

Language Contact, and Learning to Speak:
What Pidgins Can Tell Us about Second Language Learning

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1 Introduction

1.1 Defining the topic

Second language learning (hereafter abbreviated as SLL) refers to the process by which an individual learns to speak a language other than their native tongue. The native language is conventionally referred to as the L1, and the language to be learned as the L2.

For the purposes of this paper, a person who acquires more than one language simultaneously, as a child, can be said to have multiple “first languages”, or L1s. Similarly, a person can learn multiple languages as an adult and thus have multiple “second” languages, or L2s (Mitchell et al. 2013: 1-2). The words *first* and *second*, used in these contexts, have little to do with quantification. Instead, they sort the languages a person knows into two mutually exclusive categories, based on the developmental stage during which they were learned/acquired.

1.2 Learning versus acquisition

The study of SLL exists separately from that of first language acquisition for several compelling theoretical and empirical reasons. In many nativist accounts of language—accounts such as the theory of Universal Grammar, which will soon figure into the present paper—an L1 is *acquired*, whereas an L2 is *learned*. This difference in terminology, though subtle, in fact signals a crucial theoretical distinction.

First language acquisition (FLA) is a largely unconscious process. It proceeds at a rapid pace, and leads to virtually uniform success across a speech community: nearly all human beings, regardless of their individual variations in personality, motivation, and intelligence, will learn a first language to fluency (Mitchell et al 2013: 15). In contrast, second language learning is a far messier and more difficult affair. Human beings typically exert conscious effort as they

learn their L2; whereas native speakers do not learn a language by reading a textbook, many L2 learners do. What is more, there is a great degree of variation in learner outcomes in SLL. Unlike in FLA, language-external factors such as motivation exert a considerable influence over a learner's degree of success (Mitchell et al. 2013: 20-23).

The distinction between acquisition and learning is biologically grounded, in that acquisition is often thought to occur within a particular period of the human lifespan. This period is generally thought to begin at birth and last through early childhood (Mitchell et al. 2013: 12). This developmental timeline is evidenced by its predictions concerning the ease and degree of success with which an individual will acquire a language; that is, once early childhood has passed, language learning outcomes diverge considerably from the native speaker norm. Whereas children almost always learn a language to fluency, their adult counterparts may immerse themselves in the L2 environment for years and still remain with only a partial mastery of the target language (Mitchell et al. 2013: 15).

The developmental framework for the learning/acquisition divide is further supported by the fact that, across the globe, language acquisition in children occurs along a predictable timeline consisting of several well-ordered stages. Children, for example, typically begin to babble at 6 months, to produce one-word utterances at one year, and to produce word inflections at about two years, regardless of the particular language that they acquire (Aitchison 2008: 80).

1.3 Goal of the present discussion

The traditional model discussed above, which draws a clear distinction between learning and acquisition, is obviously highly useful. Nonetheless, it could benefit greatly from a more robust connection between the experiences of individual learners and the trends exhibited by

entire speech communities. In this paper, I will conduct my discussion within the basic framework of Universal Grammar (UG), a theory that supposes a strong biological basis for human language. I will then seek to relate this theory to several empirical phenomena associated with the birth and evolution of pidgin languages, and argue that the characteristics of these languages are critically related to the challenges faced by adults learning an L2.

Several nativist theories postulate that the specialized human instinct for language is most strongly expressed during FLA; SLL, in contrast, relies upon more general mechanisms of cognition, and is not necessarily an unconscious and specialized skill. In this paper, I will propose a *new* dichotomy in which FLA and SLL *both* express principles of UG, albeit in different ways. In order to do so, I will rely upon the work of Derek Bickerton, whose *language bioprogram hypothesis* (LBH) argues that the world's creoles share profound structural similarities which cannot be attributed to random chance alone, and must instead be caused by an innate mental architecture common to the entire human species (1984: 173). I will then demonstrate how this hypothesis is complemented by the work of Julia Rogers Herschensohn (2000: 57-60), who proposes a division between *UG Form*, the underlying knowledge that makes human language possible, and *UG Strategy*, the set of skills that enables children to acquire language with virtuosic speed and ease.

