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AN INITIAL GRAMMAR OF A KEDAH THREE YEAR OLD CHILD'S SPEECH

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SINOPSIS

Bahasa lisan ialah kebudayaan umum yang tersendiri bagi manusia. Bila seorang kanak-kanak mulai bercakap dua perkataan dia akan menggunakan beberapa jenis aturan dan susunan yang mengawal dan menghadkan rangkaian perkataan-perkataan yang diucapkan. Dengan kata lain, ia telah mempergunakan nahu.

Kebanyakan kajian-kajian bahasa kanak-kanak adalah mengenai bahasa-bahasa Indo–Eropah. Penyelidikan ini ialah mengenai seorang kanak-kanak lelaki di Kedah yang belajar bercakap Melayu, iaitu, satu keluarga bahasa Melayu–Polynesia.

Keterangan-keterangan yang dihuraikan telah direkodkan semasa penulis membuat kunjungan seminggu di rumah kanak-kanak itu. Keterangan-keterangan adalah semata-mata atas pertuturan kanak-kanak itu, dan tiada percubaan untuk mendapatkan bahan untuk menguji kebolehan (competence) kanak-kanak itu, iaitu had-had kecekapan bahasanya.

Kertas ini mengesyurkan suatu nahu terhad bentuk generatif (bukan nahu transformasi) berdasarkan pertuturan kanak-kanak itu. Nahu tersebut mempunyai tinjauan yang terhad dan sebenarnya ialah langkah awal di dalam mengkaji kecekapan pelajaran bahasa bagi kanak-kanak Melayu di Kedah. Huraian-huraian nahu yang lanjut, huraian-huraian semantik, dan tarikan ujian-ujian untuk kecerdasan ilmu bahasa masih perlu dibuat.

Bagaimanapun, sifat malu yang sedia ada di kalangan kanak-kanak di Kedah menjadikan penyelidkkan oleh orang luar agak sukar. Satu cara untuk mengatasi masaalah ini mungkin dengan melatih salah seorang keluarga kanak-kanak itu, umpamanya kanak-kanak yang telah keluar dari sekolah, untuk mengumpul keterangan-keterangan untuk sebagai bahan-bahan kajian.

Kajian bahasa kanak-kanak yang bukan dari kekeluargaan bahasa-bahasa Indo–Eropah adalah mustahak untuk usaha melahirkan suatu teori umum tentang pembelajaran bahasa oleh kanak-kanak. Teori seumpama itu penting untuk dapat dilaksanakan dalam proses pengajaran bahasa-bahasa asing.

SYNOPSIS

Spoken language is a unique cultural universal of mankind. Once a child starts to speak two word utterances he begins to apply some type of ordering

to hierarchy which controls and limits the sequence in which words are spoken. That is, he utilizes a grammar.

Most studies of child language concern Indo–European languages. The present investigation concerns a three years and four months old Kedah male child who is learning to speak Malay, a Malayo–Polynesian language.

The data analyzed were recorded during a one week visit in the child's home. The data are strictly those of the child's performance since no attempts were made to elicit data for testing the child's competence, that is, the limits of his linguistic skill.

This paper presents a Chomskyian-type generative (but not transformational) grammar of the child's utterances. The grammar has limited scope and is but an initial step in the study of language acquisition by Kedah Malay children. Fuller grammatical analyses, semantic analyses, and elicitory tests of linguistic competence remain to be done.

However, the usual shyness of young Kedah children makes research by an outsider difficult if not impossible. A method of overcoming this problem might be to train members of the child's family, such as school leavers, to gather data.

The study of non-Indo–European child language is important for the formulation of a general theory of child language acquisition. Such a general theory can have important practical application to the teaching of foreign language.

The present paper sets out a formal generative grammar model for a selected corpus from the speech of a three years and four months old Kedah male child. The grammar presented is of limited scope but represents a first analysis of Malay child language. Such study of Non-Indo–European child language is important for the formulation of a general theory of child language acquisition.

Spoken language is a unique cultural universal of mankind. Almost all children learn to speak during the first years of their lives.[1] Several theories attempt to explain the universal onset of language.

