

Pro-active attitudes and educational strategies in early trilingual acquisition: Referential avoidance and parental intervention at the one-word stage

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This paper studies an input exploitation strategy employed by one trilingual Spanish-Portuguese-Hebrew child—Noam. It is concerned with the acquisition of early vocabulary and meaning. The study adopts a case-study methodology for data collection and analysis within the ‘qualitative research’ paradigm of child language research (Dromi, 1987). It discusses the application of ‘referential avoidance’ by this child, i.e. the excessive use of ‘expressive’ vocabulary instead of names for objects; it is also concerned with ‘parental intervention’, a strategy—not unlike ‘parentese’ (Snow & Ferguson, 1977; Gallaway & Richards, 1994)—employed by Noam’s parents to increase the speed of acquisition of referential words. I argue that parental intervention can facilitate the acquisition of names for objects in multilingual children and others. Children exposed to low status minority languages, such as Spanish and Portuguese in Israel, may be unequal to the task of acquiring three lexicons simultaneously.

Este trabajo investiga una estrategia de explotación del input empleada por un niño trilingüe en español, portugués y hebreo —Noam. Trata del aprendizaje temprano del vocabulario y del sentido. El estudio adopta una metodología de casos para obtener datos y para el análisis dentro del paradigma de ‘investigación cualitativa’ del lenguaje infantil (Dromi, 1987). Este trata de la aplicación de una estrategia de ‘evitación del referente’ por el niño, i.e. el uso excesivo de vocabulario ‘expresivo’ en lugar de nombres de objetos; éste trata también de la ‘intervención de los padres’, una estrategia que no es diferente del ‘parentese’ (Snow & Ferguson, 1977; Gallaway & Richards, 1994), empleada por los padres de Noam para aumentar la rapidez del aprendizaje de las palabras con referente. Argumento que la intervención de los padres puede facilitar el aprendizaje del vocabulario de objetos en niños multilingües y en otros. Los niños expuestos a lenguajes de poco prestigio, tales como el español y el portugués en Israel, pueden tener dificultades en el aprendizaje simultáneo de tres vocabularios.

Introduction

This paper studies a ‘lexical exploitation’ strategy employed by Noam, a young simultaneous Spanish-Portuguese-Hebrew trilingual child; it is concerned with the acquisition of early vocabulary and meaning. I discuss the application of ‘referential avoidance’ by Noam; that is, the use of ‘expressive’ words such as demonstratives, particles, interjections, adjectives, adverbs, verbs, and ‘quasi-words’ instead of a trilingual lexicon containing ‘referential’ words —names for objects (see Nelson, 1973; Faingold, 1996a: 34-35). I am also concerned with ‘parental intervention’; this is an overt and explicit adult strategy employed by Noam’s parents to help build the child’s vocabulary, i.e. to increase the speed of acquisition of a larger referential lexicon. One of the major points of this paper is that referential avoidance seems to facilitate the acquisition of the child’s first speech acts —early requests and assertions— when Noam starts his first communication attempts with three languages (e.g. obtaining food or a toy, asking to be taken for a walk or to the park). Further, I show that, after parental intervention, Noam gives up his avoidance strategy and learns scores of new referential words in very little time, achieving the intended communicative end with his parents successfully. This paper suggests that parental intervention helps to increase the rate of acquisition of names for objects at the pre-syntactic level. Noam appears to be unequal to the task of learning three lexicons simultaneously, especially when two of the languages involved have a low social status in Israel (Spanish and Portuguese). His exposure to the latter may put him at a disadvantage vis-à-vis, say, multilingual children exposed to high status languages such as English and French. It is suggested that Noam’s exposure to more than one low status language can pose special difficulties to the child.

Noam’s parents are proud of their heritage languages and wish to maintain the use of Spanish and Portuguese in the home in spite of the fact that these languages do not have a high status in Israel (as is the case of English and French). The reasons are manifold: (1) the child would be able to communicate with Spanish- and Portuguese-speaking family members, who live in Israel and have a limited proficiency in Hebrew; (2) he would have the ability to travel and stay with his extended family in South America; (3) the parents wish to pass on to the child, their language and culture.

Child linguistics, as it is practiced by this author, involves not so much the application of an existing theory of linguistics such as generative grammar (e.g. Weissenbom et al., 1992) or psychology (e.g. Bruner, 1983; Vygotsky, 1978), as the discovery of a broader model that could address significant aspects of real-life language acquisition in monolinguals, multilinguals, and others. This view of child linguistic development is a bottom-up enterprise, which aims to explain linguistic knowledge and how this knowledge changes in time until the child acquires (or fails to acquire) the adult language(s). This view of linguistics places as much emphasis on the study of individual differences among children (due to differences in input, cognitive styles, linguistic abilities and handicaps, child-rearing styles, etc.) as on the study of universals (see Faingold, 1990, 1996b, 1999a, 1999b).