Each of these two components of UG—Form and Strategy—can be examined on a macroscopic scale by studying the life cycle of a pidgin language. I will argue that UG Form, which is retained past childhood and into adulthood (and therefore remains active during SLL), is expressed in the creation of pidgin languages—makeshift systems of communication that have no native speakers. In contrast, UG Strategy is expressed in the evolution of pidgins into creoles. Once children are given a pidgin as their primary linguistic input and begin to speak it as a native

tongue, their supreme competence in the realm of UG Strategy allows them to take the rudimentary form of the pidgin and develop it into a new language that is fully expressive and structurally complex.

Ultimately, this discussion will expand the conventional dichotomy of acquisition versus learning by relating the experiences of individual speakers to trends exhibited by entire speech communities. The characteristics of pidginization and L2 learning, rather than being studied in isolation, will now be described as common symptoms of UG Form. In similar fashion, the parallels between creolization and L1 acquisition will be explained in terms of UG Strategy.

One important consequence of this new framework is that it will necessitate an expansion of Bickerton's language bioprogram hypothesis: whereas Bickerton focuses upon creoles as exemplars of the innateness of language, I will propose that pidgins, too, provide critical insight into the underlying cognitive resources that make human language possible. Pidgins and creoles, then, must be treated as equally profitable objects of study.

2 Introducing Universal Grammar

2.1 Defining UG

Universal Grammar, at its core, supposes that human beings are born with innate knowledge of the structure of language. Although the many languages of the world are not mutually intelligible, and on the surface appear to be radically different, research conducted within the UG paradigm argues that, in terms of their underlying structure, all human languages are actually profoundly similar. What UG actually consists of—a body of knowledge, a genetically programmed skill, a particular section of the brain—may appear difficult to pin

down, but Noam Chomsky and Howard Lasnik (1995:14) provide the following very useful formulation:

We are concerned then, with [...] some array of cognitive traits and capacities, a particular component of the human mind/brain. The language faculty has an initial state, genetically determined; in the normal course of development it passes through a series of states in early childhood, reaching a relatively stable steady state that undergoes little subsequent change, apart from the lexicon. To a good first approximation, the initial state appears to be uniform for the species. [...] We call the theory [...] of the initial state *Universal Grammar* (UG).

The description above is fairly rich, and merits additional explication. First, UG is concerned with “a *particular component* of the mind/brain”; the theory posits that language cannot be explained by general mechanisms of problem solving and associative learning, but must exist as a specialized module in the mind. Secondly, the “initial state” of a child’s language faculty—that is, their innate knowledge of the underlying structure of language—is both “genetically determined” and “uniform for the species”. This means that UG, unlike other genetically coded traits such as height or eye color, is *not subject to variation* between individuals. This uniformity reinforces the idea that language exists as a specialized module of the mind; despite variations in personality and general intelligence, all people are born with the same innate linguistic knowledge—and all of them will, barring extreme circumstances, become fluent in a first language.

We must note that the discussion above applies specifically to FLA, meaning that we must expand the scope of Chomsky and Lasnik’s essay if we are to profitably apply theories of UG to L2 learning. Chomsky and Lasnik go out of their way to state that their proposed timeline

of development takes place *in early childhood*; we can therefore assume that the “series of states” refer to stages of L1 acquisition, and that the “stable steady state” refers to the accrued knowledge of a native speaker. After the L1 has been acquired, the only part of L1 knowledge that undergoes change in this model is the lexicon—that is, a speaker’s mental representation of all the vocabulary items in their language. The central computational rules of syntax, in contrast, are not subject to change. The UG model as it is formulated above, then, does not include SLL within its scope, forcing us to expand the theory on our own terms.

2.2 Defending the cognitive reality of UG

Before we go to the trouble of expanding the UG paradigm to the realm of SLL, we must ask ourselves: why keep UG around at all? To what extent is it a good theory, and what questions does it allow us to answer which are not accounted for in other models?

To investigate this line of thought, we will consider an alternative theory, one that states that knowledge of the underlying structure of language is not necessary to acquire it. We might then choose to account for language through associative learning: certain words tend to go next to other words, and we construct language by putting them in a sequence, in real time, one after the other. We might also supplement our explanation by grounding language in pragmatic terms: we use language to do things, and the phrases and sentences that we think of as coherent are merely sequences of words that communicate a useful message. As we will soon see, such a theory would force us to confront several formidable problems.