Lenneberg[2] argues that the start of language acquisition is controlled by a maturational process which is independent of motor-skeletal maturation. By contrast, Donaldson[3] holds that sensori-motor development during earliest infancy may serve as a preparation for speech. On the other hand, McNeill[4] maintains that some general mechanism underlies many different types of cognitive activity, including language acquisition.

1 "Language learning" is here used synonymously with "language acquisition".
2 Lenneberg, E.H., *Biological Foundations of Language*, Wiley, 1967.
3 Donaldson, M. in *Psycholinguistic Papers*, eds. Lyons, J. & Wales, R.J., Edinburgh University Press, 1966.
4 McNeill, D. in *The Genesis of Language*, M.I.T. Press, 1966.

Regardless of the ultimate cause or causes, most children begin to speak somewhere between one and three years of age.

Once the child first speaks two word utterances he also begins to apply some type of ordering or hierarchy which controls and limits the sequence in which words are spoken. That is, the child utilizes a grammar. Braine,[5] Brown and Bellugi,[6] and Miller and Ervin[7] have studied child grammars extensively. Braine points out that one common early grammar structure is that of "pivot" and "open" classes. Open class words can stand alone while pivot class ones cannot. For example, an English speaking child uses *my* as a pivot class word and *daddy* as an open class word. Thus the child forms sentences such as, *my hat*. The grammar for this early type of utterance is: a sentence consists of a pivot class word plus an open class word. Another rule of early grammar is: a sentence consists of two open class words (Both the early grammar rules are diagrammed in fig. 2. The symbols used are defined in fig. 1.). Utilizing this second rule the child formulates sentences such as *hat daddy* (Lovell[8] see fig. 3).

Brown and Bellugi[9] have investigated the development of child language beyond the pivot class and open class stage. Their study, limited

Figure 1. Explanation of Symbols.

Symbol	Meaning
→	rewrite as
A→B	rewrite A as B
$\left\{\begin{matrix}A\\B\end{matrix}\right\}$	rewrite as either A or B but not both
C $\left\{\begin{matrix}A\\B\end{matrix}\right\}$	rewrite as either C+A or C+B but not both
B $\left\{\begin{matrix}C\\D\left\{\begin{matrix}E\\F\\ø\end{matrix}\right\}\end{matrix}\right\}$	rewrite as one, and only one, of the following: B+C B+D+E B+D+F B+D+ø
a→B+C	B and C are lexicon entries
a→voc	voc is a lexicon entry
ø	zero; an empty set
≠Σ≠	The starting point for generating a sentence

5 Braine, M.D.S., 'The Ontogeney of English Phrase Structure', *Language*, 39: 1–13, 1963.
6 Brown, R., Cazden, C., & Bellugi, U., 'The Child's Grammar from I to III', *Minnesota Symposium on Child Psychology*, 2, University of Minnesota Press, 1969.
7 Miller, W., & Ervin, S., in 'The Acquisition of Language', *Monogr. Soc. Res. Child Developm.*, 29(1), 1964.
8 Lovell, E.H., *Biological Foundations of Language*, Wiley, 1967.
9 Brown, R., & Bellugi, U., 'Three Processes in the Child's Acquisition of Syntax', *Harv. Educat. Rev.*, 34: 133–51, 1964.

Figure 2. Early Pivot—Open Class Grammar of English-Speaking Children

1. $\neq\Sigma\neq \rightarrow S$
2. $S \rightarrow \left\{\begin{matrix} A \\ B \end{matrix}\right\}$
3. $A \rightarrow P+O$
4. $B \rightarrow O+O$

Lexicon

P my, her, his
O daddy, hat

Figure 3. Examples of Pivot-Open Sentences Generated by English-Speaking Children

Rule Applied		*Result*
1		S
2		A
3		P+O
Lexicon		
P		my+O
O		my+daddy
	Final sentence:	My daddy.
1		S
2		B
3		O+O
Lexicon		
O		daddy+O
O		daddy+hat
	Final sentence:	Daddy hat.

to English speaking children, shows how the pivot class becomes differentiated into various subclasses of English words, such as article and demonstrative pronoun. Since the further linguistic development of English speaking children is strongly influenced by the nature and structure of the English language the work of Brown and Bellugi has only limited applicability to the study of linguistic development of children learning languages other than English.[10]

The "pivot class" and "open class" grammar may also be the earliest grammar of Malay speaking children. However, this question must await