Referential avoidance

Referential avoidance is a 'lexical exploitation' strategy similar to the concepts of 'communicative styles' (Nelson, 1973; Faingold, 1996a: 34-35) and 'individual differences' (Faingold, 1990, 1996b). For example, as Faingold (1996a: 34-35) puts it, following Nelson (1973), 'children may be divided into two main groups based on the types of words that they produce during the acquisition of the first 50 words. Children can be classified as 'referential' if over half of their lexicon consists of nominal terms (i.e. names for objects); others are classified as 'expressive'. Referential children acquire an 'object oriented' language, while for expressive children, language serves as a function of social interaction.' In this paper, I show that, before parental intervention, Noam exhibits patterns of acquisition consistent with that of expressive children; in contrast, after parental intervention, he acquires a larger object oriented lexicon.

Parental intervention

This is an adult strategy employed by Noam's parents almost daily from 1;5 to 1;6 to help Noam build up a larger referential vocabulary. The strategy was devised, quite intuitively, by Noam's father. It is not unlike 'baby talk as a simplified register' and 'motherese' or, recently, 'child-directed speech' and 'parentese' (see, e.g., Pine, 1994; Richards, 1994). Speech addressed to Western middle-class children younger than two is much slower than speech addressed to adults (Broen, 1972), contains very short sentences (Phillips, 1973), a lot of repetition (Snow, 1972), and an exaggerated use of intonation and stress in content words (Gamica, 1977; Peters, 1983; Cruttenden, 1994; see, further, Snow & Ferguson, 1977; Gallaway & Richards, 1994). Western middle-class parents use highly directive 'tutorial prompts' or questions to elicit names for objects (Pine, 1992). (It is worth noting that some aspects of child-directed speech may be unhelpful to the child [Bard & Andersen, 1983]). In this study, the focus is on helping the child build a repertoire of names for objects. The adults help the child to produce adult words for objects to replace the expressive lexicon employed by the child during his use of referential avoidance. The parents take a proactive strategy with the child, not allowing him to get away with avoiding the use of names of objects. It is worth noting that this is probably the first study of genuine 'parentese', since both parents play the unusual role of primary caregivers, and they both serve as facilitators in Noam's referential development to a very similar extent (Barton & Tomasello, 1994). Noam's parents did the following:

- (1) They focused on his linguistic behavior.
- (2) They responded to his expressive requests in the following way: they would acknowledge what he wanted; and they would encourage him to produce adult names for objects instead of non-referential words and quasi-words.

- (3) Father teased the child playfully: he often gave the child a wrong object, such as a slice of bread, whenever the child made an expressive —rather than referential—request, e.g. for a cookie (see example of the quasi-word [e:e:e:] below).
- (4) They maintained eye contact with the child consistently.
- (5) They spoke slowly and with an exaggerated intonation.
- (6) They consistently assigned an exaggerated stress to all targeted referential words.
- (7) They repeated the target adult words at least twice.
- (8) They used short sentences.
- (9) They used the frames ‘Do you want X?’ or ‘What is this/that [parent points to object]?’ (in Spanish or Portuguese).

Referential avoidance and parental intervention: The quasi-word [e:e:e] > [tita] ‘cookie’

Below, I offer an example of referential avoidance by Noam, followed by parental intervention by Noam’s father. Exchanges identical to this one took place almost daily between Noam and his parents from about 1;5 to 1;6 (see further examples below):

N: [e:e:e:] (N and F are in the kitchen; N makes eye contact with F, points to the cookie jar at the top of the fridge, and says [e:e:e:] repeatedly).

F: [kerés una gafetita gafetita]? ‘do you want a cookie cookie?’ (in Spanish [gafetita] ‘cookie’) (F with slow pronunciation and exaggerated intonation and stress in ‘cookie’, makes eye contact and gives N a piece of bread instead of a cookie).

N: [e:e:e:], [e:e:e:], [e:e:e:] (N is pointing to the cookie jar).

F: [kerés una ga?etita ga?etita]? ‘do you want a cookie cookie?’ (again, F with slow pronunciation and exaggerated intonation and stress in ‘cookie’, makes eye contact and gives N a piece of bread instead of a cookie).

N: [e:e:e:], [e:e:e:], [e:e:e:] (N is crying, screaming; N is having a tantrum).

F: [kerés una gafetita gafetita]? ‘do you want a cookie cookie?’ (once again, F with slow pronunciation and exaggerated intonation and stress in ‘cookie’, makes eye contact and gives N a piece of bread instead of a cookie).

N: [tita], [tita], [tita], [tita], [tita] (N is shouting very loud; it sounds like ‘eureka!’, ‘eureka!’ (‘I have found it!’, ‘I have found it!’)).

F: [a::: gafetita] ‘oh, cookie’ (F gives N a cookie).

‘[The word [tita]] remains part of Noam’s active vocabulary, until by (2;1) it changes to [tatita]. This example illustrates how, when it becomes communicatively imperative, the child will stop avoiding words’ (Faingold, 1987: 40).

Method

Subject and procedures

Noam was tape-recorded once a week, from age 0;10 until 2;0, at home, interacting with his father and mother. Each session lasts 45 minutes. Stimulus materials included picture-books, toys, magazines, paper and pencil, food, etc. His father also kept a diary. The tapes were transcribed within two weeks following recording, using IPA transcription on a level comparable to that recommended by Ferguson & Farwell (1975).

