Article

Anxiety in Beginning Interpreting Learners and Its Relationship with Language Background

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Abstract: Interpreting anxiety is among the affective experiences most frequently reported by trainee interpreters. Empirical studies, however, have been conducted mainly with advanced undergraduates majoring in interpreting or with Master's students of translation and interpreting, whose linguistic competence and interpreting experience are already relatively mature, and the robustness of the anxiety–background associations under multiple-comparison correction has been less examined. In this study, 43 third-year English majors completed the Interpreting Anxiety Scale (IAS; 20 items, 5-point; enormity of the interpreting task, service nature of the task and general confidence) at the outset of an interpreting course. All 20 items were retained, as the total-scale Cronbach's alpha was 0.911 (95% CI [0.803, 0.949]), the subscale alphas ranged from 0.751 to 0.819 and deleting any single item raised alpha by no more than 0.025; the item distributions were markedly negatively skewed, with 62.8% of the participants choosing the maximum response on item 15. After Benjamini–Hochberg (BH) false discovery rate (FDR) correction, Spearman's correlation analysis showed that 12 of 56 scale-score × background tests remained significant: anxiety correlated negatively with self-rated speaking and listening (total ρ=−0.443 and −0.431), second language (L2) age of acquisition (AoA) was the only background variable positively associated with anxiety (total ρ=0.441), and the daily proportion of English use correlated most strongly with the enormity subscale (ρ=−0.493). The service-nature subscale was unrelated to all 14 background variables, and none of the 28 categorical between-group comparisons was significant after correction. Anxiety among beginning interpreting learners thus appears to be tied primarily to their perceptions of their own listening and speaking proficiency rather than to prior training, gender or test-based achievement.

Keywords: interpreting anxiety; beginning interpreting learners; language background

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1. Introduction

Among the affective variables that have been examined in interpreting, anxiety is the one most frequently reported by trainee interpreters, and its source is usually located in the nature of the task itself: the comprehension of a source language (SL) message, its retention in memory and its reformulation in the target language (TL) have to be managed within a very short time window, so that attention has to be divided among operations that would otherwise be performed one after another [1]. The demands that this division of attention makes on the allocation of processing resources and on language control exceed those of ordinary monolingual or conversational communication, and a saving or a breakdown at one of these operations therefore tends to affect the others [1]. Given that the SL message comes only once, that the conditions for rendering it can rarely be foreseen, and that the output is immediate and final, interpreters can hardly avoid the tension of SL comprehension and TL rendering at the same time (particularly in simultaneous interpreting) [2]. The manifestations of this anxiety range from physiological arousal, such as accelerated heart rate and muscular tension, to cognitive narrowing and the occupation of working memory, with the consequence that processing resources which are already limited are further encroached upon [3].

Horwitz, Horwitz and Cope defined foreign language classroom anxiety (FLCA) as a conceptually distinct variable [4]. They noticed that the tension experienced by foreign language learners when using the target language in class is not identical in nature to general anxiety: it attaches to a specific language-learning situation and manifests itself chiefly as communication apprehension, test anxiety and fear of negative evaluation. This definition released foreign language anxiety (FLA) from the category of personality traits and turned it into a measurable and modifiable situational variable, which in turn made classroom intervention a meaningful object of study rather than an exercise in personality adjustment.

The three-stage model proposed by MacIntyre and Gardner then supplied a framework within which the working mechanism of anxiety could be explained. The model holds that anxiety acts upon the input, the processing and the output stage, respectively: at the input stage it may reduce the attention that learners direct to the linguistic material; at the processing stage it occupies working memory resources that ought to serve linguistic analysis; and at the output stage it shows itself as difficulty in retrieval and as excessive self-monitoring [5]. After the model entered the Chinese context, anxiety became an important lens through which difficulties in foreign language learning were explained, and Wang and Wan's review shows that it has since been widely accepted as an explanation for foreign language learning outcomes [6]. Dong et al. pointed out that the anxiety of Chinese interpreting learners contains at least three kinds of content: the perception of the difficulty of the task itself, that is, the enormity of the interpreting task; the concern with the recipient of the service and with the quality of delivery, that is, the service nature of the task; and the overall judgement of one's own capacity to cope, that is, general confidence [7]. The three dimensions correspond to task features, situational features and individual features, respectively, and their separation rests on a clear theoretical basis, while the Interpreting Anxiety Scale (IAS) built around them has provided a unified instrument for later empirical work. Following the IAS, Deng et al. constructed a dedicated scale for the cognitive-processing features of consecutive interpreting (CI) and verified its structural validity [8]. Kang, approaching the matter from the angle of causes and degrees, argued that interpreting anxiety has different modalities and intensities at the listening and the rendering stage, and that it therefore should not be treated as a single undifferentiated whole [9]. Testing and analysis of the structure of interpreting competence offered a reference framework within which the correspondence between anxiety and competence could be understood [10]. Taken together, these studies indicate that research on interpreting anxiety has to capture its multidimensional structure and its situational dependence at the same time.

