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# Impact of plurilingualism and previous intercultural experience on undergraduates' intercultural sensitivity at the start of university studies

Andreana Pastena <sup>a</sup>, Albert Sesé <sup>b</sup> and Mireia Trenchs-Parera <sup>a</sup>

<sup>a</sup>Department of Humanities, Universitat Pompeu Fabra, Barcelona, Spain; <sup>b</sup>Department of Psychology, Universitat de les Illes Balears, Palma, Spain

## ABSTRACT

This study investigates first-year undergraduates when starting their studies in a highly internationalised public university settled in a multicultural and multilingual European city. It focuses on to what extent individual differences as regards plurilingualism and previous intercultural experience are related to a higher or lower degree of Intercultural Sensitivity (IS), in the five dimensions of this construct (Chen and Starosta 2000). 881 students from 15 Bachelor's degrees answered two questionnaires covering background profile and Chen and Starosta's Intercultural Sensitivity Scale (2000). Both descriptive and inferential analyses were performed. Participants from and in such a context showed high IS at the start of university. However, the analysis yielded differences between the IS Scale dimensions: from highest to lowest means, *Respect for Cultural differences*, *Interaction Enjoyment*, *Interaction Engagement*, *Interaction Attentiveness*, and *Interaction Confidence*. Gender, individual plurilingualism, family plurilingualism, and intercultural friendships emerged as the profile variables most correlated with higher IS; birthplace and place of schooling, the least. Results raise awareness on what profile of undergraduates may be more in need of educational interventions not just aiming at their individual Intercultural Sensitivity but also making truly intercultural Higher Education possible.

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Higher education; individual differences; intercultural education; intercultural interactions; intercultural sensitivity; plurilingualism

## Introduction and research focus

In the last decade, universities across the globe have implemented academic actions leading to their internationalisation (Block and Khan 2020). The reasons behind such internationalisation policies vary: becoming more competitive locally, complying with government policies at a regional or national level, increasing revenues with students paying higher tuition fees than the local ones, or placing the institution higher in university rankings, among others.

Conceiving internationalisation as 'the process of integrating international, intercultural, or global dimensions into the objective function and provision of higher education' (Knight 2004), here we aim to explore one specific action on the rise: undergraduate degrees that may attract students from other countries since the start of their university studies. Indeed, whatever the reason, country or institution, the result of such an action is always the same: diverse classroom groups as regards

**CONTACT** Mireia Trenchs-Parera  mireia.trenchs@upf.edu

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students' cultural, linguistic, and educational backgrounds. For such classrooms to become truly learning contexts, students should have or develop enough Intercultural Sensitivity (IS from now on) to carry out successful intercultural interactions when either doing academic teamwork or socialising inside and outside university walls.

As a matter of fact, IS is believed to be essential for people dealing with cultural differences in today's globalised society and appropriately communicating with people from cultures different from one's own (Peng 2006; Bae and Song 2017; Chen and Starosta 2000). To ensure its development, some voices are already calling for the implementation of specific interventions aiming to maximise the benefits of student diversity in such multilingual and multicultural classrooms (Jackson and Oguro 2018). Others argue that intercultural education should be extended to less internationalised spaces if authorities want undergraduates to be really prepared for the twenty-first-century globalised world (UNESCO 2014).

Despite this call for widespread intercultural education, little research has explored what profiles of undergraduate students may be more likely in need of it. Thus, we set out to investigate first-year undergraduates from and in a highly internationalised, multicultural, and multilingual context, though with a strong local cultural and linguistic identity.<sup>1</sup> We then aimed at answering the following research question: What students' profile(s) – as regards previous intercultural experience and plurilingualism – tend to show more intercultural sensitivity when starting university studies? Our intention was not an exhaustive exploration of sociolinguistic, educational, or psychological traits but rather to focus on students' previous intercultural experience – i.e. birthplace, place of schooling, and previous intercultural friendships – and plurilingualism – i.e. first and additional language (s) – as a selection of profile features that we believe could be potentially relevant in carrying out successful intercultural interactions (more in Section 3.2). In doing so, then, the present study aims to inform university administrators, policy planners, and instructors on which students should be the primary target in the design and implementation of policies and educational interventions having the development of their IS as an objective.

## Review of literature and research gaps

IS research has usually been conducted in the context of studies on Intercultural Competence (IC from now on) (Byram 2020), a multidimensional construct investigated from various angles. There is no unique general definition or validated model of IC, as scholars have identified a large number of features relevant for intercultural encounters to be successful and, consequently, several scales have been developed for its assessment (Fantini 2009). Nevertheless, consensus has been reached on the three dimensions that constitute IC: affective, cognitive, and behavioural. Accordingly, IS would be IC's affective component. Several have been the models and measures accounting for IS, such as Bennett's Developmental Model of Intercultural Sensitivity (1986), the Intercultural Development Inventory (IDI; Hammer, Bennett, and Wiseman 2003), Bhawuk and Brislin's (1992) construct<sup>2</sup> and their Intercultural Sensitivity Inventory (ICSI), and the Cross-Cultural Sensitivity Scale (CCSS) developed by Pruegger and Rogers (1993) in the Canadian context.

Here, we follow Chen and Starosta (2000), as we believe that their model discriminates between IS and IC better. As a matter of fact, IS would be one of three dimensions of IC: *intercultural awareness* (at the cognitive level, the ability to understand and discriminate cultural differences), *intercultural adroitness* (the ability to develop an appropriate behaviour with people from other cultural backgrounds), and *intercultural sensitivity* (willingness to interact and respect for cultural differences).

Chen and Starosta (2000) define IS as 'a person's ability to develop a positive emotion towards understanding and appreciating cultural differences that promote appropriate and effective behavior in intercultural communication'. They identify six elements related to IS, which an individual should preferably possess: high self-esteem, to deal with ambiguous situations; self-monitoring ability, to behave appropriately; open-mindedness, in recognising and accepting diversity; empathy, to

share feelings and emotions with interlocutors; interaction involvement, comprising responsiveness, attentiveness, and perceptiveness; and non-judgment in interaction.

