V^0 and SOV/SVO word-order in intra-sentential code-switching

Nazir Ahmed Malik
Muhammad Ajmal Khurshid

Abstract

The present study is an attempt to evaluate empirical adequacy of MacSwan's (2000, 2005, 2009, 2010) proposal that feature strength of V^0 determines SVO/SOV order of constituents in intra-sentential code-switching (CS). In order to determine the potential of this proposal in predicting switching patterns, it employs a corpus of naturally-occurring Urdu/English CS. The corpus consists of 1767 sentences in the form of 29 recorded interactions among 42 competent Urdu/English bilinguals in natural settings. The examination of the data under consideration reveals that SVO/SOV order of constituents in Urdu/English CS is not determined by feature strength of V^0. The data provide multiple instances of complement DP placed at pre-head position, resulting in OV order, in VP in spite of having an English V^0s as its head which requires OV order due to its weak feature. MacSwan's claim that V^0 and T^0 must be supplied by a single lexicon because of restriction on word-internal switching is also falsified by the empirical evidence from the data. The data provide numerous mixed sentences in which V^0 and T^0 are supplied by two different languages instead of one as claimed by MacSwan; hence, they must have same feature strength. Thus, SV/VS orders also depend upon feature strength of Urdu or English V^0 in MacSwan' terms. However, the data examined demonstrate that SV order remains fixed no matter it is English T^0 sharing weak feature or Urdu T^0 sharing strong feature of its respective V^0. Thus, MacSwan's proposal completely fails in predicting linear order of constituents when the languages involved have conflicting grammatical requirements.

Keywords: *Intra-sentential code-switching, minimalist program, word- order, feature strength*

1. Introduction

1.1. Background to the study

One of the perennial controversies in the literature on grammatical aspects of intra-sentential code-switching (CS) revolves around the arrangement of the constituents in a sentence which is the product of two distinct grammatical systems with conflicting grammatical requirements. Different studies have offered conflicting proposals to deal with this problem by employing different theoretical frameworks and methodologies. All these different proposals may be divided into two broad categories. The first category consists of the proposal which attempt to account for the word order by making appeal to such grammatical postulate as are not independently needed in accounting for the so called 'pure' data; such CS-specific grammatical postulates imply essential differences in monolingual and bilingual linguistic 'competence' i.e., the knowledge of a language as opposed to 'performance' which is the actual use of language. The second category, on the other hand, consists of the proposals which account for the word order in terms of existing grammatical apparatus and hence they imply no essential differences between monolingual and bilingual linguistic competence.

Employing Chomsky's (1995) Minimalist Program (MP) as his theoretical framework, MacSwan's (2000, 2005, 2009, 2010) attempts to account for bilingual linguistic competence without making

appeal to any grammatical postulate which is specifically meant only for CS. In the MP, surface word-order is determined by the movements of different constituents within the tree. These movements are triggered by the need to check weak and strong features associated to different syntactic categories (Chomsky, 1995). Strong features are checked before the *Spell-Out* and consequently the movement of the constituents becomes visible at the PF interface- one of the two points where the Faculty of Human Language (FoL) interacts with two other cognitive systems namely Articulatory-Perceptual (A-P) system and Conceptual-Intentional (C-I) system (Chomsky, 1995). Weak features, on the other hand, are checked covertly; to check weak feature, constituents covertly move leaving behind the phonetic content in their original position, thereby leaving no impact upon surface word order because weak features are checked after the Spell-Out. Following Chomsky (1995), MacSwan proposes that feature strength of V^0 is crucial in determining linear order of constituents in both monolingual and bilingual sentences. According to him, V^0 not only restricts T to come from the same language so that two languages are not mixed within the boundary of an X^0 but it also determines the SVO/SOV word-order by rearranging the syntactic objects within the tree by triggering movement of constituents overtly or covertly. The placement of object DP is directly controlled by V^0 whereas the placement of subject DP is indirectly controlled by V^0 through T^0 which comes from the same language so that no mixed complex heads (X^0) are formed.

