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AUTHOR Christian, Jane M.
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ABSTRACT

This document is a report on English acquisition by a 2-year old Gujarati-speaking child. Overall language development is dealt with only partially. Two aspects of this development are concentrated on. These are (1) phonological accomodation of English and Gujarati in a changing and increasing system, and (2) concentration of English lexemes in specific semantic domains within a basically Gujarati-oriented grammar. It is clear that the child' comprehension of English is greater than either her grammatical competence or her ability to produce novel utterances. In Gujarati grammar, the child is beginning to acquire several inflectional patterns and is fully capable of appropriately constructing several types of Gujarati sentences. Gujarati and English are distantly related as Indo-European languages, and their phonological systems have many points of similarity. Though the child uses very few English verbs as yet, she responds appropriately to a considerable number in questions, imperatives, and requests. If she gives the Gujarati term for any object and is asked for the English, she will often supply it. There are some parallels between first and second language learning in this young child. Two strong complementary forces in her learning would seem to be the urge to collect more and more data, or perhaps the nearly complete receptivity to incoming information, along with the increasing need to simplify handling it by means of systematization. (CK)

DEVELOPING BILINGUALISM IN A TWO-YEAR OLD GUJARATI-ENGLISH LEARNING CHILD

Jane M. Christian

University of Alabama

In this short preliminary report on English acquisition by a 2,6 year-old Gujarati speaking child we perforce will ideal only partially with overall language development, concentrating upon two aspects that at present stand out in her bilingual development. These are a) phonological accommodation of English and Gujarati in a changing and increasing system, and b) concentration of English lexemes in specific semantic domains within a basically Gujarati-oriented grammar.

The only child of a university professor, she came from India to the United States at the age of eighteen months, at which time she had the beginnings of a 'telegraphic' syntax in Gujarati with remnants of a pivotal stage still in operation. In Gujarati she had been exposed both to standard literate Gujarati and to an unwritten northern dialect similar to Sindhi, the Kacchi spoken in the home of relatives. According to these informants Kacchi and standard Gujarati are mutually unintelligible; this child did not acquire the ability to speak Kacchi but came to understand some few requests or commands, and perhaps the names of some objects and people during her short contact with Kacchi. Both parents from the beginning of her language development have spoken to this child almost entirely in Gujarati, their aim being to protect her against confusion in her basic development of language skills while slowly introducing a few items of English. However, though Gujarati is spoken almost entirely among family members, English is spoken over the telephone, with frequent guests and colleagues, and by the dozen or so children with whom this child plays in and around the high-rise apartment building in which she lives. Furthermore she hears English daily on television in the home, in both children's and adults' programs. For several months during the earlier part of her stay in this country she was in frequent contact with a Panjabi speaking boy of the same age, whose family often visited with her own, and whose speech development

was roughly comparable to her own. From him she acquired a few words in Panjabi, but was evidently uninfluenced in either phonological or grammatical development, simply setting these Panjabi words in a Gujarati context. Very recently the child and her mother have been attending two mornings per week a nursery school program in which English is the principal medium, though speakers of several languages participate. In all contacts with English speaking children of various ages this child for the most part speaks with them in Gujarati, increasingly fitting in English words and phrases which she has learned, and appears to feel little or no inhibition from the language differences in this interaction. One reason undoubtedly for this is the great reliance placed upon proxemic and kinesic aspects of total communication in children around this age range; touch, close eye contact, facial expressions, gestures, and direct imitation of active play behavior are all important, and can often substitute for speech, or provide, as it were, an interpretation of verbal interaction through other sensory information. Furthermore this child is virtually always accompanied by one or both parents to whom she can turn for verbal interpretation, and even some translation services.

It is clear that the child's comprehension of English is greater than either her grammatical competence (which should not be confused with comprehension, the latter requiring considerably less complete grasp of details and even of structural principles), or her ability to produce novel utterances. Though to a considerably lesser degree, the same sort of statement can be made about her comprehension and use of Gujarati, the difference here being less marked. She reproduces, for example, in reduced, grammatically simpler sentences the somewhat more complex embedded or conjoined parallel structures of sentences formed

for her by the parents in Gujarati stories, and in other contexts. It should be noted here that neither parent speaks to the child in such long or complex utterances as are reserved for adult use, in either Gujarati or English, but in turn reduces these and the lexical range considerably, to fall just a short distance beyond the child's present competence. The same may be said with reference to the speech in English directed to the child by English speaking children, though overheard English from the telephone or other adult conversations, television, etc. is, of course, not reduced in this way. It is interesting that the child is able increasingly to separate and sort out systematically items from the English, as well as Gujarati, which is intended for adult consumption, and then use them productively in her own speech. She shows the ability to pick out word classes in English to some extent, which implies a rudimentary grasp of English syntactical patterns, often quite different from those of Gujarati, and also, presumably, an understanding of English intonation patterns and paralinguistic features. Otherwise, how would it be possible for her to isolate and label, and then appropriately use English lexical items and even phrases from the barrage of English noise heard from adults or on television? Creation of an adequate explanatory model for this sort of linguistic behavior in the bilingual child is surely of the most crucial tasks facing the field of developmental linguistics.