Noam is an only child, with normal hearing and no motor or cognitive defects. He was born in Jerusalem, Israel, in 1984. Both parents came to Israel as students; his father from La Plata, Argentina, and his mother from Sao Paulo, Brazil. The principle of ‘one parent, one language’ (Leopold, 1939, Volterra & Taeschner, 1978) was observed consistently with the child: The father always speaks Spanish and the mother Portuguese, although both parents are proficient in all three languages —Spanish, Portuguese, and Hebrew. The child was also exposed to Hebrew, the language spoken by the sitter and the six other children he spent mornings with during weekdays. Throughout the period of study (0;10 - 2;0), Noam spent a roughly equal amount of time with his father, alone with his mother, with both parents together, and with the sitter and other children. In this sense, Noam’s parents are both primary caregivers.

The corpus consists of all the child’s one-word utterances that allowed for a clear and consistent semantic interpretation. It includes proper names, numerals, and onomatopoeic productions, and so provides a complete repertoire of his productive vocabulary. It also includes strings that did not have an identifiable adult model but seem to have been invented by the child, e.g. [dedetʃi] ‘this is an object’, [tatu] ‘father’s pen’. These productions can be associated with a specific referent or semantic content, and serve as adult words for all purposes, although their phonetic form does not resemble any adult input word that we know of. They are thus similar to ‘quasi-words’ (Stoel-Gammon & Cooper, 1984; Dromi, 1987). All other productions to which I could not ascribe any unambiguous sound-meaning relationship were classified as crying or babbling, and were excluded from analysis. All imitations were excluded. Finally, in this paper I systematically excluded all synonyms. Only the first appearance of a synonym in either Spanish, Portuguese, or Hebrew was counted as a new word. For example, I count ‘feces’ [kaka] in Spanish (1;3.0) and exclude Portuguese [koko] (1;4.4), ‘mother’ [mama] in Spanish (1;4.22) and exclude Portuguese [mai] (1;5.24), ‘in this manner’ [asi] in Spanish (1;2.9) and exclude Hebrew [kaxa] (1;7.21) (see Appendix; Faingold, 1996a: 142-144). It is worth mentioning that, while Noam is using synonyms at the 50-word stage, the latter are not used in contextually sensitive ways (i.e. the child is using Spanish and Hebrew words with his Portuguese-speaking mother and Portuguese and Hebrew words with his Spanish-speaking father); it is only much later that Noam begins making more systematic lexical choices (Faingold, 1999a). The question whether Noam combined the three languages into one system —or, conversely, whether there is a systematic differentiation between Spanish, Portuguese, and Hebrew— at the

pre-syntactic level is beyond the scope of this paper (see Clark, 1993; Lanza, 1992,1997; Quay, 1995; Volterra& Taeschner, 1978).

Results

Before parental intervention: Noam's expressive lexicon (1; 1.22 - 1;5.24)

Below, I show Noam's strategy of lexical avoidance before parental intervention, with a large expressive lexicon, including a lexicon containing more than 50% of non-referential words and quasi-words as well as a few referential words. Table 1 shows the breakdown of Noam's expressive lexicon before parental intervention.

Table 1
Before parental intervention
Noam's expressive lexicon (1; 1.22 - 1;6)

	Number	% ofTotal
Non-referential words	10	52.5
Quasi-words	2	10.5
Referential words	7	37.0
Total	19	100

Table 1 presents 10 (52.5% of the total) non-referential words, including one interjection ([au:] Hebrew [alo] 'hello'), one particle ([si] Spanish [si] 'yes'), three adverbs ([asi] Spanish [asi] 'in this manner', [ai] Spanish [ai] 'there', [dai] Hebrew [dai] 'enough'), two demonstratives ([ese] Spanish [ese] 'that', [ze] Hebrew [ze] 'this'), two verbs ([ke] Portuguese [ke] 'I want', [kax] Hebrew [kax] 'take'), and one adjective ([tʃi] Portuguese [kenti] 'hot'); and it includes also two (10.5% of the total) quasi-words ([dedetʃi] 'this is an object', [e:e:e:] 'I want X'). Table 1 contains also seven (37% of the total) referential words ([kaka] Spanish [kaka] 'feces', [papa] Spanish [papa] 'father', [papi] Spanish [lapis] 'pencil', [te] Spanish [te] 'tea', [to] Spanish [torre] 'tower', [mama] Spanish [mama] 'mother', [pe] Portuguese [pe] 'foot'). In short, Noam's vocabulary before parental intervention contains 12 expressive words, i.e. 10 non-referential words plus two quasi-words (63% of the total). It is worth emphasizing that before parental intervention whatever few referential words Noam had in his lexicon were acquired piecemeal and at a very slow rate of about one new referential word per week (see Appendix; see examples below). Thus, at this stage, Noam's patterns of lexical acquisition are consistent with those of expressive children, since way over half of the lexicon consists of expressive terms at the 50 word stage.

Below, I list all non-referential words, quasi-words, and a few referential words, and I offer snippets of parent-child conversation before parental intervention (see Appendix for further details).

Non-referential words

Noam aged 1; 1.22

(1) [au:]

N: [au:] [au:] 'hello' (in Hebrew) (N holds play-phone and waits for answer)

Noam aged 1;2.9

(2) [si]

F: [donde ponemos la piasa]? 'Where do we insert the piece?' (in Spanish) (F and N are playing with a puzzle).