We will first confront the fallacy that valid syntax is inextricably linked to coherent semantics, and that language “structure” simply consists of whatever allows us to communicate a

practical and unambiguous meaning. Chomsky (1957: 15) provides the following classic examples:

(1)

(a) Colorless green ideas sleep furiously.

(b) *Furiously sleep ideas green colorless.

Although both of the sentences above are highly unusual, one is clearly an instance of well-formed human language, whereas the other is clearly not. Even if they are not able to explain precisely *why*, a group of native English speakers exposed to these two sentences would no doubt be able to agree that (a) is comparatively better-formed than (b). Significantly, they would reach this consensus even if everyone in the room had absolutely no prior experience with discussing the sleeping habits of colorless green ideas. Language, then, must have some sort of abstract design that is far more nuanced than an arbitrary juxtaposition of linear symbols. It would appear that structure does not necessarily rely on semantics, for even sentences that are completely detached from practical communicative needs have the potential to be syntactically valid.

Another argument might state that, even if human language requires a complicated abstract structure, this structure can be learned through generic problem-solving skills without the need for a specialized language module in the mind. Noam Chomsky has famously argued against this idea by claiming that certain structural features of language, such as the proper use of reflexive pronouns in English, are too complicated for children to learn using inductive reasoning alone. Children acquire these features at an age in which they still have immense difficulty with

abstract reasoning. Furthermore, they acquire these linguistic formalisms at an astonishingly rapid pace, and with fairly limited input (Mitchell et al. 2013: 30-31).

Empirical validation for Chomsky's claim can be found in a famous study conducted by Stephen Crain and Mineharu Nakayama (1987). The study documented cases in which neurotypical children as young as three years old produced yes/no questions involving embedded clauses, evidencing a profound sensitivity to the hierarchical organization of speech. Moreover, when the children *did* produce errors, they appeared to be the result of limitations in working memory rather than fundamental misunderstandings of formal structure.

One critical component of the nativist argument—the idea that children are not exposed to complex structures frequently enough to learn them through inductive reasoning alone—has been met with some contention. In particular, Tomasello (2003: 288-89), claims that, contrary to nativist assumptions, children are exposed to complex yes/no questions (such as those tested by Crain and Nakayama) with sufficient frequency to learn their underlying structure without the help of a specialized language module that constrains the rules of syntax.

Despite these criticisms, much contemporary work in the nativist paradigm continues to defend the idea of a strong biological basis for language. Work such as that of Berwick, Chomsky and colleagues (2013) provides a modern argument that all human languages share a genetically programmed computational core, giving rise to cross-linguistic similarities in syntax. From a different perspective, work such as that of van der Lely and Pinker (2014) explores the biological innateness of language by examining the symptoms of Specific Language Impairment (SLI), which appears to have a strong genetic basis.

Although the nativist view, and the UG paradigm that often accompanies it, is certainly not the *only* plausible explanation of human language, it nonetheless provides a very compelling

and well-researched framework for explaining language acquisition—and it is within this framework that I will structure the arguments of the rest of the paper.

2.3 Expanding the UG model to L2 learning

Chomsky and Lasnik define UG primarily as an *initial state* of the language faculty; what they do not address, however, is the precise way in which this initial state changes over time. There is rigorous debate in the literature concerning the extent to which adults learning an L2 have access to UG. Some models contend that, once early childhood has passed, the fundamental knowledge of UG is no longer accessible (Mitchell et al. 2013: 90-91). This theory, with one fell swoop, would account for the massive discrepancies between L1 acquisition and L2 learning. Another theory proposes that UG is completely accessible to L2 learners; still another proposes that UG is only *partially* accessible, in that fundamental constraints on the structure of human language remain intact, but that certain more nuanced formalisms of the L2 grammar cannot be fully acquired (Mitchell et al. 2013: 91-94). It is this last theory which we will use to motivate our discussion of the parallels between pidginization and SLL.