In Gujarati grammar this child is beginning to acquire several inflectional patterns, proceding, it would appear, from a semantic base, and is fully capable of appropriately constructing several types of Gujarati sentences of NP, VP, adjectives, postpositional phrases and adverbials of a locative sort, question markers, emphasis and respect markers, and so on. She can use a few verb tenses such as present

continuative and past continuative appropriately and fully, but lacks aspect, transitivity markers, etc. She is beginning to use gender and pronouns appropriately, but not yet pluralization (though, interestingly, she can count by rote in English nearly to ten, and associates this with enumeration). Possession is syntactically indicated by position, but morpheme markers are as yet absent. She is in command of some, though not all, imperative and request patterns, and negation. She inserts English lexemes of appropriate word classes into appropriate positions within her Gujarati grammar, but does not add Gujarati inflections to English words.

Gujarati and English being very distantly related as Indo-European languages, it is not too surprising that their phonological systems have many points of similarity. These and the differences will be apparent in much simplified form from the summary below, of Gujarati phonemes:

p ph		t th		ṭ ṭh		k kh	
b bh		d dh		ḍ ḍh		g gh	
			c ch				
			j jh				
m		n					
	f ś	s		ṣ			
	v	z					
			r				
			l		y		h

A most obvious difference from English is the aspiration of stops and affricates throughout, contrasting with non-aspirated ones, and the differentiation between dental and retroflex stops, plus differentiation among types of sibilants. Sanskritized written Gujarati would include other nasals, which, however, are homoganically determined by environment and thus more properly allophones of /n/.

The child under consideration has nearly completed acquisition of the full Gujarati set, though her system excludes the retroflex consonants, the /r/ which she coalesces with /l/, the voiced sibilant /z/, and the relatively rarely heard /jh/. She collapses all sibilants to /s/, the central one. Of English phonemes not occurring in Gujarati as such, she has developed a distinct /w/ which contrasts with her Gujarati /v/, the latter possessing an allophone [w]. An example of this is her clearly bilabial /w/ for the English grapheme y as /wai/, contrasting with Gujarati vāvā , frock. For English words she uses unaspirated consonants, ignoring the non-distinctive feature of English, whereby C- is slightly aspirated, in the case of stops. In both Gujarati and English her /c/ is realized as /ts/, and /j/ as /ds/, very slightly voiced. Thus sārī becomes tsālī; train or cucu becomes tsūtsū. English /-z/ is realized as /-t/, as in nose becoming nōt.

Gujarati has a distinction between long and short voewels in all cases: i, ī u, ū

ɛ, ē o, ō

ə, ā

This child firmly possesses this contrast and all vowels, to which she has added the /æ/ of English, as in her kæt or dædī, which she consistently lengthens. Short voewels /ɛ/ and /ə/ she consistently realizes as short in English. Her short /i/ conforms in English to the Gujarati realization rather than to English /ɪ/. She consistently lengthens final vowels in English, according to the Gujarati pattern. In Gujarati consonants as well as vowels may often be geminated, a pattern which this child has mastered, but has no need for in English.

Gujarati consonant clusters of C_1C_2 which she uses include nasal plus stop, and stop plus continuant such as /l/ or /y/. Stop plus /r/becomes

coalesced with stop plus /l/. These are transferred to English as tl k (truck), tlī (tree), glīn (green), glēps (grapes), plīs (please, and, for the former case, tɛ̄nkə̄ (thank you), ēlifənt (elephant).

A generative morphophonemic analysis of this bilingual development over the span of perhaps a year would be most instructive, though beyond the scope of this paper, in which only a brief structural comparison and description of current features is possible.

With regard to semantic domains in which English lexemes are concentrated, it was possible as yet to find few, if any, true taxonomic structures labeled. In most cases it would be unjustifiable at this stage of development to argue more than configuration of items which somehow 'go together' in sets, or perhaps even in lists. The process is certainly of systematization of more, and of more complex, data; as it is received, it is oriented within the current system. Insofar as this proves impossible, the system is broadened to account for new items becomes unwieldy or impossible to handle as a gross individual unit. It would seem that listing of items possessing a feature or collection of features in common, or perhaps only spacial or temporal contiguity, would be as simple a technique for early categorization as a child might find. In any case, some evidence for such a view appears in the English acquisition by this child, evidence eked out by the non-verbal context of speech.

