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Examining Disfluencies in Translation Students: The Effects of Anxiety on English-Persian Consecutive Interpreting

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ABSTRACT

Given the cognitive demands of consecutive interpreting and the psychological pressures faced by novice interpreters, the present quantitative study aims to identify the most frequently occurring disfluencies in the output of English-Persian interpreter trainees and to explore how interpreting anxiety influences different types of disfluencies. A total of 23 translation trainee students were selected based on convenience sampling. Data were gathered through the Interpreting Classroom Anxiety Scale and a CI exam. After classifying the disfluencies, it was revealed that hesitation, silent pauses, and prolongation are the predominant disfluency features. These types of disfluencies indicate cognitive overload and failures in language planning. Statistical analyses showed a significant correlation between high levels of anxiety and an increased frequency of these disfluencies; however, no significant relationship was found between interpreting anxiety and disfluency in general. This suggests that anxiety adversely affects fluency and overall interpreting performance. This study highlights the critical role of psychological factors, particularly anxiety, in interpreter performance and training. The findings call for the inclusion of anxiety-reduction techniques in interpreter education and suggest future research on experience-based disfluency patterns and Persian-specific disfluency classification.

***KEYWORDS*:** consecutive interpreting, disfluency, interpreting anxiety, trainee, interpreters

1. Introduction

Consecutive interpreting (CI) is a multitasking, time-sensitive linguistic endeavor conducted before an audience (Zhao, 2022). In contrast to simultaneous interpreting, which often takes place in a tranquil setting such as a booth, consecutive interpreting may occur in a noisy environment. This exposure to ambient noise affects how interpreters regulate their voice. Psycholinguistic research on speech production indicates that speakers adapt to variations in environmental noise levels, with the term 'Lombard sign' denoting this sensitivity to ambient sound (Bakti, 2009). In noisy environments, speakers adjust their voice level, pitch, frequency, pause patterns, articulation, and speech rates (Gósy, 2007; Lane & Tranel, 1971; Summers, 1988). Moreover, most speech disfluencies that arise during speech production in ambient noise are characterized by restarts and repetitions (Gósy, 2007). Speech disfluency denotes the interruptions that arise in the typical progression of speech. Disruptions manifest in various forms, such as pauses, repetitions, revisions, and interjections, and are regarded as a natural component of spontaneous speech (Bortfeld, 2001). Disfluencies frequently occur in human communication and are evident in the speech of both native and non-native speakers across various contexts and settings.

Interpreting necessitates the execution of various complex cognitive and psychomotor tasks for an audience, whether in public or private settings, making it a highly stressful profession (Kurz, 2003; Riccardi, 1998). Researchers have consistently identified anxiety management as essential for successful interpreting (Cooper, 1982; Gile, 1995; Moser-Mercer, 1985; Moser-

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Mercer et al., 1998), and it serves as a significant predictor of interpreter competence (Alexieva, 1997). Stress impacts interpreters' performance and significantly influences the quality of their output. Zhao and Dong (2013) assert that interpreting quality is influenced by multiple factors, notably two critical criteria: the accurate transmission of the source content and the fluent expression in the target language. According to Zhao (2023), the potential for misinterpretation reflects the former, while Zhao (2022) argues that the fluency of the output signifies the latter. Fluency has been recognized as "an important construct in interpretation quality assessment in both professional and educational settings and for different stakeholders" (Han et al., 2020, p. 1).

Zhao (2022) underscores the importance of stress in interpreting, asserting that students aspiring to be interpreters must overcome the anxiety associated with public speaking during their interpreting assignments. However, as noted by Penet and Fernandez-Parra (2023), while it may not be possible to fundamentally change students' personalities based on trait emotional intelligence theory, fostering an understanding of their emotional traits can help them build resilience in the face of such challenges. Anxiety during target language delivery is likely to cause speech disfluencies among interpreters, especially among inexperienced interpreters, such as student interpreters (Cho & Roger, 2010). Studies indicate that anxiety correlates with foreign language (FL) speaking (MacIntyre & Noels, 1996), resulting in disfluencies during FL communication (Arnaiz & Pérez-Luzardo, 2014) and in public speaking scenarios (Andrade & Williams, 2009). Moreover, research conducted by Craig (1990), Menzies (1999), and Messenger (2004) demonstrate that anxiety intensifies stuttering. Stuttering constitutes a notable form of speech disfluency, with anxiety potentially acting as a contributory factor (Zhao, 2022).