To measure IS, Chen and Starosta (2000) developed the Intercultural Sensitivity Scale (ISS), using American undergraduates as a sample. Such an instrument encompasses all those six elements related to IS in five dimensions of the scale:

*Interaction Engagement* is concerned with participants' feeling of participation in intercultural interaction; *Respect for Cultural Differences* is related to participants' orientation towards or tolerance to their counterparts' culture and opinion; *Interaction Confidence* tests how confident participants felt in the intercultural contexts; *Interaction Enjoyment* deals with participants' reaction, positive or negative, towards intercultural communication; and *Interaction Attentiveness* is related to participants' effort to understand the ongoing process of intercultural communication. (Yu and Chen 2008, 153)

The five dimensions of the ISS tackle several aspects related with intercultural interactions and, thus, we believe it to be an adequate measure of undergraduates' readiness to engage in interaction with peers coming from different linguistic and cultural backgrounds in the internationalised classroom. Moreover, the ISS is easily available, and it has been widely used to measure the degree of IS among various European populations similar to ours where its validity and reliability have been proved.<sup>3</sup> Such research has been conducted in educational contexts, focusing on primary and secondary schools (Sanhueza-Henríquez 2010; Vilà-Baños 2006), but mainly on university students, whether local (Peng 2006; Yu and Chen 2008; De Santos-Velazco 2018) or either on credit or degree mobility (Bae and Song 2017). Out of the belief that IS is an essential ability for dealing with the global market, some studies have explored it among business school students (De Santos-Velazco 2018); others, among employees in multinational corporations (Peng 2006). Moreover, some attention has been devoted to the IS of individuals studying or working in medical and nursing fields (Meydanlioglu, Arikan, and Gozum 2015; Aksoy and Akkoç 2019).

Our interest, however, has focused on a specific research strand that has addressed how the sociolinguistic and educational profile may affect IS in general as well as its five dimensions specifically according to Chen and Starosta's scale. Such studies have concentrated on three geographical areas: Spain (De Santos-Velazco 2018; Ruiz-Bernardo 2012; Ruiz-Bernardo, Ferrández-Berruenco, and Sales-Ciges 2012), Turkey (Meydanlioglu, Arikan, and Gozum 2015; Aksoy and Akkoç 2019), and the Philippines (Del Villar's 2010). All these studies point to high degrees of IS among participants. As regards the five dimensions, although with differences between studies, the highest IS scores are usually related to *Respect for Cultural Differences* (*Respect* as a short form from now on) and *Interaction Enjoyment* (*Enjoyment*), while *Interaction Confidence* (*Confidence*) seems to be located at the bottom of the scale (Aksoy and Akkoç 2019; Vilà-Baños 2006). *Interaction Attentiveness* (*Attentiveness*) and *Interaction Engagement* (*Engagement*) emerged as more variable dimensions.

The variable of gender has yielded contradictory results in previous studies. For instance, in Del Villar (2010) and Meydanlioglu et al.'s (2015) studies, males emerged to be more interculturally sensitive than females, especially as regards *Confidence* and *Enjoyment* (Meydanlioglu, Arikan, and Gozum 2015). Nevertheless, other researchers have not found any gender difference (Aksoy and Akkoç 2019; De Santos-Velazco 2018). Conversely, several studies report females to be more interculturally sensitive than males, either in all construct dimensions (Vilà-Baños 2006; Sanhueza-Henríquez 2010) or in just *Engagement* and *Attentiveness* (Ruiz-Bernardo 2012). Other profile variables have shown more consistent results.

As regards previous intercultural experience, participants born in a country different from the one where they live and where data are collected have shown significantly higher IS mean values, both at the overall level (Sanhueza-Henríquez 2010) and in the specific *Engagement*, *Enjoyment*, and *Attentiveness* dimensions (Ruiz-Bernardo 2012), and also *Confidence* (Vilà-Baños 2006). Although not taking this variable into account, De Santos-Velazco (2018) noticed that most such participants in his study belonged to the profile of maximum IS.

Several of the afore-mentioned studies have also found that participants who have lived abroad or had extensive travelling experience tend to show more IS in all the five dimensions of the scale (De Santos-Velazco 2018; Ruiz-Bernardo 2012; Ruiz-Bernardo, Ferrández-Berruenco, and Sales-Ciges 2012; Del Villar 2010), with the exception of Meydanlioglu et al.'s (2015) medical and nursing students. Likewise, a positive correlation was found between IS and years of residence in a host country (Vilà-Baños 2006), as well as with having friends born in other countries and experiencing daily contact with cultural differences (Ruiz-Bernardo 2012; De Santos-Velazco 2018; Del Villar 2010). Specifically, the number and frequency of contact with people from different cultural backgrounds proved to be positively statistically correlated with the dimensions of *Engagement* and *Confidence* (Meydanlioglu, Arikan, and Gozum 2015; Aksoy and Akkoç 2019; Vilà-Baños 2006), and, to a lesser extent, *Enjoyment* (Meydanlioglu, Arikan, and Gozum 2015), *Respect* (Aksoy and Akkoç 2019), and *Attentiveness* (Vilà-Baños 2006).

Similarly, plurilingualism – conceptualised as either knowing one or more foreign languages or the number of languages spoken – was found to be another variable affecting IS (De Santos-Velazco 2018; Ruiz-Bernardo 2012). Indeed, the more languages an individual speaks, the more they tend to display higher *Enjoyment* (Aksoy and Akkoç 2019; Vilà-Baños 2006; Meydanlioglu, Arikan, and Gozum 2015), *Confidence* and *Respect* (Vilà-Baños 2006; Meydanlioglu, Arikan, and Gozum 2015), and also *Engagement* (Vilà-Baños 2006). Moreover, De Santos-Velazco (2018) detected increasing IS values the more undergraduates had studied a foreign language, pointing to a positive correlation between IS and proficiency. Similarly, Peng (2006) suggests that English proficiency plays an important role in the intercultural encounter.

