INSIGHTS (BHALWAL)
INTERNATIONAL JOURNAL OF HUMANITIES, MANAGEMENT, AND SOCIAL SCIENCES (IIJHMSS)
VOLUME 3, ISSUE 7, 2026 p-ISSN: 3104-8722 e-ISSN: 3104-8730

CODE-SWITCHING AND LANGUAGE ATTRITION: A SOCIOLINGUISTIC STUDY OF PEER CONVERSATION AT THE GRADUATE LEVEL

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Abstract

The study explores the relationship between Urdu-English code-switching and potential language attrition among graduate students in Pakistan. The study is guided by Language Mode Hypothesis of Grosjean (2001) and Interlanguage Hypothesis of Schmid (2002). It employs a sequential mixed-method research design with sample of 60 participants, making 15 peer groups for natural conversation, from three major universities in Sargodha, Pakistan. Quantitative analysis of 5303 utterances and 39858 words reveals that code-switching is the dominant and default mode of communication, with mixed utterances comprising 67.8% of all data. Qualitative analysis manifests systematic patterns of lexical and morphosyntactic attrition. Indicators of lexical attrition include replacement of core everyday vocabulary, psychological phenomena, abstract concepts, digital diction, fashion and clothing items, scientific and technical vocabulary, educational terminologies and connective expressions. Indicators of morphosyntactic attrition include Urdu postpositions replaced by propositional structure, English argument structure and valency patterns, article importation, tense and aspect integration and English influenced word order. Utterances with higher frequency of code-switching show maximum indicators of attrition. These findings provide vigorous empirical evidences for Interlanguage Hypothesis in a non-migratory context, establishing that L1 attrition is systematic restructuring of L1 on L2 model. The study has substantial implications for language heritage maintenance, language policy, individual awareness, and curriculum development in Pakistan and other post-colonial contexts.

Keywords: *Graduate Students, L1 Attrition, Language Attrition, Lexical Attrition, Morphosyntactic Attrition, Pakistan, Post-Colonial Multilingualism, Urdu-English Code-Switching*

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1. Introduction

Bilingualism, a default linguistic situation for a majority of speakers, is an integrated linguistic system where languages are in constant interaction and influencing each other in different ways (Kroll & Bialystok, 2013; Tucker, 1998). Co-occurrence of multiple languages leads to different contact phenomena, out of which code-switching. (Myers-Scotton, 1993b). It performs various pragmatic functions such as filling the lexical gap, conveying nuance and expressing solidarity (Gumperz, 1982). But when speakers consistently prefer a dominant language for syntactic structure and basic vocabulary then their native language suffers from delays in lexical retrieval, structural simplification and decreased fluency (Seliger & Vago, 1991). If this imbalance persists overtime, code-switching no more acts as a skill but leads to an incurable competence loss and language decline (Schmid, 2011).

Specifically code-switching of English and Urdu has a profound historical and sociolinguistic context in Pakistan and linked to issues of social stratification, identity and power (Rahman, 2002). The colonial rule of Britain rooted English as a language of elite, military, judiciary and bureaucracy so it has a dominant position which was retained even after independence of Pakistan (Mahboob, 2022). Urdu is constitutionally identified as the national language and a potent vessel of cultural, religious and literary heritage but less equipped in domains of global trade, technology and science (Rahman, 2002). In this blend Urdu acts as a matrix language providing morphological and syntactic scaffolding and English lexical elements (technical terms, noun, adjectives and verbs) are embedded in it (Baumgardner, 1998). Intra-sentential code-switching of English and Urdu is more common than inter-sentential code-switching which indicates a deep-rooted cognitive integration and bilingual fluency of both linguistic systems (Poplack, 1980).

In higher education, there is tyranny of English in entire intellectual activities including scholarly articles, textbook, research methodologies, presentations and teaching instructions (Mahboob, 2022). The university institution is a critical contact zone where languages and cultures meet and merge with each other in a highly unbalanced power relation (Pratt, 1991). The context of informal communication is crucial situation for observing the most naturalistic form of linguistic behavior of code-switching (Labov, 1972). Informal setting is a linguistic lab where adaptations in language competence of speakers are more visible (Schmid, 2011). Peer's conversation is a more specific sub-domain of informal setting, having unique social dynamics (Eckert, 2000). There is a high level of shared knowledge, solidarity, mutual identity and trust in peer interactions and language is a key source of maintaining the perception of shared community (Lave & Wenger, 1991).