Disfluency has been the subject of considerable research (Ambrose & Yairi, 1999; Diemand-Yauman et al., 2011; Schachter, 1991). In recent decades, the term disfluency has gained prominence in the literature concerning speech production and perception (Lickley, 2015). Nevertheless, the academic community in Interpreting Studies (IS) has not yet allocated significant attention to the speech disfluencies evident in interpreters' output (Tóth, 2011). Moreover, a study of the relevant literature indicates that little effort has been undertaken to investigate the English-Persian language pair in relation to disfluency in interpreting. Nonetheless, this does not suggest that Persian disfluency has not been studied scientifically in any discipline. The majority of studies on disfluency in the Persian language concentrate on its clinical aspects, particularly stuttering (Mozafar Zangeneh et al., 2012; Sakhai, 2021; Salehpoor, 2020; Vahab, 2013).

The present study aimed to address this research gap by conducting one of the preliminary investigations on disfluencies in the English-Persian language pair within interpreting studies. Given the scarcity of research on disfluencies in this language combination, this study contributes novel insights into how anxiety manifests in students' target-language output, particularly in a context where Persian remains understudied in interpreting research. Consecutive interpreting was chosen as the interpreting mode for this research due to its recognized position as the predominant instructional method in interpreting programs (Setton & Dawrant, 2016a). The researchers intended to examine the correlation between students' CI anxiety and the types and frequency of disfluencies in their target language production. This focus is crucial because disfluencies not only affect perceived interpreting quality but may also serve as observable markers of cognitive strain and anxiety—factors that can hinder professional development. Zhao (2022, p. 7) supports the exploration of the relationship between CI anxiety and disfluency, asserting that "speech disfluencies, especially fillers and repetitions, tended to increase as a function of a student interpreter's anxiety level."

To reach this aim, the present study posed the following research questions:

RQ1. What are the most frequently occurring disfluencies in the English-Persian output of CI trainees?

RQ2. What issues do these disfluencies indicate within the speech production system?

RQ3. Does interpreting anxiety correlate with CI trainees' output in terms of fluency?

2. Literature Review

The concept of disfluency has been examined from multiple perspectives within the field of interpreting, including the categorization of disfluencies and their correlation with other significant aspects of interpreting practice. This range of investigation underscores the complexity of disfluency as a phenomenon and its implications for interpreter performance and communication efficacy.

For instance, Mead (2002) investigated the management of pauses by both professional and trainee interpreters during consecutive interpreting in their A (L1) and B (L2) languages. The study comprised 45 participants, encompassing novice and expert conference interpreting students, along with professional interpreters, principally concentrating on those who used Italian as their A language and English as their B language. Mead found that as interpretation experience rose, the incidence of hesitations associated with grammatical and lexical errors diminished. Trainee interpreters exhibited a higher frequency of pauses when interpreting into their B language.

A study by Yin (2011) further investigated the correlation between interpreter experience and pause management by analyzing successive interpretation outputs from undergraduate students. The research analyzed 28 consecutive interpretation outputs from third-year English majors in China to assess the frequency of disfluencies. The students were evaluated on their final interpretation examination and later were interviewed about the obstacles they encountered. The results indicated that inexperienced CI learners often depend on excessive fillers and redundant expressions, whereas they handle pauses more adeptly in language laboratory environments. Yin determined that optimal stress levels could help students reduce substantial pauses, highlighting the importance for both students and teachers to recognize the challenges associated with fillers and repetition.

Focusing on training progression, Bakti (2019) investigated the target language output of trainee interpreters, specifically analyzing the frequency and distribution of different error types in relation to training progression. The consecutive interpreting of English source texts into Hungarian by seven interpreting students was documented over three semesters. Error analyses indicated that the frequency of error types remained relatively consistent across semesters. Interpreted texts displayed a greater incidence of disfluencies than spontaneous speech, indicating that task difficulty, rather than the level of training, affected disfluency patterns.

The findings from Zhang and Song's (2019) study enhance the comprehension of interpreter performance. The study examined the correlations between self-repair behaviors and subjective assessments of student interpreters' CI performance. The researchers transcribed twelve interpretations from a competition, identifying instances of self-repair according to Levelt's (1983) classification system. The statistical analysis revealed strong positive correlations between overt repairs and content quality, alongside negative correlations between form and delivery with covert repairs. The results demonstrated that subjective evaluations correlated more strongly with content quality than with instances of self-repair, offering important implications for CI training and future research initiatives.

