Gender Stereotypes within the University. Does Sexism Determine the Choice of Degree amongst University Students? / *Los estereotipos de género en la Universidad. ¿Es determinante el sexismo en la elección de la carrera a estudiar?*

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ABSTRACT

Nowadays gender-based violence has not only grown but it has become increasingly evident in gender stereotypes upheld by younger people. Universal education is necessary to eradicate these stereotypes in university classrooms.
The aim of this work is to find if a relationship exists between sexism and the choice of degree among university students, and if this relates to national culture. We applied the Ambivalent Sexism Inventory (Expósito, Moya and Glick, 1998 and the Dating Violence Questionnaire by Rodríguez-Franco et al., 2007) to 1,196 university students. The results show that there is a relationship between sexism and the student's choice of degree course and, particularly, that there is more sexism in technical degrees than in humanities degrees. The cultural ideology is similar between Mexico and Catalonia and only varies in its intensity. It concludes that gender equality education is urgently needed as a general course in technical degrees.
Keywords: *Ambivalent sexism; gender stereotypes; degree choice; socialisation; university students.*

RESUMEN

En la actualidad la violencia de género, no solo va en aumento, sino que es más evidente en relación con los estereotipos de género en las personas jóvenes. La educación transversal es necesaria para poder erradicar dichos estereotipos de aulas universitarias.
Nuestro objetivo es conocer si existe relación entre sexismo y la elección de la carrera entre los universitarios y si existe relación con la cultura. Para ello utilizamos el Inventario de Sexismo Ambivalente (Expósito, Moya y Glick, 1998) y Cuestionario de Violencia entre novios (Rodríguez-Franco *et al*., 2007) a 1196 universitarios. Los resultados evidencian que existe relación con el sexismo y carrera elegida y, mayor sexismo en carreras técnicas que en las de humanidades. La ideología cultural es similar entre México y Cataluña y variable en la intensidad en todas las mediciones. Se concluye que es muy necesaria la educación sobre la igualdad como materia transversal en carreras técnicas.
Palabras clave: Sexismo ambivalente; estereotipos de género; elección de carrera; socialización; universitarios.

INTRODUCTION

In spite of progress in gender equality, heightened global awareness of gender-based violence and the fact that 30 years have passed since the United Nations General Assembly approved resolution 34/180 on 18th December 1979 and 20th December 1993 in its Declaration on the Elimination of Violence Against Women, this violence is still responsible for countless deaths.

The Global Health Estimates published by the World Health Organisation shows that one in three women (35 %) worldwide has experienced physical and/or sexual violence from a partner or others at some point of their life.

To deal with discrimination in different fields, the Organic Act 3/2007 (LO3/2007) on effective equality of men and women was adopted in Spain in an attempt to create a fairer, more equal society.

In Catalonia, Organic Law 6/2006 of 19th July legally recognises equality as part of the Reform of the Statute of Autonomy of Catalonia, which gives the Government of Catalonia exclusive jurisdiction concerning gender policies (article 153), in accordance with powers granted by the Spanish Constitution.

The first World Conference on Women was held in Mexico in 1975. Four years later, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) was adopted. Repercussions from the CEDAW were essential in terms of making progress towards full equality and its legislative development. It was ratified by the Senate of the Republic of Mexico on 21st December 2001, and came into force in June 2002. However, its beneficial implications have been timid and insufficient in the different fields where inequality is rife, such as education, work, health, political participation and families, among others.

Violence occurs in many different circles and every one of them is analysed from different perspectives: sociology, psychology, law, etc. Only by bringing these perspectives together and combining the variables is it possible to reveal the whole multifactorial problem and then take steps to deal with it.