10 The same limitations hold true of the work by Berko, J. ('The Child's Learning of English Morphology', *Word*, 14: 150–77, 1958), Brown, R., Cazden, C., & Bellugi, U. ('Three Processes in the Child's Acquisition of Syntax', *Harv. Educat. Rev.*, 34: 133–51, 1964), Lovell, K., & Bradbury, B. ('The Growth of English Morphology in ESN Special School for Children', *Am. J. Ment. Defic.*, 71: 609–15, 1967), Menyuk, P. ('Syntactic Structures in the Language of Children', *Child Developemt*, 34: 407–22, 1953; 'Syntactic Rules Used by Children from Preschool through First Grade, *Child Development*, 35: 533–46, 1964), Miller, W., & Ervin, S., in 'The Acquisition of Language', *Monogr. Soc. Res. Child Developm.*, 29(1), 1964), McNeill, D., (in *The* Genesis of Language, M.I.T. Press, 1966), and Templin, M.C., *Certain Language Skills in Children*, Oxford University Press, 1957).

future research. The present investigation centres on analysis of the grammar of a Malay child whose grammar has advanced beyond the initial stages.

Prior investigations of the acquisition of languages other than English have been largely limited to Indo–European languages. This holds true of the Geneva School (Inhelder, Bovet, Sinclair, and Smock;[11] Piaget;[12]) and the Russians (Galperin;[13] Luria;[14] Vygotsky;[15]). The Indo–European languages all derive from a common ancestral language which was spoken some four or five millenia ago. Thus, they are all related to one another. Consequently, any theory of child language acquisition based solely upon Indo–European speakers may be biased as a result of the genetic similarities of the languages involved.

Quite apart is Malay which belongs to the Malayo–Polynesian language family. The geographical range of Malayo–Polynesian extends from the Island of Madagascar in the west to Easter Island in the east. The present study deals with Malay as spoken by one child in the Kedah district of West Malaysia.[16]

The investigator gathered data during a one week in the house of a Kedah Malay family. The speaker was their three years and four months old lively, cute, talkative son. He cheerfully chatted away to the investigator and was not shy in her presence.[17] The investigator used no electronic recording device but rather wrote down the child's utterances as he spoke. The transcription system was standard romanized Malay written according to sound (totally ignoring all formal spelling rules). Since the study was concerned with syntax and not morphology or phonology the recording techniques was adequate.[18]

One limitation of the data is that they were gathered by writing down what the child said when he spoke of his own accord. No attempt was

11 Inhelder, B., Bovet, M., Sinclair, H., & Smock, C.D., 'On Cognitive Development', *Am. Psychologist*, 21: 160–4, 1966.

12 Piaget, J., *The Language and Thought of the Child*, Kegan Paul, Trench, Truner, 1926.

13 Galperin, P.Y., 'A Method, Facts, and Theories in the Psychology of Mental Actions and Concept Formation', Paper Read at the 18th International Congress of Psychology, Moscow, 1963; cited in Lovell, *An Introduction to Human Development*, Macmillan, 1969.

14 Luria, A.R., in *Education Psychology in the Soviet Union*, eds. Simon, B., & Simon, J., Routledge & Kegan Paul, 1963.

15 Vygotsky, L.S., *Thought and Language*, Wiley, 1962.

16 The dialects of Malay differ considerably from one another. As a result, statements which hold true for the grammar and vocabulary one dialect cannot be assumed *a priori* to hold true for any other dialect.

17 This was a somewhat unusual reaction. Most Kedah Malay children would have been very shy and silent in the presence of a newcomer.

18 The investigator had previously used this recording technique for a study dealing with the acquisition of semantics (Kimbal, L.A., 'First Words of a Brunei Child', *Brunei Museum Journal*, v. 1, ≠2, 67–86, 1970; 'More First Words of a Brunei Child', *Brunei Museum Journal*, v. 1, ≠3, 36–55, 1971; 'First Phrases of a Brunei Child', *Brunei Museum Journal*, v. 2, ≠4, 1972.

made to test his language (Chomsky[19]). Rather, the data are limited to the child's independent performance. However, an important consideration arises here, namely, that until preliminary descriptive studies of child speech in a given language have been analyzed, no investigator can know what tests ought to be administered to determine the linguistic competence (in the Chomskyian sense) of the child speakers. Hence, the present paper is merely one of the preliminary reports which form a necessary prelude to any future exhaustive study of Kedah Malay child language acquisition.