Shen and Liang (2021) further explored self-repair utilization in professional and student interpreters, emphasizing form, motivation, and the influence of expertise on fluency. The retrospective interview-based experiment on Chinese-to-English CI revealed that both groups employed a range of repair techniques, primarily motivated by error correction and appropriateness. Professional interpreters demonstrated a higher focus on semantic accuracy and exhibited fewer syntactic errors, reflecting different processing capabilities in comparison to student interpreters.

Expanding on cognitive aspects of interpreting, Zhao (2022) examined the role of individual factors—namely language proficiency, working memory, and anxiety levels—on speech disfluencies in simultaneous interpretation among 53 student interpreters. This study adopted cognitive assessments and an interpreting test, demonstrating that anxiety levels significantly influenced the frequency of disfluencies, especially fillers and repetitions.

A review of the current literature reveals that, while disfluency has been extensively examined in the field of interpreting studies worldwide, this subject remains inadequately investigated by scholars in the Iranian context. However, Yenkimaleki et al. (2022) have significantly contributed to this field by investigating the impact of fluency methods on the speech fluency of English as a Foreign Language (EFL) students. Their study had two groups of 34 trainees each: one group was acquainted with the topic, while the other was not. The results indicated that fluency training markedly improved trainees' performance, especially in relation to prevalent subjects. These findings highlight the prospective significance of fluency training for EFL educators, material developers, and interpretation training initiatives, establishing a basis for more investigation within the Iranian context.

Yenkimaleki and van Heuven (2024a) conducted another study to examine the impact of fluency training on interpreter trainees' speech, focusing on fluency, comprehensibility, and accentedness. The trainees were categorized into two groups: one group dedicated 33% of their training time to fluency strategy training, while the other group concentrated 67% of their training time on comprehensive oral communication skills. Structured interviews were used to evaluate fluency, comprehensibility, and accentedness. The results indicated that fluency training notably improved fluency and comprehensibility, with a negligible effect on accentedness.

In a recent study, Yenkimaleki and van Heuven (2024b) investigated the relationship between oral fluency perception in two contexts: a broad perspective, which includes overall speaking proficiency, and a narrow perspective, which emphasizes flow, smoothness, grammar, and vocabulary. The results indicated that raters provided notably lower fluency scores when assessments were conducted using narrow criteria in contrast to broader criteria. Expert raters exhibited a higher level of severity in their evaluations compared to non-experts, especially regarding the narrow fluency criteria. No significant differences were observed between the ratings of native and non-native raters. The research indicates that interpreter trainees can enhance their broad and narrow fluency skills via focused training and regular practice.

3. Methodology

This study adopted a quasi-experimental, correlational design (Creswell & Creswell, 2018) to investigate the relationship between interpreting anxiety and disfluency in the CI output of trainee interpreters. While the study did not employ control/experimental groups or interventions (typical of strict experimental designs), it met key criteria for experimental research through (1) controlled task administration under standardized conditions, (2) systematic measurement of variables (anxiety via ICAS and disfluencies via Praat), and (3) quantitative analysis of their relationship. The study included 23 students (14 female, 9 male), aged 20 to 23 years (M = 21.5, SD = 1.12), enrolled in the English-Persian Translation program at Shahid Bahonar University of Kerman; Iran. The participants were in their seventh semester and had registered for the 'Consecutive Interpreting' course. Prior to the consecutive interpreting test (CIT), the trainees completed 16 sessions (90 minutes each), focusing on CI skills and requirements following Setton and Dawrant's (2016b) framework. The course was taught by an instructor with 10 years of experience in teaching consecutive interpreting. None of the participants possessed previous experience or training in interpretation. All participants identified Persian as their A-language and English as their B-language. Participants were chosen through convenience sampling to maintain the constancy of other variables, such as teaching methods and materials, which are not the focus of this research. The research employed three instruments for data collection.

