1987, and references). But pidgins based on such languages employ the free pronouns of the lexifier in the contexts where bound pronouns would be used.

Compare Yimas Pidgin with its lexifier Yimas, a Papuan language of New Guinea (Foley 1988: 171):

Yimas Pidgin: 'I hit him'	Yimas:
<i>Ana min namban kratiki-nan.</i>	<i>Na-ka-tupul.</i>
1SG 3SG toward hit-NONFUT	3SGO-1SGS-hit

In Yimas Pidgin free subject and object pronouns are used where bound pronominals are used in Yimas. Note that the Yimas Pidgin pronouns are cognate with Yimas *ana* (1SG) and *m-n* (3 NEAR DISTAL DELICTIC). In relation to the bound pronominal forms, these free forms are used 'contrastively' in Yimas, according to (Foley 1991: 112).

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Hypothesis II is rebutted by Thomason and Kaufman (1988: ch. 7), who show that pidgins may contain highly marked (typologically unusual) structures in their phonology, morphology, and syntax; see also Bakker (1995), Foley (1988), and Thomason (ed.) (1996).

Bound pronominal subjects in Broken Oghibwey, and bound pronominal objects and possessors in Central Hiri Motu are examples of such marked morphosyntactic structures:

Broken Oghibwey: 'He fears me.'	Ojibwe:
<i>O-kot-dan</i>	<i>niin.</i>
3SG.AN-fear-3.INAN 1SG	<i>Ni-gos-ig</i>
	1SG-fear-INV.3SG.SUBJ

Non-central and

Central Hiri Motu: 'I see you'	Central Hiri Motu:	Motu:
<i>lau itaia oi</i>	<i>lau ita-mu</i>	<i>na ita-mu</i>
I see you	I see-you	I see-you

There is also a conceptual problem faced by universalist approaches to pidgin genesis: to explicate how it is that universals (whether represented by default parameter settings or unmarked structures) enter into pidginization.

How do universalist characterizations of the initial state in language learning apply to pidgin genesis at all?

“Pidgin languages by definition have no native speakers. . . .”

—Mühlhäusler (1986: 5)

The creators of pidgins are adult speakers of the contact languages who have already acquired fully elaborated vernacular languages. In creating the pidgin they need never be in the initial state of the language learner. As Thomason and Kaufman (1985: 172–173) argue, pidgin genesis cannot always be modelled as acquisition of a target language by a learner given restricted input (the plantation pidgin model). Sometimes there is only a process of negotiating a compromise language for restricted purposes of communication between groups of speakers of different languages, none of which is in any sense a “target language”.

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Hypothesis III: Free pronouns are prevalent in pidgins because pidgin genesis begins with a process of simplification in which speakers accommodate their interlocutors by eliminating marked types of forms from their language which are not shared by their interlocutors’ language. Free pronouns are simpler (less marked) than bound pronouns. However, pidgins arising from typologically close contact languages sharing many marked structures may retain bound pronouns. (Thomason and Kaufman 1998: 256ff)

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—Broken Oghibwey, used in the early nineteenth century by several Indian tribes in Wisconsin in their dealings with traders and people of mixed blood. Pronominal verbal morphology is a shared feature of the Indian source languages (Nichols 1995).

—the Central dialect of Hiri Motu, surrounded by languages related to Motu, shares more features of Motu; the Non-central dialect, surrounded by languages unrelated to Motu, shares fewer features of Motu.

—Yimas Pidgin based on Papuan contact languages such as Yimas, Aratundi, and Alambak (Williams 1993). Though typologically similar in having bound pronominal systems, Yimas bound pronouns are prefixed to the verb stem, while Aratundi bound pronouns are suffixed (Foley n.d.). This morphological difference could pose an analytic difficulty for comprehension in interlingual communication, which the pidgin avoids with freestanding pronouns.

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Problem for Hypothesis III: it rests on a theory of simplification which is not provided. It simply takes knowledge of how to simplify one’s language by eliminating marked structures to be a necessary precondition for pidgin genesis.

Yet in most current linguistic theories the grammar of a language is a tightly interconnected system specified with an elaborate network of formal dependencies referencing hidden structure and covert categories. How is it possible formally to target a specific marked structure for elimination? A related question is, How can marked structures be distinguished from universally unmarked structures in the adult grammar? Relative markedness of structures is revealed by asymmetries found in their frequencies of occurrence across languages (Greenberg 1966). How can such knowledge be accessed in the grammar of an individual adult under this model?

