It is well known that many bilinguals who are able to speak fluently in two languages, or language varieties, often switch between these linguistic codes. Code switching can be inter- or intrasentential, the former constrained by social and discourse constraints, the latter, of relevance for the present discussion, constrained also by properly syntactic principles. Herein, we demonstrate that code switching obeys the Functional Head Constraint, a refinement of Abney's (1987) proposal that functional heads 'f-select' complements. It is this dependency that restricts switching between a functional head and its complement in code switching. Switching is disallowed, for example, between C⁰ and IP, between I⁰ and VP, between Neg⁰ and VP, between D⁰ and NP, and between Q⁰ and NP in the Tunisian Arabic-French and Spanish-English code-switching data that we consider here. By contrast, switching between a lexical head and its complement proceeds unimpeded. Thus, code switching provides evidence, not available in monolingual speech, for a necessary refinement of f-selection, a constraint of Universal Grammar.

1 Introduction

In this article we concentrate on intrasentential code switching by Tunisian Arabic-French and Spanish-English bilinguals, examples of which appear in (1).¹

(1) a. *Tunisian Arabic–French*

Je lui ai dit *baš yi-xarraž il karhba ce matin.*
I him have told that he-takes.out the car this morning
‘I told him to take the car out this morning.’

b. *Spanish–English*

This morning *mi hermano y yo fuimos a comprar some milk.*
this morning my brother and I went to buy some milk
‘This morning my brother and I went to buy some milk.’

Our working hypothesis is that competent or balanced bilinguals and marginally competent bilinguals demonstrate disparate behaviors in code switching. In fact, Poplack (1980) suggests that code-switching behavior may be used to measure bilingual ability in that intrasentential switches imply a greater degree of competence in the two grammars involved, whereas intersentential switches do not generally necessitate grammatical competence in both languages. Also pursuing this line of inquiry, Belazi (1991) demonstrates that fluent Tunisian Arabic–French bilinguals are more sensitive to grammatical constraints on switching than their nonfluent counterparts, concluding that degree of bilingualism must be taken into consideration in any study of code switching. These findings indicate that the degree of balance in the competence of the two languages involved correlates with the degree of competence in code switching. With this in mind, we limit this study to code switching by fluent bilinguals.²

Of particular interest to us is the fact that intrasentential code switching is not haphazard—there are certain syntactic regularities underlying the switching process. Proposals for the syntactic constraints on code switching are, in fact, frequent in the literature (see Gingrâs 1974, Timm 1975, Gumperz 1976, Pfaff 1976, 1979, Wentz 1977, Kachru 1978, Sankoff and Poplack 1981, Singh 1981, Woolford 1983, 1984a,b, 1985, Joshi 1985, Di Sciullo, Muysken, and Singh 1986, and references cited therein). The question, therefore, is not whether code switching obeys any structural constraints, but what the best way to characterize them is, and whether they can be made to follow from independently motivated, more general principles.³ For ease of exposition, we discuss

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² The data discussed in this article are drawn from King, Toribio, and Villarreal 1991 and Belazi 1991; the data were collected by eliciting grammaticality judgments and were further corroborated by recordings of natural conversation.

³ It is worth noting, however, that there are some linguists who have despaired of finding any constraints or principles underlying code switching. For example, Lance (1975) claims that there are perhaps no syntactic restrictions on where the switching can occur. Labov (1971:457) is often cited as referring to Spanish–English code switching as ‘‘the irregular mixture of two distinct systems.’’ We briefly consider some possible explanations for these apparently contradictory findings. First, there is the issue of bilingual competence, already mentioned. Valdés (1976) found that patterns of alternation were similar for bilinguals of the same level of competence. Therefore, the divergent code-switching behavior on the part of bilinguals may derive from variations among the speakers in their command of the component languages (see Zentella 1981). In fact, the distinction between *matrix* and *embedded* language that is crucial to much code-switching work may be indicative of a lack of balance in the two languages of the bilinguals whose speech is at issue. Second, there are attitudinal considerations. It has been found that although competence in two languages is necessary, it is an insufficient precondition for successful code switching. Valdés (1981) and Lipski (1985) claim that membership
four general and often-cited principles, illustrated in (2)--(5), which have been formulated to constrain code switching. Later we relate the conclusion of our discussion to the equally well known conception of code switching set forth by Woolford (1983, 1984a,b, 1985).

