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No Functional Restriction, No Fusion Linearization on intrasentential Code Switching: a Minimalist Explanation

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Abstract: The aim of present study is to refute 'Functional Head Constraints' (Hedi M. Belazi Edward J. Rubin Almeida Jacqueline Toribio, 1994) on theoretical grounds. It envisages that code switching is disallowed within functional heads (C, T and D) and complement of the functional heads (TP, VP and NP). For this purpose, the empirical data demonstrates that CS freely occurs within functional head and its complement. Employing Minimalist Program (1995) as theoretical framework, it states that Faculty of Human language (FoL) is comprised of two components: invariant Computational System of Human language (C_{HL}) and language dependent Lexicon. Lexicon is a store-house of categories: Lexical and Functional. They are bundles of morphologically encoded features. (Marantz, 1993) C_{HL} computes derivation from top to down on the basis of these features to satisfy the interface conditions FI-Full Interpretation (Chomsky, 1995). Under the assumption of FHC, if we assume that functional head determines its respective complement through the same process as it subscribed in monolingual; it means that C_{HL} is not unanimous about categories. In this way, the status of Universality, invariant and blindness about (C_{HL}) has been violated and no functional head constraint no fusion linearization expression has been observed in code switching pairs Urdu-English.

Keywords: Minimalism, Linearization, Codeswitching, *Phi*-feature, Derivation

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1. Introduction:

The study aims to disfavor theoretically the Functional Head Constraint (FHC) proposed by *Hedi M. Belazi Edward J. Rubin Almeida Jacqueline Toribio (1991, 1994)* i.e. code switching is disallowed within *Functional heads (C,T,D) and complement (N and V)* following the line of Word-Grammar Integrity Corollary (WGIC). It is conceptually tantamount instantiation as Government Constraint (GC) has posited by Di Sciullo, Muysken and Singh (1986). These two CS models are exploiting Chomskyyan's UG model as a Theoretical Framework to justify their potential instances but theoretically one component of UG, Computational System of Human Language is universal, invariant, develops '*involuntarily*' as the other organs of body function. It does not know what categories is under-process in the derivation hence: its only task is to compute the derivation on the valuation/checking and deletion of Functional Features (FF) against the Lexical Features/Categorial Features.

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

   Malik (2016, p.409-412)

The demonstrated example reveals that *that* in (1) is purely an English item and functional category but takes a mixed TP as a complement. This is explicitly violation of Functional Head Constraint (FHC) hence the data reveals that the complement of the head is not constrained by Functional projection even in CS. So, FHC is problematic on empirical footings and the C possesses English phi-features it must be selected by the same languages' complement but failed. In this sentence, *that* does not block, resist and restrict the switching at this point in spite of this, the derivation is fully-convergent. See interesting examples in the proceeding sections.

2. Objective[s] of the Study:

The present study formulates some specific objectives,

1. Logically applying Minimalist Program (1995) on language pairs *Urdu-English*, elucidates that No functional head constraint (FHC) and no fusion linearization expression on intrasentential code switching.

2. To check the nature of Computational System of Human Language (C_{HL}) in Code Switching (CS) strictly in Minimalist's term whether it converges naturally derivation

out of two lexicons and externally counted as No fusion linearization expression of each syntactic object.

3.1 Review of Literature:

Interaction is the primary faculty of all human beings through which, the feelings and ideas are transmitted to others. Language is the unique tool/device for communicative purposes in all situations in the societal environment among the people. People interact with each other freely and sometime, they use words of two languages like mixing of two languages within a word boundary, within a clausal boundary, within sentence boundary, and out of sentence boundary (Poplack 1981). But this study only focuses on switching on within sentence boundary which Myer Scotton (2017) labeled as intra-CP.

Code switching (CS) is thought to be mixing of two languages in the same conversation without any hesitation and pause. In particular it is not fact that intrasentential code switching is not haphazard (Shan & Poplack 1981). There are certain syntactic symmetries underlying the switching process. Proposals for the syntactic constraints on code switching are, in fact, frequent in the literature (see 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). Insight question, therefore, is not whether code switching follows any structural constraints/conditions, but what the best way to determine them is, and whether they can be made to follow from independently motivated, more general principles as in monolingual syntax[4] or the postulation of some restrictive mechanism that regulates switching, later is called CS-Specific Constraints MacSwan (2008) and He has refuted all the mechanism external to human cognition is a CS-Specific Constraint and theoretically it is not possible.