At the level of effects, many existing studies have found a negative association between interpreting anxiety and interpreting performance, in that learners with a higher level of anxiety tended to obtain relatively lower quality and information completeness in CI [11]. The same relation has been observed in strategy use, in that cognitive-processing anxiety influences learners' selection and deployment of CI strategies [12]. A longitudinal study by Cai, Lin and Dong further showed that interpreting anxiety remained relatively stable over the first year of training and correlated negatively with interpreting performance throughout the same period, whereas learning motivation and self-efficacy declined [13]. Yan and Liang found that, in classroom settings, FLA in interpreting classes correlated not only with CI scores but also with syntactic dependency distance, an indicator of cognitive load, which indicates that anxiety affects the processing itself and not only learners' subjective feelings [14]. In another study, Liu and Zhang included language anxiety in a battery of interpreting aptitude tests and found that it negatively predicted CI performance in both the Chinese–English and the English–Chinese directions [15]. The populations examined in the studies above, however, were mostly advanced undergraduates majoring in interpreting or Master's students of translation and interpreting, whose linguistic competence and interpreting experience were already relatively mature. Learners who have just entered the interpreting classroom and who have not yet formed a stable interpreting routine are at an earlier stage of interpreter

development, and describing the structure and the sources of their anxiety makes it possible to see how it presents itself at the outset of training.

Among the learner variables that affect anxiety, self-rated language proficiency has attracted the most concentrated attention. Working with a group of secondary school students, Dewaele and Ip found that FLCA, second language tolerance of ambiguity and self-rated English proficiency each explained roughly half of the variance of the other two, that is, the more tolerant of linguistic ambiguity a learner is, the less anxious the learner is and the higher the self-rating [16]. Okyar further reported that speaking self-efficacy, fear of negative evaluation and self-rated speaking proficiency all predicted speaking anxiety significantly [17]. This suggests that the relation between anxiety and how learners evaluate themselves may be more direct than the relation between anxiety and objective language achievement. Evidence concerning the role of learning experience is less consistent. Anxiety did not subside of its own accord over a year of training [13], and whether more practice reduces it therefore remains an open question, particularly at the stage at which training has only just begun.

Against this backdrop, three questions are addressed in the present study: (1) What are the characteristics of interpreting anxiety? (2) How are the total score and the three subscales of interpreting anxiety related to learners' language background variables? (3) What implications do the results have for the teaching of interpreting at the outset of the course?

2. Method

2.1. Participants

The participants were 43 third-year undergraduates majoring in English. They were at the outset of the interpreting course and had not yet received systematic interpreting skill training. There were 6 male (14.0%) and 37 female (86.0%) participants. The distribution of the Test for English Majors–Band 4 (TEM-4) results was as follows: 1 excellent (2.3%), 11 good (25.6%), 17 pass (39.5%) and 14 fail (32.6%). As regards previous experience, 93.0% of the participants had not previously taken an interpreting course or received interpreting training and 81.4% had never had any interpreting practice; the frequency of interaction with native speakers was mostly occasional (72.1%) and the weekly time spent on English listening, speaking, reading and writing outside class was mostly below five hours (72.1%). No missing values were present in the data set. Altogether 49 questionnaires were distributed and returned, six were removed because the background information was incomplete, and 43 valid cases entered the final analysis.

Notably, the mean self-rating of reading ability (M = 6.14) was clearly higher than the self-ratings of listening and speaking, which were both 4.58, and this pattern reflects the typical profile of Chinese learners of English, whose literacy skills are stronger than their oracy skills. Since the interpreting task places its heaviest demands precisely on the auditory and oral channels, the size of this gap is likely to matter for the interpretation of the results reported below.