Although the high frequency of code-switching is evident in bilingualism, simultaneously it rises critical concerns regarding the potential and long-term consequences of integrity of first language of speakers. This inquiry pushes us in a profoundly relevant field of language attrition, a field that studies the non-pathological process of reduction in proficiency of an individual's previously acquired language (Köpke & Schmid, 2004). Many recent years of empirical research found out that not any language, even the L1, is completely immune to change in intense contact situations and reduced use (Schmid, 2002). L1 attrition is not a simple process of passive decay, rather it is an active process of restructuring and composition of an interlanguage due to the influence of L2 (Schmid, 2002). In L1, the structures that are complex and infrequent are more vulnerable to be replaced by more dominant and similar structures of L2 (Schmid, 2002). It starts from performance issue, random errors and switches, but with time these feature leads to a new and stable linguistic competence that is systematically different from monolingual speakers (Schmid, 2011). The significant symptoms of

lexical attrition are word finding difficulty, circumlocution, excessive reliance on L2 vocabulary to fill the gap and retrieval failures (Ammerlaan, 1996; Hulsen, 2000). Not only lexicon, but attrition can affect morphology and syntax, and can impact intricate grammatical structures that were acquired in childhood and now are less frequent (Sorace, 2000; Schmid, 2002). When these structures are significantly different from those of the dominant language, there can be instability in tense-aspect system patterns of case-marking and different usage of pronouns (Gürel, 2004; Montrul, 2002).

At this point the two central themes of this study (frequent Urdu-English code-switching and process of L1 attrition) converge into a crucial research problem. The pivotal argumentative question is, can the former accelerate the later. The possibility for such attrition process in English-Urdu context is particularly consequential and acute, due to typological distinction between these two languages. Urdu, an Indo-Aryan language, has a SOV (subject-object-verb) word order, an intricate system of case marking by post-positions and split-ergativity in past tense, where subject of a transitive verb uses ergative case (Schmidt, 2003). English, a Germanic language, is characterized by strict SVO (subject-verb-object) word order, prepositions and nominative-accusative case marking. These structural differences cause specific precariousness for Urdu in strong English dominant context. Under English influence, lexical attrition shows up as a failure to retrieve academic or low-frequency Urdu elements, which are permanently replaced by Urdu equivalents, and leads to the shrinkage of Urdu lexicons. Morphosyntactic attrition in Urdu can manifest as gradual incline towards SVO structures, overgeneralization or simplification of complex case-marking system according to the Interlanguage Hypothesis of language attrition (Schmid, 2002).

Therefore, this study aims to provide a strong quantitative data of authentic frequency of English-Urdu code-switching in specific domain of peer conversations of graduate students. More importantly it will study how this prevalent switching behavior is leading towards lexical and morphosyntactic attrition in Urdu speakers. By adopting Grosjean's (2001) Language Mode Hypothesis and Monika S. Schmid's (2002) as the methodological basis, this research will frame analysis around the major prediction that English is a cause of systematic restructuring of weak areas in Urdu. It will target the retrieval of lexical items and intricate morphosyntactic patterns as the symptom key of potential attrition. By focus on a population (graduate students) that is at the forefront of social and linguistic change in Pakistan, this research is aiming to provide an empirical understanding of how global linguistic dynamics, through friendly social interactions and educational activities, can potentially shape and diminish the functional scope and structural vivacity of native languages. This will hold substantial implications not only in linguistic theory of language change and bilingualism but also in practical domains of curriculum design, language teaching policy and language maintenance in Pakistan and other post-colonial context.

1.1. Research Objectives

- To measure frequency of Urdu-English code-switching in peer conversations at graduate level.
- To analyze the extent on which code-switching of L2 (English) in L1 (Urdu) lead to lexical and morphosyntactic attrition of Urdu.

1.2. Research Questions

1. What is the frequency of Urdu-English code-switching in peer conversations at graduate level?
2. How does frequent code-switching between Urdu and English in peer conversations lead to morphosyntactic and lexical attrition of Urdu?

2. Literature Review

Gumperz (1982) defines code-switching as the juxtaposition of different passages from different grammatical structures within a same conversation. Poplack's (1980) pioneering work in the Puerto Rican community of New York City constructed key grammatical distinctions. She defined code-switching as a phenomenon of mixing more than one language among multilinguals, without change in topic or interlocutor. She posited a categorization based on syntactic boundaries, naming intra-sentential (within the clause) and inter-sentential (outside the clause), and structural constraints like the Equivalence and Free Morpheme Constraint to describe nature of grammar of switches (Poplack, 1980). Myers-Scotton (1993b) developed the Matrix Language Frame (MLF) model, a more precise grammatical framework to describe the structure of intra-sentential switching by differentiating between the matrix language (which gives the grammatical fabric) and the embedded language (Myers-Scotton 1993b). These frameworks spurred a plethora of empirical research across global communities, validating status of code-switching as a rich field of study.

