A STUDY ON THE CORRELATION BETWEEN ANXIETY AND ACADEMIC SELF-CONCEPT IN INTERPRETER TRAINEES

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Abstract

This paper focuses on two basic issues: the anxiety-generating nature of the interpreting task and the relevance of interpreter trainees' academic self-concept. The first has already been acknowledged, although not extensively researched, in several papers, and the second has only been mentioned briefly in interpreting literature. This study seeks to examine the relationship between the anxiety and academic self-concept constructs among interpreter trainees. An adapted version of the *Foreign Language Anxiety Scale* (Horwitz et al., 1986), the *Academic Autoconcept Scale* (Schmidt, Messoulam & Molina, 2008) and a background information questionnaire were used to collect data. Students' t-Test analysis results indicated that female students reported experiencing significantly higher levels of anxiety than male students. No significant gender

difference in self-concept levels was found. Correlation analysis results suggested, on the one hand, that younger would-be interpreters suffered from higher anxiety levels and students with higher marks tended to have lower anxiety levels; and, on the other hand, that younger students had lower self-concept levels and higher-ability students held higher self-concept levels. In addition, the results revealed that students with higher anxiety levels tended to have lower self-concept levels. Based on these findings, recommendations for interpreting pedagogy are discussed.

Keywords: anxiety, self-concept, interpreter training, foreign language learning

Contents

1. Introduction

In interpreting literature, there are frequent allusions to specific personality traits among both professional and would-be interpreters (Keiser 1978; Kurz et al., 1996; Longley, 1978; Moser, 1978; Szuki, 1988) in relation to the selection of candidates with the best initial aptitudes for the profession. Some researchers have examined the role individual learner personality variables play in the interpreting learning process. Schweda Nicholson (2005) proposes the use of the Myers-Briggs Type Indicator (MBTI) to identify personal preferences of interpreter trainees, which might provide interpreter trainers with an additional perspective on their potential trainees. This indicator focuses on the dichotomies of extraversion/introversion, sensing/intuition, thinking/feeling and judging/perception. The results obtained appear to confirm some of the stereotypes associated with interpreters' characters. The initial hypothesis that most interpreters are extroverts was not confirmed. Neither is the hypothesis that this profession particularly attracts Intuitive and Judging types confirmed, but the number of Thinking types does exceed the number of Feeling types (Schweda Nicholson, 2005, pp. 121-124). Meanwhile, Yan et al. (2010) focus on gender, motivation and personal habits and highlight the relationship between these learner factors and students' language learning as well as with students' interpreting learning. Jiménez et al. (2014) examine the effect self-efficacy perceptions have on an interpretation task completed by interpreter trainees with different levels. The results show that the really important factor here is foreign language competence, and that specific self-efficacy makes an important, although restricted, contribution.

The interpreting profession has traditionally been idealized and it has often been believed that only a few can perform it properly. Even the most resolute students have felt overwhelmed by the apparently complex demands placed upon their cognitive and attention skills (Hansen & Shlesinger, 2007). Interpreting, like other professional activities involving the use of more than one language is associated with a certain level

of stress or anxiety[1] (Cooper et al., 1982; Keiser, 1978; Longley, 1978). This is due to the nature of the activity carried out by the interpreter as such. Simultaneous interpreting, for example, requires the interpreter to understand a source speech, generally in a foreign language, and then immediately produce a similar or equivalent speech in a different language, coping with many factors that are beyond the interpreter's control but which affect his/her performance. These factors include the speaker's expertise, the speed at which the original speech is delivered and external factors such as noise or heat (Gerver, 1974; Riccardi et al., 1998; Shlesinger, 2000). In spite of the fact that interpreting generally involves one or even two L2s, research has not paid sufficient attention to the fact that future interpreters' anxiety might derive from the use of that L2 or from a combination of that use and the completion of the interpreting task (e.g. Chiang, 2009; Jiménez & Pinazo, 2001; Kurz, 1997). Although interpreting studies are to an extent interdisciplinary, "interpreter educators have often resisted contacts with the fields of foreign language teaching and Second Language Acquisition (SLA)" (Zannirato, 2008, p. 20). Most professional interpreters have one mother tongue and have subsequently acquired their knowledge of a second/third language (Williams, 1994). It is surprising that so little is known about how the active professional use of a foreign language is affected by the effects of anxiety (Blumenthal et al., 2006). Moreover, although there are numerous studies in the field of foreign language acquisition (FLA) that attest to the anxiety felt by students in the process of learning a foreign language (Horwitz et al., 1986; Kondo & Yang, 2003; Williams & Andrade, 2008), little work of this nature has been published in the field of interpreting. The same can also be said of affective parameters such as interpreter trainees' self-concept, both in terms of their foreign language and their interpreting activity.