3.2 Code Switching and Borrowing:

The concepts of mixing/switching and borrowing emerged in sociolinguistics; it is conceived as absurd and haphazard use of language, but latter thought that it is the unconscious effort of mind and a part of human competence. The researchers tried to find the grammar of mixed sentence[s]. The initiator and pioneer are Sankoff and Poplack (1980, 1981). They differentiate the borrowing and code switching for positing the Morphosyntactic Integration Criteria. Their model was totally constraints based and implied the 'third grammar' which is mixture of two monolingual Grammars G_1 and G_2 now has been revisited, re-evaluated and rejected by MacSwan (2000) and Malik (2017). The ground-breaking theory of Code Switching has been given as follows:

3.3 The Equivalence Constraint:

[4] See: Malik (2016), PHASE-BASED DERIVATION OF MIXED DATA, Sci-Int.

Code switching is allowed at points where the surface structures of the languages map onto each other.

2. *told le, le told, him dije, dije him [Poplack 1981, p. 176]

told to-him, to-him I-told, him I-told, I-told him
'(I) told him'

3.4 The Free Morpheme Constraint:

Switching may occur at any point in the language at which it is possible to make a surface constituent cut and still retain a free morpheme.

3. *estoy eat-iendo [Poplack 1980, p. 586]

I-am eat-ing

Poplack's constraints have been criticized as a 'third grammar', a term originally coined by Pfaff (1979) to designate a system designed to arbitrate between the two languages exist in a mixed utterance, and applied typically to Poplack's constraints by Lederberg and Morales (1985), Mahootian (1993), and [5]MacSwan (2000).

3.5 Functional Head Constraints:

Unlike Government Constraint, Belazi, Rubin & Toribio (1994) postulated the Functional Head Constraint (FHC), predicting that it emerges from principles independently motivated in the grammar for other phenomena. According to these researchers, the descriptive adequacies are as follows:

"A code switch may not occur between a functional head and its complement".

To illustrate the assumption, Belazi, Rubin and Toribio (1994) attempt to appeal to "feature checking," and 'feature matching' independently motivated to be at work in numerous other phenomena. However, these authors also add an additional item to the feature stack. According to them, a 'language feature', such as [+Urdu] or [+English], is checked/valued along with other features such as case and agreement. If the uninterpretable features do not match and deleted after valuation through operation 'AGREEMENT' (An Urdu functional head with an English complement, or vice versa), the code switch is restricted. They formulate their constraint as such:

"*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."*

[5] See: extensive discussion of all the previous models on Code Switching: a grammatical Theory and Code Switching but he did no intentionally refute functional head constraint on theoretical footings.

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FHC adapts only to f-selected configurations (a complement selected by a functional head, as in Abney (1987), switches between lexical heads and their complements are not constrained.

Conceptually it is deeply a problematic approach. First, the operation (AGREEMENT) requires a language feature such as [+Urdu] or [+English]. Since this suggested 'language feature' is not independently motivated for any other linguistic phenomenon, it serves only to re-label the descriptive facts. In addition, linguists take particular grammars to be derivative in nature, not primitive constructs. A peculiar language is a set of parametric values over the range of variation permitted by universal grammar, so positing a label for a particular language as a primitive in syntactic theory leads to an ordering paradox.

Features typically have a relatively small set of distinct values, such as [±past] or [±finite]. Indeed, as Chomsky (1995) has noted in another connection. Chomsky (1995) has noted in another connection:

what we call "English," "French," "Spanish," and so on, even under idealizations to idiolects in homogeneous speech communities, reflect the Norman Conquest, proximity to Germanic areas, a Basque substratum, and other factors that cannot seriously be regarded as properties of the language faculty.

4.1 Theoretical Framework:

To account for the theoretical aspects of the language is very essential at all. As this study deals with theoretical issues of functional head constraints viewing CS in sharply Minimalist Program. So it is very worthy to sketch the Minimalist program firstly in brief discussion.

4.2 Minimalist Program:

In the Minimalist Program there are two components of grammar: C_{HL}, a computational system for human language, considered to be an invariant across languages; and second component, a lexicon, to which the idiosyncratic differences noted across languages are attributed. An operation called *Select* picks lexical items (LIs) from the lexicon and introduces them into a *Numeration* or *Lexical Array* (LA), a finite subset of the lexicon used to construct a derivation. Operation 'Merge' takes items from the LA and forms new, hierarchically arranged syntactic objects. Movement operations (Internal Merge) apply to syntactic objects formed by Merge to re-arrange elements within a tree (Chomsky 1995, 2000). Phrase structure trees are thus constructed derivationally by the application of the operations *Select* and *Merge*, constrained by the condition that lexically encoded features match/valued in the course of a derivation.

