Sci.Int.(Lahore),28(4),409-412 ,2016 ISSN 1013-5316;CODEN: SINTE 8

PHASE-BASED DERIVATION OF MIXED DATA

Nazir Ahmed Malik
The University of Lahore, Chenab Campus, Gujrat, Pakistan.
malik.nazir@gmail.com

***ABSTRACT*:** *The present study is an attempt to ascertain whether or not bilingual linguistic 'competence' essentially differs from monolingual linguistic competence by accounting for the grammaticality of mixed data (involving two languages) by employing a set of grammatical apparatus which is primarily devised to deal with the grammaticality of unmixed data. In order to achieve this objective, it attempts to account for the grammaticality of a mixed sentence involving two languages with conflicting grammatical requirements i.e., Urdu and English by employing Phase Theory [1] as theoretical framework. The successful derivation of the sentence under examination in two distinct derivational chunks called Phases i.e., vP and CP by following the universally-invariant computational procedure of deriving an unmixed grammatical sentence implies that no essential difference exists between monolingual and bilingual 'competence' i.e., the knowledge of a language as opposed to 'performance' i.e. the corpora, . In case, there were any essential difference between monolingual and bilingual linguistic capacities, it would not have been possible to derive mixed sentences following the same derivational procedure in the same way.*

Keywords: Bilingual linguistic competence, derivation, Spell-Out, phases, phase heads

PURPOSE OF THE STUDY

This paper presents the derivation of a naturally occurring Urdu/English code-switched sentence by employing the computational procedure of deriving a well-formed unmixed sentence as laid down in Phase Theory [1] to establish that there exists no essential difference between monolingual and bilingual linguistic 'competence' i.e., the knowledge of a language as opposed to 'performance' i.e., the corpora. In case, there were any essential difference between monolingual and bilingual linguistic capacities, it would not have been possible to derive mixed and unmixed sentences in the same way.

CODE-SWITCHING AND MINIMALISM

Ever since [2] claimed that mixing of two distinct *languages* within the boundary of a single sentence generally referred to as *intra-sentential* (CS) is random and unsystematic, the scholars interested in understanding formal aspects of *intra-sentential* CS have attempted to prove otherwise. Different attempts have been made to establish that a code-switched sentence is not an 'anomaly; rather, it has been found to be as systematic and grammatical as an unmixed sentence.

All the attempts made to account for the grammaticality of mixed data may generally be divided into two broad categories. First category includes such accounts of CS as invoke certain grammatical restrictions which are not needed in an account of unmixed data i.e., 'third' grammar approach. CS is believed to be subject to the restrictions which are not part of either of languages involved in CS; rather, it is believed to be governed by the restrictions which emerge as a consequence of mixing of two distinct languages. Following a 'third' grammar, one is forced to admit that bilingual linguistic competence essentially differs from monolingual linguistic competence for possessing these CS-specific constraints (cf., [3-6]). Second category consists of the studies which reject CS-specific restrictions in an account of intra-sentential CS and attempt to account for mixed data in terms of two grammars involved. CS is believed to be subject to the grammatical requirements of both the languages involved in CS i.e., a 'mixed' grammar approach (cf., [7-9]. among others).

However, the researchers [9] and [10] claim that it become hard to accept any essential difference between monolingual and bilingual linguistic competence because the C_{HL} employs no additional grammatical mechanism when syntactic objects are contributed by two instead of one lexicon. Therefore, a code-switched sentence may be accounted for uniformly without proposing any CS-specific postulates. There does not appear to be any valid reason as to why we should accept any proposal which implies essential differences between monolingual and bilingual linguistic capacity.

Accepting the possibility of any CS specific postulates as proposed by so-called 'third' grammar proposals (cf. [3-6]) to account for CS data will produce such research as may not have any relevance to linguistic theory in general. In order to avoid such theoretical disconnect between research on bilingualism and advances in linguistic theory in general, a formal account of CS should not invoke grammatical postulate in accounting for formal aspects of bilingual data. Mixed and unmixed sentences should be viewed as the product of a single set of grammatical operations and should be accounted for in the same way.