2.2. Materials

Interpreting anxiety was measured with the IAS developed by Dong et al [7]. The scale contains 20 items and adopts a 5-point format (1 = completely inconsistent, 5 = completely consistent), and it comprises three dimensions: the enormity of the interpreting task (6 items), the service nature of the task (7 items) and general confidence (7 items). Items 1 to 8 are negatively worded and had to be reverse-scored before analysis, and a higher score indicates a stronger level of interpreting anxiety.

The background questionnaire covered gender, age, L2 age of acquisition (AoA), TEM-4 scores, prior interpreting course or training experience, prior interpreting practice experience, frequency of interaction with native speakers, weekly time spent on English listening, speaking, reading and writing outside class, intention to work as an interpreter in the future, class membership, self-ratings of English listening, speaking, reading and

writing (1–10), the daily proportion of English use, and the proportion of language-switching in oral production (the last two being ratio values between 0 and 1).

2.3. Data Analysis

Statistical analysis was carried out in R [18]. Internal consistency was estimated with Cronbach's alpha, and percentile confidence intervals were obtained from bootstrap resamples with a fixed random seed. Corrected item–total correlations and the change in alpha after the deletion of each item were also computed in order to decide whether an item should be retained. Because the four scale scores were all negatively skewed, and the Shapiro–Wilk test rejected normality for all of them except general confidence, as well as for most of the continuous background variables, Spearman rank correlations served as the primary estimates and Pearson correlations were computed only for reference. Nominal and ordinal variables were examined with Kruskal–Wallis tests and binary variables with Wilcoxon rank-sum tests.

Because of the number of tests (392 in total), all p values were corrected for multiple comparisons within each family with the Benjamini–Hochberg false discovery rate (FDR) procedure [19]. Four families of tests were run: scale score × background variable (56 tests), item × background variable (280 tests), correlations among background variables (28 pairs), and between-group comparisons on the categorical background variables (28 tests). Of the sixteen background variables listed above, class membership served only to describe the sample and the intention variable, being nominal, entered the between-group comparisons only; the remaining fourteen entered the correlation families. With N = 43, the design reaches a power of 0.80 only for $|\varrho| \geq 0.416$ [20]. Only tests that remained significant after FDR correction are reported as findings; tests that did not are not reported individually.

3. Results

The results are reported in the following order: the overall level and the internal consistency of the scale, the correlations between scale scores and background variables, the item-level associations, and the collinearity among the background variables. The between-group comparisons on the categorical background variables are not reported in a separate part, as none of the 28 comparisons survived correction. Only tests that remained significant after BH-FDR correction are reported as findings.

3.1. Overall Level and Internal Consistency

Table 1 presents the descriptive statistics of the continuous variables. The total score of interpreting anxiety was 76.09 (SD = 10.54, mean item score 3.80), which lies in the upper part of the theoretical range of 20 to 100 and indicates a moderately high level of interpreting anxiety in this sample. Among the three dimensions, the service nature of the task had the highest mean item score (4.06) and the enormity of the interpreting task the lowest (3.58). The skewness of all four scale scores was negative, and the kurtosis was 1.21 for the enormity subscale and 2.50 for the total score, which indicates that the scores were piled up at the high end of the scale.

Table 1. Descriptive Statistics of the Continuous Variables of Participants' Language Background and Anxiety Indexes (N=43).

Variable	M	SD	Mdn	Range	Skewness	Kurtosis
Age (years)	20.21	0.51	20.00	19–22	1.30	2.18
L2 age of acquisition (AoA)	7.70	1.83	8.00	3–10	−1.04	−0.14
Self-rated L2 listening	4.58	1.67	5.00	1–8	−0.34	−0.18
Self-rated L2 speaking	4.58	1.93	5.00	1–9	−0.09	−0.41
Self-rated L2 reading	6.14	1.64	6.00	2–10	−0.41	0.54
Self-rated L2 writing	5.07	1.56	5.00	1–7	−0.88	0.01
Daily English use (L2USE)	0.28	0.16	0.30	0–0.70	0.02	−0.62
Language-switching (SWITCH)	0.35	0.24	0.30	0.01–1.00	0.84	0.20

Interpreting anxiety total	76.09	10.54	77.00	38–100	−0.61	2.50
Enormity of the task (6 items)	21.49	4.07	22.00	8–30	−0.44	1.21
Service nature of the task (7 items)	28.44	3.63	28.00	16–35	−0.69	1.52
General confidence (7 items)	26.16	4.01	26.00	14–35	−0.13	0.81

Note. Self-ratings of English ability are on a 1 (null) to 10 (optimal) scale; L2USE and SWITCH are proportions ranging from 0 to 1. All four scale scores are negatively skewed, and the Shapiro–Wilk test rejects normality for all of them except general confidence ($p < 0.05$).