N: [si]? 'yes?' (in Spanish [si]) (N inserts the piece in the puzzle).

(3) [asi]

F: [donde βa]? 'Where do I put it?' (in Spanish) (F and N are playing with a puzzle).

N: [asi]! 'in this manner!' (in Spanish [asi]) (N inserts the piece in the puzzle).

(4) [ese]

F: [donde ponemos la piasa]? 'Where do we insert the piece?' (in Spanish) (F and Noam are playing with a puzzle).

N: [ese] 'that' (in Spanish) (N inserts the piece in the puzzle).

(5) [ai]

F: [donde ponemos la piasa]? 'Where do we insert the piece?' (in Spanish) (F and Noam are playing with a puzzle).

N: [ai], [ai] 'there' (in Spanish) (N inserts the piece in the puzzle).

(6) [ze]

N: [ze] 'this' (in Hebrew) (N points to his truck), [ze] (N points to the roof), [ze] (N points to the book on the table).

N: [ze] 'this' (N inserts a piece in the puzzle), [ze] (N inserts another piece in the puzzle).

Noam aged 1;3.0

(7) [dai]

N: [dai]! [dai]! 'enough!' (in Hebrew) (N is playing with a Lego set. He tries, but fails, to connect Lego pieces. N looks upset).

N: [dai]! [dai]! 'enough!' (N climbs to the TV set. F puts N down to the floor. N screams [dai] repeatedly).

(8) [ke]

M: [ke kome alguma koiza] 'Do you want to eat something?' (in Portuguese).

N: [ke] 'I want'.

F: [kerfs komer algo] 'Do you want to eat something?' (in Spanish).

N: [ke] 'I want'.

- (9) [tʃi]
N: [tʃi] ‘hot’ (in Portuguese [kɛntʃi]) (N points to the stove in the living-room).
N: [tʃi] (N points to his bottle with hot milk on the table).

Noam aged 1;5.8

- (10) [kax]
N: [kax] [kax] ‘take’ (in Hebrew) (N takes an orange from the basket and offers it to M).
N: [kax] (a few minutes later he gives M an orange, N takes a packet of cigarettes from the table, takes a cigarette, and offers it to F).

Quasi-words

Noam aged 1; 1.22

- (1) [dedetʃi]
F: [ke es eso]? ‘What is that?’ (in Spanish) (F holds a truck in his hand)
N: [dedetʃi] ‘this is an object’.
F: [ke es eso]? ‘What is that?’ (in Spanish) (F holds a book in his hand)
N: [dedetʃi] ‘this is an object’.

Noam aged 1;3 - 1;5

(2) [e:e:e:]

Noam aged 1;3.0

- N: [e:e:e:] (N comes from the kitchen into the living room, with a frying pan in hand, makes eye contact with M, screaming [e:e:e:] repeatedly).
M: [ke ovu] ‘Do you want an egg?’ (in Portuguese).
N: [ke] ‘yes, I want’ (in Portuguese [ke] ‘I want’).
N: [e:e:e:] (N takes F’s hand, brings F into the kitchen, makes eye contact with F, points to the cookie jar at the top of the fridge, and says [e:e:e:] repeatedly).
F: [a:::] ‘oh’ (F gives N a few cookies).
N: (silence, smile).

Noam aged 1;5.0

- N: [e:e:e:] (early in the morning, M is sleeping, N comes into M and F’s bedroom with M’s shoes in hand, looks at M, says [e:e:e:] repeatedly. N is wearing his coat and he wants to go for a walk).
M: (no answer; M is sleeping. F gets N kicking and screaming [e:e:e:] out of the bedroom)

Noam aged 1;5.1

- N: [e:e:e:] (in the evening, F is watching TV, N comes into the living room with F’s sweater, shopping bag with playground toys in hand, makes eye contact with F, says [e:e:e:] repeatedly. N is wearing his coat; he clearly wants to go to the park).
F: [aora no noam] ‘not now, Noam’.

N: [e:e:e:] (N shows F and M a plastic bottle with the lid on, says [e:e:e] repeatedly).

F: [a:::] ‘oh’ (F takes lid off bottle).

N: (silence, smile).

A few referential words

Noam aged 1;3.0

(1) [kaka] (in Spanish [kaka] ‘feces’)

(2) [papa] (in Spanish [papa] ‘father’)

(3) [papi] (in Spanish [lapis] ‘pencil’)

Noam aged 1;4.0

(4) [te] (in Spanish [te] ‘tea’)

Noam aged 1;4.13

(5) [to] (in Spanish [torre] ‘tower’)

Noam aged 1;4.22

(6) [mama] (in Spanish [mama] ‘mother’)

Noam aged 1;5.8

(7) [pe] (in Portuguese [pe] ‘foot’)

After parental intervention: Noam’s referential lexicon (1;5.24 - 1;7.21)

Below, I show Noam’s large repertoire of referential words after parental intervention, with a small number of non-referential words and quasi-words. Table 2 shows the breakdown of Noam’s referential vocabulary after parental intervention.

