Three aspects of bilingual code-switching are examined: (1) code-switching as an integral part of bilingual behavior, especially in early stages of language acquisition; (2) social factors influencing the child's ability to differentiate languages and make an appropriate language choice; and (3) hierarchical organization of these social factors, based on their order of emergence and relative significance in affecting language choice. Data were obtained from ten-year longitudinal studies of two children raised bilingually in Spanish and English. The findings suggest that while the social factors in each case vary greatly, children learn early to discern the factors that are significant for their own context and guide the choice of language. Although bilinguals alternate and even mix codes, they also know in which instances to make separate linguistic choices regardless of their proficiency in the second language. Families are found to play a critical role in developing the patterns for early bilingual behavior and insuring its continuance while the mainstream language becomes more dominant in the child's life. Separate language use appears to aid language differentiation and bilingual development, while continuous language mixing may encourage passive bilingualism and lagging development in one or both languages. The evidence is found to favor maintaining language distinctiveness. (MSE)
Developing Bilingual Behavior:
Language Choice and Social Context

by

Alvino E. Fantini, Ph.D.
Director, Bilingual-Multicultural Education, MAT Program
School for International Training, Brattleboro, Vermont

All speakers alter language in various ways in relation to the particular social circumstances at the moment of speech. Such alterations are fairly consistent and allow us to posit, therefore, the existence of speech styles or registers. Bilingual speakers have an additional option - that of switching codes in addition to shifting styles within each code. The bilingual speaker can switch from language to language in addition to modifying styles within the same code as with his monolingual counterpart.

Just as styles in language are sensitive responses to varying factors in the social context, so is code switching a similar phenomenon. Language choice in the speech of bilinguals is not arbitrary nor erratic behavior, but is directly related to identifiable social factors. Most sociolinguistic research, however, has focused on adult speakers. We know less about how such linguistic and social competence develops within the bilingual child.

This paper therefore, investigates three aspects of developmental sociolinguistics: 1) code switching as integral to bilingual behavior, with emphasis on early acquisition; 2) identification of social factors which influence the child's ability to differentiate languages and to make an appropriate choice; and 3) organization of these social factors hierarchically, based on their order of
in affecting choice. These issues have been examined through data compiled during a longitudinal study of two children raised biliterally in Spanish and English (Mario and Carla) over a ten year period.

**Bilingual Behavior is Code Switching Behavior**

From the many attempts to examine bilingualism, including an extensive work by Baetens-Beardsmore, one principle stands out: A minimal condition for bilingual behavior is an ability to code switch, that is, to be able to distinguish one linguistic set from another, at different moments in time, and as appropriate to the circumstance. In other words, the speaker must be able to operate within monolingual constraints at times, even though there may be long interludes of language mixing. Dual language inputs into the child's repertoire does not of itself constitute bilingualism, until the child becomes aware that they are differentiated sets. The A-B language user (as opposed to the A&B user), who never separates A from B in a differentiated manner — at the appropriate moment as defined by the context — theoretically is not a functioning bilingual.

To underscore this point, we note that bilingual "profiles" commonly in use, always include alternation (i.e., patterns and degree of language switching) as one of the criteria for consideration.

**Aspects of a Bilingual Profile**

- number of languages used
- types of languages used (i.e., their linguistic relation)
- function (i.e., the conditions of learning and language use)
- degree of proficiency in each language and in the various skill areas (comprehension, speaking, reading, writing)
- alternation (i.e., patterns and degree of code switching)
Bilingualism as a phenomenon, then, presumes, the ability to switch codes; conversely, code switching presumes of at least two languages. A second condition implicit in this ability is an awareness of the social conditions which determine the selection of one code or the other and therefore requiring speakers to make choices. Most children exposed simultaneously to two languages from birth demonstrate this ability early on. For example, Mario - one of the children examined in this study - displayed active use of Spanish at 1;4, and English at 2;6. From the onset of his second tongue, he faced the challenge of sorting linguistic sets. In each situation - as with all children exposed to two or more languages - he was required to make a language choice - with the right persons, at the right time, and place. Although this seems an inordinate task for very young children, the mixing of codes - in this case, Spanish and English, limited as they were at this stage of development - occurred only for a very brief period of time.