Table 2 reports the internal consistency of the scale scores. Cronbach's alpha was 0.911 (95% CI [0.803, 0.949]) for the full scale and 0.819, 0.814 and 0.751 for the three subscales, all of which reach an acceptable level. Because of the very low item-to-participant ratio (2.15), however, the factor structure of the scale was not examined in the present study; the three dimensions follow the theoretical division of the original scale and were not independently verified in this sample.

Table 2. Scale Scores and Cronbach's Alpha (N=43).

Scale	Items	Total M (SD)	Mean item score	Cronbach's α	95% CI	Mean inter-item r
Interpreting anxiety total	20	76.09 (10.54)	3.80	0.911	[0.803, 0.949]	0.341
Enormity of the task	6	21.49 (4.07)	3.58	0.819	[0.661, 0.889]	0.426
Service nature of the task	7	28.44 (3.63)	4.06	0.814	[0.625, 0.888]	0.388
General confidence	7	26.16 (4.01)	3.74	0.751	[0.521, 0.848]	0.301

Note. CIs are percentile intervals from 1,000 bootstrap resamples with a fixed seed and are therefore reproducible. Corrected item–total correlations range from 0.264 to 0.689, and in the deletion analysis no single item raised its subscale alpha by more than 0.025, which lies within measurement error; all 20 items were consequently retained.

Thirteen of the 20 items had a response category that no participant chose, and on item 9 no participant selected either 1 or 2. The ceiling effect was pronounced: 62.8% of the participants chose the maximum response on item 15 (M = 4.51, skewness = −2.23, kurtosis = 6.46) and 58.1% did so on item 6. Distributions of this kind lower inter-item correlations and correlation coefficients, so all correlation values reported here should be regarded as lower-bound estimates.

3.2. Correlations between Scale Scores and Background Variables

Of the 56 scale-score × background tests, 12 remained significant after BH-FDR correction, and they are reported below. The strongest was the correlation between the daily proportion of English use and the enormity subscale ($\rho = -0.493$, $p = 0.0008$, $p_FDR = 0.013$), which means that learners who use English more in daily life experience the interpreting task itself as less formidable.

The self-ratings of English ability formed a second cluster of significant associations. Self-rated speaking correlated with general confidence ($\rho = -0.486$, $p_FDR = 0.013$), with the enormity subscale ($\rho = -0.478$, $p_FDR = 0.013$) and with the total score ($\rho = -0.443$, $p_FDR = 0.021$); self-rated listening correlated with general confidence ($\rho = -0.474$, $p_FDR = 0.013$), with the enormity subscale ($\rho = -0.474$, $p_FDR = 0.013$) and with the total score ($\rho = -0.431$, $p_FDR = 0.025$); and self-rated writing correlated with general confidence ($\rho = -0.392$, $p_FDR = 0.043$). Self-rated reading was the only one of the four self-ratings that was not significantly associated with any scale score.

AoA was the only background variable that correlated positively with interpreting anxiety: the later the onset, the higher the enormity subscale ($\rho = 0.471$, $p_FDR = 0.013$) and the higher the total score ($\rho = 0.441$, $p_FDR = 0.021$). In addition, the frequency of interaction with native speakers correlated negatively with the enormity subscale ($\rho = -0.425$, $p_FDR = 0.025$) and with general confidence ($\rho = -0.395$, $p_FDR = 0.043$). Only two

participants fell into the frequent-interaction category, however, so the distribution across the levels of this variable is severely unbalanced and the two correlations, although they remained significant after correction, must be interpreted with caution.