The Centre for Sociological Research (CIS, 2015) has presented a new report concerning gender-based violence in Spain, in which it notes that 21,1 % of women between 16 and 24 years old have suffered gender-based violence in the past twelve months. This figure indicates how prevalent violence is among young people. The data show what young people really must deal with within society, with these cases often going unnoticed due to stereotypes. University is the main medium of socialisation used by young people and, consequently, its classrooms are one of the main routes for acquiring values and behaviours that continue the perpetuation of female and male roles; for example, the existence of feminised/masculinised degree courses where stereotypes and roles taught in this socialisation process (Arroyo, 2014) are replicated. Due to these problems, it is imperative that students and teaching staff at universities receive training on more egalitarian language and removing gender stereotypes.

Any differentiation due to sex and gender should be marked within the university guidelines when providing training to professionals within a more globalised but much less egalitarian society. Feminist discourse is currently becoming an antagonist of sexism and does not promote equality. The term is used to designate sexist attitudes regarding the roles and responsibilities assigned to men and women, as well as beliefs about relationships that members of both categories must all maintain (Moya, 2003). Sexist violence is learnt from childhood, through socialisation. This is evident in different stages of life. We replicate these patterns and include them in our behaviour as appropriate and desirable and it thus becomes right to use them as a means of power over everyone else (Samaniego and Freixas-Farré, 2010).

The guideline contents vary depending on which degrees are being considered. In the case of humanities degree courses, young people (in theory) are trained to understand, analyse, detect and try to empathise with social problems within an updated context. Enrolment figures show that women tend to choose the "human"

degrees, while scientific disciplines remain predominantly male (Graña, 2012). According to Leonard (2001), these trends occur all over the world. Men predominate in engineering degrees. These biases have not changed; the distinction between feminine degree courses (maternal roles, care of the body and mind) and masculine degree courses (areas that lead to power and control) remains the same in 2015 as it was in 2001. Graña concludes that we cannot infer that increased female access to university has led to a homogeneous distribution of both sexes in a variety of degree paths.

Regarding the labour distinction between men and women (Asian-Chaves, 2011) differences can be observed resulting from gender conditioning that divide the market and offer different opportunities to men and women based on gender stereotypes. In this way, it is understood that right from the classroom people are steered towards biased practices that support the division of "female jobs" and "male jobs" or, in other words, "feminised guidelines" or "masculinised guidelines".

The Complutense University of Madrid, has carried out a study entitled "University Students in the Face of Equality and Gender-based Violence" (Díaz-Aguado, 2013), and the results have shown that sexism and gender violence are products of cultural rather than biological inheritance, and stem from an ancestral, social model with deeply-rooted mechanisms. Replacing them with a different and sustainable model requires the whole society to get involved, including all contexts constructed within the culture. Eradicating violence against women is a long and complicated task and we cannot afford to turn back. For further progress, it is necessary to improve measures that have made progress possible, remove the remaining obstacles and reinforce and generalise best practices, although we can appreciate in several studies (Cheng and Fang, 2015; Romera, 2015; Löckenhoff, 2014; Asian-Chaves, 2015) that gender stereotypes condition how university students act.

The need to improve gender education in communication should be considered (Rodrígu-

ez, Matud and Pestano, 2013). Everything points to the need for critical proposals for action, ranging from the language used in discourse to implementing activities to achieve results in pragmatic university education, because every education process is also a communication process. According to data from the Women's Institute, the number of women between 18 and 20 years old killed in Spain in the period from 1999 to 2011 was 31, out of a national total of 826 in the same period. More importantly, in terms of the relationship with the perpetrator of the fatal attack, less than 45 % of the cases in any of the aforementioned years took place in the breakup phase or were committed by ex-partners. Furthermore, regarding nationality, the vast majority were Spanish citizens. It should also be noted that 123 of the 826 deaths between 1999 and 2011 occurred in Catalonia.

As Rosa Valls (2005, 2008 and 2007) mentions, numerous international studies have researched issues such as the presence of gender-based violence in a university context, beliefs and attitudes towards it, institutional responses and the impact of violence on victims. In addition, they not only detected cases of gender-based violence between peers, but also between teachers and students. In Mexico, a reminder of the deaths in the city of Juarez alone is enough to demonstrate the wide range of femicides in the country and the existing macho culture.