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[1] *Interpretation stress* and *interpretation anxiety* are often used interchangeably in interpretation literature. The authors consider this option confusing and that it hampers the construction of the solid line of research on psychological factors that the field of interpreting requires. Thus, and following Chiang (2009), from here on, interpretation anxiety is used unless a distinction is intended.

2. Conceptual framework

2.1. Anxiety

The studies conducted so far point out that foreign language classes give rise to the highest levels of anxiety among students (Horwitz et al., 1986; MacIntyre & Gardner, 1989, 1994). Nevertheless, anxiety is probably felt at least to the same degree in interpreting classes. In translation and interpreting training courses, foreign languages are taught as subjects, as are translation and interpreting, and the former obviously play an important role in the latter. Translation and interpreting classes assume the students have acquired language competence in at least two languages, one of which is a foreign language. However, interpreter trainees are also FL learners, as they continue to acquire FL expertise while learning to interpret (Shaw et al., 2004; Zannirato, 2008). Cases may even be found in which interpreting classes are taken in order to broaden FL knowledge (Yan et al., 2010).

The first step in the interpreting process is to understand an original speech and many studies in the field of foreign language acquisition have indicated that anxiety exerts a negative influence on the listening skill (MacIntyre & Gardner, 1991). This is a source of anxiety that makes FL learning a disagreeable experience for a high number of students (Horwitz, 2001; Young, 1999). This evidence from studies on FL learning is extremely relevant for interpreting, as the fear of not understanding the original oral texts is very likely to be reproduced. Students suffering from anxiety when listening to a speech, or fragment of a speech, in a FL are not suitably predisposed to understand and analyse it and the activity will, therefore, be hindered.

However, anxiety does not rear its head only during this initial phase of the process. MacIntyre & Noels (1996) examined FL learning strategies in a study on 138 subjects and determined that strategies causing the highest levels of anxiety included those related to speaking in the FL: striking up a conversation, asking questions, identifying ways of using the FL, etc. Likewise, other studies have indicated that one of the sources of anxiety in language learning appears to be the inability to express one's own ideas and opinions with the same fluency as in the mother tongue (Arnaiz & Pérez-Luzardo, 2014). This, in turn, is closely linked to public speaking (William & Andrade, 2008). It

would seem logical to think that interpreter trainees sometimes feel incapable of expressing in the target language (TL) the ideas expressed in the source language, particularly when interpreting into the FL, whether in liaison, simultaneous or consecutive mode, and that they are likely to feel anxious about speaking in public in front of their classmates and teacher (Cho & Roger, 2010).

Evaluation is another aspect that produces anxiety. Students are aware that real or perceived pronunciation mistakes or misuse of grammar can have negative consequences in the teacher's or classmates' assessment of their performance (Horwitz et al., 1996; Williams & Andrade, 2008). In fact, one of the major sources of anxiety for interpreter trainees is fear of teachers' criticism (Hansen & Shlesinger, 2007).

Apart from the frustration caused by anxiety as such, an accumulation of unpleasant experiences in the classroom may lead students to avoid participation (Horwitz et al., 1986; MacIntyre & Gardner, 1989), producing a negative effect on the process of acquiring competence and on student evaluation. In this sense, Déjean le Féal (1997) considers that if the initial simultaneous interpreting experience is traumatic, students may end up by giving up their studies.

2.1.1. Anxiety in interpreting studies

The literature on anxiety in general and anxiety in language learning in particular is extensive, but this is not the case for anxiety in the learning of interpreting.

In the 1970s Gerver (1976) bemoaned the lack of empirical studies based on individual personality traits such as resistance to stress, given its importance in conference interpreting. Interpreters themselves consider their profession to be very demanding, a source of anxiety, and they compare it to that of air-traffic controllers, due to the watchfulness and attention required (Nolan, 2005). Given that early studies in this area looked at modelling and explaining the process of interpreting, it was only in the 1980s that Kurz carried out initial research in this field. This work focused on environmental and physical factors that, to an extent, constitute a stress factor in professional interpreting, (Kurz, 1983a, 1983b; Kurz & Kolmer, 1984), Subsequent research looked at sources of work-related anxiety in professional interpreters (Cooper et al., 1982; Mackintosh, 2002).