Although not adopting the ISS, other studies have explored the link between plurilingualism and empathy, and flexibility. Indeed, apart from being personality traits, empathy, and flexibility are also elements of IS, playing a crucial role in social interactions. For instance, Deweale and Wei's (2012) findings suggest that neither knowledge of more languages or initial bi/trilingualism are correlated with cognitive empathy, but advanced proficiency and frequent use of several languages is. Bilingualism and, thus, native proficiency in two languages was also found to be correlated with higher social flexibility – that is, the ability to easily adapt to different social environments – and, consequently, engaging in more social interactions (Ikizer and Ramírez-Esparza 2018).

Despite the above-mentioned research body on IS dimensions, previous intercultural experience and plurilingualism as individual variables impacting on IS have only been partially investigated or have given contradictory results. They are, therefore, worth tackling in the present study. Differences between local students and institutionally called 'international' students have already been explored. However, because of recent international migrations, student population at universities and other educational contexts is more culturally diversified and deserves a more nuanced analysis. Therefore, we chose three variables to document students' previous experience with intercultural interactions. On the one hand, questionnaire items tapping into the variables 'Birthplace' and 'Place of Schooling' allow us to reflect information on different life trajectories as regards students' cultural contexts of socialisation. On the other hand, the variable 'Intercultural Friendships', which had proved to be highly significant as regards global transcultural competence in a study with a smaller dataset (Trenchs-Parera and Pastena 2021), would allow us to collect information on students' agency in developing intercultural friendships either in the country of origin when socialising with peers or in previous stays or trips abroad.

As for plurilingualism, most previous studies relate IS to the number of either languages spoken by participants or their self-reported initial language(s) (from now on, their L1). We believe that IS may be closely related to students' initial bi- or plurilingualism triggered by bi- or plurilingualism within families. Therefore, we provide value options for the variable 'Number of First Languages' to profile initial language(s), whether a single one or several of them. Separately, the variable 'Number of Additional Languages' learned in schooling or outside the school provides us with information on students' predisposition towards or interest in languages spoken by and within other cultural groups.

Other profile variables of potential interest in the study of IS according to the literature, such as religious background, or not previously investigated, such as the choice of academic degree, have been left for future studies within the framework of our wider research project.

In sum, the specific research questions guiding the present study were the following: (1) what undergraduates' profile(s), as regards their previous intercultural experience, tend(s) to show more intercultural sensitivity when starting university studies? and (2) what undergraduates' profile(s), as regards their plurilingualism, tend(s) to show more intercultural sensitivity when starting university studies? As explained above, we measured previous intercultural experience by means of data on students' birthplace, place of schooling, and previous intercultural friendships. We measured students' plurilingualism by means of data on the number of students' first and additional language(s).

## Methodology

### *Participants and research site*

Our sample of volunteering first-year undergraduates amounted to 881 participants from 15 degrees across eight faculties and belonging to two consecutive academic years.<sup>4</sup> This sample represents an average of about 18% of all first-year students from all faculties at that university. This public institution was chosen as research site as it serves as an example of an internationalised multilingual and multicultural educational context (Trenchs-Parera 2019) because of:

- (1) its being set in the heart of a global city, Barcelona, Catalonia's capital, with high percentage of immigrant population and international tourism and, therefore, of a highly multicultural and multilingual make-up (Newman, Trenchs-Parera, and Corona 2019),
- (2) its welcoming in its classrooms a linguistically and culturally diversified local high school student population (Pérez, Lorenzo, and Trenchs 2016),
- (3) its high degree of attraction of international students and instructors<sup>5</sup>,
- (4) its trilingual policy, including English and the two local languages – Catalan and Spanish – conforming current-day widespread societal bilingualism in Catalonia, and
- (5) the inclusion of either partial or full English-medium instruction (EMI) in all undergraduate degrees.

### *Data collection instruments and design*

A cross-sectional selective design using intentional sampling was implemented. Data were collected online at the start of the academic year by means of one measurement protocol consisting of two questionnaire sections, one covering items on IS and another one on sociolinguistic and educational profile. The IS section consisted of 24 items of Chen and Starosta's *Intercultural Sensitivity Scale* (2000), with a 5 graded Likert response (ranging from 1 to 5) and a five-factor latent structure: *Engagement, Respect, Confidence, Enjoyment, and Attentiveness*. Reliability analysis obtained adequate results with a Cronbach's alpha coefficient clearly over .80 (.86) for the total scale. As already mentioned, we chose this scale because its five thematic dimensions were relevant for the study of intercultural interactions, as Fritz, Möllenberg, and Chen (2002, 2004) have observed in research conducted in Germany, a European context like ours.

The protocol also included 17 questions aiming at self-reported sociolinguistic and educational information. For the present study, we used the following variables and values:

- (a) *Self-reported Gender* (two values: *Male* and *Female*),
- (b) *Birthplace* (four values: *City of Barcelona, Rest of Catalonia, Rest of Spain, and Abroad*),

- (c) *Place of Schooling* (six values encompassing schooling through primary and secondary education to document students' experience or not in a different educational system, and to what extent: *Catalonia, Rest of Spain, Abroad, Catalonia and Rest of Spain, Catalonia and Abroad*, and *Rest of Spain and Abroad*),
- (d) *Number of Intercultural Friendships* (three values: *None, Few* [i.e. one to three 'international' friends], and *Many* [four or more]. 'International friend' was explicitly and purposely defined in the questionnaire as 'someone who was or whose parents were born in a country different from your own' since we intended to include friends educated or born abroad but also locally and with heritage cultures),
- (e) *Number of First Languages* (three values: *Monolingual, Bilingual, and Trilingual*), and
- (f) *Number of Additional Languages* (four values, from *One, Two, Three, and Four or more*).