Movements are driven by feature valuation, and may be of two types. A head may undergo head movement and adjoin to another head, or a maximal projection may move to the specifier position of a head. In either case, the element/category moves for the purpose of valuing morphological features of case (number, person, and gender). In addition, movement

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may be overt or covert. Overt movements are because of strong features and are visible at PF (Phonetic Form, where they are pronounced) and LF (Logical Form, where they are interpreted). Covert movements, driven by weak features, are presented on only at LF.

Principles of Economy select among convergent derivations. One such principle, Full Interpretation (FI), requires that no symbol lacking a sensorimotor interpretation be admitted at PF. Applied at LF, FI entails that "every element of the representation have a (language-independent) interpretation" (Chomsky 1995, p. 27). Thus, uninterpretable features (denoted -Interpretable) must be checked and deleted by LF. The Interpretable features are categorial features plus f-features of nominal; the Interpretable features do not require valuation (checking). A derivation is said to converge at an interface level (PF or LF) if it satisfies FI at that level; it converges if FI is satisfied at both levels. A derivation that does not converge is also referred to as one that crashes. If features are not valued, the derivation crashes; if they mismatch, the derivation is canceled (that is, a different convergent derivation may not be constructed). The output of computational system may be in the formation of *Crashed* derivation and *Cancelled* derivation if the features are found incongruently mismatched.

Crashed Derivation bears computational cost and cognitive load. Crashed is due to mismatches of features in the narrow syntax while cancelled derivation is the initial process at the Numeration[6] and if at this stage categories do not merge numeration does not precede further operational mechanism.

5.1 Methodology:

As for as methodology is concerned; the present study adopts naturalistic inquiry (Chomsky, 1995). Language speaking and interacting is naturalistic uncontrolled effort and this study particularly deals with humanly possible language pairs Urdu-English.

A Formal Grammar (FG) by definition analyzes and generates all and only well-formed infinite strings of the language. Chomsky classically ascertained,

"The fundamental aim in the linguistic analysis of a language L is to separate the grammatical sequences which are the sentences of L from the ungrammatical sequences which are not sentences of L and to study the structure of the grammatical sequences. The grammar of L will thus be a device which generates all of the grammatical sequences of L and none of the ungrammatical ones". (1957, p. 2)

If we follow the monolingual tradition, the grammar of CS "… must generate all of the well-formed expressions which invoke elements contributed by more than one language, and

[6] The sub-set of lexicon where the categories are merged with each other on the bundle of encoded morphological and phonological features.

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none of the ungrammatical ones" (MacSwan, 2005 p. 6). Later on he put a concrete instantiation regarding the grammar of mixed sentences.

It is postulated that language speaking is natural and universal human unconditioned ability to generate a fully-grammatical string. MacSwan (2005) stated that:

''… principles of language design urge us to begin with the simplest assumptions, namely, that there is no difference in the way language is represented in the mind/brain of a bilingual and of a monolingual; we should admit additional mechanisms or design assumptions which specifically apply to bilinguals only when compelled to do so by the evidence'' (MacSwan 2005, p. 277).

5.2 Data:

For the collection of natural occurring data, the researcher has adopted the methodology of audio-recordings. It the most suitable for the linguistic research after that the data has been transcribed into the form of CP for accurate and apt results. Data has been collected from the University of Lahore (Gujrat Campus) Punjab, Pakistan.

The Lahore University is situated on the brink of Chenab River. The area is surrounded by some connected villages and towns. Most of students come from bilingual communities such as Silakot and its associated small villages Gujrat and its surrounded towns and some students come from far areas such as Mirpur, Jehlm, Deena and Mangla. They are bilingual speakers and they have acquired two languages from initial stage from school level. They are proficient in their repositories.

For Urdu-English data, a scale-*Balanced Bilingual Speaker[s]* established by MacSwan (2004) has been selected and according to this scale, data accumulated by the students in the audio-recording formation. Total numbers of sentences that occur in interaction are 25000 and the recording time is 4 hours. Total mixed sentences are 144 only. Let's see example (4)

4. He said **that** uss-*ne* kuch kiya naheen tha assignments mein.

   He^{D} -Erg somethingD do^{v} not^{Neg} be^{Aux} in^{Ad}
   3/SG Asp/SG/Mas Pst/SG/Mas
   He said that he did nothing in the assignments'.

The cited example in (4) clearly shows that the functional Head *that*, which is typically from English, it selects an Urdu TP which is the violation of the Functional head constraint (FHC). According to *F-feature criterion*, the phi-Features of Both languages are diverse.

5. I hope **that** app in sab methods-*ko* apply kr-ien gye.
   You these all -Erg do-InF AUX
   'I hope that you will apply all of these methods.'

