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(Received 5 May 2021)

J. Linguistics 57 (2021). doi:10.1017/S0022226721000177

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Clifton Pye, *The comparative method of language acquisition research*. Chicago, IL: The University of Chicago Press, 2017. Pp. xiv + 304.

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This book provides a thorough analysis of the comparative method of crosslinguistic research through the lens of first language acquisition of the Mayan languages K'iche', Mam, and Ch'ol. Pye's thesis is that it is futile to study the acquisition of a first language in isolation, examining a single language. Rather, such acquisition studies have to be comparative in nature. According to Pye, the best design for such studies is to investigate several genealogically related languages so that cognate forms across those languages can be established, the contexts of use for those forms

in each language can be identified, and finally the acquisition of those forms in their contexts of use can be analyzed.

Chapter 1, 'Comparing languages', first pinpoints the pitfalls of the monolingual approach to crosslinguistic acquisition research, followed by strong argumentation as to why a comparative method of crosslinguistic research is needed and how it can be carried out. Pye states that despite the plethora of knowledge researchers have regarding how children acquire individual languages, there is still not an explicit procedure to compare results across different languages, hence the lack of a systematic framework for crosslinguistic investigation. Pye strongly criticizes the monolingual approach for taking a linguistic feature from one language, often English, and imposing it on other languages for comparison, noting that 'categories such as *passive*, *subject*, *pronoun*, and *bilabial stop* do not provide an objective basis for crosslinguistic research' (7). Pye also objects to looking for language universals, a manifestation of the monolingual approach, as he argues that each language is radically different. That is, one cannot apply a theory of tense to languages that do not mark tense, which Pye refers to as the unit of comparison problem. According to Pye, crosslinguistic language acquisition research has to be based on a standard unit of comparison as children acquiring different languages acquire distinct categories of sounds, morphemes, words, grammatical and discourse structures. Chapter 1 also summarizes the three key elements of the comparative method of crosslinguistic research. The first is that the comparative method restricts the scope of its investigation to a group of historically related languages, which constitutes a representative sample of the language family. The second crucial element of the comparative method is its genuine crosslinguistic perspective in which the contexts of use that establish the comparison are identified. The final core element of the comparative method is a thorough analysis of the acquisition of the forms in their contexts of use in a systematic fashion. Pye ends Chapter 1 highlighting the connection between the comparative method and usage-based approaches to language acquisition and pointing out the lack of systematicity in usage-based accounts, thereby implying the superiority of the comparative method.

Chapter 2, 'A history of crosslinguistic research on language acquisition', gives an overview of language acquisition studies. Pye discusses three phases through which crosslinguistic research on language acquisition has advanced. The period of single language studies constitutes the first phase where researchers studied children acquiring a particular language to identify genetically determined and fixed patterns in language acquisition. The second phase is characterized by the idea that children are equipped with a language acquisition device that makes the first language acquisition process effortless and quick, a postulation due to the generative linguistic theories of Chomsky (1965). The final phase centers around the concept of parameters, maintaining that children may begin acquiring different parameter settings and thus may display differences in their acquisition process. Pye discusses the drawbacks of the acquisition studies in each phase, mainly focusing on the last two phases. He claims that the search for linguistic universals in language acquisition research is in vain by citing a study by Bowerman & Choi (2001), who

demonstrate that children acquiring Korean and English display a language-specific understanding of locative expressions rather than following a universal pattern. Pye also opposes the parameter theory, arguing that researchers propose parameters and make universal claims about language acquisition based on insufficient data. In addition to the three phases, Pye notes that crosslinguistic surveys usually fail to examine genetically related languages. Finally, he recognizes that polysynthetic languages provide an excellent basis for crosslinguistic language acquisition research, especially of the verb complex, but that it is challenging to determine whether the verb complexes in those languages are agglutinating or fusional. Consequently, researchers should avoid adopting simple grammatical typologies that fail to predict the acquisitional patterns.

Chapter 3, 'The comparative method of language acquisition research', details Pye's thesis regarding the comparative method of first language acquisition he has developed over several decades. Pye emphasizes the lack of systematicity in the current crosslinguistic research on language acquisition. The lack of systematicity, he argues, stems from acquisition researchers not controlling the languages under investigation and not identifying the contexts of use for the linguistic elements in those languages. To remedy those shortcomings, Pye proposes that acquisition researchers use the comparative method, the three basic steps of which are given here verbatim (51):

- 1) Identify cognate forms across a family of genetically related languages,
- 2) Identify the contexts of use for the forms in each language,
- 3) Analyze the acquisition of the forms in their contexts of use.

In the remainder of Chapter 3, Pye applies the comparative method to the acquisition of negation in five Germanic languages, English, German, Danish, Norwegian, and Swedish. Pye succinctly shows how the comparative method makes it possible to investigate the acquisition of negation and the source of English children's extension of negation. He underlines once again that limiting the analysis to the acquisition of negation only in Germanic languages helps create a systematic analysis, taking into consideration the lexical contrasts, phonology, syntax, semantics, and pragmatics. One more advantage of the comparative method is the precise description of the contexts of use for negation in Germanic languages. To reiterate his point, Pye applies the comparative method to negation in three Mayan languages, Ch'ol, Q'anjob'al, and Mam, as well as to the acquisition of verb inflection in Germanic languages.