Regarding English, this practice includes the strategic inclusion of English items into another (matrix) language that is morpho-syntactically and typologically different (Poplack, 1980). In post-colonial settings like Pakistan, English holds a quite powerful position; it has a status of official language, a crucial cursor of social stratification and acquiring economic opportunities and a primary language of elite education (Rahman, 2002; Mahboob, 2022). The inclusion of English items into Urdu, is not only a linguistic process but complex interpersonal dynamics, reflection of colonial legacy, a rich social act and a contemporary globalizing trend (Mahboob, 2022). Several studies in Pakistan consistently demonstrated English-Urdu code-switching as a dominant characteristic of Pakistani bilinguals (Anwar, 2009). Studies on Pakistani graduate students showed that intra-sentential code-switching between English and Urdu is more dominant in digital communication for expressing functions such as humour, emphasis, social identity and clarification (Tahir et al., 2025; Fatima, Nasir, & Naeem, 2026). Studies on young bilinguals in Pakistan established that in peer conversations code-switching is a marker of group association, modernity and status, while English linked with cosmopolitan identity, confidence and education, and Urdu with cultural and emotional expression (Khan et al., 2025; Fatima et al., 2026). Also, university students defend code-switching as a natural communication tool to improve clarity and cohesion (Tahir et al., 2025). Many empirical studies identify code-switching in young Pakistanis as a technique of cognitive processing and identity formation. For example, consistent inter-sentential code-switching is associated with cognitive pressure participant report adoption with time and reduction of perceived effort (Khan et al., 2025). Also, young bilinguals view switching as a marker of group association and modernity, while sometimes also experience conflict between peer culture and traditional family expectations (Khan et al., 2025).

The systematic inquiry of language attrition, described as the non-pathological eroding of a person's proficiency in a language, is a young yet vigorously evolving domain within linguistics (Kopke & Schmid, 2004). This phenomenon, which probes situations under which a once automatized linguistic system go through destabilization or become lesser accessible (Sharwood Smith, 1983a). Schmid (2002) framed four essential models that shaped the understanding of attrition data: regression, simplification, interlanguage and universal grammar (Schmid, 2002). The regression hypothesis, suggests that language loss is the reflection of language acquisition, as the structures acquired last are the first to be lost (Jakobson, 1941). The hypothesis of "simplification" has frequently been invoked

as an interpretation for the attrition data, but it is more a descriptive label rather than any explanation framework (Schmitt, 2004). A dominant approach in attrition research has been CLI (cross-linguistic influence) hypothesis, initially introduced by Sharwood Smith (1983b). This hypothesis credits changes in the attriting language due to transfer from another dominant language (Kopke & Schmid, 2004). This view is held by many of researcher, as the studies show that L2 influence is a major source of errors in L1 (Altenberg, 1991; Gurel, 2002; Kaufman & Aronoff, 1991; Kopke, 1999). Seliger (1991) argued that L2 can serve a source of "indirect positive evidence" in the absence of L1 input, which leads to the replacement of complex L1 rules with simpler L2 rules (Kopke & Schmid, 2004). However, it is widely agreed that transfer is not the only source of change in attriting systems, its practice is likely governed by factors such as structural resemblance between languages, with Altenberg (1991) arguing that "L2 and L1 similarity is a significant condition for transfer" (Kopke & Schmid, 2004).

Bilingual mind is a vigorous system characterized by the continuous competition and interaction of its constituent languages (Green, 1986). Within this system, two apparently different phenomena (code-switching and language attrition) emerge as naturally linked representations of bilingual language processing (Kopke, 2004). While code-switching is often a sign of communicative competence, an increasing amount of research investigates its potential role as a correlational factor in the slow process of L1 attrition (Schmid, 2011). The theoretical foundation for joining attrition and code-switching is rooted in psycholinguistic frameworks of bilingual language activation and control. Activation Threshold Hypothesis (ATH) of Paradis (1993; 2004) postulates that every linguistic element in a bilingual mind has an activation threshold, and the disuse increases it (Paradis, 2004). In a persistent L2 environment, the L2 becomes more frequently activated and dominant language, while the L1, although not lost completely, becomes less reachable due to increased activation thresholds (Kopke, 2002). Within this framework, code-switching can be conceived as a behavioral representation of this internal activation effort. When a speaker faces a momentary struggle in retrieving a L1 lexical element, switching to its easily available L2 equivalent is a communicative solution (Poulisse & Bongaerts, 1994). These strategic exercise of code-switching to avoid a temporary retrieval obstruction is originally performance issue (Sharwood Smith, 1983a). However, if this approach becomes persistent, a critical cycle may begin: each shift to the L2 for a certain concept enhance the activation of the L2 element while further lacking to activate and by that increasing the threshold of the equivalent L1 element (Schmid, 2011). Gradually, this may lead to a permanent rise in the activation threshold for the L1 element, changing from a performance challenge to a competence deficiency, a process which Schmid (2011) termed as "attrition through back doors".