Kurz (1997) carried out a study to determine whether conference interpreters present lower levels of anxiety as a result of better fear control, based on the idea that individuals with high levels of anxiety perform worse under pressure than those with lower anxiety levels. To this end, Spielberger's State and Trait Anxiety Inventory (STAI) (1989), which distinguishes state anxiety from trait anxiety, was used. The first concept refers to an immediate emotional state that can change over time. This is characterised by a combination of feelings of tension, apprehension and nervousness, unpleasant thoughts and worries, accompanied by physiological manifestation. The second concept, anxiety as a personality trait, alludes to relatively stable individual differences in anxiety, i.e. an individual tendency or predisposition. It can be said that subjects with a high level of trait anxiety perceive a wider range of situations as threatening and are more predisposed to suffer state anxiety more often or more intensely. The results obtained by Kurz (1997) indicate that professional interpreters maintain a constant level of performance even in situations of increased anxiety. Years later, the same author (Kurz, 2002) found sufficient indications to show that interpreting for live TV broadcasts could increase the anxiety suffered by interpreters. The author concludes that this is due to the fact that the interpreters are aware of the fact that their audience is made up of hundreds of thousands, or in some cases millions, of spectators, so fear of failure is more pronounced than in a situation of conference interpreting in other situations.

Research into anxiety in interpreting students is scant. Brisau et al. (1994) presented a questionnaire-based study at Hogeschool Ghent (Belgium) that included the parameter of anxiety, with the specific objective of distinguishing between debilitating and facilitating anxiety, the results of which we have not been able to gain access to. Jiménez and Pinazo (2001) examined anxiety in interpreting students using the STAI to check for possible links between anxiety and performance. Concentrating on consecutive interpreting and the possible relationship between fear of speaking in public and performance, they also looked at the relationship between state anxiety and public consecutive interpreting performance. These authors also studied lack of confidence in public speaking using a version of Méndez-Carrillo et al.'s "Confidence in public speaking" questionnaire (1999), in which lack of confidence in public speaking is identified with fear of the situation. This study revealed a positive correlation between

low confidence in public speaking and high scores in state anxiety, which confirms that the more afraid one is of speaking in public, the greater the anxiety experienced (Jiménez & Pinazo, 2001, p. 114).

In a later study, Kurz (2003) focuses on the difference between professionals and students or, in other words, expert and novice interpreters, and found that while the broader experience of professionals attenuated their anxiety, novices face numerous difficulties and that what is routine for an expert constitutes a source of anxiety for the novice (Moser-Mercer, 2000; Kurz, 2003). Kurz measured the following two parameters: (1) pulse rate and (2) skin conductance level. Although the sample size was very small, the level of differentiation between the results obtained is worthy of note: while "the interpreters' pulse rate values remained within the normal range, (…) the pulse rate for all three student interpreters was clearly higher than that of the two interpreters" (2003, p. 62).

Another interesting aspect is the effect of the mother culture that may, to an extent, inhibit the interpreter trainee, as can be seen in Asian countries, where active student participation is not encouraged. This constitutes a further obstacle for interpreter trainees to overcome (Cho & Roger, 2010).

In short, a considerable amount of further work remains to be done to explore and define anxiety in interpreting.

2.2. Academic self-concept in interpreting students

Over recent decades, psychology has concentrated its efforts on exploring how personality and cognitive skills affect performance, both in work and academic contexts. Specifically, self-concept plays a central role in all learning situations, regardless of the academic domain (Hattie, 1992; Marsh & Yeung, 1997). Self-concept is defined as "a set of perceptions that a person has about himself or herself based on personal assessment and feedback from significant others" (Shavelson et al., 1976, p. 411); it is not a question of facts about oneself but rather of beliefs that one holds about oneself in a specific aspect of life (Marsh et al., 1988). It is a psychological construct that helps to explain learners' varied behaviours, approaches and attitudes towards learning. It is considered a key element in shaping an individual's personality and an

indicator of personal satisfaction and psychological well-being. Teachers should be aware that students do not come to class as empty vessels needing to be filled (Mercer, 2011), but bring with them their own beliefs about themselves and their attitudes toward the subject.

Despite the fact that no relationship has been established between the self-concept parameter and anxiety in the field of learning, students with lower academic self-concept levels are likely to experience more anxiety, while students with higher self-concept levels struggle less with anxiety. Likewise, it is worth observing the concept that future interpreters have of themselves, as people, as foreign-language learners and academically (Brisau et al., 1994). Nowadays it is generally accepted that self-concept functions in separate domains, i.e., self-beliefs are classified according to a specific field (Marsh et al., 1988; Marsh & Yeung, 1996, 1997, 1998; Valentine et al., 2004). Academic self-concept, the subject matter of this work, is an individual's self-perception of competence and his/her evaluative judgments in the academic domain (Mercer, 2011, p.14).

As in the case of anxiety, few studies have been carried out on the personality of interpreters. The authors are not aware of any study focusing on self-concept; most work has focused on other self-perception factors such as self-efficacy, self-confidence and self-sufficiency.