### Data analysis

First, a complete descriptive univariate analysis on the five IS dimensions was conducted. The 1-to-5 Likert scales served as a numerical representation of what actually is a continuum. For practical reasons, we took mean values of 3.5 or above in each dimension as indicators of high IS. No imputation data method was implemented in absence of missing values. Because of the deviations of normality detected using the Kolmogorov–Smirnov test, we decided to triangulate results from used parametric tests, t-test for dichotomous categorical variables and one-way ANOVA for polytomous, with the corresponding non-parametric ones, Mann-Whitney's U and Kruskal–Wallis, respectively. Also, robust Brown-Forsythe and Welch corrections were implemented for ANOVA tests. Levene's test was applied to check equality of variances assumption. When the ANOVA's F was significant, we conducted the Bonferroni test under homoscedasticity, and Dunnett's T3 under heteroscedasticity as post-hoc tests. Finally, Cohen's d statistic was calculated to analyze the effect size of significant tests, considering a value between .20 and .30 as a small effect, between .50 and .80 as a medium, and above .80 as a large. All analyses were carried out using the SPSS 24.0 program.

## Results

### General descriptive results by IS dimensions and self-reported gender

The descriptive univariate analysis on all the five dimensions yielded important deviations from normality ( $p < .001$ ) with a clear negative asymmetry indicating preference for high values of the scale. The dimensions present the following values for the means and standard deviations, in descending order: *Respect* ( $M = 4.34, SD = 0.53$ ), *Enjoyment* ( $M = 4.13, SD = 0.70$ ), *Engagement* ( $M = 4.06, SD = 0.50$ ), *Attentiveness* ( $M = 3.99, SD = 0.58$ ), and *Confidence* ( $M = 3.65, SD = 0.70$ ). Regarding Self-Reported Gender, we explored whether the degree of IS was dependent on the values of

**Table 1.** T-tests of the mean scores of the five IS dimensions by gender.

Dimension	Male (N=301)	Female (N=580)	Mean difference	p	Cohen's d
Engagement	3.88	4.16	0.28	<.001	.56
Respect	4.17	4.43	0.26	<.001	.50
Confidence	3.59	3.68	0.09	.087	-
Enjoyment	3.98	4.21	0.24	<.001	.33
Attentiveness	3.83	4.07	0.24	<.001	.41

Male and Female as regards each IS dimension (Table 1). T-tests showed statistically significant differences as regards the dimensions of *Engagement*, *Respect*, *Enjoyment* and *Attentiveness*, but not *Confidence* ( $p = .087$ ). In those four dimensions, higher values were obtained by Females, detecting the highest difference between males and females as regards *Engagement* (Cohen's  $d = .56$ ) and *Respect* (Cohen's  $d = .50$ ).

### IS differential analyses: previous intercultural experience and plurilingualism

First of all, we explored whether the degree of IS was dependent on students' previous cultural experience. We did so by investigating three different, yet complementary, variables: Birthplace, Place of Schooling, and Number of Intercultural Friendships. No statistically significant differences in IS were found as concerns the values of Birthplace in any of the five IS dimensions by neither parametric nor non-parametric way ( $p \geq .05$ ) (Table 2).

In contrast, significant differences regarding Place of Schooling were obtained by means of parametric tests only for dimensions *Engagement* ( $p = .028$ ) and *Respect* ( $p = .026$ ), and these results were confirmed by non-parametric tests with  $p$ -values .017 and .048, respectively. Post-hoc tests showed significant differences between the group schooled in *Catalonia* and the one schooled in *Rest of Spain*, which in two cases showed higher values: as regards *Engagement*, with a difference value of .16 ( $p = .034$ , Cohen's  $d = .31$ ), and for *Respect*, with a difference value of .16 ( $p = .010$ , Cohen's  $d = .30$ ). Again, non-parametric tests confirmed these significant differences (*Engagement*  $p = .001$ ; *Respect*  $p = .004$ ).

Additionally, we explored whether the degree of IS was influenced by the amount of students' Number of Intercultural Friendships at the start of university studies. Here the analysis yielded more complex statistical results that will be discussed in the Discussion section. Parametric and non-parametric tests found statistically significant differences for all dimensions ( $p < .001$ ). The homoscedasticity assumption is fulfilled for all dimensions except for *Respect*, although the degree of non-compliance is slight ( $p = .041$ ). Post-hoc analyses regarding *Engagement* found that there

**Table 2.** Descriptive statistics of IS differential variables per dimension.

Variables and corresponding values	N	Engagement Mean (SD)	Respect Mean (SD)	Confidence Mean (SD)	Enjoyment Mean (SD)	Attentiveness Mean (SD)
<b>Birthplace</b>						
<i>Barcelona</i>	446	4.05 (0.51)	4.33 (0.54)	3.65 (0.71)	4.13 (0.71)	3.99 (0.58)
<i>Rest of Catalonia</i>	215	4.04 (0.51)	4.30 (0.53)	3.61 (0.72)	4.12 (0.68)	3.98 (0.59)
<i>Rest of Spain</i>	109	4.15 (0.48)	4.46 (0.45)	3.61 (0.66)	4.19 (0.64)	3.99 (0.63)
<i>Abroad</i>	111	4.09 (0.49)	4.32 (0.53)	3.75 (0.64)	4.10 (0.78)	4.03 (0.54)
<b>Place of Schooling</b>						
<i>Catalonia</i>	702	4.03 (0.51)	4.31 (0.54)	3.65 (0.70)	4.11 (0.71)	3.98 (0.58)
<i>Rest of Spain</i>	113	4.19 (0.47)	4.47 (0.44)	3.64 (0.64)	4.20 (0.62)	4.03 (0.58)
<i>Abroad</i>	35	4.13 (0.41)	4.50 (0.42)	3.81 (0.77)	4.28 (0.73)	4.11 (0.59)
<i>Catalonia &amp; Rest of Spain</i>	7	4.06 (0.64)	4.33 (0.33)	3.11 (1.09)	4.05 (0.80)	4.10 (0.86)
<i>Catalonia &amp; Abroad</i>	21	4.21 (0.59)	4.25 (0.61)	3.73 (0.59)	4.29 (0.86)	4.00 (0.67)
<i>Rest of Spain &amp; Abroad</i>	3	4.29 (0.29)	4.39 (0.42)	3.33 (0.42)	4.11 (1.02)	3.67 (0.67)
<b>Number of Intern'l Friendships</b>						
<i>None</i>	269	3.91 (0.51)	4.27 (0.55)	3.33 (0.71)	3.92 (0.67)	3.79 (0.60)
<i>Few (1-3)</i>	384	4.08 (0.50)	4.32 (0.54)	3.70 (0.63)	4.12 (0.70)	4.02 (0.54)
<i>Many (&gt;3)</i>	228	4.23 (0.46)	4.46 (0.47)	3.94 (0.65)	4.41 (0.65)	4.18 (0.56)
<b>Number of First Languages</b>						
<i>Monolingual</i>	484	4.02 (0.51)	4.31 (0.54)	3.62 (0.68)	4.08 (0.72)	3.96 (0.58)
<i>Bilingual</i>	371	4.11 (0.49)	4.36 (0.51)	3.67 (0.73)	4.19 (0.68)	4.03 (0.59)
<i>Trilingual</i>	26	4.30 (0.34)	4.51 (0.34)	3.82 (0.64)	4.23 (0.67)	4.09 (0.49)
<b>Number of Additional Lang.</b>						
<i>One</i>	177	4.09 (0.52)	4.36 (0.51)	3.58 (0.77)	4.06 (0.72)	3.96 (0.60)
<i>Two</i>	366	4.04 (0.51)	4.30 (0.56)	3.63 (0.67)	4.15 (0.68)	3.95 (0.58)
<i>Three</i>	265	4.05 (0.49)	4.35 (0.51)	3.67 (0.68)	4.11 (0.73)	4.03 (0.59)
<i>Four or more</i>	69	4.20 (0.48)	4.44 (0.44)	3.82 (0.70)	4.31 (0.66)	4.16 (0.48)