The area of the lexicon is largely documented as the most vulnerable linguistic level to both attrition and code-switching (Ammerlaan, 1996; Hulsen,2000). Failures in lexical retrieval is the most frequently discussed sign of L1 attrition across different speaker populations (Schmid, 2011). Olshtain & Barzilay (1991) reported how attriters frequently used L2 words when facing difficulty to retrieve L1 lexical elements, a scheme they interpreted as proof for lexical erosion. This compensatory code-switching is not random; it mostly targets certain semantic fields, especially which are related to the L2 dominant environment, such as technology, academia or work (Schmid, 2011). This consistent use of L2 items for such concepts can result in a phenomenon where the L1 words are not only harder to access but are eventually replaced and go through semantic transfer from the L2, phenomena discussed in detail in the work of Pavlenko (2004) on conceptual restructuring.

Apart from the lexicon, the strong influence of code-switching on morphosyntactic attrition is more theoretically debated and complex. The MLF (Matrix Language Frame model, posited by Myers-Scotton (1993b), gives a framework for interpreting the structural constraints of code-switching. In classic code-switching the Matrix Language, usually the more dominant language of interaction, gives the grammatical frame into which items from the Embedded Language is inserted (Myers-Scotton, 1993b). In established bilingualism, this grammatical frame remains strong. However, in a prolonged attrition situation, the status of the ML can become unstable. As the L2 becomes dominant, the grammatical frame of a conversation, even when targeted to be in the L1, can become penetrable to L2 syntactic structures (Schmid, 2011). This is not the single word inclusion of classic code-switching, but a deeper syntactic interference. For instance, Gurel (2002; 2004), in her work on attrition of Turkish null subjects under the influence of L2 English, concluded that attriters manifested an importance for overt pronouns in contexts where monolingual Turkish would need a null subject. This shift can be understood as the result of prolonged switching with and exposure to dominant language, where the realization of L1 grammatical structure is gradually influenced by the L2 syntactic rule. This corresponds with Seliger's (1991) hypothesis that in the absence of enough L1 input, the common practice of code-switching provides the constant context for this syntactic interference to become deep-rooted.

Despite vast research on code-switching there is a critical gap. Studies remained more focused on structural patterns and social motivations without concerning its potent psycholinguistic outcome of L1 attrition. This study approaches this gap by investigating the relationship of code-switching with measurable Urdu attrition indicators.

3. Theoretical Framework

This study adopted two commendatory theoretical frameworks, each addressing one of the research objectives. Grosjean's (2001) Language Mode Hypothesis for code-switching frequency and Schmid's (2002) Interlanguage Hypothesis for L1 attrition.

Grosjean's (2001) Language Mode Hypothesis suggests that bilinguals exist in a continuum which ranges from monolingual mode to a bilingual mode. In context of informal conversations among graduate peers, speakers are expected to function in highly bilingual mode, making code-switching a default register. It validates the expectation that mixed utterances constitute majority of the data and gives a theoretical basis to examine code-switching frequency in various conversational contexts.

Monika S. Schmid's (2002) Interlanguage Hypothesis investigates that L1 attrition is not forgetting but active process of restructuring and formation of an interlanguage under L2 influence and intensive contact. It will determine language attrition by interlanguage effect, which includes L2 Linguistic system encroaching on L1, changes in L1 are not random errors but have predictable patterns where L2 and L1 structures overlap, L2 grammar providing model for what sounds right ("indirect positive evidence") in L1 in the absence of formal L1 input, replacement of complex rules in L1 with simpler ones of L2 and vulnerability of entirely different structures of L1 from L2. This study adopts this hypothesis, that frequent code-switching of graduate peer group is not simply a pragmatic skill but a potential source of Urdu attrition at lexical and morphosyntactic level.

4. Research Design

The study employed mixed-methods design, integrating quantitative findings with qualitative examination. First phase was quantitative measurement of code-switching frequency using utterance-based metric. Second phase was qualitative analysis of attrition indicators at lexical and

morphosyntactic level. The data was collected through audio-recording of peer conversations, involving natural and spontaneous speech. Also, there was a language background questionnaire to collect data of participants' language use patterns, educational background, proficiency and domains of English/Urdu use. Recordings were transcribed word-for-word using a simple orthographic system. Then, to identify code-switching, each utterance was codified for language (mixed, English, Urdu).

4.1. Participants

Total participants were 60 graduate students, selected through purposive sampling, forming 15 natural peer groups and from three public universities in Sargodha, Pakistan: University of Sargodha, Superior University and University of Lahore.