3 Pidginization and its implications for L2 learning

3.1 Origins of pidgin languages

Pidgin languages serve as a means of communication between two (or more) communities that have recently begun to interact and that do not share a common tongue (Crystal 1991: 264). They often develop to address some practical need, such as conducting commerce (Yule 1996: 233-34). In general, the process through which social necessity results in the creation of a rudimentary language is known as *pidginization* (Al-Jasser 2012: 71).

In the present discussion, I will endeavor to draw parallels between the linguistic contact of entire cultures (pidginization) and the individual experience of the second language learner. I will then argue that the invention of a pidgin language draws upon the same (restricted) set of linguistic knowledge as the early stages of SLL. This model will be used to explain the incomplete mastery commonly associated with L2 learning—that is, the fact that the majority of learners never quite attain native-like proficiency. Just as a pidgin cannot mature into a creole within a community consisting only of adult speakers, a person seeking to master an L2 after childhood cannot fully internalize the knowledge they need in order to communicate as fluently as they could in an L1.

3.2 Intuitive parallels between pidginization and SLL

The idea that each L2 learner is a microcosm of language contact has a fairly intuitive basis. Pidgins form when two cultures collide and must create some kind of stopgap tool in order to fulfill their practical communicative needs. The experience of an individual L2 learner, at least in the earlier stages, is highly parallel in its social context and pragmatic constraints. The learner cannot be expected to immediately communicate with the same kind of precision that they could in an L1; nonetheless, they must still use their new language to accomplish social tasks. Thus, in the case of both SLL and pidginization, the immediate need for some improvised mode of communication leads to a reduction in structural complexity.

3.3 Structural features of pidgins

Pidgins, regardless of their particular source languages, tend to share many structural similarities. Mark Sebba (1997: 69) provides a useful summary of these common features.

Although pidgins result from contact between two or more languages, in many cases only *one* of these languages serves as the source of the vast majority of the pidgin's vocabulary—the technical term for this language is the *lexifier*. The grammatical complexity of pidgins is also reduced to a level that is simpler than that of the source languages. Finally, pidgins tend to have either isolating or agglutinative morphology.

This last point, in particular, provides insight into a key distinction between pidgins and natural (acquired) languages. It appears that, when left to their own devices, adults rely on fundamental principles of syntax far more than complex inflectional processes when they are forced to improvise a new system of communication.

3.4. Implications of pidginization for UG

The structural features of pidgins serve as compelling evidence that certain elements of UG are retained throughout the lifespan. Julia Rogers Herschensohn (2000: 57-60), in her work describing the relationship between UG and SLL, provides a useful scheme for categorizing these components. Herschensohn proposes a division between two principal components of UG, namely, UG Strategy and UG Form. Whereas the first of these two components is accessible only to children, the latter is accessible at all stages of life. UG Form accounts for adult learners' knowledge of principles that are found in *all* human languages, whereas UG Strategy accounts for children's masterful ability to rapidly acquire and internalize language-specific parameters.

I propose that the adult ingenuity that goes into the creation of pidgin languages and the body of knowledge that allows L2 learners to begin their learning process are profoundly similar, in that they draw from the same set of cognitive resources—namely, UG Form. In this case, the target language serves as the lexifier, and the learner's initial task consists of trying to

reconstruct a rudimentary grammar that will allow them to communicate with speakers of the L2—resulting, then, in a kind of personalized pidgin.

Just as the features of learner speech can be described in terms of UG Form, the gaps that often accompany L2 knowledge—those aspects of the language that are never fully mastered—can be described in terms of UG Strategy. In this case, we posit that those features of language which remain persistently problematic for adult learners, such as the nuances of complex morphology, fall within the domain of UG Strategy. Therefore, such features will be underrepresented both in pidgin languages and in L2 speech.

Pidgins, by definition, have no native speakers (Sebba 1997: 69). Therefore, no one has ever *acquired* a pidgin language; instead, they are invented and subsequently learned by the same cohort of adult speakers. It is only when children are exposed to a pidgin language that the pidgin can develop a mature level of grammatical complexity; this process is known as *creolization* (Mitchell et al. 2013: 46). I propose that this process of maturation reflects a change in cognitive scope—that is, once a language has native speakers who *acquire* it, as opposed to non-native speakers who *learn* it, the structures found in the language will be able to transcend the boundaries of UG Form and begin to draw upon the virtuosic complexity associated with UG Strategy. The result is a transformation from a system of bare syntax and simple declarations into one of mature morphosyntax and intricate structural dependencies.