SD: Standard deviation.



were differences at three levels: between *None* and *Few* (dif= .17;  $p < .001$ ; Cohen's  $d = .33$ ), *None* and *Many* (dif= .32;  $p < .001$ ; Cohen's  $d = .63$ ), and *Few* and *Many* (dif= .15;  $p = .001$ ; Cohen's  $d = .30$ ). For the *Respect* dimension, there were differences between *None* and *Many* (dif= .19;  $p < .001$ ; Cohen's  $d = .37$ ), and *Few* and *Many* (dif= .14;  $p = .003$ ; Cohen's  $d = .26$ ), but no differences between *None* and *Few* (dif= .06;  $p = .49$ ). As regards *Confidence*, there were differences at three levels: between *None* and *Few* (dif= .37;  $p < .001$ ; Cohen's  $d = .53$ ), *None* and *Many* (dif=.60;  $p < .001$ ; Cohen's  $d = .86$ ), and *Few* and *Many* (dif= .24;  $p < .001$ ; Cohen's  $d = .34$ ). About *Enjoyment*, again there were differences at three levels: between *None* and *Few* (dif= .20;  $p = .001$ ; Cohen's  $d = .29$ ), *None* and *Many* (dif=.50;  $p < .001$ ; Cohen's  $d = .70$ ), and *Few* and *Many* (dif= .29;  $p < .001$ ; Cohen's  $d = .41$ ). Finally, as for the *Attentiveness* dimension, there were differences at three levels: between *None* and *Few* (dif= .22;  $p = .001$ ; Cohen's  $d = .38$ ), *None* and *Many* (dif=.38;  $p < .001$ ; Cohen's  $d = .66$ ), and *Few* and *Many* (dif= .16;  $p = .002$ ; Cohen's  $d = .28$ ). In sum, the greater the Number of Intercultural Friendships, the higher the IS scores for all the assessed dimensions.

The potential effect of plurilingualism on IS and its dimensions was estimated using two differential variables: Number of First Languages and Number of Additional Languages. As regards the Number of First Languages, the results of the Levene test showed variance equality in all dimensions but *Respect*, although the degree of non-compliance was slight ( $p = .042$ ). The one-way ANOVA was significant only for *Engagement* ( $p = .001$ ). Although Brown-Forsythe and Welch tests also found statistically significant differences for *Respect*, the non-parametric test resulted to be significant only for *Engagement* ( $p = .002$ ). The post-hoc tests for *Engagement* resulted in significant differences between *Monolinguals* and *Bilinguals* ( $p = .021$ , Cohen's  $d = .19$ ), and between *Monolinguals* and *Trilinguals* ( $p = .013$ , Cohen's  $d = .20$ ), but no differences between *Bilinguals* and *Trilinguals* ( $p = .17$ ). All in all, significantly higher values are found in data from bilinguals and trilinguals when compared to monolinguals.

Although the variable Number of Additional Languages is essentially a count variable, for the analysis it was treated as a categorical one with four levels: *One*, *Two*, *Three*, and *Four or more* additional languages. The results of the Levene test showed slightly heteroscedasticity only in *Confidence* ( $p = .040$ ). ANOVA tests found significant differences only for the dimension *Attentiveness* ( $p = .025$ ), further confirmed by both robust corrections (Brown-Forsythe  $p = .008$ ; Welch  $p = .018$ ) and non-parametric tests ( $p = .029$ ). Parametric and non-parametric post-hoc tests yielded significant differences between *One* and *Two*, and *Four or more* additional languages ( $p = .023$ , Cohen's  $d = .15$ ;  $p = .005$ , Cohen's  $d = .13$ , respectively). In both cases, the effect was small but points at significantly higher *Attentiveness* in students with more than two additional languages.

## Discussion

The results show that, in general, undergraduates from and in a highly internationalised, multicultural, and multilingual context show a high degree of Intercultural Sensitivity at the start of university. Therefore, administrators and instructors in such contexts may expect them to be able to carry out successful intercultural interactions. However, the study yields nuanced individual differences related to dimensions of IS that need to be discussed further.

In general, all IS dimensions showed a clear negative symmetry revealing students' preference for high scale values. Such high values may be caused by participants' social desirability bias, or by the fact that most participants came from Barcelona's metropolitan area, a context with widespread multilingualism and multiculturalism that may foster IS. Indeed, in such a social context, a good number of students have most probably shared primary and secondary school classrooms with students with either different heritage languages and cultures or recently arrived from other countries with their families. Many may additionally have had contact with people from other countries because of the widespread educational projects in Catalonia that involve exchanges with other European schools, or during a year spent abroad during secondary schooling. Anyway, these results point at the need to further investigate possible differences between students coming from such

metropolitan multilingual and multicultural areas from others coming from far less culturally and linguistically heterogeneous backgrounds, such as small rural towns.