Table 2
After parental intervention
Noam’s referential lexicon (1;6 - 1;7.21)

Number	% of Total	
Non-referential words	8	22
Quasi-words	4	11
Referential words	24	67
Total	36	100

Table 2 presents 24 (67% of the total) referential words, including a trilingual lexicon containing scores of names of objects in all Spanish, Portuguese, and Hebrew (‘cookie’, ‘paper’, ‘clock’, ‘name of dog’, ‘cat’, ‘bird’, ‘Tight’, ‘child’, ‘banana’, ‘name of father’, ‘ball’, ‘egg’, ‘toast’, ‘grandfather’, ‘horse’, ‘name of mother’, ‘bear’, ‘box’, ‘girl’, ‘shoe’, ‘shoe brand’, ‘cheese’, ‘insect’, ‘house’). Table 2 includes also 8 (22% of the total) non-

referential words, including six verbs ([da] ‘Portuguese [da] ‘give’, [le] Portuguese [le] ‘read’, [tatate] Spanish [sentate] ‘sit down’, [upa] Spanish baby talk [upa] Tift’, [a pasea] Spanish [a pasear] ‘to go for a walk’, [bebe] Portuguese [bebe] ‘drink’), one particle ([ken] Hebrew ‘yes, come in’), and one adjective ([susio] [spanish [susio] ‘dirty’) as well as four quasi-words ([tatu] ‘pen’, [pupa] ‘ball’, [u:u:] ‘dog’, [fu:] Tights off) (see Appendix; see examples below). In short, after parental intervention, Noam’s patterns of lexical acquisition become consistent with those of referential children, since way over half of his vocabulary consists now of referential terms (67% of the total).

Below, I list examples of all referential words, non-referential words, and quasi-words, and I offer snippets of parent-child conversations after parental intervention (see Appendix for further details).

Referential words

Noam aged 1;5.24

(1) [tita] (in Spanish [ga?etita] ‘cookie’)

Noam aged 1;6.5

(2) [pape] (in Spanish [papel] ‘paper’)

Noam aged 1;6.23

(3) [lelo] (in Spanish [reloj] ‘watch’)

(4) [dida] (in Hebrew [linda] ‘name of dog’)

(5) [tatu] (in Portuguese [gatu] ‘cat’)

(6) [pipi] (in Portuguese baby-talk [pipi] ‘bird’)

(7) [lalu] (in Spanish [la luz] ‘the light’)

(8) [nene] (in Spanish [nene] ‘child’)

(9) [lalala] (in Spanish [banana] ‘banana’)

(10) [lali] (in Spanish [dani] ‘name of father’)

Noam aged 1;7.21

(11) [dadu] (in Hebrew [kadur] ‘ball’)

(12) [u:] (in Spanish [ueβo] ‘egg’)

(13) [tau] (in Spanish [tostađo] ‘toast’)

(14) [f:of:o] (in Portuguese [vovo] ‘grandfather’)

(15) [papalu] (in Portuguese [kavalu] ‘horse’)

(16) [lola] (in Spanish [sonia] ‘name of mother’)

(17) [oso] (in Spanish [oso] ‘bear’)

(18) [kaxa] (in Spanish [kaxa] ‘box’)

(19) [amina] (in Portuguese [minina] ‘girl’)

(20) [papatu] (in Portuguese [sapatu] ‘shoe’)

(21) [dida] (in Spanish [ađiđas], ‘Adidas’)

(22) [piso] (in Spanish [keso] ‘cheese’)

(23) [pítitu] (in Spanish [bitfíto] ‘insect’)

(24) [kasa] (in Spanish [kasa] ‘house’)

Non-referential words

Noam aged 1;6.5

(1) [da] (in Portuguese [da] ‘give’)

Noam aged 1;6.23

(2) [le] (in Portuguese [le:] ‘read’)

(3) [tatate] (in Spanish [sentate] ‘sit’)

Noam aged 1;7.21

(4) [ke::] (in Hebrew [ken] ‘yes, come in’)

(5) [upa] (in Spanish baby-talk [upa] Tift me’)

(6) [apasea] (in Spanish [a pasear] ‘go for a walk’)

(7) [bebe] (in Portuguese [bebe] ‘to drink’)

(8) [susio] (in Spanish [susio] ‘dirty’)

Quasi-words

Noam aged 1;6.5

(1) [tatu]

N: [tatu] (N takes F’s pen from F’s pocket, makes eye contact with F and says [tatu] repeatedly).

(2) [pupa]

N: [pupa] (N points to his ball), [pupa] (N makes eye contact with F and points to an egg shaped piece of puzzle).

N: [pupa] (N throws a stone), [pupa] (N throws another stone).

Noam aged 1;6.23

(3) [fu:]

N: [fu:] (N is dressed in pijamas and is getting ready to go to bed; N turns on the light), [fu:] (N turns off the light), [fu:] (N turns on the light).

F: [basta es ora de dormir] ‘enough already, is time to go to sleep’ (in Spanish) (F puts N in the crib, N cries).

Noam aged 1;7.21

(4) [u:u:]

N: [u:u:] (N makes eye contact with F and points to Linda, the neighbour’s dog).

N: [u:u:] (N points to a dog in the street).