Table 4.1: Demographic profile of sample: (N=60)

Variable	Category	Frequency	Percentage
Gender	Male	28	46.7%
	Female	32	53.3%
Degree program	Graduate students	60	100%
Academic Discipline	Social sciences	19	31.7%
	Natural sciences	25	41.7%
	Humanities	16	26.7%
Medium of Instruction (School)	English-medium	46	76.7%
	Urdu-medium	14	23.3%
Medium of Instruction (University)	English-medium	60	100%
	Urdu-medium	0	0%

4.2. Language Background and Self-Reported Use

Questionnaire of language background revealed important patterns of participants' daily language use in different domains.

Table 4.2: Self-reported language use patterns:

Domain	Predominantly Urdu	Mixed (Urdu-English)	Predominantly English
Family/Home	48 (80%)	12 (20%)	0 (0%)
Friendship/Peer	1 (1.7%)	59 (98.3%)	0 (0%)
Academic Study	0 (0%)	13 (21.7%)	47 (78.3%)
Social Media	1 (1.7%)	54 (90%)	5 (8.3%)
Reading (non-academic)	18 (30%)	37 (61.7%)	5 (11.4%)

The data revealed different patterns of language distribution in different domains. In the family domain Urdu dominated (80%), while in academic study English dominated (78.3%). The highest proportion of mixed language use was among peers (98.3%) which is the focus of the study. It

confirmed code-switching as a default, unmarked mode of communication in informal conversations among graduate students.

4.3. Data

The data comprised approximately 3.32 hours of audio-recorded conversations, producing a total of 5303 utterances and 39858 words for analysis.

Table 4.3: Overview of data:

Group	Discipline Area	Duration (min)	Total Utterances	Total Words
G1	Natural Sciences	8:12	309	2397
G2	Social Sciences	12:25	328	2350
G3	Natural Sciences	21:37	225	1745
G4	Natural Sciences	17:36	485	3822
G5	Humanities	13:21	566	4725
G6	Humanities	12:53	246	1919
G7	Social Sciences	12:05	338	2446
G8	Humanities	8:40	248	1780
G9	Humanities	17:03	496	3643
G10	Natural Sciences	12:10	330	2296
G11	Social Sciences	13:47	403	2841
G12	Social Sciences	9:50	298	2035
G13	Social Sciences	11:37	326	2562
G14	Natural Sciences	13:08	371	2678
G15	Natural Sciences	14:38	404	2619
Total		3:19:02	5303	39858

4.4. Analysis of Code-Switching Frequency:

This study employed a frequency metric to measure code-switching, according to Grosjean's (2001) distinction between language activation and language mode.

Utterance-based frequency was calculated by formula (Number of utterances (Urdu, English or mixed) / Total utterances) × 100. It demonstrated code-switching as a dominant discourse mode and stands for comparison with previous sociolinguistic research in Pakistan.

Following is the overall distribution of utterances across entire data.

Table 4.4: Distribution of utterances:

Utterance Type	Frequency	Percentage
Urdu-only	1,514	28.6%
English-only	191	3.6%
Mixed	3,598	67.8%
Total	5,303	100%

The findings showed that mixed utterances are 67.8% of all utterances across entire data. Urdu-only utterances comprised almost a quarter (28.6%) of the data. English-only utterances were not dominant (3.6%) and typically occur as direct quotations as English phrases or from academic sources. This distribution proved the claim that for this demographic context, the mixed code has become the default, unmarked register for informal peer conversations.

Following is the utterance-based frequency for each conversation, demonstrating variation across groups.

Table 4.5: Utterance-based frequency by each group:

Group	Total Utterances	Urdu-only	English-only	Mixed	% Mixed
G1	309	114	25	170	55.0%
G2	328	100	21	207	63.1%
G3	225	69	6	150	66.7%
G4	485	153	11	321	66.2%
G5	566	119	12	435	76.9%
G6	246	74	12	160	65.0%
G7	338	85	20	233	68.9%
G8	248	70	8	170	68.5%
G9	496	184	6	306	61.7%
G10	330	110	14	206	62.4%
G11	403	149	16	238	59.1%
G12	298	67	9	222	74.5%
G13	326	68	3	255	78.2%
G14	371	90	8	273	73.6%
G15	404	62	20	322	79.7%
Total	5,303	1,514	191	3,598	67.8%

In group-level data mixed utterances ranged from 55.02% to 79.7% across all 15 groups. The lowest mixed utterance percentage (55.0%) was recorded in group-1 and highest (79.7%) in group-15. This range of varying percentages suggested that factors such as individual speaker, group dynamics and topic of conversation can influence the frequency of code-switching.