1.2 Objectives of the study

With corroborating empirical evidence from a naturalistic corpus of Urdu/English CS involving 'balanced' Urdu/English bilinguals, the study aims to establish the following:

1. That, contrary to what MacSwan proposes, feature strength of V^0 in any mixed Urdu/English sentence does not have any impact on VO/OV word-order.
2. That, contrary to MacSwan's claim, V^0 and T^0 may be supplied by two different languages without any impact upon the grammaticality of mixed data.
3. That the placement of subject DPs remains independent of the feature strength associated to V^0 of a particular language and stays at a pre-verbal position no matter T^0 possesses weak or strong feature.

2. Code-switching: constraints or no constraints?

It has never been an easy task to make precise distinctions between different contact phenomena such as CS, borrowing, code-mixing etc. Fundamental debate has been distinguishing the mixing of larger chunks of two languages in discourse from the insertion of single foreign items. CS has generally been generally defined as the mixing of two distinct languages. Taken as an outcome of mixing of two distinct grammatical systems, it provides "a unique window on the structural outcomes of language contact, which can be shown to be systematic rather than aberrant" (Bullock & Toribio, 2009, p.1). Mixing of two grammatical systems within the boundary of a clause is considered intra-sentential CS whereas their mixing at clause boundaries is generally called inter-sentential CS. Inter-sentential CS has been studied from a sociolinguistic perspective whereas intra-sentential CS has been studied from a grammatical point of view. Although it is generally considered 'bad' or 'degenerate' language by lay-people, it remains an attractive topic for researchers and scholars. Although some studies of the early 70s considered it ungrammatical and random (cf. Labov, 1971; Lance, 1975), later studies demonstrate that it is not an 'irregular' or

ungrammatical phenomenon (see, among others, Timm, 1975; Poplack, 1980, 1981; Di Sciullo, Muysken& Singh, 1986; Belazi, Rubin,& Toribio, 1994).

A grammatical approach to the study of CS attempts to determine grammatical constraints which govern the mixing of two distinct grammatical systems within the boundary of a sentence. An enduring controversy in the literature on grammatical aspects of CS revolves around the nature of grammatical constraints which govern the process of mixing of two independent grammatical systems. Built on the premise that CS is a grammatical phenomenon and hence, there must be certain constraints to regulate these switches, all grammatical approaches to CS attempt to predict potential switching-points across different language-pairs with empirical evidence from variety of CS data across different language-pairs. Researchers attempt to describe CS by employing different theoretical frameworks and research methodologies.

There is no common agreement among scholars regarding the mechanism of mixing of two distinct grammatical systems within the boundary of a single sentence. One way of categorizing different studies on grammatical aspects of CS is to see whether or not a particular model of CS implies essential differences between monolingual and bilingual linguistic 'competence' i.e., the knowledge of a language as distinguished from 'performance' which refers to the actual use of language. Whether or not a particular model of CS assumes such essential differences depends on whether or not it invokes such constraints as are not needed while accounting for monolingual data. Viewed from this angle, one may divide all the models of CS into two different categories- the models which invoke CS-specific constraints and the models which reject such constraints in an account of bilingual linguistic competence (cf. MacSwan, 2010).

However, the constraints on CS offered in the literature have largely been found to be inconsistent in accounting for CS data cross-linguistically (see Malik, 2015a). One of the problems with these grammatical proposals is that each of them focuses at a particular point of switching and ends up with a constraint to account for that particular switching-point. Consequently, a number of constraints emerged e.g., theSpecifier Constraint (Timm, 1975) theAdjective Order Constraint, theClitic Constraint and theInflectional Constraint (Pfaff, 1979), the Equivalence Constraint and the Free Morpheme Constraint (Poplack, 1980, 1981). A natural consequence of the formulation of so many and varied constraints is that no generalization can be made regarding their cross-linguistic applicability.