(2) Government Constraint (Di Sciullo, Muysken, and Singh 1986)
   a. If $L_q$ carrier has index $q$, then $Y_q^{\text{max}}$.
   b. In a maximal projection $Y^{\text{max}}$, the $L_q$ carrier is the lexical element that asymmetrically c-commands the other lexical elements or terminal phrase nodes dominated by $Y^{\text{max}}$.

(3) Free Morpheme Constraint (Poplack 1981)
   A switch may occur at any point in the discourse at which it is possible to make a surface constituent cut and still retain a free morpheme.

(4) Equivalence Constraint (Poplack 1981)
   Codes will tend to be switched at points where the surface structures of the languages map onto each other.

(5) Constraint on Closed-Class Items (Joshi 1985)
   Closed-class items (e.g., determiners, quantifiers, prepositions, possessive, Aux, Tense, helping verbs) cannot be switched.

The Government Constraint of Di Sciullo, Muysken, and Singh (1986) disallows switching when a government relation holds between elements. In this way, they argue, the data fall out of a general principle of syntactic coherence that holds true of all natural language, not just of code switching. On this account, the $L_q$ carrier of a governed category must have the same $L_q$ index as its governor, as shown in (6).

\[
\begin{tikzpicture}
  \node (X) {$X'$};
  \node (X_q) [below left of=X] {$X_q$} child {node (Y_q) {$Y_q^{\text{max}}$} child {node (Z_q) {$Z_q$} child {node {$\ldots$}}}};
\end{tikzpicture}
\]

in a community in which code switching is practiced and valued may also be a prerequisite for code switching. Third, the ease with which counterexamples to the constraints proposed for code switching are found may be attributable to differences in the methods of data collection and the selection of the data on which generalizations are based. We have cautioned that not all instances of language mixing can be considered code switching. Still, many researchers use the same labels to refer to different phenomena, failing to determine whether the speech sample under investigation in fact constitutes a code switch or instead represents some other manifestation of language contact. Decisions concerning data collection and selection prove difficult in code-switching research, given the nature of the data that are the focus of interest. Work on bilingual discourse has made use of a wide variety of methodologies, chief among these being interviews and naturalistic recordings. Unfortunately, these approaches in isolation are of little value to a study of grammar; such methods yield data that may not reflect speakers' underlying linguistic competence (see Zentella 1985). It is clear that an analysis of some of these factors is a pressing topic of investigation for sociolinguists, psycholinguists, educators, and others.
It is the operation of Poplack’s (1981) Free Morpheme Constraint that accounts for the nonoccurrence of the Spanish-English forms in (7).

(7) *Estoy eat-iendo.
   am eat-ING
   ‘I am eating.’

In accordance with Poplack’s (1981) Equivalence Constraint, code switching is allowed, for example, in (8a), where the grammars of Spanish and English coincide, but not in (8b), where the grammars differ with respect to the placement of object pronouns.

(8) a. (cs) The student brought the homework para la profesora.
        (Sp) El estudiante trajó la tarea para la profesora.
        the student brought the homework for the professor
        (Eng) The student brought the homework for the professor.

b. (cs) *I saw lo.
(Eng) I saw him/it.

(8) a. (cs) The student brought the homework para la profesora.

Finally, in Joshi’s (1985) model, the Constraint on Closed-Class Items bars switching of closed-class items. Thus, for instance, the Marathi postposition cannot be switched for the English preposition, as shown in (9).

(9) *some chairs-war (Joshi 1985)
   some chairs-on
   ‘on some chairs’

The first of these constraints, Di Sciullo, Muysken, and Singh’s Government Constraint, fails in that it is too restrictive. The constraint predicts, among other things, that the complementizer of a complement or relative clause must be in the same language as the governing head, rather than that of the complement clause. But, as demonstrated in the Spanish-English and Tunisian Arabic–French code switching in (10) and (11), the complementizer is in the language of the complement clause, not in the language of the governing head.

(10) a. The professor said que el estudiante había recibido una A.
   the professor said that the student had received an A
   ‘The professor said that the student had received an A.’

b. El profesor dijo that the student had received an A.
   the professor said that the student had received an A
   ‘The professor said that the student had received an A.’

c. *The professor said that el estudiante había recibido una A.
   the professor said that the student had received an A
   ‘The professor said that the student had received an A.’
d. *El profesor dijo que the student had received an A. 
the professor said that the student had received an A 
'The professor said that the student had received an A.'