The study commenced with the implementation of the listening module of the International English Language Testing System (IELTS) to ensure consistency in participants' listening skills. Only participants who achieved a minimum score of Band

6.0—a benchmark indicating competent listening comprehension—were included in the study. This screening ensured that observed disfluencies could be more confidently attributed to anxiety, not uneven listening skills. The choice to include only the listening module in the IELTS package was determined by the importance of listening skills in CI. Interpreting requires oral input; therefore, inadequate listening comprehension among student interpreters results in incomplete or insufficient output in the target language. Participants were tasked with interpreting a 5-minute speech on the topic of 'Locusts Invasion,' which comprised 385 words sourced from Voice of America English News (VOA). This topic was selected because it represents a real-world scenario where accurate interpreting is critical (e.g., agricultural crises requiring international response), thereby eliciting naturalistic interpreter performance. An American-accented native speaker presented the speech at an appropriate pace. The selected audio clip presented no linguistic or vocabulary challenges for students. The length, content, and complexity of the speech were comparable to those experienced by students during their classroom CI treatment.

Moreover, the research employed Chiang's (2006) interpreting classroom anxiety scale (ICAS) to assess and quantify the anxiety levels experienced by interpreters in educational environments. The instrument uses a 5-point Likert scale, with values from 1 (strongly disagree) to 5 (strongly agree), comprising 44 items, several of which necessitate reverse scoring. The scale consists of three subcategories: fear of interpretation and negative evaluation, cognitive processing anxiety, and low self-confidence. Chiang (2006) found alpha coefficients of 0.94 for the overall measure, 0.92 for the fear of interpretation and negative assessment subscale, 0.80 for the cognitive processing anxiety subscale, and 0.77 for the poor self-confidence subscale. The participants' replies to the ICAS questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS) software (version 23). Concerning the CI test, the participants' recorded CI performances were transcribed in preparation for the forthcoming evaluations.

The researchers used Gósy's (2003) taxonomy of speech disfluencies to examine each transcription and deployed Praat software to quantify silent pauses and prolongations. Gósy's (2003) taxonomy differentiates between two principal groups of speech disfluencies: (a) uncertainty-related disfluencies (UDSs) and (b) error-type disfluencies (ETDs). UDSs encompass hesitations, fillers, repetitions, restarts, elongations, and intra-word pauses. ETDs include Freudian slips, grammatical inaccuracies, contamination, erroneous word activation, 'tip of the tongue' (TOT) phenomena, alterations, sequencing issues, and slips of the tongue (SOT).

Furthermore, silent pauses can be classified into two subcategories: grammatical and non-grammatical. Grammatical pauses are inherent interruptions in speech or writing that arise from structural elements, including punctuation or sentence clarity such as pauses for punctuation and commas. Conversely, non-grammatical pauses are unrelated to the structural pauses of the language and stem from alternative reasons. Non-grammatical pauses encompass subcategories such as silent pauses, which, while not contributing to grammatical structure, fulfill functions like emphasis or contemplation. These contrasts facilitate comprehension of the subtleties of pauses in communication.

Analyzing silent pauses requires establishing a sensitivity level or cut-off point to differentiate between the two categories. The current literature on CI reveals a lack of agreement on the establishment of a minimal threshold for measuring silent pauses. However, Cardoen (2012) proposes two distinct cut-off points: 1.40 seconds for grammatical pauses and 0.56 seconds for non-grammatical pauses. The present study applied these threshold values. In the prolongation category, the researchers compared the word spoken by the participant under normal conditions with the word presumed to be prolonged to ensure accuracy. If the latter was articulated for a longer duration than the former, it was classified as a prolongation.

4. Results

The initial question intended to identify the most frequently occurring disfluencies in the English-Persian output of CI trainees. Descriptive statistics, including range, mean, and standard deviation, were run to answer this question. The normality assumption was checked prior to analysis, and the findings are presented below (Table 1).

Table 1.

Tests of Normality of Disfluency Features

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hesitation	.16	23	.11	.92	23	.08
Contamination	.36	23	.06	.71	23	.1
Phonological	.44	23	.05	.59	23	.07
Prolongation	.15	23	.13	.86	23	.06
Serial order error	.53	23	.11	.32	23	.07
Syntactic error	.18	23	.06	.9	23	.12
Pause with a word	.51	23	.09	.4	23	.00
False word activation	.31	23	.07	.61	23	.00
Filler	.36	23	.07	.57	23	.00
Restart	.16	23	.12	.92	23	.1
Restart with change of affix	.09	23	.2	.93	23	.14
Change of word	.26	23	.13	.85	23	.07
False start	.11	23	.2	.91	23	.42
Silent pauses	.16	23	.12	.91	23	.06
Repetition	.2	23	.22	.81	23	.11
Freudian slip	.52	23	.16	.32	23	.05
Others	.25	23	.05	.64	23	.06

The results do not show significant deviations from normality (p>.05). Therefore, it is safe to conduct parametric analyses in terms of normality assumption.