However, the Null Theories of intra-sentential CS proposed by Mahootian (1993) and Chan (2003, 2008) radically differ from the constraint based models of CS by postulating that CS specific constraints need not be postulated; rather CS can be described in terms of a grammatical principles relevant to particular monolingual grammars. In spite of having distinct theoretical orientation, both Mahootian and Chan are unanimous in proposing that CS is not governed by any constraints on CS at the level of phrase-structure.

Mahootian (1993) proposes a model of CS which is based on Joshi's (1985) Tree Adjoining Grammar which views sentences as the result of assembling partial trees through two assembling procedures namely *substitution* and *adjunction*. Mahootian notes that CS involving two different lexicons containing elementary trees does not violate the lexical insertion rules of either of the languages involved. For her, CS is governed by the same mechanisms through which the partial

trees are assembled in monolingual context through *substitution* and *adjunction*. According to her model, VO/OV order in both monolingual and bilingual contexts is determined by the head of elementary trees which are headed by lexical categories. Thus, these are the lexical heads which appear to control the placement of complements in the tree in both monolingual and bilingual context. However, her claim that heads of elementary trees determine the placement of their complements thereby determining VO/OV order has been discredited by MacSwan (2000, 2009) and Malik (2015b) with empirical evidence.

Unlike Mahootian (1994) who assigns central role to lexical categories in determining syntactic dependencies, Chan (2008) assigns such role to functional categories. Chan rejects the proposal that lexical heads of elementary trees determine VO/OV order by determining the position of their complements on their left or right. He reports that the data do not support Mahootian's proposal. He reports that the data he examined contain number of instances where the position of the complement is not determined by the head if the participating languages follow different word orders; rather, the data examined indicate that complements are always invariably placed according to grammatical requirements of the language which supplies functional head. He observes that functional categories differ from lexical categories as far as their behaviour in CS is concerned. According to him, position of complements is determined by functional instead of lexical categories. Thus functional head of a projection determines the position of its complements through its association to a particular value of Head-Parameter. However, Chan's proposal also suffers from empirical weaknesses and has been found incapable of accounting for the placement of complements in projections without overt functional heads (cf. Malik, 2015b).

Like the Null Theories of Mahootian and Chan, MacSwan also rejects the proposals which involve a 'third' grammar and attempts to account for CS by taking recourse to Chomsky's (1995) MP as theoretical framework which is primarily designed to account for monolingual linguistic capacity. He argues that since no special grammatical mechanism is involved in deriving code-switched sentences, no CS-specific grammatical postulates are needed to account for them. The use of the MP as theoretical framework makes it possible to deal with CS-data without introducing any CS-specific postulates. MacSwan's minimalist model of CS has been among the most influential models. In order to fully understand and appreciate the empirical evaluation of MacSwan's claim regarding word-order, it is essential to discuss the model in detail.

3. MacSwan's minimalist model of code-switching and word-order

3.1 Minimalist Program and code-switching

According to MacSwan (2009), it would be impossible to account for CS by assuming a theoretical framework such as traditional Government and Binding (GB) Theory in which parameters are assumed to be part of the C_{HL}. One consequence of having language specific parameters as part of the computational system is that it would vary from language to language and consequently it would be impossible to determine the specific requirements for interaction between two languages. Employing the MP as a theoretical framework to account for CS offers an advantage in that it restricts language variation only to the lexicon with the consequence that computational system becomes invariant across languages.

Based on the fundamental premise of the MP that all differences among language are due to the differences in the lexicon while C_{HL} remains invariant across languages, MacSwan (2000) argues

that the architecture of bilingual linguistic capacity is not different from the architecture of the monolingual linguistic capacity and that CS is not constrained by any mechanisms external to monolingual linguistic capacity. On the basis of these assumptions, MacSwan (1999) asserts that "nothing constrains code switching apart from the requirements of the mixed grammars" (p. 146). The rules of grammars are encoded in the language-specific lexicons since all variation is restricted only to lexicon in the MP (Chomsky, 1995). For him, thus, CS is the union of two-lexically-encoded grammars through an invariant C_{HL} which is subject to the requirements of 'mixed' grammars.