4.5. Analysis of Lexical and Morphosyntactic Attrition

The qualitative analysis of potential Urdu attrition indicators investigated each conversation's transcript to examine evidences of English-influenced restructuring in lexical and morphosyntactic domains of Urdu. It ultimately revealed whether the observed features are random performance flaws or systematic restructuring causing attrition in Urdu under dominant influence of English, as proposed by the Interlanguage Hypothesis.

The codification of attrition indicators (lexical and morphosyntactic) followed systematic procedure based on Schmid's Interlanguage Hypothesis (2002). The linguistic features were coded as attrition indicators if they met three criteria. First, deviation from Urdu norms. The use and preference of English words where Urdu equivalent exist and deviation from standard features and grammatical structures of Urdu. Second directionality towards English patterns, means modelling lexical and morphosyntactic choices on English patterns, within Urdu discourse. Third, systematicity across contexts and speakers, means attrition indicators are occurring across multiple conversational contexts and multiple speakers, making it a consistent pattern of restructuring.

Following are the attrition categories observed in overall data:

Domain	Attrition indicators
Lexical	core everyday vocabulary, psychological phenomena, abstract concepts, digital diction, fashion and clothing items, scientific and technical, educational terminologies and connectives.
Morphosyntactic	English verbs integrated with Urdu light verbs, hybrid tense, aspect or modality system, and importation of English verb valency, argument structure, articles, word order and prepositional structure.

4.6. Lexical Attrition

Code-switching was systematically replacing Urdu vocabulary with English alternatives, making these a default choice in multiple cultural and social domains. In all conversations there was consistent replacement of fundamental everyday vocabulary (bed, time, brain, book, city, human, use, milk, mind, start, eyes, change, problem, last time, answer, past, bag, wrong, job, name etc.). English was being widely used to analyze social and interpersonal relationships (society, obligations, maid, religion, social group, love marriage, driver, minority, status etc.). Speakers were conceptualizing gender relationships through linguistic frame of English (male female, couple, girls, male friend, he, masculinity etc.). There was replacement of kinship terms (father, mother, uncle, parents, joint family system, cousin, relatives etc.), and abundant use of English psychological vocabulary (autism, delusions, overthinking, stress disorder, relaxation, depression, self-doubt, therapy, hallucinations, confusion, anger, self-blaming, attention span etc.). Speakers were consistently using English terms for personal description, fashion and clothing (dressing, shorts, waist, shirt, body, narrow, jeans, top, dress up, over size, pants, fashion, tight etc.). English connective expressions were used as borrowed lexical items to manage flow of conversation (you know, exactly, actually, I think, means, but, even, basically, like, maybe, obviously, I mean, because, kind of, normally etc.). Different abstract concepts were also mediated through English vocabulary (modernity, personal choice, misconception, globalization, fictional, multilayered, economics, tragedies, mindset etc.). Speakers were consistently using English terms for academics and institutional roles (degree, finals, role number, assignment, sessional, test, teacher, class, students, paper etc.). The most direct evidence of lexical attrition unfolded in digital domains (apps, pictures, reels, download, post, ban, filters, content, link) and technical vocabulary (AI, breeding habitat, nutrition, computer, science, google, website), where English seemed to be only option.

4.7. Morphosyntactic Attrition

In this conversation persistent code-switching was also leading towards morphosyntactic attrition, producing hybrid grammatical patterns that were continuously pushing native Urdu structures. Speakers were importing quotational expressions from English instead of using native Urdu

to report speech (he was telling, I was like, I said, they were like, he was like okay, we were friends and all, I said OKAY!). English verbs were completely absorbed in Urdu constructions, making mixed tense-aspect patterns (wo bounce back krti hy, ap yh imagine krty ho, globalization ko pehly define kia, social media ko use krty hn, ap mentally block ho rhy ho, un ko consume kr rhy hn, questions develop krny hn, disturbance add krni hoti hy, confidence bhi build hota hy, ap paper thek sy perform nhi karin, hum deal kr rhy hn, kin kin apps mn interested ho, jo already test kr chuky hn, mind mn sort ho jati hn, medicine prescribe kr skty ho, dosri teachers b interfere krti hn etc.). These hybrid constructions were demonstrating morphosyntactic attrition at various levels. There is a consistent pattern of English verbs, adjectives and nouns are incorporating light verbs and complex grammatical features of Urdu, such as tense, modality, aspect, emphatics and negation. In sentences native argument structure of verbs was systematically conquered by argument and valency structure of English. English verbs (bounce back, imagine, define, use, block, consume, develop, add, build, perform, deal, interested, test, sort, prescribe, interfere etc.) were importing their transitive and intransitive argument structure. Also, the postpositional order of Urdu is replaced by prepositional order of English (at the same time, from the audience, under seventeen branches, from dominant to burger, as a family, as a Muslim, for example, most of the time, by the way, to you, person to person, just for fun, by birth, proper in a sense, heritage of aquatic animals etc.). Moreover, importation of article from English (a, an, the) is important while Urdu has no articles. This demonstrates structural shift in encoding manner and partitive relationships and attrition at basic phrasal level. Frequent code-switching was also influencing Urdu word order by placement of English clauses within Urdu utterances (frankly speaking hamari mothers ny bnaya, mn ny basically kiu lia, mera work complete hony wala hy, believe me matlab mn hardly pass hoi thi, just think about it k wo mry samny khari hy, Nhi that's not the case, it's just communication either support krty ho ya is ko neglect karna ziada thek hy, like seriously yahan sy hamry hi, because jin b ocuppy krty hn, I think ap overconcious ho k overthinking start kr dety ho etc). The placement of English phrases, conjunctions, adverbs within Urdu structures, is systematically bypassing Urdu equivalents. This hybrid structural pattern is evidently influencing word order of Urdu utterances.