Table 2.

Descriptive Statistics of Disfluency Features

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Hesitation	23	.82	120	110.26	24.94	622.36
Contamination	23	.00	3	.6	.89	.79
Phonological	23	.00	2	.34	.64	.41
Prolongation	23	83	99	89.86	10.35	107.2
Slip of tongue	23	.00	.00	.00	.00	.00
Serial order error	23	.00	1	.08	.28	.08
Syntactic error	23	4	22	16.49	3.8	14.49
Pause with a word	23	.00	1	.13	.34	.11
False word activation	23	.00	7	.91	1.7	2.9
Filler	23	.00	14	1.65	3.32	11.05
Restart	23	.00	8	2.8	2.3	5.33
Restart with change of affix	23	.00	10	3.82	2.87	8.24
Change of word	23	.00	5	1.91	1.75	3.08
False start	23	.00	17	5.26	3.84	14.74
Silent pauses	23	82	95	83.26	11.14	124.2
Repetition	23	.00	18	4.08	4.27	18.26
Freudian slip	23	.00	2	.17	.57	.33
Others	23	.00	14	2.13	2.97	8.84

As shown in Table 2, among the 18 disfluency features, the most frequently used ones were hesitation (M = 110.26, SD= 24.94, Max= 120), silent pauses (M = 89.86, SD= 3.84, Max= 95), prolongation (M = 83.69, SD= 10.35, Max= 99), and syntactic error (M = 16.49, SD= 3.8, Max= 22). It is noteworthy that the SOT feature was not found in the data (M=0), so it was the least frequently used disfluency feature.

The results of the second question based on Gósy's (2003) speech disfluency taxonomy (Figure 1) reveals several significant observations:

- Hesitation and silent pauses are classified as speech disfluencies connected to uncertainty, arising from both conceptual and linguistic planning processes. Gósy's (2003) model posits that these disfluencies arise at the interface between conceptualization and linguistic formulation, signifying difficulties in transitioning from abstract concepts to concrete linguistic structures.
- Prolongation is ascribed to mechanisms related to the mental lexicon and articulation planning. Gósy's (2003) model posits that prolongations may indicate challenges in lexical retrieval or phonetic encoding during speech production.
- Syntactic errors are generally linked to inadequacies in language planning. In Gósy's (2003) model, syntactic errors are likely to arise during the form encoding phase, particularly during morpho-phonological encoding.