The present study is also preliminary in that it analyzes only a limited portion of the corpus obtained during fieldwork. Specifically, some 329 utterances were recorded. Of these 202 were garbled, nonsense (to the investigator), or fragmentary utterances not usable for analysis. Of the remaining, useful, 127 utterances 97 are covered in the present analysis. The remaining 33 unanalyzed utterances have "faulty grammar". They thus represent areas in which the child has not yet formed his own internal grammar sufficiently well so that its outputs are "correctly grammatical" by the standards of fully competent speakers of Kedah Malay.[20]

The corpus analyzed in the present paper consists of grammatically "correct" (or almost so) utterances produced by the child. The analysis used is generative (but not transformational) grammar based on the scheme of Chomsky.[21] The classifications of the child's parts of speech used are largely based upon those in Payne.[22] The parts of speech listed (in figure 4) are, of course, only those which the child himself uses.

Figure 4. The Kedah Child's Parts of Speech

I. Nominals
   - A. Nouns
   - B. Noun groups
   - C. Pronouns
   - D. Interrogatives
   - E. Determinatives
   - F. Vocatives
   - G. Quantifiers

II. Verbals
   - A. Verbs
   - B. Co Verbs
   - C. Co Co Verb

III. Prepositions and Postpositions
   - A. Prepositions
   - B. Postpositions

IV. Homophones
V. Auxiliary
VI. Particles

19 Chomsky, N., *Aspects of the Theory of Syntax*, M.I.T. Press, 1965.
20 An underlying assumption of formal grammar comparative studies is: since fully competent speakers of a given language produce the same type of output in various tests of their competence, therefore their underlying grammars, "What is in their heads", are the same.
21 Chomsky, N., *Syntactic Structures*, Mouton and Co., 1957.
22 Payne, E.M.F., *Basic Syntactic Structures in Standard Malay*, Dewan Bahasa dan Pustaka, Kuala 1970.

The formal grammar of the child is set out in fig. 5. The symbols used in the grammar are those of Drs. Lufti Abas.[23] Figure 1 contains an explanation of the notation used in the formal grammar of the Kedah Malay child's utterances. Given the lexicon (Table 1) of the child, plus the

Figure 5. The Kedah Child's Grammar.

1. ≠Σ≠ ——— S
2. S ——— {E, R}
3. E ——— {ø, t} {e, f}
4. R ——— {ø, t} {ø, J} P {ø, K}
5. P ——— v
6. J ——— {n, e}
7. K ——— {m, r}
8. t ——— voc
9. e ——— {D, Q}
10. f ——— D { aux+N ; Ng ; N {ø, Pr, H} }
11. v ——— {ø, co-co V} {ø, co V} {ø, V}
12. n ——— {Pr, N, Ng}
13. c ——— { {ø, Ng} D ; I {ø, N} ; part+Pr }
14. m ——— { N { ø, Q, H, {ø, part} post } ; Ng }
15. r ——— {D+P, prep+N}

23 Abas, Drs. Lufti, *Linguistic Deskriptif dan Nahu Bahasa Melayu*, Dewan Bahasa dan Pustaka, Kuala Lumpur, 1972.

TABLE 1

THE CHILD'S LEXICON

Note: The italicized abbreviations are those used in the grammar.
The words in parentheses are the names of the parts of speech.
The Malay word is followed by an Engilsh translation.

Q (Quantifiers)

banyak — many
sakali — one time
thikong — one (of the animals)[24]

H (Homophones)

tak tak tak — (imitation of the sound made by a stick hitting something)
tsk tsk tsk — (the sound made to call a cat)

voc (vocatives)

ha — (an attention getting vocative)
ma — mother
mak — mother
o — (an attention calling vocative)
ok — (an attention calling vocative)
toi — (the name of the family cat)

prep (Preposition)

dibawa — under
ka — to

part (Particles)

dulu — ago, before
lagi — again

I (Interrogative)

apa — what
berapa kali — how often
matham mana — how
thapa — who

aux (Auxiliary)

bukan — no, not

post (Postpositions)

aa — variant of *lah*)
ah — (variant of *lah*)
kah — (makes a yes or no question concerning the preceeding word)
nah — (alternate form of *lah*)
nya — its (only after N–)