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It is another interesting example in (5) functional category is C (That) taken from English but it takes the whole TP (app in sab methods-ko apply kar-ien gye.) from Urdu hence; no ungrammaticality is found and it is a natural expression. According to functional head constraint, this sentence must be ungrammatical but it is fully grammatical and convergent derivation attributed to legitimate violation of Functional Head Constraint (FHC).

6. **Har** teacher **apna** lesson prepare kr-eiye ga.

Every your do-InF Aux

'Every teacher will prepare his lesson.'

The examples cited in (6) is purely natural expression and demonstrates that switching is freely occurring in functional heads (D) and its respective complements (NP) which is the clearly violation of *Functional Head Constraint (FHC)* and according to (FHC), these functional categories bear functional features that must be checked and valued and deleted in narrow syntax. But here in Code Switching (CS) functional features of both the languages are contrary and differ parametrically. In the above cited example (6) *Har teacher* and *Apna lesson* are pure DPs the D^{o} head is a functional category it selects English NP (*teacher* and *lesson*) as complement which is the legitimate violation of functional head constraint. The [7]*phi-features* of both languages are contrary.

Another interesting point is noted in this examples cited in (6) is that the [8]*do-verb* (KAR) is from Urdu but it takes a purely contrary complement from English Language i.e. *Prepare* it is the violation of Functional Head Constraint (FHC) hence; do-verb (KAR) irrestrictively selects (Prepare) as its corresponding complement which is the legitimate violation of *Functional Head Constraint (FHC)*. According to (FHC), Urdu do-verbs cannot camouflage independently, they need +supportive material to perform its function. In example (6) [9]***kar*** do not assign any role (theta role) but the only function of it is that it bleaches the semantic meaning of the lexical verb. The derivation starts while the English V (Prepare) selects mixed DP (Apna Lesson) as a complement to construct VP and further the VP is then selected by Urdu do-verb (KAR) as complement. Urdu dumpy verb bears EEP feature it triggers covert object DP (Apna lesson) and moves it overtly and dumpy verb introduces agentive external argument an Urdu DP (Har teacher). Here one phase is completed and vP is recursively merged with Urdu TP (ieye GA) as complement. Dumpy verb triggers prepare lexical verb to move to incorporate is functional material. It is Head-to-Head movement and one DP that is caseless dumpy verb does not assign any case to argument DP (Har teacher). It is caseless DP for case feature valuation is moves for

[7] The Phi-features are the single name of composite (Person, Number and Gender) feature. This terminology is adopted by Moore (2004). She claimed that phi-feature must value in full swing.
[8] Belazi et al (1994) did not treat v as functional head. But in this study we take v as functional head according to Chomsky (1989) it possessed functional properties and EPP feature. It must take VP as a complement.
[9] See the tree diagram for further clarification and elaboration

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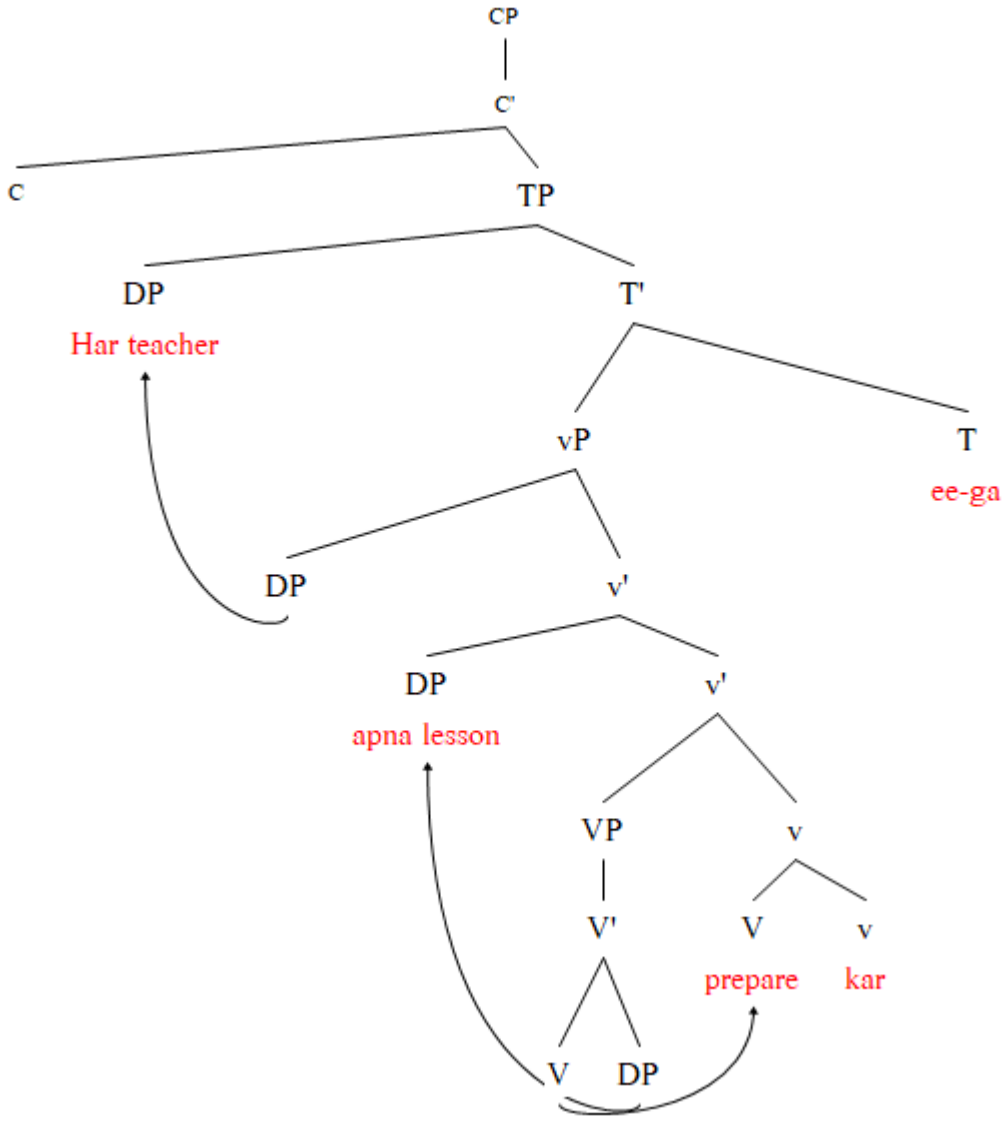
Case Valuation in the specifier of TP. T is finite it bear case, number and Gender feature. It assigns DP nominative case so the derivation completes naturally without any CS-Specific mechanism.