The Development of Code Switching Patterns

Signs of switching were observed within a few days after the child's first utterances in English which occurred while visiting grandparents and other relatives. During the visit Mario acquired many new lexical items and almost immediately began to sort them into sets - one for use with parents, the other for use with relatives. The circumstances were clearly delineated - of the ten to 12 people with whom the child interacted, some used one lexical variant, others used another. In this early incident, appropriate code choice was totally responsive to interlocutor.
requiring speakers to make choices. Most children exposed simultaneously to two languages from birth demonstrate this ability early on. For example, Mario - one of the children examined in this study - displayed active use of Spanish at 1;4, and English at 2;6. From the onset of his second tongue, he faced the challenge of sorting linguistic sets. In each situation - as with all children exposed to two or more languages - he was required to make a language choice - with the right persons, at the right time, and place. Although this seems an inordinate task for very young children, the mixing of codes - in this case, Spanish and English, limited as they were at this stage of development - occurred only for a very brief period of time.

The Development of Code Switching Patterns

Signs of switching were observed within a few days after the child's first utterances in English which occurred while visiting grandparents and other relatives. During the visit Mario acquired many new lexical items and almost immediately began to sort them into sets - one for use with parents, the other for use with relatives. The circumstances were clearly delineated - of the ten to 12 people with whom the child interacted, some used one lexical variant, others used another. In this early incident, appropriate code choice was totally responsive to interlocutor.
The child's increasing awareness of setting as a variable affecting language choice is reflected in Stage II. Public settings generally called for the use of English, whereas the home continued to permit choice when the interlocutor was not the child's caretakers. Beyond 3;0, Mario exhibited clear and consistent separation of codes, and interlocutor and setting were the primary determinants in this selection.

As the child's world expanded, including interaction with other individuals under still different circumstances, additional factors took the child beyond the developments of Stage II. Sociolinguistic studies have identified some common variables which affect code switching in adults, viz: participants or interlocutors, setting, topic of discourse, the form of communication, and the function or norm of the interaction. But by 5;0, the factors affecting the choice of both children under study were still few. Interlocutor and setting were clearly early determinants; however, many attributes of participants (e.g., factors such as age, sex and occupation) were not yet significant to the child for these to become determinants as yet. Two aspects of interlocutors, however, were -
physical characteristics and the degree of language proficiency exhibited by the other speaker. By age ten, all of the variables cited above (and common for adults) prevailed, with one notable exception: topic. This variable, commonly identified as one affecting code switching in adult bilinguals as yet had no visible effects on the children's language selection until nearly the tenth year. As Mario and Carla's language developed along with their knowledge in increasingly specialized areas (greatly influenced through education solely in English), topical switches became extremely common. It became increasingly artificial, for example, to discuss naturally a topic like the Industrial Revolution in England and France in Spanish since this was not the language through which the issue had been introduced. And the parents' efforts to constrain the children to review the Industrial Revolution in their home language produced extraordinary amounts of interference and increasing frustration.

Social Determinants and Language Choice

A review of speech acts in the children's diaries reveal the following significant variables affecting language choice during the first ten years: speaker, setting, function, and the form of the act itself. It is likely that this emergent order also reflects their degree of importance to the child. Moreover, each variable, became increasingly complex (with sub-variables) as addition aspects became relevant to the children:

1. The participant(s) (i.e., other persons engaged in the speech event):
   a) whether known to the child or not;
   b) whether the interlocutor "looked" Spanish-speaking or not (as perceived by the child);
   c) whether an intimate or non-intimate associate of the child;
   d) the degree of comprehension and fluency with which the
person used the code;
e) his or her role, in relation to the child (e.g., caretaker, babysitter, nursery attendant);
f) the languages known and used by the participants (i.e., whether an English or Spanish monolingual or a Spanish-English bilingual);
g) the verbal behavior of the interlocutor (whether he or she maintained use of one code or exhibited mixing or switching behavior);
h) the accent and nativeness or non-nativeness of the speaker; and
i) audience (i.e., other persons present).