(11) a. *Id-dwa qu' il m'a donné n'est pas bon. 
the-medicine that he me has given NEG is NEG good 
'The medicine that he gave me is not good.'
b. Le médicament illi  (*)(t-a-hu:-li ma hu-š baehi. 
the medicine that gave.he-it-me NEG it-NEG good 
'The medicine that he gave me is not good.'
c. *Id-dwa illi il m'a donné n'est pas bon. 
the-medicine that he me has given NEG is NEG good 
'The medicine that he gave me is not good.'
d. *Le médicament que (*)(t-a-hu:-li ma hu-š baehi. 
the medicine that gave.he-it-me NEG it-NEG good 
'The medicine that he gave me is not good.'

The Government Constraint makes other incorrect predictions. In particular, it incorrectly predicts that the complements of a verb and the verb itself must be in the same language, in other words, that complement clauses, direct and indirect objects, and complement prepositional phrases must be in the same language as the verb. Moreover, it predicts that adjectives must be in the same language as the noun modified and that complements of a preposition must have the same language index as the preposition itself; as we will show, the data contradict these predictions.

Poplack's Free Morpheme Constraint and Equivalence Constraint fail in another way, in that they are insufficiently restrictive. The Free Morpheme Constraint states that code switching is impossible between a bound morpheme and its host. However, this constraint fails to explain why switching is impossible even between certain free morphemes. For example, note that switching is disallowed between the perfect auxiliary, a free morpheme, and its complement, the past participle, as demonstrated in (12).

(12) a. *The students had visto la película italiana. 
the students had seen the movie Italian 
'The students had seen the Italian movie.'
b. *Los estudiantes habían seen the Italian movie. 
the students had seen the Italian movie 
'The students had seen the Italian movie.'
I-will.be went-I at-the-ten 
'I will have gone by ten o'clock.'
d. *N-ku:n parti à dix heures. 
I-will.be gone at ten hours 
'I will have gone by ten o'clock.'
That the Equivalence Constraint is also insufficiently restrictive is shown by examples (10) through (12). In the case of Spanish-English code switching, switching should be possible at numerous junctures, including the one preceding the complement clause in (10c–d) and preceding the past participle in (12a–b), since the word orders of Spanish and English are equivalent in these constructions. But, in fact, code switching is disallowed at these locations. Similarly, the grammars of Tunisian Arabic and French are parallel in the relative clause construction in (11c–d) and the perfective construction in (12c–d), yet code switching results in ungrammaticality. Switching is unacceptable between the complementizer and its clausal complement and between the perfective auxiliary and its complement. In other words, these elements must be in the language of their complements. These restrictions would have to be characterized by means of constraints functioning alongside the Equivalence Constraint.

It is worth mentioning here that in the data collected from educated Tunisian Arabic–French bilinguals, not one instance was found where a C⁰ was not in the language of its complement. In fact, speakers employed various circumlocutions in order to avoid such structures. Consider the attested example in (13a).

(13) a. C’est le fer qui donne . . . illi yi-ḥaːrib l’anémie.
   it’s the iron that gives that it-fights the anemia
   ‘It’s iron that gives, that fights anemia.’
   b. C’est le fer qui donne l’anémie.
   it’s the iron that gives the anemia
   ‘It’s iron that gives anemia.’
   c. *C’est le fer qui yi-ḥaːrib l’anémie.
   it’s the iron that it-fights the anemia
   ‘It’s iron that fights anemia.’
   d. C’est le fer illi yi-ḥaːrib l’anémie.
   it’s the iron that it-fights the anemia
   ‘It’s iron that fights anemia.’

In this example the speaker starts with the French sentence (13b), C’est le fer qui donne l’anémie, which means ‘It’s iron that gives anemia’. Realizing his mistake, the speaker rephrases the sentence, bringing in the Tunisian Arabic verb ḥaːrib ‘fight’. However, this self-correction would initially lead to a switch between the French complementizer and the Tunisian Arabic complement, which, as we showed above, is disallowed (13c). So the speaker backs up and changes the language of the complementizer to Tunisian Arabic (13d). Certainly linear order cannot account for this self-correction, as the Equivalence Constraint would predict; nor could the Free Morpheme Constraint, given that all the relevant morphemes are, in fact, free.