This investigation analyses the types of sexism which exist among university students in relation to the type of degree they are studying, and seeks to draw up preventive or cross-discipline programmes on gender issues in an attempt to reduce them and therefore prevent domestic violence. It starts from the hypothesis that culture is the primary explanation for sexism, as well as socialisation, within a youth context. A comparison is made between two regions that are significantly different with regard to type of society, economy and culturisation: Mexico, which has very high murder rates for women, and Catalonia, which has implemented equality plans within society and in its universities for many years.

THEORETICAL JUSTIFICATION

Gender-based violence (or violence against women), as a significant sociological problem, has been relevant since the first feminist movements, starting back with universal and equal suffrage that achieved legal equality and political rights. This led to other social demands such as the struggle against discrimination in the workplace or in favour of women participating in educational institutions. In the field of sociology, an important base has been created thanks to critics of the misogynist model of knowledge created by classical thinkers (Trujano, 2007).

Different theories define gender-based violence as the result of the internalisation of sexism and/or patriarchy, in general. Patriarchal ideology is so deeply internalised and its socialisation patterns are so perfect that the strong structural framework in which women's lives develop (including violence) represents, for most of them, the same image of behaviour that they freely chose and desired (de Miguel, 2005).

Violence is equated to inequality, so it is considered a part of the patriarchal structure of domination from the gender studies perspective. Just 5 % of men are categorised as "pro-feminist, antisexist, non-chauvinistic or egalitarian" (Bonino, 2008).

One of the first contributions to the definition of sexism was made by Allport in 1954. He considered that prejudice towards women can be expressed through feelings of antipathy. This definition has evolved and has become somewhat more subtle.

As a multifactorial concept, the tool used to measure sexism in this study is provided by Glick and Fiske (1996), defining modern sexism as ambivalent sexism.

The concept of modern sexism (modern ambivalent sexism) is made up of two clearly differentiated but interrelated components (hostile sexism and benevolent sexism). Hostile sexism clearly replicates the old sexism (Allport, 1954), while benevolent sexism is a set of attitudes regarding women, adopting a seemingly positive tone towards them. Benevolent sexism is as harmful as hostile sexism, as it can be used to compensate for hostile sexism, since hostile sexism does not often consider itself sexist. The two sexisms are used to provide structural power to the male. (Glick and Fiske, 1996; Expósito, Moya and Glick, 1998; Lameiras and Rodriguez, 2003, Moya *et al.*, 2013)

Glick and Fiske (1996) have developed a model of sexism that considers it a two-dimensional construct which is characterised by the presence of two main dimensions: hostile sexism (HS) and benevolent sexism (BS), and is measured using a tool such as the Ambivalent Sexism Inventory (ASI), (Glick and Fiske, 1996). Hostile sexism, as its name suggests, consists of explicitly expressed negative and prejudiced attitudes which result in discriminatory behaviour based on supposed female inferiority. This is more like a traditional form of prejudice, reflecting antipathy and intolerance, and it includes the desire for obedience and subordination. Benevolent sexism is described as an apparently harmless attitude, expressed in a positive emotional tone, describing women as vulnerable people requiring care and protection, which is something men provide.

According to Glick and Fiske, benevolent sexism is still sexism, despite the positive feelings experienced by the recipient. This is because it is based on traditional male domination and shares aspects of hostile sexism: women are better in particular roles and places and are 'weaker'. In fact, benevolent sexism may even be more harmful than hostile sexism, as it may be used to compensate for or legitimise hostile sexism. Furthermore, given that hostile sexists do not usually consider themselves to be sexist, intervening in this type of sexism may have additional difficulties. Clearly, both types of sexism are used to justify male structural power (Expósito, *et al.*, 1998).