Markedness reduction by constraint demotion

Initial State (Smolensky 1996a,b):

MARK \gg FAITH

(Being marked is worse than failing to preserve contrasts. In order to minimize violations, the marked forms will be avoided in favor of unmarked forms, regardless of the input.)

The OT model incorporates Haiman's (1985) theory that pidgins utilize highly unmarked structures characterized by iconicity and the avoidance of allotaxy. However, it does not assume that the creator of a pidgin must start from the initial state of language learning in which all markedness constraints dominate faithfulness constraints.

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The creators of a pidgin can work from their own grammars by simplification and accommodation, as proposed by Thomason and Kaufman (1988). Simplification can be modelled as a process in which speakers eliminate marked features of their language by re-ranking low-ranked markedness constraints above the individual faithfulness constraints that conflict with them. Knowledge of the initial state is not necessary for this process. All that is needed is the current ranking of the speaker's own grammar, and the ability to identify the conflicting markedness and faithfulness constraints in that grammar.

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For example, the highest ranked constraint that favors the marked Bound pronominal over the next-best competitor, Free, is FAITH(TOP). If FAITH(TOP) is demoted, the Bound pronominal is eliminated from the inventory in favor of the less marked Free pronominal:

Ranking eliminating a bound pronominal

Input [PRO, TOP, P/N]	*Zero	*BOUND	FAITH(TOP)
Zero: [PRO, TOP]	*!		
Bound: [PRO, TOP, P/N]		*!	
\Rightarrow Free: [PRO, P/N]			*

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Reranking individual markedness constraints above the corresponding faithfulness constraints in conflict with them in this way has the effect of removing the marked pronominal forms from the pronominal inventory. The constraints targeted for reranking are those which mark types of forms that are not understood or not easily learned by the interlocutors because they are not in the inventory of their language. These constraints are easily identifiable because of the output-oriented nature of OT constraints, together with a surface-oriented theory of syntactic structure, such as that of LFG and similar constraint-based frameworks, in which each local piece of morphology or syntax monotonically adds information that characterizes the global feature-structure.

As more and more markedness constraints are reranked by this process above the faithfulness constraints that conflict with them, the initial state of the language learner hypothesized by Prince and Smolensky (see Smolensky 1996a,b) is approached. In this state the grammar produces only maximally unmarked forms common to all languages.

21 —This theory does not assume that developers of pidgins have knowledge of the relative frequencies of occurrence of structures across languages. They need only have knowledge of their own particular grammar. Language particularity (insofar as it systematic) resides only in the ranking of the substantive universal constraints shared by all languages, which is used to optimize the structures in the typological space available to all languages. By the OT logic of markedness (Smolensky 1996b), demotion of faithfulness constraints below their corresponding markedness constraints guarantees convergence of grammars toward the maximally unmarked structures of the initial state.

—Finally, when the contact languages are typologically very close, they will share a greater number of marked structure types, and fewer constraint demotions will be required to attain a mutually comprehended medium of communication. Hence the presence of marked pronominal structures in pidgins having typologically close source languages is also predicted.

22 —This theory does not presuppose direct access to the initial state of the language learner by the adult. Convergence toward the initial state from the adult state by means of constraint reranking is possible in OT because the same universal constraints are already present in every particular language. The grammar of a language having a highly marked inventory of pronominal forms has exactly the same constraints as the grammar of a language having only the unmarked forms: what differs are the relative *rankings* of constraints. Markedness of output forms can be reduced by noticing ‘difficult’ or unsuccessfully comprehended forms and, on the basis of the ‘marks’ (the patterns of constraint violations) assigned to the flagged output forms, demoting the constraints that favor them over competitors.

23 Unmarked forms are present in every language. Even when marked forms are optimal, unmarked variants are latent in the grammar, waiting to emerge in contexts where faithfulness to input contrasts (which favors marked forms) is overridden. The creators of a pidgin can exploit this latent availability of unmarked forms in their own grammars. Pidgins reveal a massive emergence of the unmarked.

Conclusion

24 Note:
The process of markedness reduction proposed here does *not* require reversing the process of first language acquisition or remembering the learner’s own acquisition history. In the course of first-language acquisition, a speaker may have gone through many rerankings, moving the same constraints up and down again as various data are encountered and analyzed. In adult simplification there is no need to trace the same path in reverse, and it is highly unlikely that an adult speaker would do so, since the sequence of data encountered is different. It is the results of the markedness reduction process that will bear resemblances to the hypothesized initial state, but the sequence of processes involved—in terms of reranking—need not be the same.

References:

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Work in progress:

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