2. The setting:
a) whether the event took place in a predominantly Spanish-speaking locale (e.g., Bolivia, Mexico), or not;
b) if an English-speaking setting, whether the event occurred in the home or in a public location; and

c) whether a gathering of obvious Spanish-speakers (regardless of locale).

3. Function (i.e., the purpose and/or intended outcome of the event):
a) whether the purpose of the speech act was "normal" communication and exchange of information (i.e., unmarked verbal behavior); or
b) to shock, amuse, or surprise the participants; or
c) to underscore, replicate, or emphasize a previous statement; or
d) a translation or explanation of a previous comment (metalinguistic); or
e) self-expression or private speech (the child to self); or
f) to exclude or include others; or
g) to convey insistence, severity, or a command.

4. Form (i.e., the message couched in a special form as distinct from that used in normal conversation), such as:
   a) play;
   b) quoting, or citing a quotation;
   c) roleplay;
   d) storytelling;
   e) songs;
   f) jokes.

5. Topic (i.e., the content or subject of the conversation), such as:
   a) experiences had primarily through a particular language; and
   b) often technical or specialized areas of discussion.

Arranged hierarchically, the interlocutor or other participants in the speech event consistently emerged as a primary determinant. If the participant and the language he or she spoke were known, the child's code choice was facilitated. Examples abound in the children's diaries of unequivocal use of the appropriate code. In situations where speakers of both languages were present, the children switched languages rapidly and naturally as they alternately addressed each person in the proper code, sometimes almost within the same utterance. An example of this was at 3:4 during a visit to a New York apartment where monolingual speakers of both Spanish and of English were present. Mario consistently made appropriate language choices with each of the visitors. Numerous examples appear throughout the diary from that age on, often involving fairly complex social situations, yet consistently appropriate language choices.
Analysis of the Social Determinants

An analysis of social variables affecting Mario's choice of code at age 5;0 is partially captured in the chart which follows. Taking the two initial determinants of interlocutor and setting - and only limited sub-variables of each - the chart depicts the interrelationship of these pertinent variables and their effects on language choice. The chart is based on actual data reflecting language choices the child made in the presence of each cluster of variables. In a sense, the chart may also be viewed as a predictive scheme capturing the child's expectations governing language use based on these combinations of variables (i.e., his social-linguistic competence). The chart does not account for "marked" speech - verbal behavior not considered normal for a situation, such as acts involving surprise, shock, amusement, etc.; nor occasions when the child recounted previous linguistic experiences (such as a song, joke or quotation), generally preserved in the original language.

This scheme remained substantially unchanged almost till age ten, except for refinements brought about by increasing awareness of other attributes pertinent to both interlocutors and setting. As the child develops - expanding social contacts, changing in his or her roles, and moving toward adulthood), the interplay between social factors and linguistic expression responds with increasing complexity. Further social changes most certainly will continue to affect future language choices and use.
Chart 1  Interplay of social variables and code choices in normal dialogue

Mario

Interlocutor

Known

Speaks Spanish

Intimate

Non-Intimate

Code Mixes

Uses single code

Spanish/English

Spanish

English

English

Unknown

Speaks Spanish

English

Spanish Milieu

Public Locale

Looks Latin

No Response

Latino

Responds

Native-like Spanish accent

Non-native Spanish accent

MIXES

Single code

Spanish/English

Spanish

English

Spanish

English

Spanish

English

Spanish

English

Spanish

English
From the earliest moments, however, switching behavior was patterned—a clear link existed between social factors and language choice, and this continued despite increasing variables, far too complex to capture now in a single chart. By grasping the interrelationship of variables and choice in the relativity simplicity of a child's scheme, however, helps us to understand how social factors and choice are interrelated despite far more complex patterns in adult bilinguals.