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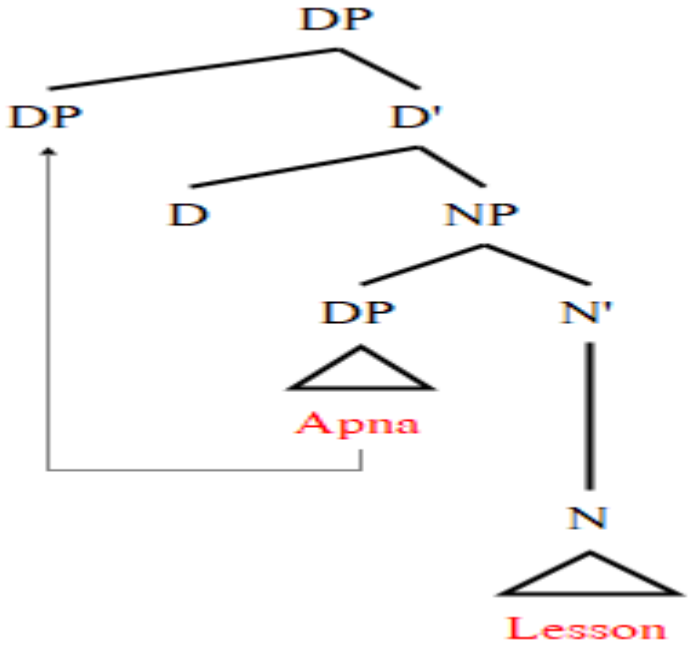
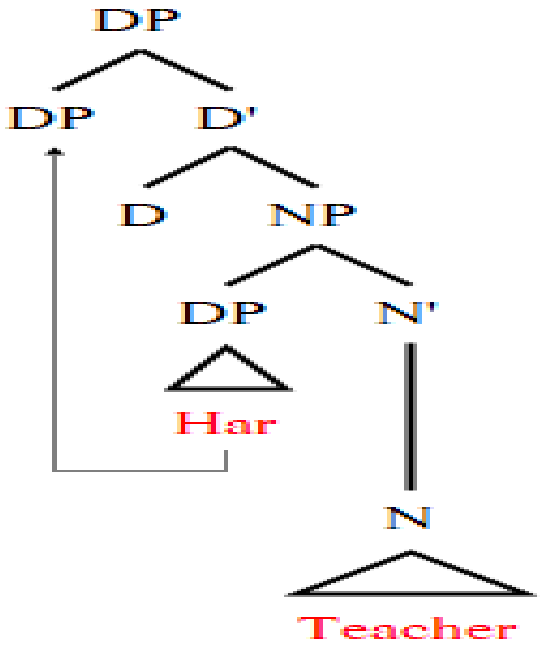
[CP [C' [C][TP [DP Har teacher][T' [vP [DP][v' [DP apna lesson][v' [VP [V' [V][DP]]][v [V prepare][v kar]]]]][T ee-ga]]]]





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In these examples:

1. Why is grammaticality coherent irrespective of language material (categories-Lexical and Functional) in the derivation from *Numeration*? And how the features are check/valued and deleted in the narrow syntax contrary of functional material in the derivation?