FORMAL PROPERTIES OF URDU AND ENGLISH: A COMPARSON

Urdu and English are mirror images of each other. These sharp differences between Urdu and English are due to their formal properties. In the first place, there are crucial differences in the sets of features specified by syntactic categories of Urdu and English. For example, the ϕ-features carried by Urdu D and English D are different in that gender is a ϕ-feature specified by an Urdu N while the ϕ-features of an English D lacks gender. This difference among the ϕ-features of Urdu N and V and English N and V are echoed by same differences in the ϕ-features of Urdu and English *v*, T, and D. Further, Urdu *v* possesses an EPP feature which triggers the overt movement of the object DP thereby resulting in OV word order whereas EPP feature which English (null) *v* bears does not require overt displacement of object DP for checking/valuing the features, thereby resulting in VO word order. Urdu and English also differ from each

410 ISSN 1013-5316;CODEN: SINTE 8 Sci.Int.(Lahore),28(4),409-412 ,2016

other as far as the case system is concerned. Whereas Urdu follows a split ergative/absolutive case system to determine the grammatical roles, English follows a nominative/accusative case system. Moreover, Urdu uses clitics for case marking except for nominative while English does not possess such case clitics except for genitive case.

DERIVING A MIXED SENTENCE BY PHASES

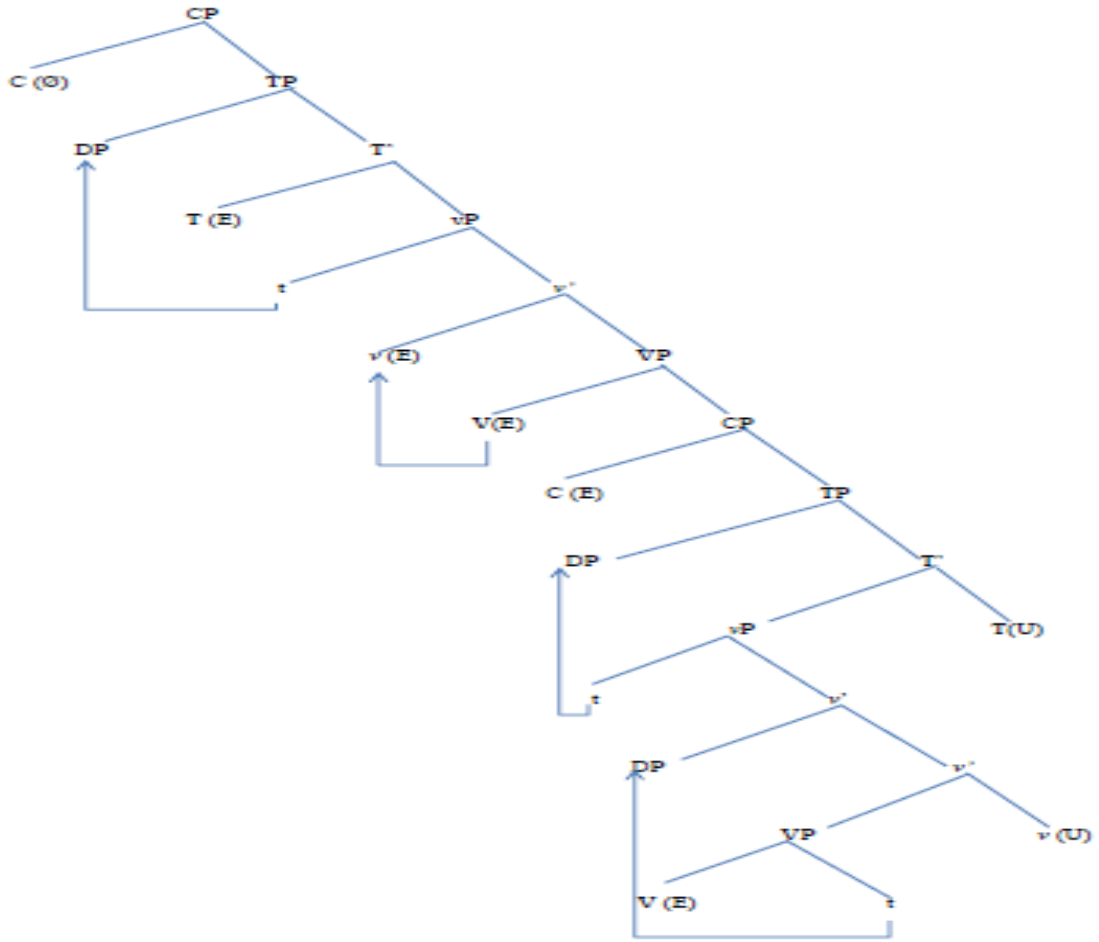
In order to establish that no essential difference exists between monolingual and bilingual linguistic competence, let us now try to derive of a typical naturally-occurring Urdu/English sentence through the universally invariant computational procedure of deriving well-formed 'pure' sentences as proposed by [1]. Consider the naturally-occurring Urdu/English code-switched sentence below:

I think that *sub* students *iss* attitude-*ko* dislike
All^{D} this^{D} -^{Acc}
PL/Mas SG
ker-tay *heyn*
do^{v} be^{Aux}
PL/Mas Pre/PL
'I think that all students dislike this attitude.'

As first step in the derivation of the sentence above, an English N attitude is selected by an Urdu D *iss* to derive the object DP. English V dislike, then, merges with this object DP, assigns it theta-role, and forms VP. This VP is selected by the transitive Urdu agentive *v* ker as its complement. When *v* is introduced into the derivation, it starts searching for a Φ-complete Goal in its c-command domain to value its unvalued uninterpretable features. The Probe *v* identifies Φ-complete object DP in its c-command domain as the Goal and uses it to value its unvalued uninterpretable Φ-features through Agree; in return, the object DP gets its unvalued case feature valued by the Probe. The EPP feature which Urdu *v* bears further leads to the overt movement of the object DP to its Specifier position (thereby determining OV order). The introduction of Urdu *v* into the derivation not only attracts the object DP to its Specifier position, but it also triggers the first Spell-Out and VP (the domain of *v*) is transferred to the Spell-Out for interpretation. Note that the object DP has already moved out of the completed VP and has taken the Specifier position in *v*P. After the first Spell-Out, *v* merges with the subject DP *sub students* to form *v*P. Further, an English N *student* is selected by an Urdu D to form the subject DP *sub student*. Because of the unvalued uninterpretable ϕ-features on it, T, when introduced into derivation, starts searching for a Goal in its c-command domain to value its unvalued uninterpretable Φ-features. Since there are now two DPs at the Specifier position of *v*P, T must agree with the relevant DP. With its case feature already valued and deleted upon entering into Agree with *v*, the object DP *iss attitude-ko* has become inactive and is, therefore, invisible. But the DP *sub student* is still active as it carries unvalued case feature. Upon finding the Φ-complete active DP at the Specifier of *v*, T, serving as the Probe, gets its unvalued uninterpretable feature valued against the interpretable Φ-features of subject DP. Further, the subject DP is overtly attracted to Specifier of T to satisfy the EPP feature on T; in return DP gets its unvalued uninterpretable case feature valued and becomes inactive. The introduction of English C into the derivation at this stage triggers the second Spell-Out. Although the domain of C i.e., TP does not remain available for further syntactic operations, C being the head remains syntactically active. At this stage, the fixed CP is selected by an English V think to form VP which is selected by an English (null) *v* as its complement. Being the phase head, English (null) *v* triggers the third Spell-Out. As soon as English (null) *v* is introduced into the derivation, English V moves to *v* position because of the strong affixal nature of English *v*. At this stage, the domain of *v* i.e., VP is transferred to the Spell-Out and becomes fixed. The phase head and its Specifier, however, remain available. The Spec of *v*P, which is still active, is attracted to Spec TP because of the EPP feature English T bears. At this stage, the completed TP merges with null C, which marks the end of the derivation. All the remaining material is finally sent to the Spell-Out for phonetic and semantic interpretation at PF and LF respectively.

The derivation of the mixed sentence under examination is illustrated below:

Sci.Int.(Lahore),28(4),409-412 ,2016 ISSN 1013-5316;CODEN: SINTE 8



Derivation of Urdu/English mixed sentence by phases

Note that the computational procedure followed in deriving the mixed sentence under consideration does not refer to any grammatical operation which is not involved in the derivation of a monolingual sentence. The computational procedure of deriving code-switched sentence as illustrated above does not differ from the derivation of any 'pure' sentence of any language. Hence, there is no need to invoke any grammatical postulates which are specifically meant to monitor the mixing of two languages. Thus, it is possible to predict the recurring switching across different language-pairs with reference to the design of the FoL and the computational procedure of deriving grammatical sentences as proposed by [1].