Aside from depicting the patterning of language choice in the speech of a bilingual, the framework depicted was further validated by the fact that the child normally reacted demonstrably when the language used in a given situation was other than what he perceived as normal. When this was the case, he normally made explicit comments about his observations or expressed surprised when he considered the language used inappropriate or unanticipated for the circumstances.

Mario adhered so strictly to such a scheme, that he was literally converted into a guardian of the Spanish language, reminding and sometimes chiding other family members when they spoke English rather than Spanish. He reacted even to the use of single word utterances made in English. For example, one day his father rolled down the car window as his family approached and yelled out: "Hi!" Mario's immediate retort was "¡Habla español!" (Speak Spanish!) Although said in jest, it demonstrated that any "inappropriate" switch to English seldom escaped the child's attention. On another occasion, Mario's father entered from the garden, exclaiming: "Phew. It's hot outside!" to which the child immediately observed: "No se me habla así." (You shouldn't speak to me like that). On still another occasion, while at the breakfast table, Mario (10;1) and his sister (6;0), both noticed their father speaking English to their mother. Both children commented, while Carla added: "¡No hables en inglés a mamá! (Don't speak
English to mamá! ... y yo le pego para que hable en español!" (And I'll spank him so that he'll speak Spanish!), she added jokingly.

The tardy emergence of topic as a determinant of code switching behavior is indeed surprising, especially since it is common in sociolinguistic reports of the speech of adult bilinguals. This is not to say that topic had no other effects upon the child's speech. For example, topic was seen as a relevant factor in an analysis of the child's interference and transference. Linguistic borrowings clearly increased or decreased with specific topics of conversation. To counteract interference, the children's parents attempted to compliment their monolingual education by providing them with Spanish textbooks used in Bolivian schools, given the fact that no bilingual program was available in the area where the children resided. Parallel instruction in some subject matter areas undoubtedly helped them to become almost as capable of dealing with mathematics, reading and other content areas in Spanish as in English. But as their education continued predominantly in English, it is probably inevitable that language development in English will eventually overtake Spanish in numerous topical areas, causing increasing code switching and borrowing by topic.

**Some Patterns of Language Use**

Thus far we have focused on the development of bilingual behavior and the effects of social context on language choice. At this point we will try to capture various patterns of language use, ranging from monolingual speech to bilingual code switching, and various interlanguage possibilities. Letting $X_1$ and $X_2$ stand for two bilingual speakers of the same two languages $A$ and $B$; and $Y_1$ and $Y_2$ represent two monolingual speakers of the same language, $B$, we may depict simply some of the most common
reports of the speech of adult bilinguals. This is not to say that topic had no other effects upon the child's speech. For example, topic was seen as a relevant factor in an analysis of the child's interference and transference. Linguistic borrowings clearly increased or decreased with specific topics of conversation. To counteract interference, the children's parents attempted to compliment their monolingual education by providing them with Spanish textbooks used in Bolivian schools, given the fact that no bilingual program was available in the area where the children resided. Parallel instruction in some subject matter areas undoubtedly helped them to become almost as capable of dealing with mathematics, reading and other content areas in Spanish as in English. But as their education continued predominantly in English, it is probably inevitable that language development in English will eventually overtake Spanish in numerous topical areas, causing increasing code switching and borrowing by topic.

**Some Patterns of Language Use**

Thus far we have focused on the development of bilingual behavior and the effects of social context on language choice. At this point we will try to capture various patterns of language use, ranging from monolingual speech to bilingual code switching, and various interlanguage possibilities. Letting $X_1$ and $X_2$ stand for two bilingual speakers of the same two languages $A$ and $B$; and $Y_1$ and $Y_2$ represent two monolingual speakers of the same language, $B$, we may depict simply some of the most common

13
language directly in each of the languages involved. Example (e) depicts bilingual speakers who share the same two languages, and switch or alternate codes within the same conversation.