Noam’s vocabulary growth (1;1.22 - 1;7.21)

In quantitative terms, after parental intervention, Noam’s vocabulary increases drastically. Figure 1 presents the growth of Noam’s vocabulary at a glance (i.e. new words per session between 1; 1.22 - 1;7.21).

Figure 1. Noam's vocabulary growth (in new words per session from 1; 1.22 -1;7.21)

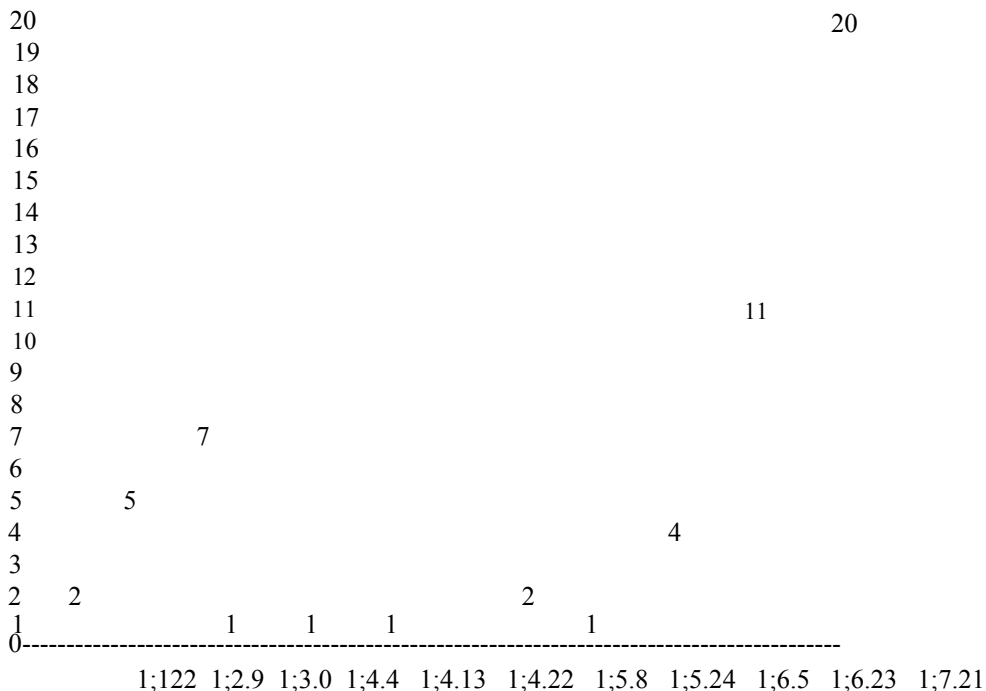


Figure 1 shows an initial increase of mostly expressive vocabulary (14 new items are acquired in about one month, between 1; 1.22 - 1;3.0), followed by a sharp decrease in the rate of acquisition of new vocabulary (only 6 new items are acquired during the following three months, between 1;3.0 - 1;5.24); after parental intervention (at about 1;5 - 1;6), Noam's lexicon shows a sharp increase of mostly referential vocabulary (35 new items are added rapidly and effortlessly during the following two months, between 1;5.24 - 1;7.21) (see Appendix).

Discussion

Regarding the effects of parental intervention, two questions arise: (1) Is parental intervention necessary for the acquisition of referential words? (2) Is parental intervention at least *helpful* to the child, e.g. to increase the speed of acquisition of referential words?

The answer to the first question seems to be negative, since 'parentese' is not universally distributed among all the languages and cultures of the world. Clearly, certain non-Western and non-middle class children, raised in cultures in which their parents do

not modify the speech directed to children, can do without the modifications that Western middle-class parents make in the acquisition of names for objects and other linguistic structures (Lieven, 1994). However, some caution seems in order at this point, since parental intervention *may be necessary* to facilitate the linguistic acquisition of young children suffering from chronic ear infections and a mild hearing loss; for example, recently, in an audiological screening and speech and language test of preschoolers, Faingold (1999b) found that a slight hearing loss is present in a large number of children, and it can affect the acquisition of words and phonological patterns.

The answer to the second question seems to be positive. While it is true that I have no way of ruling out the possibility that Noam's "naming explosion" might have happened «naturally» (i.e. without parental intervention), there exists substantial evidence that parental intervention can facilitate the speed of acquisition of referential terms (Sokolov & Snow, 1994). For example, more than two decades ago, Ninio & Bruner (1978) showed that mothers *can* teach young children names for objects in highly structured communicative situations such as 'book-reading'. More recently, in a similar vein, Barton & Tomasello (1994:121) showed that the proportion of nominals in the children's vocabularies at twenty-one months were positively correlated with the fathers' minimal acknowledgements or off-topic replies when the children were fifteen months. This finding might be taken to indicate that young children's linguistic experiences with this type of paternal speech facilitate their development and use of conventional speech forms (*i.e. nouns versus pronouns*), and perhaps encourage the children towards a referential style [my emphasis]

The results show that, *before parental intervention*, the majority of the words acquired by Noam are non-referential words and quasi-words, i.e. the child's lexicon consists mostly of expressive items such as demonstratives, particles, interjections, adjectives, adverbs, verbs, and quasi-words (63% of the total vocabulary from 1;1.22 - 1;5.24). I have called this phenomenon 'referential avoidance'. After *parental intervention*, however, the majority of the words acquired by Noam are referential words—names for objects (67% of the total vocabulary from 1;5.24 - 1;7.21). Thus, the findings in this paper seem to support the claim that parents, if they wish to do so, can facilitate the speed of acquisition of referential words in their children—whether monolingual or multilingual. However, since Noam may be unequal to the task of acquiring the lexicons of low status minority languages—Spanish and Portuguese—simultaneously, it can be hypothesized that this task puts him at a disadvantage vis-à-vis other Israeli children exposed to high status languages such as English and French.