D (Determinatives)

ane — (variant of *ini*)
atu — (variant of *itu*)
ini — this
itu — that
ni — (variant of *ini*)
tu (variant of *itu*)

Pr (Pronouns)

aku — I
che — (Kedah dialect for *aku*, I, and *awak*, you) I, you

24 The normal Kedah pronounciation would be *sikawk*. The child may have made an incomplete glottal stop, *k*, and as a result produced a sound intermediate between *kong* and *awk* which the investigator heard as *ong*. However, *saikong* is the normal Brunei Malay word for "one" when speaking of animals; the Kedah child may have said the Kedah *awk* form but the investigator misheard it as the Brunei *ong* to which she is accustomed.

dia — he/she/it
ia — variant of dia
thai — (the child's pronunciation or the investigator's mishearing of *che*)
tya — (variant of *dia*)

Ng (Noun Groups)

buah kechil — fruit-small
buah nangka — fruit-nangka (jack fruit)
kachang limau — beans-orange (a type of beans)
orang puteh — person-white (a white person, European)
pelan pelan — (the child's pronunciation of *perlahan lahan*) slow
pokok rendah — tree-low (a short tree)
tali pendek — string-short
tempat pigang — place-hold (a handle, etc.)
tontoh baju — (the child's pronunciation of *chontoh baju*) pattern-shirt/blouse
ungku agong — (=*tungku agong*) the queen consort

N (Nouns)

ayak — (Kedah dialect for *ayer*) water
baju — shirt/blouse/dress
bilek — room
binatang — animal
biru — blue
buah — fruit
bunga — flower
butol — bottle
damam — fever
dapor — kitchen
diluar — outside
ikat — tie
kaboi — (the child's pronunciation of kumbang) a kind of beetle
kakak — elder sister (but also extended to some non-relatives, *e.g.* the investigator)
kambing — goat
kanyang — full
kechi — little

N (Nouns)

kelambu — mosquito net
kuning — yellow
kasut — shoes
lampu — lamp
lembu — cow
malu — shy
muto — car
obat — medicine
orang — person
padang — greensward
panjang — long
payong — umbrella
pintu — door
puteh — white
ramai — various (of people)
rambut — hair
roda — wheel
rumah — house
ruti — bread
sini — here
tanah — earth
tangkai — stem
thana — there
toi — (name of the family cat)
ubi — tuber (*e.g.*, potato)
uching — (=kuching) cat

co-co V (co-co Verbs)

tak — not

co V (co Verbs)

boleh — can
mau — want
sudah — have (in the sense of "completed")
tolong — help
trai — tey
turun descend
udah — (variant of *sudah*)

V (Verbs)

ada — is/are (in the sense of "being present")
ambil — fetch
buang — throw
buka — open
bukakan — open
bunoh — kill
champor — mix
chom — (the child's pronunciation of *chium*) smell
jalan — go on foot
jatoh — fall
kamban — (the child's pronunciation of *makan*) eat
kuno — incurred
lompat — jump
latok — (the child's pronunciation of *letal*) put
main — play
makan — eat
masok — enter
mati — die

V (Verbs)

muching — (the child's pronunciation of *pusing*) turn around
pakai — wear/put on
pi — (Kedah dialect for *pergi*) go
pigang — hold
tabang — fly
tangkap — catch
tarabang — fly
taroh — put away
tengok — look, see
tidawk — (Kedah dialect for *tidor*) sleep
tolong — help
tulang — bone
turun — descend
turun naik — descend ascend
tutup — shut

formal grammar, one ought to be able to produce the sentence types the child produces and none that he does not. Examples of the generation of the child's sentences are set out in fig. 6a, 6b. The corpus of sentences analyzed is presented in Table 2 so that scholars of varying theoretical orientations can formulate their analyses.