According to MacSwan (2010), intra-sentential CS relies heavily upon the role of the operation *Select*and posits that CS is the result of the successful use of *Select.* Taking essentially a Lexicalist position, MacSwan (1999) postulates that a conflict in language-specific requirements is just a conflict in features' (p.148). According to MacSwan, each of the lexicons involved in CS introduces certain language-specific features in the form of lexical items in a derivation; later on, these features are checked to satisfy principle of Full Interpretation (FI) which requires that every item in a sentence must have 'sensorimotor' interpretation. The derivation crashes (fails) in case there is mismatch in features specifications of the items supplied by two different lexicons.

MacSwan's (2000) Phonological Form F Disjunction Theorem (PFDT), posits that unlike the syntactic objects, the phonological objects are ordered and ranked. As these orders and rankings vary from language to language, involvement of two languages in one phonological object is ill-formed because cross-linguistic variations of the rankings and conflicting ordering of the object cannot be respected in the mixing of two lexicons. Therefore, switching within X^0 which' is provided as inputs to PF is categorically disallowed. Moreover, CS should also be dismissed in the contexts of head movement, as head movement may generate complex heads involving two languages, resulting in a mixed PF object which is disallowed. However, MacSwan accepts the possibility of mixed heads in the case of phonological integration of stem into the language of inflectional morphemes.

3.2 Minimalist Program and linear order of constituents

In the MP, movements, phrase structure rules, and lexical insertion rules are combined in the structure-building operations of *Merge* and *Move*. *Merge* is a structure-building operation that builds trees in a bottom-up fashion while *Move* is an operation that moves a tree within a tree. Moving different constituents within a tree is crucial in determining linear order of the constituents in the MP. In earlier version of generative grammar, the relative order of the constituents in the tree is subject to parametric variation. However, the linear order in the MP is determined through different movement operations. In the MP, there is no predefined universal linear order of the constituents; rather different word orders in different languages are the result of moving different constituents from one position to another in the syntactic representation of a sentence. These movements themselves are triggered by different requirements. Movements are universal and hence, a given constituent has to cover the same path through the tree in all languages. Different word orders are, therefore, derived by moving different constituents to predefined universal position. Hence, any additional mechanism to derive word-order is considered redundant in the MP. In his work since 1995, Chomsky does not seem inclined to accept Kayne's (1994) proposal of SVO as the universal word order and has favored the idea that the linear order of the constituents is the property of PF while hierarchal structures are the sole property of LF (cf. Cook

& Newson, 2007). Strong or weak features of a language trigger different type of movements which crucially determine the linear order of the constituents. Interaction of Urdu and English through an invariant C_{HL} in bilingual linguistic capacity provides interesting insights into the effects of strength of features on the linear order of the constituents in a code switched sentence.

In line with the standard minimalist assumption that overt movements are driven by need to check strong features while covert movements are driven by the need to check weak features (Chomsky, 1995), MacSwan proposes that the it is feature strength of V^0 which determines the linear order of the constituents in both 'pure' and code-switched sentences. Following Kayne's (1994) proposal of SVO as universal word-order, MacSwan argues that VO order is the default order and remains undisturbed if a V^0 possesses weak feature whereas OV order is achieved through the movement of the object DP from its original position to the Specifier position in VP if V^0 possesses strong feature. Following MacSwan's line, thus, VO order in English should be due to its weak V feature which triggers covert movement whereas OV order of Urdu must be due to its strong feature which triggers the overt movement of the object DP from its original complement position to Specifier position. Thus, VO/OV order is directly controlled by the feature strength of V. However, the placement of subject DP is indirectly controlled by V^0 by restricting T^0 to come from the same lexicon in order to avoid forming a mixed X^0 which are provided as input to the PF. For example, if V^0 moves to T^0 to check features, V^0 and T^0 (and in some cases C^0) must come from the same language as predicted by the PF Disjunction Theorem; in case of noncompliance, the derivation will crash (MacSwan, 1999, p. 228). Since V^0 moves and adjoins to T^0, V^0 determines the language of T^0. Thus V^0 determines the position of the subject and the object. MacSwan concludes that V^0 determines the word order in both monolingual and mixed sentences.