Similar restrictions obtain in switching between a determiner and its complement, as shown by the ungrammatical code-switched Spanish-English sentence in (14). (Note that the pattern in (14) is acceptable as an instance of borrowing, which we would indicate
by writing the Spanish word in normal type, in order to indicate its reanalysis as English. This phenomenon must be carefully distinguished from the code switching under consideration here. It should be stated, however, that even fully competent code switchers are able to make use of this process (see footnote 1.)

(14) *He is a *demonio.
   'He is a devil.'

Since Spanish and English share the DP-internal order Det-N, the Equivalence Constraint cannot be invoked for the unacceptability of (14) as a code-switched utterance.

In contrast, Joshi’s Constraint on Closed-Class Items does make the correct predictions for the code-switching data presented thus far: it predicts the inadmissibility of switching at the C⁰, I⁰, and D⁰ already discussed. However, in drawing the closed-/open-class distinction, this constraint predicts that switching will be disallowed between a preposition, a closed-class item, and its complement, a prohibition that is not attested in the data under consideration here:⁴

    sometimes we-speak about the anemia
    ‘Sometimes we speak about anemia.’
    I have played with the-ball
    ‘I played with the ball.’

More seriously, the Constraint on Closed-Class Items fails on theoretical grounds. The open-/closed-class distinction is not a grammatical notion and therefore should not impinge on the process of code switching, which, we claim, is governed by properly grammatical principles. Thus, Joshi’s constraint fails on empirical and theoretical grounds.

In summary, then, it is evident that Di Sciullo, Muysken, and Singh’s Government Constraint is too restrictive. Although these authors are correct in positing that a structural constraint is operative in code switching, the data indicate that only a subset of the places where government holds are impossible sites for switching. By contrast, Poplack’s Free Morpheme Constraint and Equivalence Constraint go a long way toward accounting for the attested patterns of code switching, but they are insufficiently restrictive, even when they are operating in conjunction, and thus allow a grammar to overgenerate. In addition, the Equivalence Constraint, which is formulated in linear terms, would weaken the theory of grammar as a whole; a theory of grammar that includes constraints formulated in linear terms is weaker than a theory of grammar that includes only hierarchically defined constraints. A similar criticism can be leveled against

⁴ The ungrammaticality of switching in the Marathi-English data presented in (9) may be explained on independent grounds, namely, the fact that Marathi is postpositional whereas English is prepositional; we return to this possibility in section 2.3.
the Constraint on Closed-Class Items: in relying on extragrammatical notions, it expands the set of grammatically significant categorial generalizations and, in so doing, diminishes the strength of the theory of grammar that includes it.

2 A New Analysis

2.1 Switching between a Functional Head and Its Complement

How, then, can we account for the attested patterns of grammaticality? We agree with Di Sciuillo, Muysken, and Singh (1986) that the relevant constraints on code switching should be stated in hierarchical terms. Moreover, it is desirable to exploit distinctions and relations already present in the grammar. Therefore, in accounting for the attested data, we will invoke the well-established distinction between functional heads, such as C0 and D0, and lexical heads, such as V0 and N0.

Abney (1987) proposes that there exists a special relation between a functional head and its complement, which he calls \textit{f-selection}. Following Chomsky (1993), we will assume that f-selection is one member of a set of feature-checking processes. If we assume also that one of the relevant features being checked is language, we then capture the patterns of grammaticality attested in code switching. That is, we assume that a functional head requires that the language feature of its complement match its own language feature, just as it might require some other feature of its complement to match its own corresponding feature (e.g., the tense of C0 ‘for’ must be matched by the tense of IP, which must therefore be headed by ‘to’). We will refer to the effects of the feature-checking process in its application to the language feature of functional heads and their complements as the \textit{Functional Head Constraint}, under the assumption that this is a specific application of a more general process. This constraint is given in (16).

\begin{equation}
\text{(16) \textit{The Functional Head Constraint}}
\end{equation}

The language feature of the complement f-selected by a functional head, like all other relevant features, must match the corresponding feature of that functional head.

The Functional Head Constraint is operative in all speech, although, of course, the effects of checking of the language feature become apparent only in code switching, and, in particular, in switching between a functional head and its complement. This is not surprising since functional heads are generally required to select the features of their complements, and, we claim, language is one such feature. On this view, it is to be expected that the language feature is checked in all and only those domains in which it is standardly assumed that f-selection of features obtains. As predicted, code switching between a lexical head and its complement proceeds unimpeded; we present such data in section 2.2.