Gerver (1976) mentions an unpublished report by Howells in which the author presents results obtained in a study with 11 interpreters who filled in the Cattell 16 PF Personality Questionnaire. Aware of the limited size of the sample, Gerver nevertheless considers it possible "to characterize the group as a whole as intelligent, assertive, independent, self-sufficient, resourceful, imaginative, and creative" (Gerver, 1976, p. 189).

Bontempo and Napier (2011) carried out a performance study with 110 sign language interpreters in Australia bearing in mind their cognitive skills and personality. Their personality analysis uses the constructs of self-efficacy, goal orientation and negative affectivity, as well as their self-perceived competence as practitioners. Significant conclusions of this study include the fact that 'factors of goal orientation, self-efficacy and negative affectivity were found to account for 9% of overall variance in ratings of interpreter competence', a statistically significant result that shows that personality does

influence self-perceived competence in the case of sign language interpreters. This result is consistent with those of Dörnyei (2005) with second language students.

In Hong Kong, a study was carried out on the relationship between (self-perceived) language ability and interpreting learning, as well as factors that might predict success in learning how to interpret (Yan et al., 2010). It was found that there was a significant correlation between self-perceived overall ability in English and self-perceived overall ability in interpreting in general and that students' self-perceived level of English was the best predictor of achievement in learning interpreting.

Rosiers et al. (2011) included the self-confidence variable in their research into the personality differences between translation and interpreting students, respectively. They used the Self-Perceived Communication Competence Scale (McCroskey & McCroskey, 1988) designed to determine how competent students believed they were when expressing themselves orally. Their results reveal that interpreters rate their communicative competence more favourably than translators. This undoubtedly situates interpreters on the positive end of an academic self-concept continuum.

Evidence reviewed from foreign language learning and education literature suggests that anxiety and self-concept play a relevant role in the learning process. Although the literature on interpreting has already started to collect evidence of the influence anxiety can exert on the interpreting process and of the importance due to self-perception factors, the research available on this topic remains scant. In-depth knowledge of all the factors that come into play in the interpreting task is crucial for the development of training programs that help future interpreters achieve their aim. Thus, the present study intends to shed some light on the field of interpreting literature. Specifically, the authors sought to identify interpreter trainees' anxiety and self-concept levels and to investigate the extent to which these two constructs are related. Furthermore, we attempted to determine the connection among these two constructs and three demographic variables.

Research questions

The research questions that the study addressed were:

(1)   What is the level of interpreter trainees' anxiety as measured with an instrument adapted from the foreign language learning field? Do men and women experience similar anxiety levels?

(2)   What is the level of interpreter trainees' academic self-concept as measured with The Academic Autoconcept[2] Test? Do men and women have similar self-concept levels?

(3)   Are both anxiety and academic self-concept significantly related to age and mark?

(4)   Is the correlation between anxiety and self-concept for interpreter trainees significant?

3. Methodology

3.1. Participants

Participants in this study consisted of 153 Spanish students of the Translation and Interpreting degree for whom English was their first foreign language. The sample was composed of 118 females (77.1%) and 34 males (22.2%) with one lost subject. The ages of the respondents ranged from 19 to 52 (M = 22.14; SD = 4.48). Students came from two different universities. There were 86 students (56.2 %) from Las Palmas de Gran Canaria University (ULPGC), and 67 (43.8 %) from Jaume I University (UJI). ULPGC and UJI students attended the subjects *Introduction to working methods in the exercise of interpreting and Consecutive and/or simultaneous interpreting*. Although only a few of the students will take up interpreting as a career, students have to do 8 ECTS credits at the UJI and 30 ECTS credits at the ULPGC in order to graduate.

The interpreter trainees' proficiency in English at the time of the experiment was estimated to be between levels B2 and C1 of the Common European Framework of References for Languages.

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[2] The term autoconcept will be used in the current paper only when referring to the instrument elaborated by Schmidt, Messoulam & Molina (2008). In all other cases, the term self-concept will be employed.