As always, code switching among bilinguals presents the possibility of carrying over elements from one language to the other. These are the patterns depicted in both (f) and (g). Although the pattern appears identical, the critical variant in these cases is the interlocutor. In other words, where the interlocutor shares the same two languages - as in (g) - the mixing results in positive transference. Both speakers know the same two systems, hence mixing may even enhance and enrich their communication possibilities. This may be contrasted with (f), where the second speaker (Y) is monolingual and does not know both A and B languages. Use of both by X obviously results in interference, possibly causing a breakdown in communication. This example probably best typifies a speaker fluent in A, with limited proficiency in a second language, B. While attempting to speak B to Y, X continuously reverts to native tongue A, but to little avail since Y does not know that language.

Example (h) exemplifies two speakers, X₁ and X₂, both of whom share the same two languages, A and B. Their communication in this case proceeds primarily in a base language, A, with only occasional interjections in the second language, B. Finally, example (i) depicts what so often occurs when two individuals come together with no common tongue.

All of these examples may characterize language use patterns of bilingual speakers, while not all apply in the same way to monolingual individuals. The linguistic and social competences which govern these patterns of language alternation are normal developments in individuals exposed to two or more languages from early childhood, and are rooted in their earliest phases.
Summarizing

Salient factors both present and absent which contributed to the distinctive use of codes by the children under study were: (1) a clear and consistent model of differentiated code use by parents and other early models; (2) guidance (and indirect) insistence on the exclusive use of a single code in most instances; (3) distinct environments, each reserved for a different code; (4) in this case study, at least, the relative isolation of the children as Spanish-speakers in an English-speaking milieu (with no negative social consequences), reinforcing their distinctiveness in a positive way; and (5) the intimate association of the home language with the family unit and the children's individual identities. It was not surprising, therefore, that questions like the following one at age 8;1 should have occurred: "Papá, ¿y por qué yo nací español?" (Papá, and why was I born a Spanish-speaker?)

It must be underscored that the children were fortunate not to have experienced prejudice or other incidents reflecting negative social attitudes against use of their home tongue. Unfortunately this is not always the case for many other children being raised bilingually in a predominantly mainstream culture. A single negative incident can often seriously affect the child's disposition to use a home language in the presence of others and seriously truncate bilingual development.

Adult code switching patterns are formed over a lifetime, but the competence may have its start in infancy. Hence, code switching, as with other aspects of language acquisition, must be viewed developmentally by tracking its earliest appearances in child speech. Significant stages in language recognition, differentiation and bilingual development (based on Mario's diary) are summarized below as one example of this process,
although the details will obviously vary from speaker to speaker:

CHART 2

In summary, code-switching (in Mario’s case) - the beginning of bilingual behavior - was evidenced as early as 2;6 despite a delayed onset of English. By 2;8 it was fairly well established and well executed. By the end of the third year, he demonstrated the ability to make appropriate language choices, switching rapidly and naturally from one language to the other. At five, he behaved like a normal monolingual child (as perceived by others) - in either of two languages - with the appropriate people, and in the right time and place. And at 6;3 we note an amusing incident revealing a keen sensitivity to appropriate language use:

Unassisted, the child is writing a letter in Spanish to his grandparents in Bolivia. At one point he hesitates and asks:

Mario (to Papá): ¿A Bolivia se va en avión? (Will it go to Bolivia by plane?)

Papá: Sí, ¿por qué? (Yes, why?)

Mario: Nada. (Nothing)