The UG Form/Strategy distinction provides a compelling complement to Bickerton's language bioprogram hypothesis. Instead of treating pidgins as a central object of study, the LBH focuses on the *innovations* which children introduce into creole grammars once given a pidgin as their linguistic input. In Bickerton's formulation,

The LBH claims that the innovative aspects of creole grammar are inventions on

the part of the first generation of children who have a pidgin as their linguistic input, rather than features transmitted from preexisting languages. [...] Such inventions show a degree of similarity, across wide variations in linguistic background, that is too great to be attributed to chance. [...] The most cogent explanation of this similarity is that it derives from the structure of a species-specific program for language, genetically coded and expressed [...] in the structures and modes of operation of the human brain” (Bickerton 1984: 173).

Bickerton’s theory concerns itself with a linguistic similarities across various creoles, and uses these as evidence of a mental architecture common to the entire human species. He asserts that genealogically unrelated creoles bare more compelling similarities to one another than to the particular source languages they derive from. Commenting on this theory, McMahon and McMahon (2014: 39) remark that the grammatical structures present within creoles, though not exactly identical cross-linguistically, “do appear to fall into certain general and repeated categories for creoles around the world.” The LHB claims that children who, once given a pidgin as their linguistic input, subsequently introduce these new grammatical structures as they transform pidgin into creole, are critical exemplars of the “species-specific program for language” commonly known as UG.

I would seek to expand Bickerton’s claims by positing that, in the same manner that genealogically unrelated creoles bare profound structural similarities to one another, genealogically unrelated pidgin languages exhibit similarities that are likewise profound. Moreover, the consequences of the similarities between pidgin languages is massively significant. Whereas children demonstrate universal characteristics of the human language

faculty during creolization, adults who engage in pidginization allow us to identify which of these characteristics are retained with age.

The studies of pidginization and of creolization are intensely complementary; together, they demonstrate which principles constitute the indispensable core of the human language faculty, and which constitute its more flexible periphery. By studying pidginization and creolization as parallel processes, we can deduce a kind of hierarchy of linguistic universals: one set of features that is so essential it is never lost with age (UG Form), and another set of features that, though still universal to the human species, is time-sensitive in its operation (UG Strategy). This in turn allows us to determine what kinds of cognitive resources that adults take with them as they approach the task of L2 learning, and how these differ from the cognitive resources available to children during FLA.

4 Empirical support

4.1 L2 learning as pidginization: Donna Lardiere and Patty

The linguist Donna Lardiere (1998) performed a long-term longitudinal study of a single L2 English learner, and documented findings that provide strong empirical support for the UG Form/Strategy distinction. The L2 learner in question, a native Chinese speaker going by the alias Patty, failed to master several features of English verb morphology despite having lived in the United States for over 18 years at the final stage of the study. She produced past-tense marking on verbs in obligatory contexts in approximately 34% of recorded utterances (Lardiere 1998: 365). Agreement marking on third-person singular present-tense verbs was similarly inconsistent.

Significantly, Patty's problems did not extend to basic syntax. What is more, she appears to have mastered certain nuances of English verb usage that evidence an understanding of abstract syntactic structure. One such nuance, a grammatical process which syntacticians refer to as verb-raising, is of particular importance. Without diving into the technical details, we note that an implicit understanding of verb-raising—when to use it, and when not to—allows a native English speaker to make a clear judgement about the grammaticality of the following examples:

(2)

(a) I have never made a mistake

(b) *I made never a mistake.

A flawed understanding of verb-raising would lead speakers to produce sentences such as (2b) on a regular basis. Essentially, a competent speaker must be able to note that main verbs such as 'made' (called *thematic verbs* in more technical parlance) behave quite differently from verbal auxiliaries such as 'have', especially when used with adverbs and negative constructions.