3.2. Instruments

Two instruments were used in this study: the Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz et al. (1986) and the Academic Autoconcept Test, created by Schmidt et al. (2008). The FLCAS was administered to the students in order to assess students' anxiety levels in interpreting classrooms. The FLCAS is the most widely used scale for assessing general foreign language anxiety and it consists of 33 items, 20 of which focus on listening and speaking skills, while the remaining items are related to general language anxiety. Numerous validity and reliability studies have shown the scale to be reliable and valid (Aida, 1994; Horwitz, 1986; Horwitz et al. 1986). The FLCAS is measured using a five-point Likert response format, ranging from strongly agree (1) to strongly disagree (5). It measures a person's anxiety level by calculating an anxiety score, equal to the sum of the scores on the 33 items. Hence, the theoretical range of the FLCAS is from 33 to 165. Following Arnaiz Castro & Guillén García (2013) and Liu & Jackson (2008), FLCAS was understood to comprise three dimensions: *Communication Apprehension*, *Evaluation Anxiety* and *Discomfort in using English inside and outside the Class*. For the purpose of this study, minor changes were made to the statements and, consequently, in the dimensions' names, to adapt them to our students' profiles and our context. Since the focus of our study was the interpreting class and not the foreign language class, all references made to "the foreign language context" were substituted by "the interpreting classroom context"(sample items: (5)"It wouldn't bother me at all to take more foreign language classes" → "It wouldn't bother me at all to take more interpreting classes"; (17) "I often feel like not going to my language class" → "I often feel like not going to my interpreting class"). The names of the dimensions were changed to: *Communication Apprehension in Interpreting Sessions*, *Discomfort in Interpreting inside and outside the Classroom* and *Evaluation Anxiety*.

This version of the FLCAS yielded an internal consistency of .94, using Cronbach's alpha coefficient, which gives information as to the degree to which the items in a scale measure similar characteristics. This figure reveals high internal reliability and is slightly higher than that obtained by Horwitz et al. (1986) in their study (α = .93).

The second instrument employed in the current research was The Academic Autoconcept Test, a self-report measure consisting of 14 items loaded into two subscales: a) academic performance (7 items), which assesses students' perception of their performance and of learning difficulties, and b) academic self-efficacy (7 items), which analyses students' perceptions of their own academic abilities. The items were scored on a five point Likert scale (1 = totally disagree; 5 = totally agree). A person's academic self-concept was then measured by calculating a self-concept score, equal to the sum of the scores on the 14 items. Hence, the theoretical range of the The Academic Autoconcept Test is from 14 to 70. In this case, scores range from 22 to 69.

We encountered an internal reliability alpha coefficient of .89 for the total scale. The values encountered for each of the factors were higher (α = .85 and α = .81 respectively) than those originally found by Schmidt et al. (2008) (α = .68 and α = .75 respectively).

Both questionnaires were piloted among similar profile students not included in the sample prior to the initial administration. Furthermore, a background questionnaire was designed to obtain demographic data about the participants such as gender, age and the mark obtained in the most recent foreign language subject. All of these items were considered to be possible factors that could influence anxiety levels and were used for the subsequent data analyses.

3.3. Procedure

The survey was administered in the second half of the first term of the 2013-2014 academic year. To conduct the survey, the permission of the deans of the three faculties was sought and obtained and student participants were asked to give their consent. The students answered the questionnaires anonymously whilst together in class.

3.4. Data analysis

The results of the surveys were computed using SPSS in terms of means, standard deviation, mode, median and range to investigate the students' anxiety and self-concept levels. Pearson product-moment correlations were performed to measure and describe

the strength and direction of the relationship between scales and subscales on the one hand, and between all dimensions and age and mark, on the other.

4. Results

4.1. Descriptive statistics

In order to determine the general tendency of the students' interpreting classroom anxiety and self-concept, the total score, mean and standard deviation of both the anxiety and the self-concept scale were obtained. Each participant's total scores in both scales were calculated. The actual range of anxiety scores for the entire sample was 53-156. The learners were split into three groups according to their level of anxiety. Those learners scoring between 53 and 87 would be identified as low anxiety (Low Anx), those scoring between 88 and 121 would be identified as average anxiety (Ave Anx) and those scoring between 122 and 156 would be identified as high anxiety (Hi Anx). The mean interpretation anxiety score for the 153 participants was 110.57 (SD = 21.84) and it was observed that more than four fifths (87.58%) of the learners experienced average to high anxiety (Low Anx = 19; Ave Anx =83; High Anx = 51). Self-concept scores ranged from 22 to 69. Again, the learners were split into three groups according to their level of self-concept. Those participants scoring between 22 and 37 would be identified as low self-concept, those scoring between 38 and 53 would be identified as average self-concept, and those scoring between 54 and 69 would be identified as high self-concept. The mean self-concept score for the full sample was 53.67 (*SD* = 9.25) and it was observed that approximately 10% of interpreter trainees have low self-concept, while the rest experience average-to-high levels of self-concept.

Table 1 displays a summary of the overall means and standard deviations of the two scales used in this study. The *Communication Apprehension* subscale shows the highest score (*M* = 3.52), followed by the *Evaluation Anxiety* subscale (*M = 3.19*) and the *Discomfort in Interpreting inside and outside the Classroom* subscale (M = 2.75). The *Communication Apprehension* score is higher than the mean score for the whole scale, while the *Evaluation anxiety* subscale remains closer to it and the *Discomfort in Interpreting inside and outside the Classroom* score runs below the overall scale mean score.