However, several differences between IS dimensions were detected. In line with previous studies, our participants self-reported high *Respect* and *Enjoyment*, both pointing to favourable attitudes toward intercultural encounters. Still, values related to *Confidence* were clearly lower. This dimension may be tapping into issues of lack of self-confidence in one's foreign language skills. This does not come as a surprise in Spain where the media repeatedly voice the idea that Spaniards do not speak English well (El País 2019). Not surprisingly then, this dimension was the only one not yielding any significant differences when correlated with most individual variables. The present study was limited because it included no information on linguistic proficiency, proved to be correlated with empathy in previous studies (Deweale and Wei 2012). However, results point at a clear need for a future study examining proficiency in foreign languages – especially English, but not exclusively – as a potential variable as regards the *Confidence* dimension. This could be studied an intersection with the individual variable of gender.

In fact, as regards individual differences, self-reported gender has not emerged as an evident significant variable in past studies, but our results are clearly in line with those conducted in Spain that report women as more interculturally sensitive (Ruiz-Bernardo 2012; Sanhueza-Henríquez 2010), in all the dimensions of IS but *Confidence*. Although gender seems to have an important role in intercultural communicative and interactional behaviour, there is a clear need for a qualitative study exploring such differences in depth, also beyond the binary of female/male and in different social and cultural environments. As a matter of fact, such differences may be culturally dependent since research conducted in Spain generally show women as having a higher degree of IS than men, while the latter group emerges as more interculturally sensitive in studies conducted in other societies, such as Turkey (Meydanlioglu, Arikan, and Gozum 2015) and the Philippines (Del Villar 2010). Moreover, gender may be investigated in intersectionality with other students' characteristics. For instance, current enrolment trends reveal a correlation between gender and students' choice of academic degree; approaching such a tendency from the IS standpoint may prove useful in the design of specific academic curricula and we will, therefore, carry out future research along these lines.

Previous literature has detected participants born abroad as more interculturally sensitive than local ones (Sanhueza-Henríquez 2010; Ruiz-Bernardo 2012). However, our results show that birthplace does not have a clear effect for any of the five dimensions of the IS construct. This is actually in line with our previous study on affiliation to a global identity at university (Trenchs-Parera and Pastena 2021) which detected differences triggered by generational belonging rather than birthplace. Pointing at a generational group as a more relevant variable than birthplace is reinforced by the fact that our participants belonged to a specific age group immersed in a specific turning point in their lives – i.e. start of university – that may share interests and references going beyond the borders of the place where they were born.

Furthermore, because of recent international migrations, undergraduate population is much more culturally diversified than the dichotomy of local/international. That is why we considered a second variable for students' cultural origin, not analyzed in previous studies. The variable 'Place of Schooling' allowed us to consider the fact that some students may have had partial or full schooling in a different educational system. Our analysis yielded only one, yet surprising, significant difference: Students schooled in the rest of Spain showing higher IS than those schooled exclusively in Catalonia, and for two dimensions, *Engagement* and *Respect*. Although the effect was small, the analysis probably detected such students' readiness to move to Catalonia – immersed in a pro-independence process from Spain during data collection and characterised by a strong attachment to a local linguistic and cultural identity –, often coming from areas with no or little societal bilingualism and lesser presence of citizens of international origin. The dichotomy local/international students in higher education research, thus, proves too simple in such culturally and politically complex contexts. In fact, these results support scholars calling for a more holistic

and individual-oriented approach on intercultural interactions at university (Volet and Jones 2012; Krajewski 2011; Isabelli-Garcia et al. 2018). In this regard, IS may be essential for interactions between students, not only from different countries, but also from different social, cultural, and linguistic backgrounds within the same political entity, an issue that needs to be addressed in future research as well.<sup>6</sup>

More nuanced qualitative data would provide more information on what generational characteristics could be significant predictors of higher or lower sensitivity, as well as on how students experience contact with peers coming from different social, cultural, and linguistic backgrounds. The present study was based on data collected from volunteering participants that reflected well the reality of different student populations at the research site, as regards their birthplace and place of schooling. However, this meant limited numbers of students with primary and secondary schooling abroad and from other parts of Spain. In the near future, we would like to increase our corpus of questionnaire responses from such participants.

The existing literature shows that, the more intercultural friendships a person has, the more interculturally sensitive they are (Aksoy and Akkoç 2019; Meydanlioglu, Arikan, and Gozum 2015; De Santos-Velazco 2018; Ruiz-Bernardo 2012). In a previous study of ours with less respondents (Trenchs-Parera and Pastena 2021), a positive significant correlation was found between IS in general and students' Number of Intercultural Friendships at the start of university studies. Looking for more details, here we have explored interactions between this variable and each of the five dimensions of the construct. In all five cases, having intercultural friends again correlates with having a higher IS degree, and with a large effect, especially as regards the *Confidence* dimension. All in all, the sociolinguistic context may foster the formation of intercultural friendships within classrooms during primary or secondary schooling, in years of study abroad, or in (tele)collaborative educational projects. All such intercultural experiences seem to prepare students to be sensitive enough for future intercultural interactions and more self-confident when carrying them out. Therefore, the promotion of such intercultural friendships in university classrooms by means of more small-group work in heterogeneous teams could be a positive educational strategy. A future in-depth ethnographic study in a classroom with such pedagogical intervention is clearly called for.

Several previous studies have found a positive significant correlation between plurilingual repertoires and IS mean values (Vilà-Bañós 2006; De Santos-Velazco 2018; Ruiz-Bernardo 2012). For fine tuning, we decided to explore individual differences as regards plurilingualism with two separate yet complementary variables instead of one: Number of First Languages – dealing with initial and family linguistic background – and Number of Additional Languages – dealing with educational background. As regards First Languages, our results point to significant differences between monolingual and bilingual students and between monolinguals and trilinguals for *Engagement*, but no difference between bilinguals and trilinguals. Thus, feeling highly proficient in more than one language seems to trigger a tendency towards engaging in intercultural interactions as one knows that they may rely on different linguistic resources to communicate. Indeed, several studies have underlined the advantages of bilingualism, especially on metalinguistic awareness (Barac and Bialystok 2011), cognitive flexibility (Meiran 2010), and social flexibility (Ikizer and Ramírez-Esparza 2018).