None of the 14 background variables was significantly associated with the service-nature dimension. The same absence of significant association applies to age, gender, TEM-4 scores, prior interpreting course or training experience, weekly time spent on English listening, speaking, reading and writing outside class, prior interpreting practice experience and the proportion oflanguage-switching. According to the reporting rule set in advance for this study, these tests are not listed individually.

3.3. Significant Associations at the Item Level

The 20 items × 14 background variables give 280 tests, of which 14 pairs remained significant after BH-FDR correction; the remaining 266 pairs are not reported. The 14 pairs were concentrated on three items, namely items 18, 20 and 7, which together account for 10 of them.

Item 18, which belongs to the general confidence dimension, gave the strongest results. It correlated with self-rated listening at $\rho = -0.642$, with self-rated speaking at $\rho = -0.595$ and with self-rated writing at $\rho = -0.550$; these three pairs were the strongest among all 280 tests. Item 20, which belongs to the enormity dimension, was significant with respect to four background variables, namely self-rated listening ($\rho = -0.523$), self-rated speaking ($\rho = -0.510$), self-rated writing ($\rho = -0.457$) and prior interpreting practice ($\rho = -0.481$). Prior interpreting practice was significant only for item 20: learners who had had some interpreting practice scored lower on the item that refers to the felt enormity of the interpreting task, whereas on the other items they showed no systematic difference. Item 7, which also belongs to the enormity dimension, was significant with respect to the daily proportion of English use ($\rho = -0.516$), AoA ($\rho = 0.472$) and the frequency of interaction with native speakers ($\rho = -0.458$).

The remaining significant pairs are item 1 with the frequency of interaction with native speakers ($\rho = -0.463$), item 2 with AoA ($\rho = 0.489$), item 3 with self-rated listening ($\rho = -0.453$) and item 17 with self-rated listening ($\rho = -0.478$). The item-level results run in the same direction as the scale-level results, in that both point to two classes of variables, namely learners' self-ratings of their L2 ability and their amount of contact with the L2.

3.4. Collinearity among Background Variables

The background variables gave 28 pairwise correlations, of which nine remained significant after BH-FDR correction ($\rho = 0.428$–0.783). Five of them lie within the self-ratings of English ability, namely listening with speaking ($\rho = 0.783$), listening with writing ($\rho = 0.746$), speaking with writing ($\rho = 0.716$), reading with writing ($\rho = 0.692$) and listening with reading ($\rho = 0.634$); the remaining four are speaking with reading ($\rho = 0.458$), speaking with the daily proportion of English use ($\rho = 0.428$), the daily proportion of English use withlanguage-switching ($\rho = 0.453$) and speaking withlanguage-switching ($\rho = 0.451$).

The four ability self-ratings are highly intercorrelated and in effect reflect a single underlying dimension factor of language proficiency, so the significant correlations of self-rated listening, speaking and writing with anxiety reported in the Results should not be read as three mutually independent effects but rather as multiple manifestations of the same latent factor. Similarly, the proportion oflanguage-switching correlates both with the daily proportion of English use and with self-rated speaking, which indicates that this variable partly reflects L2 use experience and oral proficiency and should not be treated in the discussion as an independent variable unrelated to language background. If a regression model is built at a later stage, the collinearity described above will have to be dealt with first.

4. Discussion

4.1. Anxiety Level at the Outset and the Applicability of the Scale

The interpreting anxiety of these learners occupies a moderately high position (total M = 76.09, mean item score 3.80), and this result may be associated with their position as beginners in the course. Although they have years of experience in learning English, they have never received systematic interpreting training and have had almost no authentic interpreting practice, so that they possess little procedural experience on which to rely when confronted with the requirement of listening and rendering at the same time. The function of anxiety at this stage is closer to a warning about the demands of an unfamiliar task than to a doubt about an ability that has already been formed, and this reading also helps to explain why the anxiety reported here is not obviously associated with the objective measures of achievement that the participants brought with them.

The behaviour of the scale in a small sample supports its applicability. The total-scale alpha was 0.911, which indicates that the scale maintains a stable internal consistency even when the sample is relatively small and the population is ordinary English majors. The alphas of the three dimensions range from 0.751 to 0.819, and the lowest of them, general confidence (0.751), is the dimension whose items are most liable to be affected by the ceiling effect. It should be pointed out that owing to the excessively low item-to-participant ratio (2.15) the factor structure of the scale was not tested in the present study; the three dimensions follow the theoretical division set by the original scale, and their structural validity has not yet been independently verified in this sample.