Theoretical aspect of these questions is ignored by the CS scholars if we employ Minimalist Program logically, we can scrutinize the exact operative mechanism of human cognitive faculty.

6. Redundancy of Functional Head Constraint (FHC):

The examples in (1-6) taken from Urdu-English data clearly demonstrate that Code Switching (CS) is not constrained by any restriction as imposed by Functional Head Constraint (FHC). In this way, the Functional Head Constraint (FHC) is proved to be redundant, unrestrictive and invalidate in naturally occurring CS data. "Nothing constrains code-switching apart from the requirements of the mixed grammars" postulated by MacSwan (2007, p.767) elucidating that any additional mechanism that is external to human cognitive system is *CS-Specific Constraint* so Functional Head Constraint (FHC) is purely a CS-Specific constraint though it is exploiting the Minimalist Program to give the theoretical justification. Following the same line of research, Malik proposed that "No bilingual linguistic 'competence' essentially differs from monolingual linguistic competence by accounting for the grammaticality of mixed data." (2016, p. 412-416). So, it is evident that any additional device external to human cognitive faculty is CS-Specific Constraint though it is pursuing standard model of accounting for natural language and at this point all the CS scholars agree. Chomsky (1995) claimed that language learning and process is by product of "*minimal search and economical condition*". Myers Scotton & Jake (2013, 2014) postulated that CS is *effortless* phenomena. So, naturally learning and processing of a language[s] in human brain/mind is an *involuntary* action as the blinking of pulse, beating of heart and winking of eyes and so on.

7. A Status of Computational System of Human Language:

In the theoretical model of Minimalist Program, essentially two main part of human cognition i.e. Lexicon[s[10]] and Computational System of Human Language (C_{HL}). As in the section No (4) clearly demonstrates the concept of *Minimalist Program* but in bilingualism it is evident that the status of C_{HL} is same as in monolingual speaker[s]. "There exists no essential difference between monolingual and bilingual linguistic 'competence'" Malik (2016, p. 412-416). So, both the bilingual and monolingual sentences must be generated universally in the same derivational mechanism without any annexational device. According to Mahootian (1993: 3), a null theory of what we label language switching in bilingualism is that "exactly the same

[10] Bilingual possesses a separate encapsulated of phonological rankings MacSwan (2000, 2018) Malik proposed that neither additional PF nor mixed Grammar is essentially required. For extensive discussion: See, Malik (2017) and MacSwan (2018)

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principles which apply to monolingual speech apply to Code Switching". In this line of inquiry Malik 217, p. 1-16) ascertained that "No mixed grammar no phonological disjunction and no hybrid expressions. The only one addition of bilingual speaker which he possesses is language specific halve[s]." MacSwan stated that

"… lexical items may be drawn from the lexicon to introduce features into the lexical array, which must then be valued […] in just the same way as monolingual features must be valued, with no special mechanisms permitted"

In this way the lexical items are not restricted in CS phenomena also. The core and dynamic role in the derivation is of computational System of human language (C_{HL}) in bilingual too. MacSwan (2005) delineated it as follows:

"In the MP, there are two central components of the syntax: C_{HL}, a computational system for human language, presumed to be *invariant* across languages, and a lexicon, to which the idiosyncratic differences observed across languages are attributed." Furthermore, "parameters are restricted to the lexicon rather than operating on syntactic rules" (MacSwan 2005, p. 2).

Chomsky (1995) has stated that the C_{HL} is that it works like a *bat*[11], it does not know what the language is underpinning in the derivation, and the only task of C_{HL} is to value the features and to delete these features in the narrow syntax before the shifting of the derivation into interfaces- PF and LF. If this condition is fully satisfied the derivation will resultantly be convergent no crash will occur.