5. Discussions and Findings

Findings of qualitative analysis of 5303 utterances and 39858 words across 15 conversations of peer groups showed that 67.8% of total utterances are mixed utterances, while Urdu-only utterances were only 28.6% and English-only utterances are the least 3.6%. These findings illustrate that code-switching is not merely an auxiliary aspect but spontaneous and dominant mode of communication in informal peer conversations among graduate students. These findings truly support Language Mode Hypothesis of Grosjean (2001). Participants consistently function in highly bilingual mode in context of informal peer conversations of bilingual graduate students. There is high frequency of mixed utterances (67.8%) which confirms that speakers are freely drawing upon their complete linguistic rapport without constraints of monolingual norms. The variation in frequency of code-switching across groups (55.02% to 79.7%) and different disciplines also backs Language Mode Hypothesis. Code switching is prevalent universally, but its intensity depends on factors such as group dynamics, topic, individual speakers and their field. English-only utterances are minimum in data which is also theoretically significant. It reflects that English is exclusively functioning as an embedded language within Urdu conversational structure. Speakers are not entirely shifting to English, but inserting

English clauses, phrases and lexical items within Urdu grammatical structure. This frequency of insertion is later leading towards lexical and morphosyntactic attrition.

Qualitative analysis of 15 conversations revealed that there are systematic patterns of lexical and morphosyntactic attrition in various domains. Lexical attrition is manifested as replacement of core everyday vocabulary, psychological phenomena, abstract concepts, digital diction, fashion and clothing items, scientific and technical, educational terminologies and connectives. Morphosyntactic attrition is manifested as English verbs integrated with Urdu light verbs, hybrid tense, aspect or modality system, English verb valency and argument structure imported into Urdu constructions, article importation, English influenced word order and Urdu postpositions replaced by prepositional structure,

Interlanguage Hypothesis of Schmid (2002) posits that changes in L1 are not random but have predictable patterns. Findings in the study aligns with this prediction. There were same patterns of attrition appearing consistently across all groups, such as replacement of core everyday vocabulary, abstract concepts, connective expressions, and technical terms as well as mixed verb constructions, preposition importations, English argument structure etc. This is not coincidental systematicity but reflects interlanguage rules governing the integration of English elements into Urdu constructions. For example, there was a habitual pattern of using English verb in combination with Urdu light verbs (manage karna, expose hona, discuss karna, clear hona), which is resulting in a new morphological rule. Its regularity indicates that it has become a prolific and stable grammatical rule in the speakers' competence and strategically substituting the native patterns of Urdu verb phrases. The hypothesis predicts that, reduction in formal L1 input and excessive L2 presence gives a model of new rules ("indirect positive evidence"), which effects grammatical productions in L1. Two linguistic systems interact in such domains where both have a rule serving same semantic function, less complicated and widely distributed replaces more complicated rule in L1. There was reduction of complexity in case-marking where Urdu postpositions are replaced by English prepositions. English prepositional phrases (delusion in a sense, just for fun) were abundantly used in Urdu sentences. Postpositional system of Urdu requires more attention towards verb-noun relationship, while prepositions are relatively more fixed and simpler. Speakers were also using English articles (most of the time, as a family) which is more significant because Urdu has no articles in grammar. This demonstrates that different grammatical categories of English are used as "indirect positive evidence" to structure noun phrases in Urdu constructions. Also, the production of clauses (I have seen males, he was telling) with English tense and aspect indicates that attrition is at advanced stage. Present perfect constructions in Urdu are structurally different from the present perfect of English, which means imported English pattern here are syntactic innovation within Urdu discourse. This demonstrates that English is providing model to express temporal relationships which are encoded differently in Urdu. This influence of L2 on L1 grammatical constructions aligns with interlanguage hypothesis' prediction. SOV word order of Urdu was also occasionally replaced by SVO word order of English in complex clauses, indicating English patterns encroaching on simpler Urdu pattern. The data revealed a significant hierarchy in vulnerability to attrition. There was a high rate of attrition in structures which are completely different from English and structures which are cognate or similar showed more resistance. Core everyday vocabulary has highest rate of replacement. Words having no direct equivalent, connectives and regular verbs were significantly vulnerable. It indicates that even structural organization of conversations is influenced by English patterns. Core SOV word order, emphasis markers and conditional structures were less