The ASI has been translated from English and has been validated in Castilian Spanish by various researchers in Spain, and in many Latin American countries by university students (Cárdenas, 2010; Expósito, 1998; Lameiras, 2003; Vaamonde, 2011; León-Ramírez & Ferrando, 2013, 2014). It has been verified that it meets optimal psychometric properties for measuring ambivalent sexism.

Sexism correlates positively with violence (Leon-Ramírez & Ferrando, 2014), i.e. more violence is found in societies with higher sexism.

In a ten year study of attitudes among medical students, Cheng & Fang (2015) define five distinctive characteristics: gender stereotypes of physiological knowledge; biased treatment of women; stereotyped division of labour based on gender; sexual harassment and a hostile environment, and ridiculing lesbians, gays, bisexuals and transsexuals (LGBT).

Education institutions are very important (Romera, 2015), as they transmit "prestigious" and socially accepted ideology, and are the training ground of future citizens who will occupy the professional spectrum of our society. The education system is making a great effort to change models and includes various masculinities and femininities, mainly in visual language in public areas. The role within education centres is crucial because this is where "masculinities" and "femininities" in professions and social roles are currently formed.

Löckenhoff et al. (2014) correlated personality with gender stereotypes, noting transcultural differences. Therefore, perhaps the different types of patriarchal norms help to promote sexism within educational institutions and therefore encourage gender-based violence. The use of the ASI scale for measuring sexism and the justification of violence in a study conducted by Government Delegation for Gender Violence (2012) showed that, although most university students reject all of the hostile sexism elements, more than 45 % of men and more than 39 % of women agree with some of them.

The government delegation for gender-based violence and the Complutense University of Madrid ran a study (2011) among 3,252 university students. The result was that, in general, despite studying the same types of degrees, men show hostile and benevolent sexism to a greater extent than women, except men studying humanities. Men who study humanities degrees demonstrate stronger rejection of both types of sexism, and they show a considerably similar amount of rejection as their female peers.

SEXIST IDEOLOGY AND ITS CULTURAL RELATIONSHIP

The WHO Multi-country Study on Women's Health and Domestic Violence was conducted in 2005 in 10 countries, on women from mostly middle and low income backgrounds.

Between 2010 and 2015 there were 681 femicides and other murders of women by men in Spain. In Catalonia alone, the figure is 132 women murdered (19,38 % of the country's total). In 2015, the victims were 48 years old on average, slightly higher than the 2010 average (47 years old). In 44,70 % of the cases their occupation is not known. 23,48 % of victims between 2010 and 2015 were retired, while 9,09 % were employed and 5,3 % were prostitutes, among other occupations. Between 2010 and 2015, only 3,03 % of victims were underage.

Mexico, as a democratically constituted country, does not have a branch of the judicial system for cases of gender-based violence, nor does it have a system for gathering data on cases of femicides in a unified manner. According to the Special Commission of Femicides from the Chamber of Deputies, some 2,500 women die each year in Mexico. The Red Nacional de Refugios institution (the national women's shelter network) published a study in February 2010 that acknowledged the femicides of 4 girls every 24 hours in the country, that is, 1,460 girls per year. However, despite these averages, there are no official national figures that establish how many women have died in Mexico as a result of femicide since 2010. In 2009, a total of 1,858 female deaths in the country were presumed to be homicides.

In a comparative study between a Latin American country and Catalonia, it has been shown that stereotyped education in Latin America leads to a deficient education. Although Catalonia treats its children more equally, it is unable to achieve gender non-discrimination during break times (Capdevila, 2014). In the investigations by Valls et al. (2008) and Valls (2005-2007), the authors argue that one of the main difficulties in eliminating gender-based violence is that it is not recognized or it is not detected. A study by the Dolors

Piera Centre from the University of Lleida (Bardina & Murillo, 2013) says that there are no major gender differences, but more often than boys, girls did state that gender-based violence is due to sexist beliefs (24 % vs. 18 %) and to mental problems (24 % vs. 19 %). In contrast, boys report a higher percentage is due to a situation of lack of control (10 % compared to 6,4 %).