8. No Fusion linearization:

The data demonstrated in the section (5) suggests another interesting point i.e. the output of both the lexicons (Bore, 1984) is *all* and *only* one single expression not of both and especially the word-order of the mixed CP is labeled as only one single Grammar not of both because of the natural of computational System of Human Language (C_{HL}). It is *genetically instilled, isolable* and *invariant* across languages. Theoretically, when the operation *select* performs its function for picking up lexical items, it constructs universally a sub-set of lexicon that is *Numeration* (Chomsky, 1995) in spite of the competency in bilingual it has option for selecting the lexical items and assigning them indexes[12]. The core point is to establish in this respect is that lexicon may be *variant* or multiple in bilingual linguistic competence but Computational system of Human Language is only one and it is a *generative engine* (Chomsky, 2013) to derive a fully-convergent derivation with universal mechanism

[11] Chomsky (1995) has used this term in the sense that bat did not see while moving. In this way the Computational System of Human Language is just like a bat, it is blind about the categories' identity. The language identity is *Phi-features* on these bases; a fully-convergent derivation is triggered to compute naturally.
[12] These are the values allotted to selected categories that how many time the specific category repeat in the derivation.

Conclusion:

This syntactic study of mixed language[s] reveals that Functional Head Constraint (1994) is redundant and it did not restrict the ungrammaticality in the derivation. All the examples noted in (1-6) show that functional categories (C, T, D, and *v*) select irrespective complement but resultantly the sentence is fully grammatical hence; no ungrammaticality is noticed in naturally occurring CS data. If Functional categories select any complement even in mixed datasets, we must sharply check the status of C_{HL} as Chomsky (1995) has claimed that it works like a *bat* it does not know about language identity hence; it is not language specific rather lexicon[s] is language specific. The input in CS is multiple amalgamation of lexicon[s] but the output is only a pure well-structured string hence; no functional restriction and no fusion linearization.

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Reference:

Abney, S. P. (1987). *The English noun phrase in its sentential aspect* (Doctoral dissertation, Massachusetts Institute of Technology).

Ali, A. (2019). *Intrasentential Code switching and Vs: a critique of the MLF model* (Unpublished MPhil dissertation, The University of Lahore, Gujrat).

Belazi, H.M., Ruben, J.R., Toribio, A.J., 1994. *Code-switching and X-bar theory: the functional head constraint*. Linguist. Inq. 25, 221--237.

Borer, H. (1984). 1984: *Parametric syntax: case studies in Semitic and Romance languages*. Dordrecht: Foris.

Borer, H. (1984). *Parametric syntax: Case studies in Semitic and romance languages*, foris, dordrecht.

Bullock, B.E., Toribio, A.J., 2009. *The Cambridge Handbook of Linguistic Code Switching*. Cambridge University Press, Cambridge.

Chan, B.H.-S., 2008. *Code-switching, word order and the lexical/functional category distinction.* Lingua 6, 777--809.

Chan, B.H-S., 2003. *Aspects of the Syntax, Pragmatics and Production of Code-switching*---Cantonese and English. Peter Lang, New York.

Chomsky, N. (1957). *Logical structures in language*. American Documentation (pre-1986), 8(4), 284.

Chomsky, N. (1957). *Syntactic Structures* (The Hague: Mouton, 1957). Review of Verbal Behavior by BF Skinner, Language, 35, 26-58.

Chomsky, N. (2013). *Problems of projection*. Lingua, 130, 33-49.

Chomsky, N., 1995. *The Minimalist Program*. MIT Press, Cambridge, MA.

Chomsky, N., 2000. *Minimalist inquiries: the framework.* In: Martin, R., Michaels, D., Uriagereka, J. (Eds.), Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik. MIT Press, Cambridge, MA, pp. 89--156.

Chomsky, N., 2001. *Derivation by phase*. In: Kenstowicz, M. (Ed.), Ken Hale: A Life in Language. MIT Press, Cambridge, MA, pp. 1--52.

Cook, V., Newson, M., 2007. *Chomsky's Universal Grammar: An Introduction*. Blackwell Publishing.

Di Sciullo, A.M., Muysken, P., Singh, R., 1986. *Government and code-mixing.* J. Linguist. 22, 1--24.

Gardner-Chloros, P., 2009. *Code-Switching*. Cambridge University Press, Cambridge, MA.

Gumperz, J. J. (1976). *Social network and language shift*. University of California Press.Commun. 14, 3--43.

Joshi, A.K., 1985. *Processing of sentences with intrasentential code-switching*. In: Dowty, D.R., Karttunen, L., Zwicky, A.M. (Eds.), Natural Language Parsing: Psychological, Computational, and Theoretical Perspectives. Cambridge University Press, Cambridge, Cambridge, pp. 190--205.

Kachru, B. B. (1978). *Toward structuring code-mixing: an Indian perspective*. International journal of the sociology of language, 1978(16), 27-46.

Kachru, Y. (1970). *The syntax of ko-sentences in Hindi-Urdu*. Paper in Linguistics, 2, 299-314.

Lederberg, A. R., & Morales, C. (1985). *Code switching by bilinguals: Evidence against a third grammar*. Journal of Psycholinguistic Research, 14(2), 113-136.