The formal grammar set out here is but an initial step in the study of language acquisition by Kedah Malay children. Much more remains to be done. The most immediate task is analysis of the remaining usable corpus collected during the visit in Kedah.[25] The "mistakes" and un-

25 Any scholar wishing access to the full corpus of data is requested to contact the author (at Universiti Kebangsaan, Kuala Lumpur, West Malaysia, or Dept. of Anthropology, Ohio State University, Columbus, Ohio, 43210, U.S.A.).

Figure 6a. Examples of the Kedah Child's Sentences Generated.

Rule Applied	*Result*
1	S
2	E
3	f
10	D+N+ø
Lexicon	
D	atu+N+ø
N	atu+Kelambu+ø

Final sentence: Atu kelambu.

Figure 6b.

rule	*result*
1	S
2	R
4	t + J + P + K
5	t + J + v + K
6	t + c + v + K
7	t + c + v + m
8	voc + c + v + m
11	voc + c + V + m
13	voc + part + Pr + V + m
14	voc + part + Pr + V + Ng
Lexicon	
voc	ha + part + Pr + V + Ng
p	ha + dulu + Pr + V + Ng
Pr	ha + dulu + che + V + Ng
V	ha + dulu + che + makan + Ng
Ng	ha + dulu + che + makan + daging lembu

Final sentence: Ha, dulu che makan daging lembu.

TABLE 2

CORPUS OF THE CHILD'S SENTENCES

E-type (equative type)

ia dibawa payong
ane ungku agong
ni tangkai nya
ini tontoh baju
mak tu kaboi
apa dia
che malu
orang ramai
ini biru
kechi ini
ni rambut
damam lagi
ane orang
kakak ni
orang puteh
atu kelambu
pokok rendah
panjang ni
thana dapor
ni bunga

ni bilek
tulang banyak
ni tempat pigang
ni diluar
toi tsk tsk tsk

CORPUS OF THE CHILD'S SENTENCES

R-type (reactive type)

kuning champor puteh
buah nangka masak
puteh champor kuning
che tak mau tidawk thini
che tak mau main padang
che nak mau ubi
tengok aku bunoh ikan tak tak tak
che pi dulu
thapa tengok binatang
lembu kena ikat
tya turun tanah ah
buah kechil ada tangkai
toi masok dibawa payong
thapa mau kamban nangka itu
che tak mau pakai baju
ok toi pi chom lampu
o ku nak makan ruti
ha dulu che makan daging lembu
che nak mau ubi
che tak mau didawk thini
ayak tutup
kasut ada
roda jatoh
thai ambil
che mau
kaboi tarabang
che nak
binatang mati
ini sudah
mak, mak taroh
uching muching muching
mau trai buka
orang ada kah
matham mana boleh jalan
brapa kali tangkap tangkap
tali pendek ni turun naik turun naik
dia lompat
dia tangkap
tulang ada
tak boleh naik ka rumah
tak mau atu aa
mau lagi sakali
buang butol dulu ah
tangkap lembu thikong
tangkap kambing thikong
mau bali ubi
pigang ni lagi
makan pelan pelan
mak, tutup pintu
mak, ada damam
ma, latok sini
ma, nak ruti
ma, nak buah
ada muto

ada kambing
ada lembu
bali lagi
makan ane
may obat
dah kanyang
mak buka baju
nak tengok puteh ia tabang ah
mau bali kachang limau
buka lah
mau tengok
udah kuno
tak mau
ma, tolong bukakan
ma, nak pi
tak mau lah
tangkap nah
mak, boleh pigang
boleh buka
boleh tutup

NOTES ON THE CORPUS OF THE CHILD'S UTTERANCES

1. The child lisps: *thapa* = *siapa*, who; *matham* = *macham*, how; *thini* = *sini*, here.
2. The child mispronounces some words: *kuno* = *kena*, incur; *chom* = *chium*, smell; *kambam* = (the child's own word for) *makan*, eat.
3. The word *thai* is either a pronoun or the investigator's erroneous transcribing of *che*.
4. In Kedah dialect che is a personal pronoun equivalent to *awak*, you, or *aku*, I, in the standard dialect.
5. Final *K* is a glottal stop which was written *q* in the original transcription.
6. Reduplication is syntactically equivalent to the single utterance (Payne 1972) and so not included in the generative grammar written here.
7. The form *mak*, mother, is a vocative which was indicated by intonation in the child's speech.
8. Some sentences occur twice in the corpus; only the first occurence is listed here. Consequently the count of sentences in the corpus does not quite tally with that given in the text. The text count included each utterance as one item regardless of whether or not it was a repetition.
9. The consonant clusters *ng*, *ny*, and *ch*, each represent a single spoken sound (ŋ, ɲ, and tʃ, respectively).