The Functional Head Constraint, henceforth FHC, thus restricts switching between a functional head and its complement by invoking the strong relation that exists between them. Switching is disallowed between a C0 and its IP complement, as in (10) and (11),
and between D⁰ and NP, as in (14). Let us now turn to consider other categories that have been identified as functional heads, to determine whether they too behave in accordance with the FHC.

Ritter (1991) has identified a functional category, Nom, which is intermediate between DP and NP and is headed by such elements as quantifiers and numbers. We predict that switching will be disallowed between Nom and its complement NP. This prediction is borne out by the data that follow:

(17) a. *Ktib dix livres.
   wrote.he ten books
   ‘He wrote ten books.’

b. Ktib ḥašra livres.
   wrote.he ten books
   ‘He wrote ten books.’

(18) a. Pocos estudiantes finished the exam.
   few students finished the exam
   ‘Few students finished the exam.’

b. *Pocos students finished the exam.
   few students finished the exam
   ‘Few students finished the exam.’

Pollock (1989) has identified Neg⁰ as a functional head. We predict that switching should be unacceptable between Neg⁰ and its complement VP; again, the data bear this out:

(19) a. *Je ne ḥib-ha pas.
   I NEG like-it NEG
   ‘I don’t like it.’

b. *Ana ma l’aime-š.
   I NEG it like-NEG
   ‘I don’t like it.’

(20) a. *El hombre no wants the book.
   the man NEG wants the book
   ‘The man doesn’t want the book.’

b. *The man doesn’t quiere el libro.
   the man doesn’t wants the book
   ‘The man doesn’t want the book.’

Rivero (to appear) has identified Modal as a functional head; as predicted, switching is disallowed between a modal auxiliary and VP:

   I will.be went-I at-the-ten
   ‘I will have gone by ten o’clock.’
b. *\textit{N-\textit{ku}:\textit{n} parti à dix heures.} \\
I-will.be gone at ten hours \\
‘I will have gone by ten o’clock.’

c. Je serai parti \textit{fi-l-\textit{Sha}\textit{ra}.} \\
I will.be gone at-the-ten \\
‘I will have gone by ten o’clock.’

d. \textit{N-\textit{ku}:\textit{n sae:fi\textit{-t} à dix heures.} \\
I-will.\textit{be went-I} at ten hours \\
‘I will have gone by ten o’clock.’

(22) a. *The police officers have \textit{visto un ladrón.} \\
the police officers have seen a thief \\
‘The police officers have seen a thief.’

b. *\textit{Los policías han} seen a thief. \\
the police officers have seen a thief \\
‘The police officers have seen a thief.’

c. The police officers have seen \textit{un ladrón.} \\
the police officers have seen a thief \\
‘The police officers have seen a thief.’

d. \textit{Los policías han visto a thief.} \\
the police officers have seen a thief \\
‘The police officers have seen a thief.’

Thus, independently motivated functional heads exhibit the behavior predicted by the FHC. Note that the elements of the recently rearticulated Infl are analyzed as functional heads and thus, we predict, are subject to the FHC. Furthermore, if our proposal is correct, code-switching data can provide independent empirical corroboration for proposed functional heads: any proposed functional head must obey the FHC.

2.2 Switching between a Lexical Head and Its Complement

In contrast to the restriction against switching between a functional head and its complement, switching between a lexical head and its complement occurs quite freely. (23) demonstrates the possibility of switching between a verb and its complement, and (24) demonstrates the possibility of switching between a preposition and its complement.

(23) They used to serve \textit{bebidas alcoholicas en ese restaurante.} \\
they used to serve drinks alcoholic in that restaurant \\
‘They used to serve alcoholic beverages in that restaurant.’

(24) \textit{Sa\textit{\textae:t ni-tkalmu Sal l’anémie.} \\
sometimes we-speak about the anemia \\
‘Sometimes we speak about anemia.’

Thus, it has been demonstrated that all, and only, functional heads fall under the
scope of the relevant constraint. Moreover, if we are correct in positing the Functional Head Constraint, then we can subsume the Free Morpheme Constraint under our analysis, given current proposals (e.g., Rivero, to appear, Chomsky 1991, Baker, Johnson, and Roberts 1989, Kayne 1989, Pollock 1989) in which inflectional morphemes are treated as functional heads. The fact that switching is disallowed between a head and an inflectional morpheme, as in (25) and (26), can be viewed as evidence in favor of these analyses, given the treatment of code switching put forward here.