4. Materials and methods

One of the issues which have been a point of hot debate among scholars interested in the understanding is the use of the type of data for a study on formal aspects of intra-sentential CS. The scholars differ greatly regarding this issue and employ different types of datasets to obtain empirical evidence. There are studies which employ only naturalistic data while certain others are based only on elicited data which serve as 'negative' evidence to exemplify what is not possible in CS while still some others employ both naturalistic and elicited data. The present study being evaluative in nature employs only naturalistic data to test the empirical validity of MacSwan's claim that V^0 determines SVO/SOV order of constituents in mixed and unmixed sentences.

It is very crucial for any study to employ the most representative data for empirical evidence. Since bilinguals vary a lot from each other regarding their command of two languages available in their linguistic repertoire, every effort should be made to select such bilinguals as exhibit (relatively) equal command of two languages – so-called 'balanced' bilinguals (cf. Poplack, 1981; MacSwan, 2000). The present study employs a corpus of Urdu/English CS which consists of different interactions involving 'competent' Urdu/English bilinguals. The bilinguals who participated in the corpus of the study have been selected from over six thousands undergraduate students of the University of Management and Technology, Lahore, Pakistan through a rigorous process of selection. Initially, the researchers selected 121 students of the UMT on the basis of the information provided by them to the university. Effort was made to select only those who have early education from 'elite' English-medium schools and belong to upper stratum of Pakistan. These selected students were given questionnaire to obtain information regarding their schooling,

socio-linguistic and socio-economic background and were, then, individually interviewed by the researchers to assess their suitability to participate in the corpus of Urdu/English CS. On the basis of this information, the researchers selected 42 students out of initially selected 121 students as the bilingual to participate in the interactions to be recorded. The corpus developed for the study consists of 29 interactions, each involving 4-7 participants with a total recording time of 4.5 hours. A natural conversation among the participants is recorded by one participant who is working with one of the researchers as the researcher's associate who were present on the spot and actively participated in the interactions. The corpus consists of 1767 sentences with1487 mixed and 280 sentences which are purely either Urdu or English. The study has access to the whole corpus and some of the selected sample data are cited in the study as empirical evidence.

5. V^0 and SOV/SVO word-order in Urdu/English code-switching

As noted earlier, linear order in the MP is achieved through movement of constituents which are triggered by the need to check features either overtly or covertly through a feature checking process. Strong features are checked before the Spell-Out by overtly moving the constituents from one position to another position leaving behind a co-indexed trace. Thus, the movements which are triggered by strong features are visible in surface order of constituents. Weak features, on the other hand, are checked from a distance without moving the phonetic content of the constituents after the Spell-Out. Unlike the movements triggered by strong feature, the movements triggered by weak features do not have any impact upon linear order of constituents because phonetic content does not move along with syntactic properties. Feature strength, thus, plays a crucial role in determining the linear order of the constituents. Following Kayne (1994), if SVO is considered a universal word-order as proposed by MacSwan (2000), we have to assume that the language following SVO order possesses a weak feature which allows checking of features from distance without displacing the object DP from its original position. On the other hand, an SOV order must be the result of strong feature which triggers the overt movement of object DP from its original complement position to Specifier position in the upper *v*P.

Thus, following MacSwan's claim, Urdu should possess a strong V feature which requires the overt movement of object DP thereby resulting in SOV order whereas English should possess a weak V feature which requires object DP to stay in its original position thereby resulting in the default SVO order.