certainties in the child's utterances should show the type of grammar formulations the child is presently acquiring. They will also suggest the types of items which ought to be elicited in studies designed to test the linguistic competence of Kedah Malay children who are at the same stage of linguistic development as that of the present child.[26]

One difficulty in conducting an elicitation-response study of Kedah Malay children is their shyness in the presence of strangers. However members of a child's family, such as school leavers, could probably be taught to administer elicitation items and record the responses (either on tape or in writing). The use of relatives to test children linguistically is a feasible method of studying child language in cultures where the children do not respond to questioning by outsiders in the manner that western children do.

26 Despite the dialect differences within Malay the formulations should also be largely applicable to studies of language acquisition by non-Kedah Malay children.

Apart from the practical difficulties of studying child language theoretical considerations also arise. For examlpe, in addition to grammatical studies, semantic analyses (analyses of meaning) are important. The methodological and analytical problems of semantic analysis are numerous. A study of Kedah Malay language acquisition in several districts of the state might provide information on the extent to which the child's linguistic environment affects his semantic acquisition. For example, does the child of a padi farmer learn the meaning of words associated with fishing and large bodies of water (such as *ombak*, a wave of water) at a later period of linguistic development than the child of a fisherman?[27] Only extensive data on language acquisition by Kedah Malay children can provide the answers to such questions.

"Errors" of childrens' speech are as important as "correct" utterances for analytical purposes. Two types of data on language acquisition are important. First is longitudinal data spanning a minimum of one year but ideally extending from the time a child is born until he becomes a fully matured adult speaker. Second is cross-sectional data gathered from a number of children over a short period of time. A series of cross-sectional studies can cover the entire range of speech behaviour from earliest infancy through maturest childhood. The data obtained should comprise both: descriptive accounts of the children's performance; and the responses to elicatory questions which test the children's competence.[28]

Finally, when the requisite data are available from several non-Indo–European language families it should be possible to formulate a general theory of child language acquisition. Among other things, such a theory will point out which aspects of language acquisition are universal and which seem to depend upon the language being learned.

The understanding of the language learning process gained from such a theory of language acquisition should have great practical importance in the teaching of foreign languages, such as the teaching of English to

27 Also, the order in which certain grammatical structures are learned may depend to some extent upon the extent to which the child hears them used. On the basis of wholly inadequate data the investigator has the impression that a Brunei Malay child learns the passive construction earlier than the Kedah child. In the Brunei homes studied the passive construction was used quite frequently while in the Kedah home studied the passive constructions was used rarely if at all.

28 The competence of adult speakers and old people should also come under examination. General statements that all adults are fully competent speakers of their own native language need examination. It is quite possible that linguistic competence increases up to a certain point, remains on a plateau, and then decrease with old age. If lignuistic competence does decrease with old age what is the nature of the decline; is it perhaps the inverse of language acquisition?

Another fascinating topic is the acquisition of language by children who are growing up in bilingual situations. Are there perhaps important differences in the processes of childhood bilingualism depending upon whether the languages involved are related, such as Cantonese and Hakka, or unrelated, such as Tamil and Malay? The answer so far is: no one really knows.

Malay children and the teaching of Malay to non-Malay children and adults. For example, if Malay is taught to non-Malays in the same sequence as native speakers learn it, difficulties common to learners, such as use of the *me-* prefix, might be obviated. Likewise, native speakers of English assimilate the correct use of *the* and *a* very early in childhood. If the manner in which English acquiring children learn the correct use of *the* can be replicated in the language classroom "correct use of the article *the*" might no longer present problems for Malays and others who are learning English.

Thus the study of non-Indo–European child language acquisition has potential practical value. Further, such study has great importance for general theories of language acquisition and comparative linguistics. The formal grammar presented here utilizes a Chomskyian generative (but not transformational) grammar. Although many practical problems are involved, particularly in data gathering, the study of non-Indo–European language acquisition has great potential for furthering our linguistic understanding.