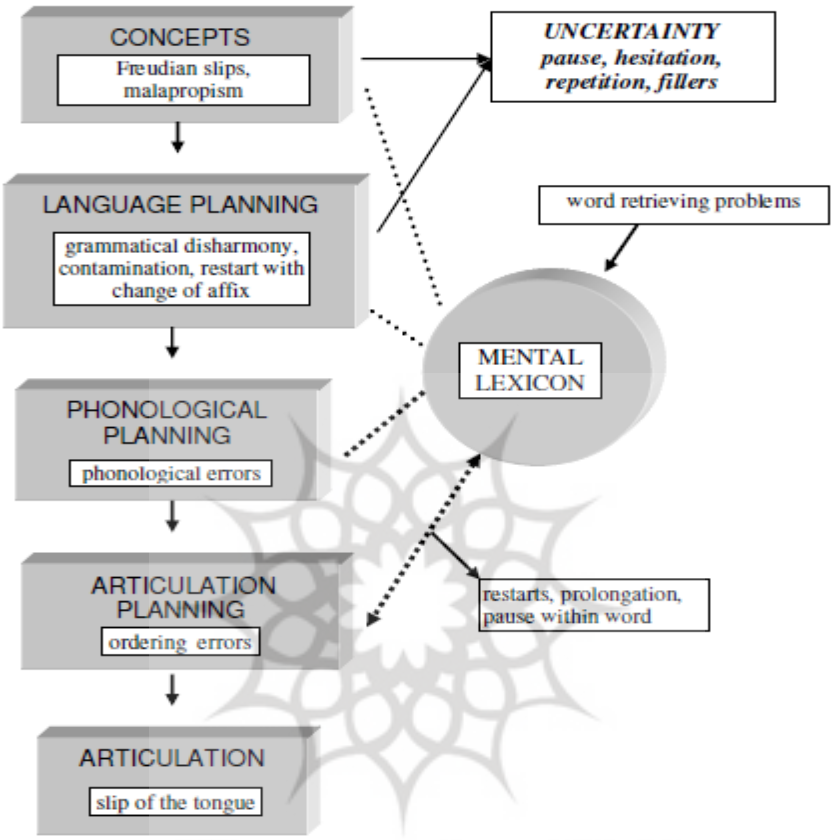

Figure 1.

Speech Production Process and Locations of Disfluencies (Gósy, 2003, p. 82).

The third research question examined the potential relationship between interpreting anxiety and the fluency of trainees' CI output. A Pearson product-moment correlation was run to compare the interpreting anxiety scores of the participants with the 18 disfluency features (Table 3).

Table 3.

Descriptive Statistics of Disfluency Features and CI Anxiety

	Mean	SD	N
Hesitation	110.26	24.94	23
Contamination	.6	.89	23
Phonological	.34	.64	23
Prolongation	89.86	10.35	23
Slip of tongue	.00	.00	23
Serial order error	.08	.28	23
Syntactic error	5.3	3.8	23
Pause with a word	.13	.34	23
False word activation	.91	1.7	23
Filler	1.65	3.32	23
Restart	2.8	2.3	23
Restart with change of affix	3.82	2.87	23
Change of word	1.91	1.75	23
False start	5.26	3.84	23
Silent pauses	83.26	11.14	23
Repetition	4.08	4.27	23
Freudian slip	.17	.57	23
Others	2.13	2.97	23
CI anxiety score	130.91	17.54	23

As the above table shows, from the disfluency features, the highest mean belonged to hesitation (M=110.26), and the lowest was for the slip-of-tongue feature (M=0). Also, the mean score of CI anxiety was 130.91.

Table 4.

Correlation between Disfluency Features and CI Anxiety

		Hesitation	Contamination	Phonological	Prolongation	Serial order error	Syntactic error	Pause with a word	False word activation	Filler	Restart	Restart with change of affix	Change of word	False start	Silent pauses	Repetition	Freudian slip	Others
Consecutive interpreting anxiety score	Pearson Correlation	.48*	-.05	-.00	.35*	-.00	.18	-.28	.19	-.04	.2	-.10	.35	-.00	.4*	.05	-.03	.05
	Sig. (2-tailed)	.02	.79	.99	.04	.97	.4	.18	.38	.82	.34	.64	.09	.98	.04	.8	.87	.8
	N	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23

*. The mean difference is significant at the .05 level.

There was a statistically significant relationship between the interpreting anxiety scores of the participants and the disfluency features of hesitation (r=48, p=.02), prolongation (r=35, p=.04), and silent pauses (r=.4, p=.04). In other words, the higher the CI anxiety, the higher the manifestation of the disfluency features of hesitations, prolongations, and silent pauses.

Table 5.

Descriptive Statistics of Disfluency and CI Anxiety

	Mean	SD	N
Disfluency	16.85	23.53	23
CI anxiety score	130.91	17.54	23

Table 6.

Correlation between Disfluency and CI Anxiety

		disfluency
Consecutive interpreting anxiety score	Pearson Correlation	.19
	Sig. (2-tailed)	.34
	N	23

As the above table shows, there was no significant relationship between disfluency and CI anxiety (r= .19, p= .34).

5. Discussion

This study intended to explore disfluencies in English-Persian CI, addressing a gap in interpreting studies in the context of Iran. The results indicated that hesitations, silent pauses, prolongations, and syntactic errors were the most frequently occurring disfluencies. Gósy (2001) similarly identified hesitations and silent pauses as the predominant disfluency features. Her observation of slips of the tongue as a prevalent disfluency stands in contrast to the findings of the current study, in which such occurrences were the least commonly recorded. This divergence likely reflects inherent differences between monolingual speech and bilingual CI, compounded by language-pair specifics and training effects. Future studies could explicitly compare disfluency hierarchies across modalities (e.g., CI vs. simultaneous interpreting) to isolate task-specific influences.