If CS is conceived of as mixing of two distinct lexically-encoded grammars subject to the requirements of mixed grammars (MacSwan), VO/OV order must be determined by the feature strength of V^0 if the two languages involved in CS follow different word-orders. In CS, the selection of V^0 from one of the two languages involved in CS entails not only the placement of object DP according to its feature strength but also that T^0 should come from the same lexicon so that two languages are not mixed within an X^0 as stipulated by the PFDT. Since T^0 determines the placement of subject DP (thereby determining VS/SV order) and T^0 and V^0 must have matching feature strength for being part of the same lexicon, selection of V^0 from one of the two lexicons critically determines SVO/SOV/VSO order of constituents in both mixed and unmixed data as proposed by MacSwan. Since no essential differences are assumed between monolingual and bilingual linguistic competence, the placement of constituents in both mixed and unmixed data should be accounted for uniformly with same set of grammatical apparatus. For MacSwan, thus, selection of V^0 from one of the two lexicons not only determines the word-order but also the

lexicon which supplies T^0 as well to determine the VS/SV order.

However, the data examined for the present study suggest that SOV/SVO word-order observed in the naturalistic corpus of Urdu/English CS runs contrary to what MacSwan proposes. An examination of the data clearly indicates that:

1. The placement of object DP to determine VO/OV order is not compatible with the feature strength of V^0.
2. Neither is T^0 supplied by the lexicon which provides V^0, nor is the placement of subject DP determined by feature strength of T^0 determining VS/SV order in clear violation of MacSwan's proposal.

Naturalistic Urdu/English CS data follow both SVO and SOV word order but it does not appear to be determined by the feature strength of V^0. There are mixed sentences which follow the VO/OV order as required by the feature strength of V^0 but there are also numerous instances where the placement of object DP does not follow the feature strength of English V^0. First, consider the Urdu/English CS data (1) and (2) below:

(1) We like the *naans* of university cafe.
bread^N
3/SG
We like the bread of university cafe.

(2) *Apnay*college*mein*, she has been teaching English.
Her^D in^{Ad}
I/Gen
She has been teaching English in her college.

In the mixed (1) and (2), the objects DPs are placed at post-head position resulting in VO order as required by English. Since English possesses a weak V feature, it lets its object DP to stay in its default universal positions by covertly checking it from a distance. Thus it appears that the placement of object DPs *the naans* and *English* in one (1) and (2) respectively is determined by the weak feature associated to English V^0*like* and *teach* respectively. However, the apparent simplicity of the data such as (1) and (2) is deceptive.

If weak feature of English V^0s *like* and *teach* in (1) and (2) determines VO order by letting them stay in their original position, every token of English V^0 occurring in Urdu/English CS should do the same uniformly. However, a closer look at the data reveals that there are only few instances of occurrence of English V^0 in which object DPs appear to be placed at position which appears to be licensed by feature strength associated to English V^0. Majority of the instances of English V^0 occurring in Urdu/English CS data are not accompanied by post-head placement of object DPs resulting in VO order. Consider the data (3) and (4) below:

(3) Obviously*hum inn cheezon- ko* like *kartay heyn.*
we^{D} these^{D} things$^{N\ -Acc}$ do^{v} be^{T}
1/PL PL 3/PL/Fem PL/Mas Pre/PL
Obviously, we like these things.

(4) *Woh* newspaper prfer*kertay heyn.*
they^{D} do^{v} be^{T}
3/PL PL/Mas Pre/P
They prefer newspaper.

In both (3) and (4), the object DPs *cheezon-ko* and *newspaper* respectively are placed at pre-head positions resulting in OV order. Even though each of (3) and (4) contain a token of English V^0 requiring object DP to stay in its original position, the object DPs are placed at post-head positions resulting in OV order. Thus, if it is assumed that feature strength of V^0 determines VO/OV order as proposed by MacSwan, the placement of object DPs in (3) and (4) cannot be accounted for. Further consider the data (5) and (6) below:

(5) *Saray* studentscricket like *kertay heyn.*
all^{D} do^{v} be^{T}
PL/Mas Asp/PL/Mas Pre/PL
All the students like cricket.