Table 1. Mean scores and standard deviations for anxiety and autoconcept factors and total scores

	N	M (SD)	SD
Communication Apprehension	153	3.5293	.80901
Evaluation Anxiety	153	3.1906	.63310
Discomfort	153	2.7533	.72660
Total FLCAS	**153**	**3.3539**	**.66113**
Academic performance	153	3.7367	.79440
Academic self-efficacy	153	3.9508	.61874
Total Autoconcept Scale	**153**	**3.8430**	**.65457**

The Student's t-tests were used to determine the difference in mean value between men and women for the total anxiety and Academic Autoconcept scores. The results indicate that significant gender differences appeared only in the global results for the anxiety scale, but not for the self-concept scale. Women experience a substantially higher level of anxiety ($M = 3.46$, $SD = .609$) than men ($M = 3.03$, $SD = .678$), ($t = 3.52$; $p<.01$)

4.2. Correlations

In order to gain more understanding of student anxiety and academic self-concept, a series of Pearson product-moment correlations were computed on the full sample. Correlation coefficients help determine not only the direction but also the magnitude of the relationship between the constructs. Results reveal that all bar two of the pairwise correlations established are either significant or very significant.

With respect to the correlations with the demographic variables, results reveal a highly significant negative association between age and the *Evaluation Anxiety* factor ($r = -.234$) and a significant negative association between age and the total anxiety scale score ($r = -.188$). That is to say, younger learners experience more apprehension about evaluative situations, often expect negative judgments from the teacher and feel more general anxiety towards the interpreting learning process than older learners. No correlation emerged between age and the other two anxiety dimensions. The variable mark, meanwhile, maintained a significant negative correlation with the *Discomfort in*

Interpreting inside and outside the Classroom factor ($r = -.210$) and a very significant negative correlation with the *Interpreting apprehension* ($r = -.363$) factor, the *Evaluation Anxiety* factor and the total anxiety score ($r = -.384$). In other words, students with superior language skills tend to experience lower anxiety levels.

As to the relationship between age and the autoconcept scale and subscales, significant positive correlations were attested between age and the academic performance subscale ($r = .165$) and the global self-concept score ($r = .206$) and a very significant positive correlation was detected between age and the academic self-efficacy subscale ($r = -.226$). These results indicate that older interpreter trainees tend to have higher self-concept levels. Likewise, *mark* maintained a robust correlation with the whole autoconcept construct: a very significant positive correlation was established between mark and the academic performance and the academic self-efficacy subscales ($r = -.362$; $r = -.357$) and the global score of the scale ($r = -.392$). These results suggest that would-be interpreters with a higher self-concept tend to achieve higher marks in English.

Table 2. Pearson product-moment correlations among anxiety subscales, autoconcept subscales, total scores, age and mark

N = 153	1	2	3	4	5	6	7	8	9
1 Global mean anxiety	1	.976**	.855**	.562**	-.465**	-.470**	-.378**	-.188*	-.384**
2 Communication apprehension		1	.761**	.458**	-.406**	-.414**	-.325**	-.158	-.363**
3 Evaluation anxiety			1	.384**	-.478**	-.479**	-.394**	-.234**	-.384**
4 Discomfort				1	-.333**	-.327**	-.289**	-.040	-.210*
5 Global mean autoconcept					1	.943**	.900**	.206*	.392**
6 Academic performance						1	.704**	.165*	.362**
7 Academic self-efficacy							1	.226**	.357**
8 Age								1	-.188*
9 Mark (N=137)									1

*$p < .05$ **$p < .01$

Finally, the results presented in Table 2 show that all but one of the academic self-concept factors and the anxiety components are negatively and highly significantly correlated. The highest correlation was discovered to be between *Evaluation Anxiety* and *Academic Performance* (.479) and the lowest correlation was found between *Discomfort in Interpreting Inside and outside the classroom* and *Academic Self-efficacy* (.289). Nonetheless, the correlation was moderate, not low. Thus, it can be affirmed that higher anxiety students tend to have lower self-concept.

5. Discussion

Our findings significantly expand the scope of previous research on interpreter trainees' individual variables in five ways: first, by presenting results on anxiety levels from a large sample of interpreter trainees, as opposed to the reduced sample sizes usually encountered in many of these studies (see e.g. Cho & Roger, 2010; Rossiers et al., 2011; Yan & Wang, 2012); second, by adapting an instrument originally designed for the foreign language learning field to the interpreting field; third, by opening up a line of research on self-concept levels; fourth, by providing results of having interconnected the constructs of anxiety and self-concept. In fact, the current research has certain key aspects in common with a particularly interesting research plan devised by Brisau et al. more than a decade ago. In 1994, these three authors provided a detailed description of a study that would interrelate these two constructs and some others (e.g. attitude, cognitive style, stress resistance or metacognition) with the aim of offering a psycholinguistic profile of trainees in interpretation, but to the authors' knowledge the results were never published. Finally, we have expanded the scope of research by examining the role of variables which had never before been taken into consideration in the field of interpreting. Consequently, and as a result of the scarcity of research with a similar focus and similar participant profiles, in a number of cases, results are difficult to discuss and comparisons impossible to draw.