As regards Additional Languages, results confirm a significant positive difference for *Attentiveness* when students speak more than two languages. Though effects were small, results seem to point at a possible correlation of IS with the interest in language learning developed in language classrooms during childhood and adolescence. Actually, it seems that the more languages an individual has studied or learned, the more they will develop the analytical skills needed to understand communicative processes. Also, multilingualism is known to be correlated with lower levels of foreign language anxiety (Dewaele, Petrides, and Furnham 2008; Dewaele and Wei 2012). This calls for more nuanced and qualitative exploration of students' plurilingualism as a variable in order to investigate if, and to what extent, higher levels of proficiency in foreign languages, as well as specific languages or combinations of them, are more likely to correlate with higher degrees of IS.

## Conclusion

In sum, self-reported gender, plurilingualism, and previous intercultural friendships emerge as individual variables most correlated with students' IS. On the contrary, the variables of birthplace and place of schooling do not seem to have a clear impact on students' IS, suggesting that, in the globalised and transcultural society, generational belonging may be more relevant than cultural and educational background to carry out successful intercultural interactions. Still, different profiles emerge from our analysis as being more interculturally sensitive than others. In our dataset, the student with maximum IS would be a bi- or trilingual woman with many friendships from cultural backgrounds different from her own. Such a profile showed significantly high *Respect* and *Engagement*, as well as *Enjoyment* and *Attentiveness*, though to a smaller extent. In contrast, it seems that *Confidence* in intercultural interactions should be enhanced regardless of students' linguistic and cultural profile, especially by fostering the formation of intercultural friendships. In fact, in our data, this variable was the only one having an impact on the *Confidence* dimension of the IS construct.

As mentioned above, more mixed-methods research is needed to unveil possible interactions between different individual variables and IS and, by means of qualitative data, confirm in-depth explanations for our results. All in all, twenty-first-century university classrooms are spaces of increasing intercultural contact. Thus, university administrators, policy planners, and instructors should be aware of who is in those classrooms in order to develop policies and educational interventions aiming at the development of the IS of students beyond that profile and, therefore, promote a real shift from 'internationalized' to truly 'intercultural' Higher Education.

## Notes

1. This study belongs to the wider TRANSLINGUAM-UNI Project (<https://www.upf.edu/web/translinguam-uni>).
2. Bhawuk and Brislin (1992) define IS as 'interest in other cultures, sensitivity to notice cultural differences, and willingness to modify one's behavior as an indication of respect for people of other cultures'.
3. In some cases, the scale has been translated and/or adapted to the specific context of data collection. Still, reliability and validity have always been assessed.
4. Participants were informed of the research and gave written consent to anonymous use of their responses. Data collection followed the approved ethical protocols of the Translinguam-Uni Project.
5. In 2019–2020, this university had one of the highest indexes of internationalization in Spain, with 44% of Masters and PhD students arriving from other countries, 27% of international faculty members, and 46% of its undergraduates on credit mobility. Moreover, 180 international students enrolled in full undergraduate degrees – 27 in total at the university – with courses taught in Catalan, English and Spanish, a number of incoming students yearly on the rise before the COVID19 pandemic.
6. For more on sociolinguistic and political issues related to Catalonia, see Newman, Trenchs-Parera, and Corona (2019). This line of research is currently being undertaken by the Translinguam-Uni Project.