Summary and conclusion

I have studied a lexical exploitation strategy—referential avoidance with an excessive use of expressive words—in one trilingual Spanish-Portuguese-Hebrew child (Noam). I have also shown a strategy employed by Noam's parents to facilitate the acquisition of a large number of names for objects—parental intervention. I have suggested that parental

intervention does encourage a growth in the child's referential vocabulary. While, as noted, there is no way of ruling out the possibility that Noam's spurt in naming behavior might have happened naturally, I think this paper supports earlier claims that 'considerable evidence supports the view that particular aspects of adult talk to children may affect how children talk' (Lieven, 1994: 15) (see, further, Furrow & Nelson, 1986; Lieven, 1984; Pine, 1992; Barton & Tomasello, 1994; see, especially, Ninio & Bruner, 1978). While in the end children *do* learn to talk like adults, we need to have a clear idea of why and how some children learn to use language faster than others —monolinguals, bilinguals, and trilinguals alike. In future research, for example we need to find out whether the acquisition of more than one minority language puts the child at a disadvantage-cognitive or/and social; we need to know whether children exposed to low status minority languages are unequal to the task of learning the lexicon of the input language(s) at the same speed than children exposed to high status languages.

References

- BARD, E. G. & ANDERSON, A. (1983) "The unintelligibility of speech to children". *Journal of Child Language* 10, 265 - 92.
- BARTON, M. E. & TOMASELLO, M. (1994) "The rest of the family: The role of fathers and siblings in early language development". In C. Gallaway & B. J. Richards (eds), *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.
- BROEN, P. (1972) "The verbal environment of the language-learning child". *Monographs of the American Speech and Hearing Association*, 17.
- BRUNER, J. (1983) *Child's Talk: Learning to Use Language*. Oxford: Oxford University Press.
- CLARK, E. (1993) *The Lexicon in Acquisition*. Cambridge: Cambridge University Press.
- CRUTTENDEN, A. (1994) "Phonetic and prosodic aspects of baby talk". In C. Gallaway & B. J. Richards (eds), *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.
- DROMI, E. (1987) *Early Lexical Development*. Cambridge: Cambridge University Press.
- FAINGOLD, E. D. (1987) "Some Universal and Idiosyncratic Aspects of Early Phonological and Lexical Acquisition. Evidence from a Trilingual Spanish, Portuguese, and Hebrew-speaking Child". Unpublished Master Thesis, The Hebrew University of Jerusalem.
- ____ (1990) "The acquisition of syllabic and word structure: Individual differences and universal constraints". *Language Sciences* 12, 101-13.
- ____ (1996A) *Child Language, Creolization, and Historical Change. Spanish in Contact with Portuguese*. Tübingen, Germany : Gunter Narr Verlag.
- ____ (1996b) "Variation in the application of natural processes: Language-dependent constraints in the phonological acquisition of bilingual children". *Journal of Psycholinguistic Research* 25, 515-26.

- ____ (1999A) "The re-emergence of Spanish and Hebrew in a multilingual adolescent". *International Journal of Bilingual Education and Bilingualism* 2, 283-95.
- ____ (1999B) "Progressive and regressive phonology: An audiological screening of children aged 3 to 4". In J. Ohala, Y. Hasegawa, M. Ohala, D. Granville, & A. Bailey (eds), *Proceedings of the Nth International Congress of Phonetic Sciences*. Berkeley, California: University of California Press.
- FERGUSON, C. A. & FAR WELL, C. B. (1975) "Words and sounds in early language acquisition". *Language* 51,419-39.
- FURROW, D. & NELSON, K. (1984) "Environmental correlates of individual differences in language acquisition". *Journal of Child Language* 11, 523-34.
- GALLAWAY, C. & RICHARDS, B. (EDS). (1994) *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.
- GARNICA, O. (1977) "Some prosodic and paralinguistic features of speech to young children". In C. Snow & C. A. Ferguson (eds), *Talking to Children. Language Input and Acquisition*. Cambridge: Cambridge University Press.
- LANZA, E. (1992) "Can bilingual two-year-olds code-switch?" *Journal of Child Language* 19,633-58.
- ____ (1997) *Language Mixing in Infant Bilingualism*. Oxford: Oxford University Press.
- LEOPOLD, W. F. (1939) *Speech Development of a Bilingual Child: A Linguist's Record*. Vol 1. Evanston: Northwestern University Press.
- LIEVEN, E. V. M. (1984) Interactional style and children's learning. *Topics in Language Disorders* 4, 15-23.
- ____ (1994). "Crosslinguistic and crosscultural aspects of language addressed to children". In C. Gallaway & B. J. Richards (eds), *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.
- NELSON, K. (1973). Structure and strategy in learning to talk. *Monographs of the Society for Research in Child Development* 38 (1-2, Serial No. 149).
- NINIO, A. & BRUNER, J. (1978) "The achievement and antecedents of labelling". *Journal of Child Language* 5, 1-15.
- PETERS, A. M. (1983) *The Units of Language Acquisition*. Cambridge: Cambridge University Press.
- PHILLIPS, J. R. (1973) "Syntax and vocabulary of mothers' speech to young children: Age and sex comparisons". *Child Development* 44, 182-85.
- PINE, J. (1992) "Maternal style at the early one word stage: re-evaluating the stereotype of the directive mother". *First Language* 12, 169-85.
- ____ (1994) "The language of primary caregivers". In C. Gallaway & B. J. Richards (eds), *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.
- QUAY, S. (1995) "The bilingual lexicon: implications for studies of language choice". *Journal of Child Language* 22, 369-87.
- RICHARDS, B. J. (1994) "Child-directed speech and influences on language acquisition: methodology and interpretation. In C. Gallaway & B. J. Richards (eds), *Input and Interaction in Language Acquisition*. Cambridge: Cambridge University Press.