However, before discussing our findings we would like to acknowledge that our study, presented several limitations, of which we describe two. As already specified, the anxiety scale administered to the participants is one that has been frequently used in the language learning field. We modified it slightly to ask students about their anxiety in the

interpreting class. However, no items on the scale dealt with tasks typically associated with the interpreting profession such as dual tasks exercises or memory management. In addition, our current research data suffer from the same limitations as all self-report questionnaire data in that it is difficult to determine whether some learners may have interpreted items on the questionnaires in different ways from our original intentions or decided to represent themselves inaccurately.

These caveats notwithstanding, we see our results as offering relevant implications for both research on interpreting and interpreter training programs. They provide a comprehensive analysis of interpreter trainees' profiles. The results obtained are synthesized and interpreted for each research question.

Research question 1

What is the level of interpreter trainees' anxiety as measured with an instrument adapted from the foreign language learning field? Do men and women have the same anxiety levels?

It was observed that 87.58% of would-be interpreters experienced average-to-high anxiety. These results can only indirectly be related to Jiménez & Pinazo's (2001) research results. Although also centred on interpreting students' anxiety levels, these authors measured their anxiety just before starting a consecutive interpreting exam with a questionnaire taken from general psychology: the STAI (Spielberger et al., 1988). This scale is restricted to a particular situation and evaluates temporary conditions of apprehension, tension and worry. In their study, the whole sample, 197 participants, showed levels of medium-high state anxiety. Therefore, and in spite of the differences between the scales in terms of focus, it can be said that the results of both research studies point in the same direction.

The situations that made students feel most anxious in the current study were all connected with their participation in class: to be specific, they worried about performing in front of others in class, either with or without preparation, about making mistakes and about competing with more competent peers. The great importance very often given to errors in the interpreting class and the negative impact they have on students has been referred to by several authors. Hansen and Shlesinger (2007) contend that in the interpreting class, the teacher is very often seen as the unique expert on the discipline

and students' lack of ability and errors are emphasized. As Cho and Roger (2010) maintain, the focus on errors intensifies pre-existing anxieties related to weaknesses on particular aspects of the practice of interpreting, which diminish trainees' security and leads to poorer performance. This situation can be disconcerting for learners and can lead them to feel stuck and unable to progress in the learning process.

Secondly, trainee interpreters claimed to experience anxiety in situations related to evaluation and judgment. More specifically, they feel uneasy in language tests, afraid of being evaluated as soon as they pronounce a word and worried about getting left behind. This type of anxiety has been well illustrated in the study by Harmer (1996 in Hansen & Shlesinger, 2007, p. 97). The author collected some entries of interpreter trainees' journals in which they expressed their feelings and reactions to the learning process as a whole. One of the students pointed to the teacher's judgment as a cause of their anxiety: "[…] I'm so tense and afraid of being judged by her"; another student alluded to the fear of falling behind: "I'm not satisfied with the interpretation […] I'm always afraid of missing details, which keeps me from really listening."

As regards the second part of this first research question, our data also echo some of the research findings in the foreign language learning field, which indicate that women experience a much higher level of anxiety than men (Donovan & MacIntyre, 2005; Machida, 2001). Nevertheless, it must be noted that there were only 34 male participants in this study, which mirrors the reality in the field of interpreting training, as other authors have also highlighted (Kurz, 1989; Schweda Nicholson, 2005), in which there are typically far fewer male students than female students enrolled in the programmes. Obviously, if a study were conducted with a similar number of male and female students, the findings could be extrapolated to a larger population.

Research question 2

What is the level of interpreter trainees' academic self-concept as measured with the Academic Autoconcept Test? Do men and women have the same self-concept levels?

Only approximately 10% of interpreter trainees have low self-concept; the rest experience average-to-high levels of self-concept. This figure substantiates the theoretical claim that interpreter trainees need to have "a good self-concept" (López

Gómez et al., 2007, p. 77). With respect to gender, in the current study both genders had comparable overall academic self-concept.

In the language learning field, results have been varied. Many of the results available come from Asia, where this construct seems to have received more attention. The results obtained by Liu (2010), for example, in her study of Taiwanese university students learning English, and also by Matovu (2012) in a study of Malaysian students, female students tended to have higher academic self-concept. In both cases, the scale used was the academic self-concept scale (ASC) elaborated by Liu et al. (2005), which has been mainly used in the Asian context.