In Mexico, in the accounts obtained by Agoff and Mingo (2010) in six discussion groups that took place in three faculties at the National Autonomous University of Mexico, with students of both sexes, it was proven that sexual harassment was commonly perpetrated by some teachers against their pupils, and sometimes among their pupils, and regularly went unpunished. The teachers involved were identified but, although they were known to harass their students, they received no punishment.

There is a lot of qualitative evidence regarding domestic violence showing a higher prevalence in households with a lower socioeconomic level (De los Campos, 2008), but quantitative information is scarce or at the very least does not go into any depth on these variables. However, the results obtained support the hypothesis that the visibility of situations of abuse is different depending on the socioeconomic level. The prevalence of child and adolescent abuse reported in this study is significantly high at all socioeconomic levels.

The comparison between regions of different countries, such as Catalonia (Spain) and Tabasco (Mexico), can help show whether these economic differences might provide an explanation. Culturally they are similar, although macho thinking is deeply ingrained in Mexico.

AIMS AND HYPOTHESES

This article elaborates a discussion based on a quantitative methodology to be able to support the hypothesis proposed by the literature. This is done by comparing groups of university students enrolled in different studies based on variables related to sexism (evaluated using the dimensions in ASI) and abuse in relationships with partners (evaluated us-

ing CUVINO, the survey about violence in couples) in two culturally different regions.

The quantitative part will be carried out in two stages:

1) Using the mean differences in levels, assess whether certain degree courses have higher average levels of sexism (both SH such as SB) than others; it is expected that degrees in the humanistic field (social work, psychology, etc.) have lower levels of sexism than technical or legal degrees.

2) Assess whether levels of sexism (both H and B) are systematically higher in Tabasco (México) than in Catalonia. It is expected that this will be the case, but at the same time, the range of levels of sexism and levels of violence in relation to the degree studied is expected to be the same in both populations.

Finally, the discussion and conclusions section summarises the hypotheses that are corroborated and found in the quantitative part of the article. This will start a discussion regarding the proposed line of research.

METHOD

Participants and procedure

A convenience sample was used (intentional and non-probabilistic) which was composed of 1,196 students from two public universities in culturally different regions (676 students in Mexico —Tabasco— and 520 students in Spain-Catalonia), with different socioeconomic status, although predominance of the average level. The average age is 20.85. Finally, it must be pointed out that this sample was intentionally chosen because the researchers were interested in measuring sexism within higher education classrooms and comparing the average between degree courses.

The questionnaires were self-administered in both countries in paper and pencil format, in groups and always by the same person. Participation was voluntary and anonymous; the only personal data that were requested was: age, sex, socioeconomic status, and if there had been abuse in childhood.

Table 1. Degrees per region and number of students per degree

Degree - Tabasco	Number of students	Degree - Catalonia	Number of students
Education	447	Nursing	152
Languages	35	Social work	53
Administration	27	Infant education	35
Biology	18	Primary Education	93
Environmental Eng.	18	Architecture	32
Law	44	Mechanical Eng.	30
Psychology	87	Medicine	57
		Law	68

Measurements

To measure sexism quantitatively, the following tests, validated in the regions under study, have been used:

The Ambivalent Sexism Inventory (ASI, Glick and Fiske, 1996) and Dating Violence Questionnaire (CuViNo; Rodríguez-Franco *et al.*, 2007). In the ASI, the items are grouped into the following subscales: SH: items 2, 4, 5, 7, 10, 11, 14, 15, 16, 18, and 21. SB (paternalism): 3, 9, 17 and 20; SB (gender differentiation): 8, 19 and 22; SB (heterosexual intimacy): 1, 6, 13 and 13.