(6) *Hum- ne kuch*new concepts*iss mein*add*kieyeheyn.*
we$^{D\ -Erg}$ some^{D} it^{D} in^{Ad} do^{v} be^{Aux}
1/PL PL 1/SG Asp/PL/Mas Pre/PL
We added some new concepts in it.

Like the data (3) and (4), the data (5) and (6) also demonstrate the movement of object DP from a post-head to a pre-head position even though each of them contains a token of English V^0 which, due to its weak V feature, requires its complement to stay in its default position. If it were the feature strength of English V^0 which determined VO/OV order in the data under consideration as proposed, the object DPs *cricket* and *kuchh new concepts* in (5) and (6) must have stayed in their original default position resulting in OV order. But the pre-head placement of object DPs in (5) and (6) resulting in OV order provide unequivocal empirical evidence which falsifies MacSwan's claim that VO/OV order is determined by the feature strength of V^0.

According to MacSwan (2009), V^0 determines not only the position of object DP but also the lexicon which should supply T^0. If V^0 and T^0 are supplied by different lexicons, they may form a mixed X^0 due to the head-movement which may lead the derivation to crash due to the restriction on CS within word-boundary imposed by the PFDT. Thus, V^0 and T^0 must come from a single lexicon because T^0 gets adjoined to V^0 through head-movement and forms a single complex X^0 which is provided as input to the PF. However, the data examined for the study indicate that it is not the placement of object DP only which violates the requirements of V^0 as demonstrated by the naturalistic Urdu/English CS data (3)-(6); T^0 also does not appear to be provided by the lexicon as claimed by MacSwan (2009). Consider the naturalistic Urdu/English CS data (7)-(9) below:

(7) *Meyn*directing field*seziyada*impress *huwi thee.*
I[D] from[Ad] more[Adj] be[v] be[T]
1/SG/Fem Asp /SG/Fem Pst/SG/ Fem
I was more impressed by the field of directing.

(8) I think*ke*potential channelize*honi chahiye*.
that [C] be[v] should[T]
Fin/Dec INF Pre/SG
I think that potential should be channelized.

(9) *Kitni dafa*alternate*kar - rahee hey*?
How[Adv]many times[N] do-ing be[T]
3/PL Asp/SG/Fem Pre/SG
How many times (it) is alternating?

In each of the data (7)-(9), V^0 and T^0 are provided by two different languages in clear violation of MacSwan's claim that V^0 and T^0 must be provided by a single lexicon so that there are no mixed X^os. In the data, an English V^0 *impress* co-occurs with Urdu T^0*thee.* In the same way, tokens of English V^0 co-occur with tokens of Urdu T^0 without causing ungrammaticality in each of the data (8) and (9). Thus, the empirical evidence documented in the data (7)-(9) clearly falsifies MacSwan's claim that V^0 and T^0 should be supplied by a single lexicon to avoid mixed X^0s as required by the PF Disjunction Theorem.

The data (3)-(9) documented in the study demonstrate that neither V^0 determine VO/OV order through its feature strength nor is T^0 supplied by the same lexicon. It must, further, be noted that V^0 and T^0 are not only supplied by different lexicons, but T^0 also does not appear to play any role in the placement of subject DP, thereby determining SV/VS order as proposed by MacSwan (2009). Like the placement of object DP, the placement of subject DP also appears to be independent of the feature strength of T^0. The data examined indicate that subject DP seems to be fairly fixed at a pre-head position no matter T^0 is supplied by English or Urdu. Consider the contrast between naturalistic Urdu/English CS data (10) and (11) below:

(10) I think *ke*you should wear some kind of Victorian type dress.
that[C] Fin/Dec
I think that you should wear some kind of Victorian type dress.