He then selects an airmail stamp to place on the envelope. When Papá notices the child sounding out English phonetically and writing "B-O-L-I-F-Y-A" on the envelope. He asks:
<table>
<thead>
<tr>
<th>Age</th>
<th>Event</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:8</td>
<td>Recognizes &quot;foreign accents&quot;</td>
<td>Aware of &quot;foreign accents&quot; and can identify when speaker is non-native of Spanish or English.</td>
</tr>
<tr>
<td>6:0</td>
<td>Semantic insights</td>
<td>Aware of non-equivalency of words across languages and multiple meanings of some words.</td>
</tr>
<tr>
<td>6:0</td>
<td>Intensified interest in other languages</td>
<td>Interest in other forms of communication intensified, and persists (Italian, 6:0; Japanese, 6:7; German, 7:9; Twi and Greek, 9:6; Aymara and Quechua, 10:08).</td>
</tr>
<tr>
<td>7:3</td>
<td>Identifies source of &quot;foreign accents&quot;</td>
<td>Aside from his awareness of accents foreign to Spanish and English, the child can identify when the accent in English is attributable to a Spanish-speaker, and vice-versa.</td>
</tr>
<tr>
<td>7:5</td>
<td>Judges proficiency of non-native speakers</td>
<td>Judges and comments on the relative proficiency level of non-native speakers of English or Spanish.</td>
</tr>
<tr>
<td>7:6</td>
<td>Curiosity in monolinguals</td>
<td>Shows curiosity in monolinguals and their perceptions of bilinguals.</td>
</tr>
<tr>
<td>7:11</td>
<td>Recognizes regional accents in English</td>
<td>Sensitive to regional language variations of English-speakers.</td>
</tr>
<tr>
<td>8:1</td>
<td>Recognizes regional accents in Spanish</td>
<td>Sensitive to regional language variations of Spanish-speakers.</td>
</tr>
<tr>
<td>8:2</td>
<td>Linguistic judgements sharpened</td>
<td>Increasingly capable of making judgements about the proficiency of non-native speakers (both English and Spanish).</td>
</tr>
<tr>
<td>9:0</td>
<td>Distinguishes some Spanish dialects</td>
<td>Develops ability not only to recognize language variations of Spanish-speakers, but also notes their specific characteristics.</td>
</tr>
<tr>
<td>9:1</td>
<td>Language intuition</td>
<td>Shows ability to make guesses as to origins of foreign words used in English.</td>
</tr>
<tr>
<td>10:6</td>
<td>Acquires Bolivian regionalisms</td>
<td>Incorporates Bolivian regionalisms into his own Spanish speech.</td>
</tr>
</tbody>
</table>
Papá: ¿Pero por qué escribes en inglés? (But why are you writing in English?)

Mario: Sí, pero el cartero no sabe español! (Yes, but the mailman doesn't know Spanish!)

By ten, Mario displayed sophisticated code switching behavior contingent on a great variety of social factors of increasing importance to the child. The linguistic and social competence begun in childhood had already developed into the complex patterned behavior characteristic of most bilingual speakers.

Some Implications

Bilingual behavior is patterned behavior. Although the social factors relevant in each case vary from speaker to speaker, the bilingual child learns early on to discern the factors which are significant for his or her own context, which guide the proper choice of language. And although bilinguals switch or alternate codes, even mix, they also know in which instances to make separate linguistic choices, no matter how limited their proficiency may be in the second language.

Families play a critical role in developing the patterns for early bilingual behavior and for insuring its continuation as the mainstream language becomes even more dominant in the child's life. And although each family displays different preferences for language use and the tolerable degrees of language separation or mixing, it nonetheless seems clear that separate language use - to some degree, in some ways, in specific moments and contexts, etc. - aids language differentiation and bilingual development. Continuous mixing, on the other hand, may encourage passive bilingualism (where the child understands both languages, but chooses to speak only one
of the languages, often that of wider communication to the point where fluency may be impaired), or else produce an interlingual stage where the child experiences difficulty maintaining conversation in either tongue. In the latter case, the individual may lag behind his or her monolingual peers in both languages (attested by many teachers who despair with such children, dubbing them as "alingual").

Obviously there are no rigid formulas, but the evidence seems to favor maintaining language distinctiveness to some extent, although this tentative principle hardly prohibits or forbids using both languages as useful and necessary. Such insights have special implications for bilingual education, for curricular and scheduling decisions, as well as for patterns of language use in the classroom. The insights derived also have implications for parents wishing to raise their children bilingually, whether or not there is school support for the home language. With or without bilingual education (but preferably with), parents can raise their children successfully as bilinguals if they are clear themselves about their own values and preferences and also develop models which best support their children through the developmental process. Language use patterns although established in the early years, continue to be sensitive and responsive to changing social contexts. And it is for precisely these same reasons, that clarity about these interrelationships can help bilingualism to prevail into adulthood.
REFERENCES