The ceiling effect revealed by the item distributions deserves separate emphasis. On item 15, 62.8% of the participants chose the maximum response, on item 6 the figure was 58.1%, and 13 items contained an empty response category. It follows that some items have only a limited capacity to discriminate among learners at different levels of anxiety and that they depress inter-item correlations systematically. The alpha values and the correlation coefficients reported in this study should accordingly be read as lower-bound estimates: if a real effect exists, its strength is very likely to be higher than the values given in the tables.

4.2. Self-Rated L2 Proficiency as the Most Stable Correlate of Anxiety

Among all the background variables, the self-ratings of L2 ability showed the most stable and the most extensive associations with interpreting anxiety. Self-rated speaking and self-rated listening passed FDR correction at all three levels of the total score, the enormity subscale and general confidence; self-rated writing was significant on the general confidence dimension; and the three strongest item-level correlations all fell between item 18 and the self-ratings of listening, speaking and writing. What is more, the two self-ratings that show the highest simple means in Table 1 are precisely those of listening and speaking, which are the channels on which interpreting depends most heavily.

This pattern corroborates existing studies. Dewaele and Ip found that FLCA, tolerance of ambiguity and self-rated English proficiency each explained about half of the variance of the other two [16], and Okyar reported that both self-rated speaking proficiency and speaking self-efficacy significantly predicted speaking anxiety [17]. The increment contributed by the present study lies in the fact that the relation already emerges in a higher-order language task such as interpreting and at the very outset of the course, and that it is concentrated in listening and speaking rather than in reading and writing. For teaching, this is a more actionable finding than the observation that objective achievement is unrelated to anxiety, because a self-rating is by definition something that instruction can address directly, whereas a test score is not.

However, a correlational design cannot distinguish between anxiety that arises because linguistic competence is insufficient and anxiety that leads learners to underestimate their own competence. The fact that self-rated reading produced no significant association may offer a clue here: reading is an activity that is controllable, that allows looking back and that does not require immediate production, and it therefore stands rather far from the task features of interpreting, so that the association of its self-rating with interpreting anxiety is correspondingly weakened. This supports the

judgement that anxiety attaches to a specific task situation rather than generalising across all language skills, and it also suggests that a global measure of language self-concept would not have captured the pattern found here.

4.3. The Positive Association between Age of Acquisition and Anxiety

AoA was the only one of the 14 background variables that correlated positively with interpreting anxiety: the later the onset, the higher the enormity subscale and the higher the total score. The same direction appears at the item level, where AoA correlated with item 2 ($\varrho = 0.489$) and item 7 ($\varrho = 0.472$), and none of the other 13 background variables was positively associated with anxiety at any level.

One possible explanation is a cumulative effect of self-monitoring. Learners who start later tend in their early language learning to rely more on explicit rules and on conscious monitoring, and although this mode of processing becomes increasingly automatised as proficiency grows, it may become a burden in a task such as interpreting, which requires a high degree of automatisation: when attention has to be divided between SL comprehension and TL production, excessive formal monitoring intensifies the competition for resources and reinforces the anticipatory anxiety of possibly saying something wrong. Another possibility concerns the environment, in that AoA covaries in this sample with unmeasured variables such as the family language environment and early educational resources, which may themselves influence the establishment of language confidence.

It must be admitted that the AoA data of the present study concentrate on the range from 3 to 10 years ($M = 7.70$, $SD = 1.83$) and that the range is limited, so that the proposition that earlier is better cannot be tested here in either its linear or its non-linear form. The explanations offered above are post hoc speculations and await examination through longitudinal or quasi-experimental designs.

4.4. Independence of the Service-Nature Dimension

The service-nature dimension showed no significant association with any of the 14 background variables, and not one of its tests passed correction. This isolated state is itself an informative result rather than merely a null one.

The first possibility concerns content. Service-nature anxiety refers to the quality of the service, to the reactions of the audience and to the responsibility of delivery, and its source is more likely to be a worry about being evaluated than a judgement about one's own language proficiency. Horwitz et al. had already listed fear of negative evaluation among the core sources of FLA [4]; if the service-nature dimension loads mainly on this component, then its weak association with language background variables is not difficult to understand, since strength or weakness in language cannot remove the worry that the audience will be dissatisfied. Moreover, the great majority of the participants in this study had no interpreting practice experience at all (81.4%), so that their experience of service remained essentially at the level of imagination, which may likewise have weakened the statistical link between this dimension and any variable of actual experience.