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## ORCID

Andreana Pastena  <http://orcid.org/0000-0002-4060-1842>

Albert Sesé  <http://orcid.org/0000-0003-3771-1749>

Mireia Trenchs-Parera  <http://orcid.org/0000-0003-1646-550X>

## References

- Aksoy, N., and M. G. Akkoç. 2019. "Intercultural Sensitivity Levels and Cultural Difference Perceptions of Physicians and Nurses." *Florence Nightingale Journal of Nursing* 28 (1): 23–32.
- Bae, S. Y., and H. Song. 2017. "Intercultural Sensitivity and Tourism Patterns Among International Students in Korea: Using a Latent Profile Analysis." *Asia Pacific Journal of Tourism Research* 22 (4): 436–448.
- Barac, R., and E. Bialystok. 2011. "Research Timeline: Cognitive Development of Bilingual Children." *Language Teaching* 44: 36–54.
- Bennett, M. J. 1986. "A Developmental Approach to Training for Intercultural Sensitivity." *International Journal of Intercultural Relations* 10 (2): 179–196.
- Bhawuk, D. P., and R. Brislin. 1992. "The Measurement of Intercultural Sensitivity Using the Concepts of Individualism and Collectivism." *International Journal of Intercultural Relations* 16 (4): 413–436.
- Block, D., and S. Khan. 2020. *The Secret Life of English-Medium Instruction in Higher Education: Examining Microphenomena in Context*. London: Routledge.
- Byram, M. 2020. *Teaching and Assessing Intercultural Communicative Competence: Revisited*. Bristol, UK: Multilingual Matters.
- Chen, G.-M., and W. J. Starosta. 2000. "The Development and Validation of the Intercultural Sensitivity Scale." *Human Communication* 3 (1): 1–15.
- Del Villar, C. 2010. "How Savvy are we? Towards Predicting Intercultural Sensitivity." *Human Communication* 13 (3): 197–215.
- De Santos-Velazco, F. J. 2018. "La interculturalidad como competencia en Educación Superior: validación de un instrumento con alumnado universitario." *Revista Digital de Investigación en Docencia Universitaria* 12 (2): 220–236.
- Dewaele, J.-M., K. V. Petrides, and A. Furnham. 2008. "The Effects of Trait Emotional Intelligence and Sociobiographical Variables on Communicative Anxiety and Foreign Language Anxiety among Adult Multilinguals: A Review and Empirical Investigation." *Language Learning* 58 (4): 911–960.
- Dewaele, J.-M., and L. Wei. 2012. "Multilingualism, Empathy and Multicompetence." *International Journal of Multilingualism* 9 (4): 352–366.
- El País. 2019, October 30. "Por qué no aprendemos bien inglés? Funciona el bilingüismo en la escuela? *El País*.
- Fantini, A. E. 2009. "Assessing Intercultural Competence: Issues and Tools." In *The SAGE Handbook of Intercultural Competence*, edited by D. K. Deardorff, 456–476. Los Angeles: SAGE Publications.
- Fritz, W., A. Möllenberg, and G.-M. Chen. 2002. "Measuring Intercultural Sensitivity in Different Cultural Contexts." *Intercultural Communication Studies* 11 (2): 165–176.
- Fritz, W., A. Möllenberg, and G.-M. Chen. 2004. "Die interkulturelle Sensibilität als Anforderung an Entsandte – Bedeutung und Elemente für ein Meßmodell." In *Fundierung des Marketing*, edited by K. P. Wiedmann, 231–258. Wiesbaden: Gabler.
- Hammer, M. R., M. J. Bennett, and R. Wiseman. 2003. "Measuring Intercultural Sensitivity: The Intercultural Development Inventory." *International Journal of Intercultural Relations* 27 (4): 421–443.
- Ikizer, E. G., and N. Ramírez-Esparza. 2018. "Bilinguals' Social Flexibility." *Bilingualism: Language and Cognition* 21 (5): 957–969.
- Isabelli-García, C., J. Bown, J. L. Plews, and D. P. Dewey. 2018. "Language Learning and Study Abroad." *Language Teaching* 51 (4): 439–484.
- Jackson, J., and S. Oguro. 2018. *Intercultural Interventions in Study Abroad*. New York: Routledge.
- Knight, J. 2004. "Internationalization Remodeled: Definition, Approaches, and Rationales." *Journal of Studies in International Education* 8 (1): 5–31.
- Krajewski, S. 2011. "Developing Intercultural Competence in Multilingual and Multicultural Student Groups." *Journal of Research in International Education* 10 (2): 137–153.
- Meiran, N. 2010. "Task Switching: Mechanisms Underlying Rigid vs. Flexible Self Control." In *Self Control in Society, Mind and Brain*, edited by R. Hassin, K. Ochsner, and Y. Trope, 202–220. New York: Oxford University Press.
- Meydanlioglu, A., F. Arıkan, and S. Gozum. 2015. "Cultural Sensitivity Levels of University Students Receiving Education in Health Disciplines." *Advances in Health Sciences Education* 20 (5): 1195–1204.
- Newman, M., M. Trenchs-Parera, and V. Corona. 2019. "Down the Sociolinguistic Rabbit Hole: The Complexities and Contradictions of Spanish in Barcelona." In *The Routledge Handbook of Spanish in the Global City*, edited by A. Lynch, 357–386. New York: Routledge.

- Peng, S. Y. 2006. "A Comparative Perspective of Intercultural Sensitivity Between College Students and Multinational Employees in China." *Multicultural Perspectives* 8 (3): 38–45.
- Pérez, C., N. Lorenzo, and M. Trenchs. 2016. "Les llengües en l'educació: el plurilingüisme i la internacionalització." In *Reptes de l'educació a Catalunya. Anuari 2015*, edited by J. M. Vilalta, 139–197. Barcelona: Fundació Jaume Bofill.
- Pruegger, V. J., and T. B. Rogers. 1993. "Development of a Scale to Measure Cross-Cultural Sensitivity in the Canadian Context." *Canadian Journal of Behavioural Science / Revue Canadienne des Sciences du Comportement* 25 (4): 615–621.
- Ruiz-Bernardo, P. (2012). "Validación de un instrumento para el estudio de la sensibilidad intercultural en la provincia de Castellón." PhD diss., Alacant: Universitat Jaume I.
- Ruiz-Bernardo, P., R. Ferrández-Berruero, and M. A. Sales-Ciges. 2012. "Aplicación del modelo CIPP en el estudio de los factores que favorecen la sensibilidad." *RELIEVE: Revista Electrónica de Investigación y Evaluación Educativa* 18 (2): 1–14.
- Sanhueza-Henríquez, S. V. 2010. "Sensibilidad Intercultural: Un estudio exploratorio con alumnado de educación primaria y secundaria en la provincia de Alicante." PhD Thesis.
- Trenchs-Parera, M. 2019. "Higher Education Language Policies at the Crossroads of Glocal Challenges: Rethinking Multilingualism, Internationalization and Public Service in Catalonia." In *Second and Third Language Acquisition in Monolingual and Bilingual Contexts*, edited by L. Marqués Pascual and A. Cortijo, 15–44. Delaware: Juan de la Cuesta.
- Trenchs-Parera, M., and A. Pastena. 2021. "Exploring Transcultural Competence in the Internationalised University Classroom: The Role of Intercultural Friendships and Plurilingualism in the Construction of a Transcultural Identity." *Journal of Multilingual and Multicultural Development*: 1–15. doi: 10.1080/01434632.2021.1874391.
- UNESCO. 2014. "Global Citizenship Education: Preparing Learners for the Challenges of the Twenty-first Century." <https://en.unesco.org/news/global-citizenship-education-preparing-learners-challenges-twenty-first-century-0>.
- Vilà-Baños, R. 2006. "La dimensión afectiva de la competencia comunicativa intercultural en la educación secundaria obligatoria: Escala de Sensibilidad Intercultural." *Revista de Investigación Educativa* 24 (2): 353–372.
- Volet, S., and C. Jones. 2012. "Cultural Transitions in Higher Education: Individual Adaptation, Transformation and Engagement." *Advances in Motivation and Achievement* 17: 241–284.
- Yu, T., and G.-M. Chen. 2008. "Intercultural Sensitivity and Conflict Management Styles in Cross-Cultural Organizational Situations." *Intercultural Communication Studies* 17 (2): 149–161.