- SNOW, C. (1972) "Mother's speech to children learning language". *Child Development* 43,549-65.
- SNOW, C. & FERGUSON, C. A. (EDS) (1977) *Talking to Children. Language Input and Acquisition*. Cambridge: Cambridge University Press.
- STOEL-GAMMON, C. & COOPER, J. A. (1984) "Patterns of early lexical and phonological acquisition". *Journal of Child Language* 19, 247-71.
- VOLTERRA, V. & TAESCHNER, T. (1978) "The acquisition and development of language by a bilingual child". *Journal of Child Language* 5, 311-26.
- VYGOTSKY, L. (1978) *Mind in Society: The development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- WEISSENBORN, J., GOODLUCK, H., & ROEPER, T. (EDS). (1992) *Theoretical Issues in Language Acquisition: Continuity and Change in Development*. Hillsdale, N.J.: Erlbaum.

Appendix

Noam's vocabulary (1;1.22 - 1;7.21) (Faingold, 1996a: 142-144)

Session 1. Noam aged 1;1.22

Child's output	Adult's input	Gloss
(1) au:	H alo	'hello, on the phone'
(2) det/i - dedet/i	?	'this is an object'

Session 2. Noam aged 1;2.9

(1) si	S si	'yes'
(2) asi	S asi	'in this manner'
(3) ze	H ze	'this'
(4) ese	S ese	'that'
(5) ai	S ai	'there'

Session 3. Noam aged 1;3.0

(1) dai	H dai	'enough'
(2) ke	Pke	'I want this'
(3) e:e:e	?	'I want that'
(4) t/i	P kentʃi	'hot'
(5) kaka	S kaka	'feces'
(6) papa	S papa	'father'
(7) papi	S lapis	'pencil'

Session 4. Noam aged 1;4.4

te	S te	'tea'
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Session 5. Noam aged 1;4.13

to	S torre	'tower, cubes'
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Session 6. Noam aged 1;4.22

mama	S mama	'mother'
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Session 7. Noam aged 1;5.8

(1) pe	P pɛ	'foot'
(2) kax	H kax	'take this'

Session 8. Noam aged 1;5.24

tita	S gafetita	'biscuit'
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Session 9. Noam aged 1;6.5

(1) da	P da	‘give’
(2) tatu	?	‘Parker pen’
(3) pape	S papel	‘paper’
(4) pupa	?	‘round object’

Session 10. Noam aged 1;6.23

(1) lelo	S rrelox	‘watch, clock’
(2) dida	H linda	‘name of dog’
(3) tatu	P gatu	‘cat’
(4) pipi	P pipi	‘bird’
(5) lalu	S la lus	‘the light’
(6) nene	S nene	‘child’
(7) le	Pie	‘read’
(8) lalala	S banana	‘banana’
(9) fu::	?	‘lights off’
(10) tatate	S sentate	‘sit down’
(11) lali	S dani	‘name of father’

Session 11. Noam aged 1;7.21

(1) u:u:	?	‘dog’
(2) dadu	H kadur	‘ball’
(3) ke::	H ken	‘yes, come in’
(4) u:	S ueβo	‘egg’
(5) tau	S tostaðo	‘toast’
(6) f:of:o	P vovo	‘granfather’
(7) papalu	P kavalu	‘horse’
(8) lola	S sonia	‘name of mother’
(9) upa	S upa	‘lift me’
(10) oso	S oso	‘bear’
(11) kaxa	S kaxa	‘box’
(12) susio	S susio	‘dirty’
(13) amina	P minina	‘girl’
(14) papatu	P sapatu	‘shoe’
(15) dida	H adidas	‘Adidas’
(16) piso	S keso	‘cheese’
(17) pititu	S bitifito	‘little insect’
(18) apasea	S a pasear	‘to walk’
(19) bebe	P bebe	‘to drink’
(20) kasa	S kasa	‘house, home’