(25) *Šuf-t ɗaːr-s.  
saw-I house-PL  
'I saw the houses.'

(26) *We dance-amos chacha.  
we dance-IPL cha-cha  
'We dance cha-cha.'

To summarize the discussion thus far, we have demonstrated that code switching is restricted by the relation of f-selection in the manner discussed above. The proposed Functional Head Constraint accounts for the nonoccurrence of switching between a functional head and its complement. In positing the FHC, we subsume the Free Morpheme Constraint, the Equivalence Constraint, and, to the extent that they are correct, the Government Constraint and the Constraint on Closed-Class Items, under a more general principle.  

5 An apparent problem for our analysis was brought to our attention by an anonymous reviewer; the difficulty lies in determining the language of an IP. Consider in this respect the contrast illustrated by the following sentences:

(i) Je lui ai dit [que [les enfants [xarż-u]]].  
I him have told that the children left-they  
'I told him that the children left.'

(ii) *Je lui ai dit [illi [les enfants [xarż-u]]].  
I him have told that the children left-they  
'I told him that the children left.'

An analysis of these patterns of grammaticality requires further discussion. Let us assume a strict cyclical application of the FHC, in the spirit of Chomsky (1993). Within I\(^{0}\), then, the FHC is met: on the well-motivated assumption that I\(^{0}\) contains only the abstract (i.e., language-free) feature specification [3pl, + tense], I\(^{0}\) is not in conflict with the [+Arabic] VP. On this account, the verb is base-generated with its morphology, as again suggested by Chomsky. A functional head that is null, like I\(^{0}\), is thus "language-free" in the sense that it is unmarked with respect to the language feature and thus, in this domain, does not conflict with the positive feature marking of its complement (overt auxiliaries, on the other hand, bear the language feature of the overt lexical items). Next, within the domain of IP, I\(^{0}\) acquires the specification [+French] by agreement with the French specifier (a function of spec-head agreement), and this feature percolates up to IP. Thus, I\(^{0}\) may have different specifications according to the domain under consideration. Given that we assume strict cyclicity, the FHC cannot look back at the previous cycle to reevaluate the head-complement relation. Moving up to the domain of C\(^{0}\), we note that C\(^{0}\) must be [+French], as is IP, in order for the structure to be well formed according to the FHC. Since C\(^{0}\) is not null, it is marked with the language feature, here [+Arabic]. Thus, the FHC correctly predicts that (ii) is ungrammatical. (It is worth noting that the raising of the Arabic verb to I\(^{0}\) does not change I\(^{0}\) to [+Arabic] since raising is merely adjunction to I\(^{0}\) (Pollock 1989); that is, I\(^{0}\) remains [+French] in the domain of IP.)
2.3 Switching between Heads and Modifiers

What of switching between an adjective and the noun it modifies? The component languages of the code-switching samples under consideration differ with respect to the placement of adjectives. Tunisian Arabic allows adjectives only in postnominal position; by contrast, French allows postnominal adjectives and a small set of prenominal adjectives, for example, _beau_ 'beautiful, nice'. And whereas English allows prenominal adjectives except when these adjectives occur with a complement or an adjunct and are therefore not head-final, Spanish allows postnominal adjectives and a small set of prenominal adjectives. How does the code switcher reconcile the difference in adjective placement? Consider the data in (27).

(27) a. J'ai une voiture _mizyaena_.
   I have a car nice
   'I have a beautiful car.'

b. *_sand-i karhba_ belle.
   at-I car nice
   'I have a beautiful car.'

The data indicate that switching is possible where the adjectives and nouns obey the grammars of the languages from which they are drawn. Since Tunisian Arabic adjectives are postnominal, _mizyaena_ 'nice' must appear postnominally in a code-switching environment, as in (27a). Since French nouns can look to the right for adjectival modification, _voiture_ 'car' is satisfied. By contrast, the sentence in (27b) indicates that, even though the Tunisian Arabic noun _karhba_ 'car' is satisfied by looking to the right for adjectival modification, switching is not possible because the French adjective _belle_ 'nice', a member of the set of French prenominal adjectives, does not obey the grammar of French with respect to its placement.

Let us assume that the principle in (28) is operative in all linguistic behavior. In accordance with (28), a word obeys the grammar (i.e., the grammatical constraints) of the language from which it is drawn.