Also, the findings of the second question highlighted that hesitation and silent pauses indicate malfunctions in both concepts and language planning, while prolongation signifies challenges in mental lexicon and articulation planning. Syntactic errors stem from deficiencies in language planning. Gósy (2001) explores the functions of disfluencies in spontaneous speech, emphasizing their role as indicators of cognitive processes and reflecting a disharmony of speech planning. This aligns with the current findings suggesting that the structure of a language influences the processes of speech planning and production, leading to specific types of disfluencies that may differ from one language to another. Bakti's (2009) analysis noted that grammatical errors indicate malfunction in morphological and syntactical planning. Both studies emphasize the importance of understanding cognitive processes, such as lexical retrieval and grammatical structuring, in relation to disfluencies in simultaneous interpretation. Similarly, Tóth (2011) believed disfluencies are primarily linked to issues of lexical access and the disharmony between lexical access and articulatory planning. He asserted that prolongations are a sign of problems connected to the activation of the mental lexicon; as the current study reported that prolongation signifies challenges in mental lexicon.

The findings from the last question revealed that, while no significant relationship was observed between interpreting anxiety and disfluency in general, a statistically significant relationship existed between the participants' interpreting anxiety scores and the disfluency features of hesitations, prolongations, and silent pauses. This is consistent with Bakti's (2009) research on speech disfluencies, despite her focus on simultaneous interpreting. However, Bakti reported that elevated anxiety levels resulting from the cognitive load experienced by interpreters lead to an increase in error-type disfluencies (ETDs). This finding contrasts with the results of the current study indicating that uncertainty-related speech disfluencies (UDSs) are influenced by heightened interpreting anxiety. This contrast may be attributed to the study of different types of interpreting. Zhao's (2022) findings indicate a correlation between elevated anxiety levels in student interpreters and an increased frequency of fillers and repetitions. This does not align with the current findings, potentially due to the examination of different languages; however, both studies support the idea that anxiety influences UDSs.

6. Conclusion

This study offers significant insights into the influence of interpreting anxiety on disfluency among English-Persian trainee interpreters. Through the analysis of a sample of 23 students at Shahid Bahonar University of Kerman, it was found that hesitation, silent pauses, and prolongation are the primary manifestations of disfluency in their performance during consecutive interpreting tasks.

The findings of this study have significant pedagogical implications for interpreter training programs, particularly in addressing disfluencies and anxiety in consecutive interpreting (CI). First, since hesitation, silent pauses, and prolongation were the most frequent disfluencies—and were linked to interpreting anxiety—trainers should incorporate targeted exercises to reduce cognitive load and enhance fluency. Techniques such as chunking exercises, shadowing, and delayed repetition can help trainees improve their conceptual and linguistic planning, reducing uncertainty-related disfluencies. Additionally, since syntactic errors were prevalent, explicit instruction on grammatical structures and syntactic reformulation in both source and target languages should be emphasized to strengthen language planning skills. Second, given the correlation between anxiety and disfluencies like hesitations and prolongations, trainers should integrate stress-management strategies into the curriculum. Mock interpreting sessions under timed conditions, along with mindfulness and relaxation techniques, may help trainees build resilience against performance anxiety. Furthermore, providing constructive feedback in a supportive environment can mitigate anxiety and encourage smoother output. Finally, since disfluencies often stem from lexical retrieval difficulties (as seen with prolongations), trainees should engage in extensive vocabulary-building and lexical access drills, such as rapid word association and paraphrasing exercises. By addressing both cognitive and affective factors, interpreter training programs can enhance fluency, reduce disfluencies, and better prepare students for real-world interpreting scenarios.

This research proposes multiple intriguing directions for further investigation to improve our understanding of disfluencies in English-Persian interpretation and their implications for interpreter training and performance. A comparative analysis of beginner and expert interpreters across various genres of source texts may uncover trends in disfluencies, thereby identifying unique obstacles for trainees and guiding targeted training approaches. Establishing a taxonomy of disfluencies unique to Persian will greatly aid in categorizing elements such as pauses and repeats, hence improving the comprehension of interpretation performance. Furthermore, investigating the factors contributing to disfluencies—such as text complexity or time constraints—may yield insights into the cognitive mechanisms engaged in interpretation. Nonetheless, akin to other investigations, the present one possessed certain constraints, including a restricted sample size and an emphasis on a singular language pair, which may constrain the generalizability of the results.

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