The ASI is used for measuring the ambivalent attitudes of men towards women. This scale consists of 22 items grouped under a single factor of Hostile Sexism and three sub factors of Benevolent Sexism, namely: Protective Paternalism; Complementary Gender Differentiation; and Heterosexual Intimacy. It has been validated in the two regions where the investigation took place (Catalonia & Tabasco).

The CuViNo is an evaluation tool that includes behaviour that is constitutive of violence in dating relationships in adolescence. It is composed of 42 behavioural indicators that must be answered on a Likert format with five frequency options (0 to 4). The questionnaire evaluates both the frequency of violent behaviour and the levels of annoyance associated with them. The CUVINO helps distinguish between women who self-classified themselves as abused and non-abused according to the frequencies of abusive behaviours. It has been noted for the purposes of this article that for the CUVINO, the two major factors that have resulted from the 42 items are CUVI-A (physical violence) and CUVI-B (emotional violence).

The measures derived from the ASI (Hostile Sexism and Benevolent Sexism) and the CuViNo (CUVI A (physical violence) and CUVI B (emotional violence)) are the dependent variables of the study. In all cases these variables are sum-scores obtained from the simple sum of the items that define the scales.

Data analysis

The hypotheses raised within the research generate discussion through the comparative

analysis of different group means between countries, and between sexes, etc. In addition, for each difference considered statistically significant, the effect size is also obtained. Comparisons are intergroup and in all cases refer to: different groups (degree courses) in the same country, and the same degree course in different countries.

With this, a quantitative evaluation will be made of the discussion and/or elaboration of the hypothesis that leads us to the conclusion that, in principle, we seek to obtain. The authors have investigated different views, both qualitative and quantitative, in a step towards multi-factor analysis of gender-based violence and sexism.

RESULTS

Table 1 shows the averages in each subscale (SH, SB, and CUVIB CUVIA) according to the degree course in ascending order. The CUVINO scores shows a strong floor effect giving rise to small means, but the differences occur in the expected direction, and suggest that technical degrees have higher sexism levels than humanities degrees.

Table 2 shows the means in Tabasco (México). We can observe increases of sexism and violence in technical degree courses as opposed to humanities degrees.

Table 3 shows the averages and the ascending order in Catalonia. As in Tabasco (Mexico), we see higher levels of sexism and violence in technical degree courses than in humanities, although the differences are generally smaller.

Table 2. Averages of each degree, both hostile and benevolent sexism in Tabasco (Mexico) and CUVI-A and CUVI-B

DEGREES	SH AVERAGES	DEGREES	CUVI A AVERAGES
PSYCHOLOGY	20.23	BIOLOGY	2.22
EDUCATION	24.87	EDUCATION	2.44
BIOLOGY	25.44	LAW	2.84
LAW	25.86	ADMINISTRATION	3.51
LANGUAGES	26.82	PSYCHOLOGY	3.67
ADMINISTRATION	28.81	LANGUAGES	3.68
ENVIRONMENTAL ENG.	32.83	ENVIRONMENTAL ENG,	5.77
DEGREES	SB AVERAGES	DEGREES	CUVI B AVERAGES
PSYCHOLOGY	22.63	LAW	8.15
EDUCATION	27.01	BIOLOGY	8.33
LANGUAGES	28.31	EDUCATION	8.63
BIOLOGY	28.72	ADMINISTRATION	8.96
LAW	29.18	PSYCHOLOGY	10.11
ENVIRONMENTAL ENG.	32.83	LANGUAGES	12.54
ADMINISTRATION	33.88	ENVIRONMENTAL ENG,	16.77

Table 3. Averages for each degree course, both hostile and benevolent sexism in Catalonia and CUVI-A and CUVI-B.