(28) The Word-Grammar Integrity Corollary

A word of language X, with grammar G_X, must obey grammar G_X.

The Word-Grammar Integrity Corollary (WGIC) derives from the assumption, following Chomsky (1993), that lexical entries are associated with morphological and syntactic features. Since this is true of all lexical entries in all languages, it must be true of code switching as well.

Consider now the phrases in (29)–(30), from Spanish-English code switching.

(29) a. *_la mujer_ proud
   the woman proud
   'the proud woman'
b. *the woman orgullosa
   the woman proud
   'the proud woman'

(30) a. la mujer proud of her position
   the woman proud of her position
   'the woman proud of her position'

b. the woman orgullosa de su puesto
   the woman proud of her position
   'the woman proud of her position'

(29a) is predicted to be ungrammatical by the WGIC since, even though the Spanish noun mujer 'woman' is satisfied by finding an adjective to its right, the grammar of English requires that 'proud' be prenominal. (29b) is also predicted to be ungrammatical, but for different reasons: the Spanish adjective orgullosa 'proud' must appear postnominally, but the English noun must be modified to its left by a simple adjective.6

How can we account for (30a)? Let us assume that English grammar contains a frequently attested constraint on prenominal modifiers, namely, that they be head-final. This constraint, for whatever reason it may exist, accounts for the postnominal position of English APs with complements, as in the gloss of (30a). We therefore predict that such an English AP could appear postnominally in a code-switched phrase with a Spanish noun that looks for an adjective to the right, precisely the situation presented in (30a).

(30b) is explained in a similar way. The English noun woman in (30b) can be modified by an AP to the right if and only if that AP is not head-final. The Spanish AP orgullosa de su puesto 'proud of her position' is not head-final and does appear to the right, where Spanish APs normally occur. Thus, the grammars of all the words are satisfied, and the WGIC correctly distinguishes between (29) and (30).

The ill-formedness of Joshi's data in (9) can be handled in like fashion. Recall that in Marathi-English code switching, the Marathi postposition cannot follow an English noun. The ungrammaticality of sentences such as (9) led Joshi to posit his Constraint on Closed-Class Items. On the other hand, we claim that the ungrammaticality of the code switch is due to independent constraints on the directionality of Case assignment. An English NP looks to its left for Case, just as an English noun looks to its left for simple adjectival modification. The English NP is thus not satisfied, even though the Marathi Case assigner assigns Case to the left and is located to the right.

3 Conclusion

We have seen that a principles-and-parameters style approach to Universal Grammar, such as the one proposed here, can account not only for unilingual competence, but also

6 These examples are also correctly predicted by the Equivalence Constraint. However, we have pointed out that the WGIC has more general applications and is thus preferable.
for code-switching competence (see also Rubin and Toribio, to appear). By invoking the FHC, an empirically necessitated modification of Abney’s notion of f-selection, together with the WGIC, we can now account for code-switching data without recourse to any ad hoc constraint or intergrammar of code switching, as favored by considerations of economy. In fact, this idea is not altogether new: Woolford (1984a:78), in accounting for code switching in wh-constructions, formulates a conception of code switching according to which “. . . the pattern of grammatical and ungrammatical code-switching versions of these constructions follow[s] entirely from principles of grammar in the Government Binding framework that apply to monolingual sentences and no additional stipulations unique to code-switching have to be added.” The hypothesis developed here, and further articulated in Toribio and Rubin, to appear, is likewise consistent with a research program in which patterns of code switching are thought to be not only rule-governed, but constrained solely by Universal Grammar.

References


\textsuperscript{7} In Rubin and Toribio, to appear, we make clear the natural role that the FHC plays in the general theory of grammar proposed by Chomsky (1993). Specifically, we argue that Chomsky’s work indicates a context in which it is quite natural to expand Abney’s notion of f-selection to include the selection of a matching language feature. In Chomsky’s system, functional heads check features of elements in their checking domains only. The FHC ensures that the features of functional heads match the features of their internal domains. Combining Chomsky’s notion of morphological checking with the notion of f-selection reformalized as the FHC provides a conception of grammar in which functional heads have a unified role. Not only do functional heads act as checkers of the Case features of elements in their checking domains, but they also relate to the elements of their internal domain by means of abstract feature-matching. In this way, f-selection, as conceived in the FHC, is of a similar nature to morphological checking, and together they form a natural class of processes by which derivations are driven.


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