(11) ….That woh answerable naheen heyn.
they[D] not[NEG] be[T]
3/PL/Nom Pre/PL
.....That they are not answerable.

In the data (10), both V^0 and (null) T^0 are uniformly supplied by English. Since English possesses weak V^0 feature and does not require its object DP to overtly move, it follows an SVO order which is considered universal word-order by Kayne (1994). Thus, the SVO order in the data (10) does not pose any problem for MacSwan's proposal and may be employed to demonstrate the success of the proposal. However, the story of success suffers from a serious blow when it comes

to deal with the SV word-order followed by the data (11). The SV word-order followed by the data (11) categorically rejects the role of T^0 in determining the placement of subject DP. If it were the weak feature of English V^0 (and shared by T^0) which determined the SV order in the data (10) as proposed by MacSwan, the data (11) must not follow SV order because Urdu possesses strong V feature and, therefore, it should have followed a VS instead of SV order (if SV is the default position as proposed by MacSwan). Thus, the contrast between the data (10) and (11) demonstrates that the subject DP takes a position which does not appear to be licensed by feature strength of V^0 and an SV order is uniformly followed no matter T^0 is supplied by English or Urdu. Further confirmation of the placement of subject DP independent of feature strength of V^0 (which is shared by T^0) comes from the data (12) and (13) below:

(12) *Walimay* *ka*dress simple*hona* *chahaiye*.
wedding^{N} of^{Ad} be^{v} should^{T}
3/SG/Mas Fem/Mas INF/SG/Mas Pre
Wedding dress should be simple.

(13) Fair game*koi* *naheenheyin our context***.**
any^{D} not^{NEG} be^{T}
CPL/Pre/SG
There is no fair game in our context.

In both (12) and (13), subject DPs are placed at pre-verbal position in spite of the fact that T^0 is supplied by Urdu in both of them. If SV is the universal order which is achieved through checking of weak V feature at a distance, a T^0 with strong V feature must not follow an SV order. But surprisingly, subject DP retains its default universal position whether T^0 is supplied by English with weak V feature or Urdu with strong V feature. The naturalistic Urdu/English CS data (10)-(13), thus, clearly demonstrate that the placement of subject DPs resulting in SV order is not determined by feature strength of T^0 nor is the placement of object DPs resulting in VO/OV order determined by feature of V^0 as demonstrated by the data (3)-(6) nor are V and T supplied by a single lexicon as demonstrated by the data (7)-(9).

Conclusion

The naturalistic Urdu/English CS data documented in the study provide multiple instances which contradict MacSwan's claims regarding SVO/SOV word-order. In the first place, the placement of complement DPs is not determined by the feature strength of V^0 as claimed by MacSwan. It has consistently been observed in the data under examination that complement DPs are placed at pre-head positions resulting in OV order in VPs even though weak feature of English V^0 requires a VO order. Thus, contrary to what MacSwan's claim, V^0 plays no role in determining VO/OV order as demonstrated by the data (3)-(6). Secondly, T^0 also does not necessarily come from the lexicon which supplies V^0 and the data provide numerous instances of T^0 and V^0 being supplied by two different lexicons as demonstrated by the data (7)-(9). Thirdly, the SV/VS order also does not appear to be determined by feature strength of V^0 through T^0. If MacSwan's claim were empirically valid, the data with English T^0 should have followed default SV order whereas the data with Urdu T^0 should have followed VS order as required by strong feature of Urdu V^0. However, the data such as (10)-(13) demonstrate that the placement of subject DP remains fixed and independent of T^0. The data documented in the study indicate that MacSwan's proposal fails

in predicting the linear order of constituents as observed in Urdu/English CS data. Thus, the claim that feature strength of V^0 crucially determines SVO/SOV order of in both mixed and unmixed sentences completely fails in consistently predicting word-order particularly if the two languages involved (e.g., such as Urdu and English) have conflicting grammatical requirements.

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