Chapter 4, 'The structure of Mayan languages', gives an overview of the structure of three Mayan languages, K'iche', Mam, and Ch'ol. Before delving into the particulars about the structure of those languages, Pye presents useful background information about Mayan languages, stating that the Mayan language family has about thirty distinct languages with more than seven million living speakers. Genetic classification of the Mayan languages dating back to 2200 BCE reveals five main historical subdivisions: (i) Wastekan, (ii) Yucatecan, (iii) Greater Q'anjob'al, (iv) Greater Tzeltalan, and (v) Eastern Mayan. Pye then discusses the

Mayan lexicon, specifically focusing on the major lexical classes in K'iche', Mam, and Ch'ol. Moreover, Pye discusses the Mayan verb complex and how it uses the ergative/absolutive alignment in which ergative morphemes are used to indicate the subject of transitive verbs while absolutive morphemes are used to indicate the subject of intransitive verbs in addition to the object of transitive verbs. Pye later discusses stative predicates and nominalization in those three Mayan languages. An interesting observation with respect to Mayan nominalization is that while intransitive verbs can be directly nominalized, transitive verbs cannot. Transitive verbs have to be converted into intransitive verbs by adding a passive or antipassive suffix before they can be nominalized. Due to the highly synthetic nature of the verb complex in Mayan languages, it is the agreement markers on verbs that express grammatical relations such as subject and object. Consequently, according to Pye (1992), in 90 percent of utterances in Ki'che', phrasal subjects are omitted. Similarly, phrasal objects are omitted in 67 percent of utterances. Pye concludes this chapter by providing information on Mayan communities and discussing the longitudinal acquisition database that he created over years recording and analyzing K'iche', Mam, and Ch'ol children.

In Chapters 5–10, Pye lays out meticulous data on the acquisition of the Mayan lexicon, the Mayan intransitive and transitive verb complex, the person marking in the Mayan verb complex, as well as the acquisition of the argument structure, and argument realization. For instance, in Chapter 5, 'The acquisition of the Mayan lexicon', Pye illustrates how the obligatory use of reference markers on nouns and verbs makes it possible to omit lexical arguments. In Chapter 7, 'The acquisition of the Mayan transitive verb complex', the author discusses that two-year-old K'iche', Mam, and Ch'ol children usually utter a single stressed syllable of the verb complex. However, the syllable that those children produce shows variation depending on each language. In Chapter 8, 'The acquisition of person marking in the Mayan verb complex', Pye argues that even though K'iche', Mam, and Ch'ol share a common historical origin, children acquiring those languages use person markers at different frequencies in quite distinctive contexts, which provides evidence that the ergative-absolutive alignment in those languages is indeed language-specific. In Chapter 9, 'The acquisition of Mayan argument structures', Pye demonstrates that although K'iche', Mam, and Ch'ol have a common set of structural features, they use different lexical items to fill in those structures. In that respect, Pye underlines once again how unique those three languages are. Overall, Pye painstakingly demonstrates how the comparative method of language acquisition can be applied to a group of genealogically related languages.

In Chapter 11, 'Conclusion', Pye discusses the broader and theoretical implications of the comparative method of language acquisition research. He emphasizes once more how the comparative method, which has its roots in historical linguistics, can be utilized in language acquisition research. Pye argues that when the comparative method is applied to investigate the acquisition of Mayan languages, many features about those languages, as well as the developmental stages Mayan children go through in the acquisition process are revealed. The discovery of those novel

features and developmental stages not found in European languages is vital to understand children's capacity for language acquisition. Regarding theoretical implications, Pye states that both usage-based and structure-based accounts of language acquisition make wrong or imprecise predictions about the acquisition of Mayan languages, in part due to the fact that those theories have been proposed on the basis of a few European languages.

Pye concludes his book with a rather controversial call for action. He underscores the significance of prioritizing primary acquisition data over theoretical discussions. Pye writes: 'The urgent need for research documenting the world's endangered languages far exceeds the need to test specific theoretical models. Theory testing must wait until we have basic information about how children acquire a representative sample of diverse languages' (275). I also believe that it is absolutely necessary for endangered languages to be documented. According to a report on Language Vitality and Endangerment, published by The United Nations Educational, Scientific and Cultural Organization (UNESCO 2003), 'about 97% of the world's people speak about 4% of the world's languages; conversely, about 96% of the world's languages are spoken by about 3% of the world's people' (2). UNESCO estimates that about 90% of all languages may be replaced by dominant languages by the end of the 21st century. No linguist would object to contributing to language documentation efforts, striving to increase the language vitality of critically, severely, or definitely endangered languages. However, I believe that such documentation and testing of various acquisition theories can be carried out in tandem. Since hypothesis testing and retesting, and theory building are fundamental in advancing language acquisition research, they should not be overlooked.

In a nutshell, this book offers a thorough analysis of the comparative method of language acquisition research as well as walking the reader through how children acquire the unique features of three Mayan languages K'iche', Mam, and Ch'ol. Hence, it will appeal to anyone interested in historical linguistics, Mayan languages, as well as first and second language acquisition.

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(Received 5 May 2021)