vulnerable in the data. This pattern validates Interlanguage Hypothesis that core deep-rooted structures are more preserved in L2 influence than interactive and peripheral structure.

5.1. Code-switching Leading to Attrition

The primary theoretical claim of study is that frequent code-switching can lead towards the phenomenon of L1 attrition. This process works in following ways. Firstly, academic life of graduate students is dominated by English including textbooks and instructions. This is leading towards constant activation of lexical items and grammatical patterns of English. This dominance is also influencing intimate and informal conversations. As Schmid (2002) posits that data obtained from spontaneous conversations have more possibilities for speakers to make errors in different grammatical features. Secondly, speakers switch to more accessible English equivalents when they encounter difficulty in retrieving an Urdu word. This is an initial performance-based solution for a temporary retrieval issue. According to Schmid (2002), open-class and lexical domain have more possibility of having effects like code-mixing and code-switching due to influence of L2 linguistics system. Thirdly, each switch to English reinforces the cognitive and linguistic system of speaker towards English pathway and makes corresponding Urdu items less active. This is creating an endless loop as more switching further intensifies the attrition. This is resulting in the transition of a linguistic system, where lexical items and grammatical structures of Urdu are progressively substituted by English equivalents and hybrid patterns influenced by English. Finaly, the initial performance technique becomes persistent as competence. English items become default choices of speakers instead of their common Urdu equivalents, and English morphosyntactic patterns integrate within grammatical system of Urdu. Schmid (2002) conceptualized this system as development of interlanguage in L1 attrition. L1 linguistics system is not decaying but restructured on L2 model. High frequency of code-switching among graduate peer groups is not simply a bilingual skill but a behavioral manifestation of interlanguage development as this mixed language has become their new correct Urdu.

5.2. Limitations of the Study

This study has several limitations that needs to be acknowledged.

- The design of the study analyzed relationship not causation. A longitudinal design is evidently necessary to determine bidirectional possibility extended over time.
- The data collected from single city (Sargodha) limits its generalization to overall graduate students of Pakistan.
- The data collected from naturalistic context provided ecologically significant insights but lacks controlled comparison for specific grammatical features.
- Also, because of constraints in word limit, the analysis did not discuss each example of lexical and morphosyntactic attrition individually, but only representative examples were selected for analysis.
- Additionally, the research has a methodological limitation. It lacks inter-rater checking of coding attrition indicators. The researcher alone conducted the coding procedure, while provided operational definitions to ensure clarity and consistency.

6. Conclusion

The study investigated the relationship between Urdu-English code-switching and possible language attrition among graduate students in Pakistan. Two commendatory theoretical frameworks were guiding the study. Language Mode Hypothesis of Grosjean (2001) for analyzing frequency of

code switching, and Interlanguage Hypothesis of Schmid (2002) to investigate systematic restructuring and attrition of Urdu. This study employed mixed method research design. Core data of analysis was naturalistic audio-recordings of peer conversations. The sample included 60 graduate students, making 15 peer groups, from three major universities in Sargodha, Pakistan. The data comprised about 3.32 hours of recorded conversation, including 39858 words and 5303 utterances for analysis. The analysis was carried out in two phases. First was performed using frequency metric for qualitative analysis to analyze frequency of code-switching. Second phase was of qualitative analysis to analyze attrition indicators at lexical and morphosyntactic level in all conversations. Findings confirmed that code-switching is spontaneous and default mode of communication in informal context among graduate students. In overall data, 67.8% was the frequency of English-Urdu mixed utterances. Also, there were systematic patterns of attrition at both lexical and morphosyntactic level. These patterns followed systematic and predictable rules which are consistent with Interlanguage Hypothesis. Essentially, this study addressed a central challenge to Urdu proficiency due to persistent influence of a global language (English), that is compromising vitality, integrity and cultural identity of Urdu. Preservation of Urdu proficiency in educated class is not only a linguistic concern but a matter of intellectual and cultural heritage, national identity and literary traditions of Pakistan.

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