MacSwan, J., 1999. *A Minimalist Approach to Intrasentential Code Switching.* Garland Publishing, New York. MacSwan, J., 2000. The architecture of the bilingual language faculty: evidence from intrasentential code switching. Biling.: Lang. Cogn. 3 (1), 37-- 54.

MacSwan, J., 2004. *Code-switching and linguistic theory.* In: Bhatia, T.K., Ritchie, W. (Eds.), Handbook of Bilingualism. Oxford, Blackwell.

MacSwan, J., 2005. *Code-switching and generative grammar: a critique of the MLF model and some remarks on ''modified minimalism''*. Biling.: Lang. Cogn. 8 (1), 1--22. http://dx.doi.org/10.1017/S1366728904002068

MacSwan, J., 2009. *Generative approaches to code-switching*. In: Toribio, A.J., Bullock, B.E. (Eds.), Cambridge Handbook of Linguistic Code- Switching. Cambridge University Press, Cambridge, pp. 309--335.

MacSwan, J., 2010. Plenary address: *unconstraining code-switching theories*. In: Proceedings from the Annual Meeting of the Chicago Linguistic Society 44. University of Chicago Press, Chicago.

MacSwan, J., Colina, S., 2014. *Some consequences of language design: code-switching and the PF interface*. In: MacSwan, J. (Ed.), Grammatical Theory and Bilingual Code-Switching. MIT Press, MA, pp. 185--210.

Mahootian, S., 1993. *A null theory of code-switching Ph.D. dissertation*. Northwestern University.

Mahootian, S., Santorini, B., 1996. *Code-switching and the complement/adjunct distinction.* Linguist. Inq. 27, 464--479.

Malik, N. A. (2017). *No mixed grammars, no phonological disjunction: A new perspective on intra-sentential code-switching.* Lingua, 194, 51-66.

Malik, N.A., 2015. *Heads and placement of complements in intra-sentential code-switching.* Pak. J. Soc. Sci. 2, 811--824.

Malik, N.A., 2016. *Phase-based derivation of mixed sentences.* Sci. Int. 28 (4), 409--412.

Marantz, A. (1993). *Implications of asymmetries in double object constructions.* In Theoretical aspects of Bantu grammar (pp. 113-150). CSLI.

Myers-Scotton, C. M., & Jake, J. L. (2017). *Revisiting the 4-M model: Codeswitching and morpheme election at the abstract level*. International Journal of Bilingualism, 21(3), 340–366.

Myers-Scotton, C., & Jake, J. L. (2014). *Nonfinite verbs and negotiating bilingualism in codeswitching: Implications for a language production model.* Bilingualism, 17(3), 511.

Nishimura, M., 1997. *Japanese/English Code-Switching*: Syntax and Pragmatics.

Pfaff, C. W. (1976). *Functional and structural constraints on syntactic variation in code-switching*. parasession on diachronic syntax, 248, 259.

Pfaff, C., 1979. *Constraints on language-mixing: intrasentential code-switching and borrowing in Spanish/English*. Language 55, 291--318.

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

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.

Romaine, S., (1995). *Bilingualism*. Blackwell, Oxford.

Sankoff, D., Poplack, S., (1981). *A formal grammar of code-switching.* Pap. Linguist.: Int. J. Hum.

Timm, N. H. (1975). *Multivariate Analysis*; With applications in education and psychology (No. 04; QA278, T5.).

Wentz, J., & McClure, E. (1977). *Monolingual Codes. Some remarks on the similarities between bilingual and monolingual code-switching*. In Papers from the... Regional Meeting. Chicago Ling. Soc. Chicago, Ill (Vol. 13, pp. 706-713).

Woolford, E. (1983). *Bilingual code-switching and syntactic theory. Linguistic inquiry*, 14(3), 520-536.

Woolford, E. (1984). *On the application of WH movement and inversion in code-switching sentences*. Revue québécoise de linguistique, 14(1), 77-85.

Appendix

List of Abbreviations:

1 =1st person, 2= 2nd person, 3= 3rd person, Acc=Accusative case, Adj= Adjective, Adv=Adverb, Asp=Aspect , C= Complementizer, Aux= Auxiliary, CP= Complementizer projection, Dat= Dative case, D= Determiner, DP= Determiner projection, Erg= Ergative case, INF= Infinitive, Mas = Masculine, N= Noun, NP= Noun Projection, Post= Postposition, PostP= Postpositional projection, Nom=Nominative case, PL= Plural, P= Preposition, PP= Prepositional projection, SG= Singular, T= Tense, TP = Tense Projection, V= lexical verb, VP= Lexical verb Projection, v= light verb, vP= light verb Projection