Lardiere comments that the kind of flawed usage I have exemplified in (2b) "does not appear to be an option in Patty's L2 English grammar" (1998: 369). This type of linguistic knowledge, involving a more abstract level of structure, indicates the existence of certain domains where Patty's internal grammar can indeed converge with that of native speakers.

Unlike the previous results concerning verbal affixation, in which Patty applied a grammatical device inconsistently, Patty was virtually perfect in her understanding of verb-raising constructions. It seems possible that Patty relied upon some set of abstract principles—some basic intuition for the fundamentals of syntax—that allowed her to identify certain types of

grammatical structures as critical and others as being less so. At some level of mental representation, verb inflections were treated as nonessential, whereas the syntax governing word order was retained.

Using this process of sorting and simplification, in which some grammatical categories were prioritized over others, Patty was able to reduce English grammar into a less complex form, almost like a pidgin—a form that, despite its deviant morphology, nonetheless maintained a high level of syntactic rigor. It appears, then, that in both the structure of pidgin languages and in the eccentricities of L2 speech, there is evidence that knowledge of foundational syntax is preserved.

The structural parallels between pidgins and L2 speech, in fact, extend beyond the domain of syntax and into that of morphology. Complex morphology, it seems, is something that adults will gladly do without if left to their own devices. In the case of the pidgin language, morphology is simplified, as the speech community has collectively (and perhaps unconsciously) decided to forgo additional complexity. In the case of L2 speech, morphological systems such as verb inflection appear as “optional” or inconsistent features of language output.

Although adult language learners overall tend to prefer simplified morphological systems, I conjecture that this preference leads to different empirical outcomes depending on whether adults experience language contact in groups or as isolated individuals. If an entire *community* of adult speakers is tasked with transforming a lexifier into a pidgin, then an isolating or agglutinative morphological system will result. But if an *individual speaker*, rather than a community, is tasked with learning a morphologically complex language, then this speaker will be forced by circumstance to engage with these complexities. However, this L2 learner, even when confronted with social pressure to conform to their observed linguistic input, will most likely continue to display substantial limitations in morphological competence.

In the case of L2 learners such as Patty, inconsistent use of linguistic structures such as verb inflection is likely the result of a failure to fully internalize the relevant morphological knowledge. Left with only the syntactic knowledge granted by UG Form, and deprived of the morphological aptitude associated with UG Strategy, adult learners struggle through such complexities with great difficulty. If we extrapolate from the coping mechanisms of individuals to the behaviors of entire communities, then we are left with an intriguing suggestion. The cognitive traits that compel *individual learners* such as Patty to take their L2 language input and simplify its grammatical features may in fact be the same traits that compel entire *communities* of adult speakers to take the input from their lexifier and use it to create a pidgin.

4.2 L1 acquisition as creolization: the birth of Nicaraguan Sign Language

We will now examine a case study in which an entire generation succeeded where Patty failed, namely, the birth of Nicaraguan Sign Language. Steven Pinker (2000: 36-38) provides a concise and valuable summary of this marvel of language. The story begins in 1979, when the first schools for the deaf in Nicaragua were founded. Although the school curriculum itself focused on attempting to teach children via lip reading and other approximations of speech, during out-of-class social interactions the children quickly began to develop their own language—a pidgin. When a new generation of younger children—still in the optimal time period to *acquire* language, as opposed to merely *learning* it—joined the school, they were soon communicating using a grammar that was far more complex. They introduced a consistent system of grammatical devices, including morphological features such as verb inflection.

The story of Nicaraguan Sign Language provides compelling empirical expression of the model I have proposed. Within the space of two generations—one of which *invented* (and

learned) a pidgin, and another which *acquired* a creole—the complexity of the language’s grammar expanded from the domain of UG Form and into that of UG Strategy. This story, however fantastic, is not the only one of its kind. Derek Bickerton, for example, has assembled evidence that Hawaiian Pidgin developed into Hawaiian Creole in the space of a single generation (1984: 173). The ability of children to rapidly transform a pidgin into a creole, then, is not an occasional fluke, but a consistent trait of the human language faculty.