For example, she can, either on command or spontaneously, draw a person, whom she variously identifies as herself, dɛ̄dī, mɛ̄mī, ānti, or others in a group of known people for whom kinship terms are used. We may suspect that it is a factor of contiguity or some such which supplies the set, however, rather than literal kinship at this point. We may, however, be quite sure of defining it as a

set, both by the continuity or production of the drawings, and by the fact that only the artist can identify whose is each portrait, their features looking very similar to an outsider. The features drawn and labeled verbally, mainly in English, can also be pointed out and labeled on herself or others thus, perhaps as a sort of distinctive feature system by which people are identified. The items duly drawn and labeled in English in each case include: mat (mouth), not (nose), aibo (eyebrow), nek (neck), iah (ear), hah (hair), and ai (eye). A circular face drawn goes unlabeled, though she appropriately applies the terms hed (head), and fes (face) to herself and others; moreover, she thus labels tit (teeth), ten (tongue), finge (finger--for toes too, as in Gujarati), tutums (two-thumbs), bek (back) in English, and in Gujarati pet (belly), nak (nose), kan (eye), bagal (armpit), and others. Uttu is any hurt place. Dress may be another semantic set, though, if so, may be just emerging, in that production verbally of one item does not often stimulate a spontaneous retrieval of other items. There are several English lexemes in this category, if such it can be labeled: pent (pant), but (boot or shoe), saks (socks), bopin (button), etc., balanced by Gujarati bangali (bangles, vava (frock), tsali (sari), tsappal (sandal), etc.

Other Gujarati kin terms are used for non-kin frequent visitors who are Indian: for example, mama (mother's brother) for older men, and kaka (father's younger brother) for younger men. For American men onka (uncle) is spontaneously used, and for women anti (aunty). Any boy may be called bhai (brother) and any girl behen (sister), though in pictures they are labeled boi (boy) and gel (girl) respectively, the semantic distinction in this latter case perhaps not ethnic but live versus pictured. Though she never confuses bhai and behen, she

occasionallly confuses pictured boys and girls. She clearly labels any picture or portrait nupī, however. For relatives she has in India she can tell the kinship terms, but, without photographs or some such, it is quite unclear just what she has in mind in this case--the term set itself or the actual family members.

Animals she groups and names as in her children's books, often in English: ēlifənt (elephant), mənkī (monkey), hās (horse), etc. for kau (cow) she also has Gujarati gulā; for pīkak (peacock) also mōr and a baby term; for dāg (dog) also kukkū; for kæt also the Gujarati baby term miau; all used interchangeably. She has patsī for paksī (bird) but no English equivalent. In all cases she is bilingual with the animals names in cases of more or recent contacts.

In the domain of foods, which seems clearly established, we find a clear demarcation into a) all those found in the Gujarati speaking word and b) a much smaller set of American type foods in English. She uses the Gujarati baby term məmməm for food in general, and, similarly, bū for water. There is no indication that she divides the domain by languages in her use of it; and only rarely does she have two terms for the same food. In one case, she understands milk but uses dūdh or the baby term dūdū; in another she uses both banana and kēlū. Some English terms include kōk (coke), ēg (egg), āmalat (omelet), glēps (grapes), bəttəmilk (buttermilk), kukī and biskit (cookie), kantsip (corn chip), pətetətsip (potato chip), and kəndī (candy). On her father's suggestion that she say, 'Mummy, please give me some candy,' she repeated məmmī, plīs gi mī kəndī, ran off to the kitchen to reiterate her request, and returned with candy. Motivation can be a strong force in second language learning.

Another established domain is that of possessions: toys, clothing,

ornaments, books, etc. Buk (book) is also jopalī. She brings out and shows, naming spontaneously such items as būt, dāl (doll), saikil (bicycle), piano (piano), dlːm (drum), bāl (ball). She also points out and labels such sound and language producing family equipment as ēdiyo (radio), tep (tape recorder), and tīvī (television), with which she seems especially impressed. Most furniture so far goes unlabeled, though she knows her kutsī (kursī), also called tsː (chair), and bːd, plus a few others in Gujarati. Sisos (scissors), pēn, pensil in English are matched with kāgal (paper), etc. Outside the home she has learned mostly words for motor vehicles such as kā (car), tlːk (truck), bːs (bus), tlēn or tsūtsū (train), and plēn (airplane), plus a few others such as tlī (tree).