Research question 3

Do both anxiety and academic self-concept have significant relations with age and mark?

In this study age appears as a positive factor for both constructs, since it is older learners who tend to experience lower anxiety levels and also who claim to have higher self-concept levels. The literature on the link between age and language learning anxiety shows contradictory results. Findings in the current study are consistent with those in research carried out by Dewaele et al. (2008) on a sample of 464 multilinguals which explored anxiety levels in different situations. Older adults report to suffer less from FLA than younger adults in their different languages. However, the finding contrasts with results in Bailey et al.'s (2000) study, conducted with university-level learners, in which younger learners suffer from lower anxiety levels at the three stages examined (i.e. the input, processing and output stages) than their older peers.

Concerning mark, the results show that students who report feeling more anxious are those who obtained lower marks the last time their English level had been assessed. These results contradict those obtained by Jiménez and Pinazo (2001), who found that interpreter trainees' anxiety did not maintain any significant relationship with mark. One important difference between the present study and Jiménez and Pinazo's lies in the focus of the research. Participants in their study were asked about a specific situation, whereas in the present study participants were inquired about general situations.

In this regard, it must be noted that feelings of foreign language anxiety are often associated with frustration and hopelessness and constitute an obstacle in the learning

process (Casado & Dereshiwsky, 2001; Gregersen & Horwitz, 2002). Likewise, as Shaw & Hughes (2006, p. 197) explain, the anxiety experienced when the command of the foreign language level is not adequate influences interpretation learning, which allows us to confirm that a poor language level may make prospective interpreters experience anxiety.

Finally, the results of the present study demonstrate that interpreting students with higher self-concept levels tend to have higher marks in English. These results support numerous research findings in the field of education and in the field of foreign language learning that show that positive self-concept is linked to high academic achievement (Byrne, 1990; Choi, 2005; Liu et al., 2005; Marsh et al., 2002; Muijs, 1997).

Research question 4

Is there any significant correlation between anxiety and self-concept for interpreting students?

The results show that the measure of anxiety is significantly related to self-concept showing that low self-concept is related to high scores in anxiety. The authors were unable to find any previous studies addressing the interconnection between interpreter trainees' anxiety and self-concept. In the foreign language learning field, the only empirical research our data can be even loosely contrasted with was undertaken by Mills et al. (2007). These authors examined the correlation between US college students' learning anxiety in reading and listening and their French learning self-concept and also detected that students who experienced higher anxiety levels scored lower on self-concept. To measure anxiety they employed an adapted version of Betz's (1978) Mathematics Anxiety Scale and for self-concept they used an adapted version of the Academic Self-description Questionnaire (ASDQ 1) designed by Marsh (1990) in such a way that all questions referred to the French learning process.

6. Concluding remarks

From the results gathered here, it can be suggested that some interpreter trainees are at risk of having medium to high anxiety, and therefore it is important that interpreting lecturers not only are aware of this reality but also are able to identify these students. In addition, the interrelationship between anxiety and self-concept is clearly demonstrated.

In the light of the findings from this study, some pedagogical implications may be proposed. Interpreter trainers have to understand the need to have a non-threatening environment for students. It is therefore of the utmost importance that they develop and carry out classroom techniques that help trainees to reduce anxiety levels and enable them to exploit their resources to the full. A first option of exercises would include some of the theatrical techniques characteristic of the training of professional actors. Some authors have considered interpreting as a "performing art" and have highlighted the aspects both disciplines have in common (Bendazzoli, 2009; Cho & Roger, 2010): the key role of communication techniques, the audience as an integral part of the process or the need for quick problem-solving skills, to name but a few. Based on these pillars, Cho and Roger (2010) suggest the implementation of activities like role play, memory exercises or miming, all of them traditionally used in the foreign language learning class. A second option would facilitate the gradual incorporation into the interpreting class of typical anxiety-provoking experiences (e.g. undertaking consecutive interpretation tasks in the big group, getting feedback from the teacher in front of peers, receiving critical assessment from the whole group, dealing with speeches without time for preparation). Another way of helping students prepare for the interpreting subject would entail rigorous coordination between the foreign language learning and the interpreting subjects. However obvious this may seem, the authors are confident that this is not always the reality in Spanish university interpreter training programs. The interrelation between FL acquisition and interpreter training is undisputable, in spite of the resistance shown by experts on both sides, probably due to insufficient knowledge about the other discipline.

Future research should focus on exploring solid paths to design effective training interventions which serve as a frame of reference to help students decrease anxiety levels in interpreter training programs. To this end, research should collect data regarding the coping strategies students already use and those with which they need to familiarize themselves.

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