4.3 Two kinds of language contact

In the stories of Patty and Nicaraguan Sign Language, we see two instances in which a new language was formed through some kind of language contact. On the one hand, we see a single learner forced to adapt to a new language environment, and to simplify natural language into a pidgin-like derivative; on the other, we see an entire generation collaborating to transform a pidgin into a structurally mature language. Patty, an SLL learner limited to the domain of UG Form, was consistent only in her expression of certain domains of syntax, and was unable to fully acquire more complex morphological features. The children, in contrast, outdid Patty’s performance by far—when their language input, the pidgin, did not provide them with a rich and systematic morphology, they collectively invented their own.

5 Conclusion

I propose that the theory of UG can be used not only to account for the discrepancies between L1 acquisition and L2 learning, but also to explain the structural differences between pidgins and creoles. In particular, knowledge of a core set of linguistic universals—what Herschensohn describes as UG Form—is retained throughout the human lifespan and accounts

for the eccentricities of both pidgin languages and L2 speech. In contrast, the time-sensitive features of the human language faculty, UG Strategy, account for the kinds of linguistic structures that children (but not adults) quickly master during L1 acquisition—as well as the structures that they create themselves, when given the opportunity to transform a pidgin into a creole.

This current paradigm, in many ways, expands upon the core proposals of Bickerton's language bioprogram hypothesis. The key caveat, however, is that it is not just the children who create creoles who exemplify the innateness of human language, but also the adults who create pidgins. In Herschensohn's account, UG Form is just as much a universal aspect of human language as UG Strategy. It follows that the mistakes and struggles of L2 learners, as well as the structural simplification associated with pidgin languages, are not merely epiphenomenal aspects of linguistic theory. Instead, they constitute an essential object of study. If we are to truly understand Universal Grammar, then, we must study not only children, creoles, and native speakers, but also adults, pidgins and L2 learners.

References

- Aitchison, Jean. 2008. *The articulate mammal*. 5th edition. New York: Routledge.
- Al-Jasser, Jasser A. 2012. Pidginization theory and second language learning/acquisition. In *Journal of King Saud University – Languages and Translation* 24.71-74.
- Bickerton, Derek. 1984. The language bioprogram hypothesis. In *The Behavioral and Brain Sciences* 7.173-221.
- Berwick, Robert C; Angela D. Friederici; Noam Chomsky; and Johan J. Bolhuis. 2013. Evolution, brain, and the nature of language. In *Trends in Cognitive Sciences* 17.89-98.
- Chomsky, Noam. 1957. *Syntactic structures*. New York: Mouton Publishers, 1975. (Reprint.)
- Chomsky, Noam and Howard Lasnik. 1995. The theory of principles and parameters. *The minimalist program*. Cambridge: MIT Press, 2001. (Reprint.)
- Crain, Stephen and Mineharu Nakayama. 1987. Structure dependence in grammar formation. In *Language* 63.522-43.
- Crystal, David. 1991. *The Cambridge encyclopedia of language*. Cambridge: Cambridge University Press.
- Herschensohn, Julia Rogers. 2000. *The second time around: Minimalism and L2 acquisition*. Cambridge: MIT Press.
- Lardiere, Donna. 1998. Dissociating syntax from morphology in a divergent L2 end-state grammar. In *Second Language Research* 14.359-75.
- McMahon, April and Robert McMahon. 2014. *Evolutionary linguistics*. Cambridge: Cambridge University Press.
- Mitchell, Rosamond; Florence Myles; and Emma Marsden. 2013. *Second language learning theories*. 3rd edition. New York: Routledge.
- Pinker, Steven. 1994. *The language instinct*. New York: William Morrow and Company, 1995. (Reprint.)
- Sebba, Mark. 1997. *Contact languages, pidgins, and creoles*. New York: Macmillan Press.
- Tomasello, Michael. 2003. *Constructing a language: A usage-based theory of language acquisition*. Cambridge, Massachusetts: Harvard University Press.

Van der Lely, Heather K.J. and Steven Pinker. 2014. The biological basis of language: insight from developmental grammatical impairments. In *Trends in Cognitive Sciences* 18.586-95.

Yule, George. 1996. *The study of language*. 2nd edition. New York: Cambridge University Press.