The phase-based derivation of mixed sentence by taking recourse to Phase Theory offered above deals with the data without some pre-conceived restrictions and constraints. The analysis demonstrate that mixed data can be dealt with within the limits of a model which is devised to account for the monolingual linguistic data, thereby implying that monolingual and bilingual capacities do not essentially differ from each other (cf. [9,10]). The analysis shows that the selection of lexical categories from Urdu and English may freely be switched between two languages. The notion of a split derivation with two distinct derivational chunks forms the core of the minimalist account of CS offered in the present study. Since one phase becomes inaccessible to the other once it is completed due to Phase Impenetrability Condition (PIC), syntactic dependencies are determined independently of each other within a phase. As part of their role in determining syntactic dependencies, *v* and C as phase heads determine the possible switching points in the interaction of two distinct lexicons through an invariant C_{HL}. However, *v* plays more crucial role than C as *v* also determines the selection of all functional heads except C. The feature specifications *v* introduces into derivation play crucial role in determining different switches. Although the selection of C from one L does not entail the selection of any other category from the same L, the selection of *v* from L entails the selection of T and D (of argument DPs) from the same L. In both the CPs of the mixed sentence under examination, T and D are supplied by the L which supplies *v*. Since *v*, T and D of argument DPs enter into *Agree* at different stages of derivation, they must be supplied by the same L for successful valuation of unvalued uninterpretable features as required by the Principle of Full Interpretation. However, the selection of C and *v* remains independent of each other. Thus the selection of one phase head from one L does not entail the

412 ISSN 1013-5316;CODEN: SINTE 8 Sci.Int.(Lahore),28(4),409-412 ,2016

selection of the other phase head form the same L and switching pattern in each of the remain independent of each other. The derivation of the mixed sentence presented does not involve any grammatical mechanism which is not independently motivated. Hence, no essential difference between monolingual and bilingual linguistic 'competence' is admissible.

CONCLUSION

The phase-based derivation of the mixed sentence within the provisions of the MP indicate that theoretical apparatus which is devised to account for monolingual data may successfully be employed to account for bilingual data. The success of Chomsky's Phase Theory in accounting for Urdu/English CS data documented in the paper implies that no essential difference between monolingual and bilingual 'competence' should be admitted and their output (linguistics data) should be dealt with as such without implying any grammatical restrictions which are unavailable to monolinguals. The study asserts that the research on formal aspects of CS should be inter-linked to advancement in linguistic theory in general so that monolingual and bilingual linguistic are dealt with in the same way.

REFERENCES

[1] Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (ed,), *Ken Hale: A life in language*, pp. 1–52. Cambridge, MA: MIT Press.

[2] Espinoza, A. (1917) Speech mixture in New Mexico: The influence of the English language on New Mexican Spanish. In Stephen, H.M and Bolton, H.E. (eds.) *The Pacific Ocean in history*. New York: MacMillan. pp. 408-428.

[3] Pfaff, C. (1979). Constraints on language-mixing: Intrasentential code-switching and borrowing in Spanish/English. *Language*, 55, 291–318.

[4] Poplack, S. (1980). Sometimes I'll start a sentence in Spanish y termino en Español?: Towards a typology of code-switching. *Linguistics*, 18, 581–618.

[5] Poplack, S. (1981). The syntactic structure and social function of code-switching. In R. Dúran (ed.), *Latino Language an Communicative Behavior*, pp. 169-184. Norwood, NJ: Ablex.

[6] Timm, L.A. (1975). Spanish-English code-switching: El porqué y howmatical not-to. *Romance Philology*, 28: 473–482.

[7] Woolford, E. (1983). Bilingual code-switching and syntactic theory. *Linguistic Inquiry*, 5, 520–536.

[8] Mahootian, S. and Santorini, B. (1996). Code switching and the complement/adjunct distinction. *Linguistic Inquiry*, 3: 464–479.

[9] MacSwan, J. (2009). Generative approaches to code-switching. In A. J. Toribio & B. E. Bullock (eds.), Cambridge Handbook of Linguistic Code-switching. Cambridge University Press.

[10]Malik, N.A. (2015). Code-switching by phases: A minimalist perspective. Ph.D. dissertation, University of management and technology, Lahore.