Beyond domains of palpable objects, however, these may be defined, she has begun to use various qualifiers of a more abstract nature. Best established of these appear to be locatives, including question words such as kanqī (where?), ancē (there), dūr (far), bājū (near), anda(r) bā(r) (inside), uppa(r) (above or on), nitsē for nicē (under or beneath) in Gujarati, as well as comprehension but not yet production of English right hand and left hand--extended to right foot, eye, etc.-well within her grasp. Her time sense has so far strayed little from the present ab (now), but shows signs of doing so as her verb tenses indicate on emerging. There appear to be no English temporals so far. Atlā (thus, in such a way) she uses both as affirmative and question; she possesses āsuntsē (What is this?) and kān (Gujarati kaun, who). She has no forms for causality in either language. With some coaching she has learned English bːk (black) lːd (red), and, sometimes, qlīn (green), though at times she confuses the two former, and has no Gujarati color terms. This very confusion, however, points toward the

establishment of a color set with these members. She say sa(r)astsē (It is good) and ɣalāb (kharāb, bad), as well as sētsī (cicī, dirty). Recently she has not only made such comments as motī motī bas (big, big bus)--combining Gujarati and English--but biq biq tlɔk fully in English.

Also in English she says vɔlī gɛd, more as an interjection than like her sa(r)astsē. She also has plīs (please), tɛnkū (thank you), and ēkɛm (you're welcome), and ōkē? (okay?), none of which have any everyday correspondences in Guiarati. Elō (hello) and baibai (byebye) are appropriately used also in English contexts; and she has English kɛm (come!) and gō (go!)--the former with a gesture half Gujarati and half English, and the latter with a Gujarati gesture. Though she uses yɛs in English, she has no corresponding word in Gujarati; natī and nō seem of higher frequency, the affirmative appearing to be a sort of unmarked category for the most part.

Though she uses very few English verbs as yet, she responds appropriately to a considerable number in questions, imperatives and requests: for example, "what/who is this?" , (first),' 'come here,' throw/kick to daddy/mummy/auntY --but not 'throw to me,' 'let's go,' 'give daddy/mummy/(etc.)'. Most of these are followed in the absence of visual cues, though some necessarily incorporate them. When asked a question in English she sometimes replies in Gujarati, but increasingly answers in English. When a question is put in Gujarati she usually responds in Gujarati, but again the English replies are increasing, especially as they refer to her growing stock of terms for American items. If she gives the Gujarati term for any object and is asked for the English, she will often supply it; the reverse is so far not true; Gujarati, like the affirmative, may be an unmarked category!

Her response to the telephone is interesting, and seems to indicate she sees English as the appropriate language for telephone use. She speaks only a very little Gujarati on the telephone, plus a few recognizable English phrases such as (h)ēlō hmm?, baibai, and vɛ̄ dɛ̄s ī sē? (what does he say?). The bulk of her output is --to adults-- a meaningless outpouring of syllables from her Gujarati store of possibilities, complete with Gujarati and one or two English intonation patterns for sentences, including questions, for which intonation is similar in Gujarati and English. It would be instructive to follow further this telephone speech in its development as she learns more English. Though at present it has a few similarities to babbling, this is evidently a different phenomenon, in that she appears to be carrying on a two-way conversation, and accompanies it occasionally with gestures. The gestures she uses are often bilingual, if the term can be extended thus far. Those for come and go have been mentioned; for affirmation she has both English and Gujarati nods of the head, for negation both Gujarati and English shakes of the head plus the Gujarati hand gesture. These were all learned quite early, along with intonation patterns, and paralinguistic features. It is interesting that she sometimes uses the English head nod of affirmation in Gujarati conversation.

There are then, it would seem, some parallels between first and second language learning in this young child. Where she has altogether abandoned babbling in Gujarati some time ago, a similar phenomenon appears on the telephone. Where she has long since passed the stage of one word utterances in Gujarati, these appear in her developing English. The first stage for verbs in Gujarati is something like uninflected imperatives: the only English verb usage so far is imperatives with no

inflection. Terms for objects seem to develop early in most language systems so far studied; this is by far her largest system in English. Kin terms and names again came early in Gujarati, and in English are developing rapidly. The same may be said for contact formulas such as namaste, elo, baibai, and the others mentioned above. Again, it is interesting that in some areas now opening up in Gujarati, such as qualifiers of various sorts, the English is almost keeping apace. This is not true, however, in such areas as verb and other inflection. Perhaps Gujarati grammar must be well established under the circumstances of her particular kind of bilingualism before English grammar will be learned. The process seems to be one of almost unquenchable systematization, incorporating more, and more complex, data, until the current system can no longer handle it, then a modification of the system, and so on. These systems may or may not coincide with those of adults, other monolingual or even bilingual children, or with the same child's systems at earlier or later stages. Two strong complementary forces in her learning would seem to be the urge to collect more and more data, or perhaps the nearly complete receptivity to incoming information, along with the increasing need to simplify handling it by means of systematization.