A second possibility concerns measurement. The service-nature dimension has the highest mean item score (4.06) and the largest skewness (-0.69), and the ceiling effect compresses its correlations most severely. Whichever explanation is preferred, the present result suggests that service-nature anxiety may be a relatively independent component of interpreting anxiety whose determinants have to be examined with a different set of variables, such as the evaluative situation and audience feedback.

4.5. Implications for Instruction at the Outset of the Course

The maintenance of listening and speaking self-efficacy should be treated as a priority at the beginning of the course. The present study shows that the most stable correlate of interpreting anxiety is not objective achievement, since none of the TEM-4 tests passed correction, but learners' perceptions of their own listening and speaking ability. This suggests that in designing activities for the initial stage, teachers should give priority to listening and speaking tasks that are completable, that yield feedback and that

allow successful experience to accumulate, so that learners can establish the basic judgement that their listening and speaking are adequate before they enter authentic interpreting practice, rather than waiting until anxiety has taken shape and then attempting to intervene.

Learners who started later need additional support for their language confidence. The positive correlation between AoA and anxiety means that systematic individual differences exist within the class: learners who started later may be more sensitive to formal monitoring and may more easily fall into self-scrutiny under the heavy load of listening and rendering at the same time. Teachers can reduce the monitoring burden of such learners by slowing the speech rate and lowering the information density of initial tasks, by making it explicit that imperfect output is acceptable, and by giving priority in feedback to information transfer rather than to formal accuracy.

In the present study neither prior interpreting course or training experience nor prior interpreting practice experience produced a stable association with anxiety after correction, and the longitudinal study conducted by Cai et al. referred to earlier likewise found that anxiety remained stable throughout the training year [13]. Anxiety therefore does not necessarily subside of its own accord as training proceeds, and it may require teaching arrangements that are specifically directed at self-efficacy and at the evaluative situation.

4.6. Limitations and Future Directions

The limitations of the present study are mainly four. First, the sample is limited in size (N = 43) and therefore in detection power, so that effects with $|\varrho|$ between 0.30 and 0.42 may exist without being detectable, and the results should not be read as showing that the variables concerned are unrelated. Second, the sample comes from two classes of a single university that were taught by the same teacher, so that generalisation of the conclusions calls for caution. Third, the study adopts a correlational design and cannot establish causation, and the relation between anxiety and self-rated proficiency awaits examination through a longitudinal design. Fourth, all four scale scores are negatively skewed with a conspicuous ceiling effect, so that the correlation coefficients should be regarded as lower-bound estimates. Future work may proceed in three directions: enlarging the sample and including learners from different institutions and different years of study in order to test the stability of the results; adopting a longitudinal design to trace the trajectory of anxiety across interpreting training, and in particular the interaction between self-efficacy and anxiety; more indicators should be introduced such as interpreting performance.

5. Conclusion

The present study took 43 English majors at the outset of an interpreting course as participants and examined the psychometric performance of the IAS together with the relations between interpreting anxiety and language background variables. The results show that the scale retains a good internal consistency in a small undergraduate sample (total-scale α = 0.911) and that the three dimensions of the original scale function as expected in this sample, although the factor structure itself was not tested; that the learners' interpreting anxiety occupies a moderately high position and that its distribution is distinctly piled up at the high end. After strict control of multiple comparisons, the most stable correlates of anxiety are the self-ratings of L2 listening and speaking ability and the amount of L2 use, rather than objective achievement or prior training experience; the service-nature dimension, by contrast, displays a relative independence, and the source of its anxiety probably points more to the evaluative situation than to language ability.

For teaching, the most operative conclusion is that the window for intervening in interpreting anxiety probably lies at the very beginning of the course rather than in its middle. At the moment when learners have not yet consolidated anxiety into a negative judgement about their own ability, the circle of anxiety, low self-rating and further anxiety may be interrupted more effectively by designing completable listening and speaking

tasks, by reducing the burden of formal monitoring and by providing additional support to those who started later. More examination through longitudinal and intervention studies is suggested.

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