| DEGREES	SH AVERAGES	DEGREES	CUVI A AVERAGES
SOCIAL WORK	16.64	PRIM, EDUCATION	1.03
PRESCHOOL EDUCATION	17.51	PRESCHOOL EDUCATION	1.29
MEDICINE	17.87	MEDICINE	1.49
PRIM. EDUCATION	18.15	NURSING	1.59
NURSING	20.15	LAW	1.62
ARCHITECTURE	21.62	ARCHITECTURE	1.84
LAW	21.94	ARCHITECTURE	2.09
MECHANICAL ENG.	30.00	MECHANICAL ENG,	7.43
DEGREES	SB AVERAGES	DEGREES	CUVI B AVERAGES
PRIM. EDUCATION	15.10	PRIM, EDUCATION	5.90
SOCIAL WORK	16.07	INFANT EDUCATION	7.14
PRESCHOOL EDUCATION	17.65	NURSING	7.22
MEDICINE	18.00	LAW	7.40
NURSING	20.09	ARCHITECTURE	8.28
ARCHITECTURE	20.62	MEDICINE	8.91
LAW	20.77	SOCIAL WORK	9.21
MECHANICAL ENG.	24.13	MECHANICAL ENG,	16.90
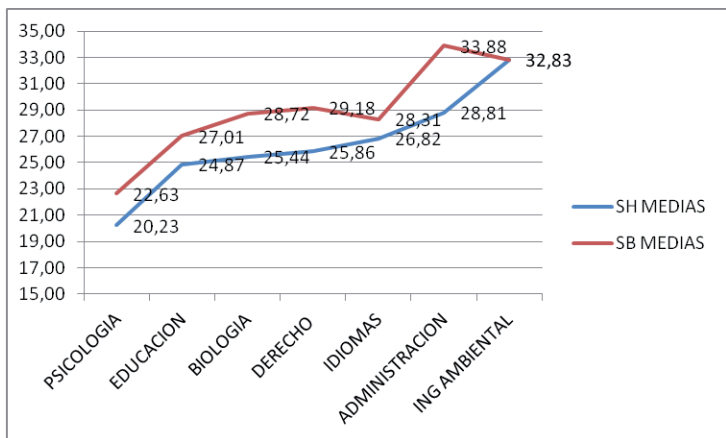
Figure 1. Averages of Hostile Sexism and Benevolent Sexism degrees in Tabasco (Mexico)

When comparing averages in the charts by the type of degree course, some very interesting differences come to light.

The results are consistent with the gender stereotypes theory. The "harder" or more male degree courses match the concepts of "masculinised" or "feminised". In both countries, engineering has the highest sexism levels and most gender-based violence.

In Figure 3, and the comparison between them, it can be observed that engineering has the highest levels of hostile sexism and that psychology and social work, more humanistic degrees, are affected less by this type of sexism.

Figure 4 shows us that the same trend is true in Catalonia as in Tabasco (Mexico), namely that violence is manifested more in technical degrees than humanistic degrees. As expected, it also manifests higher physical violence than emotional.
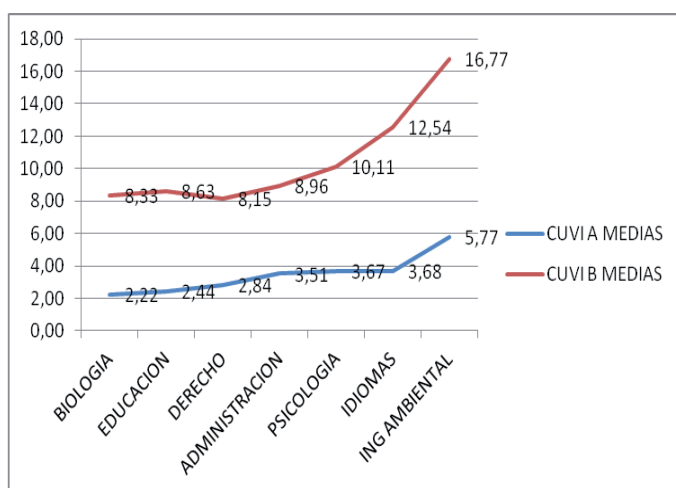

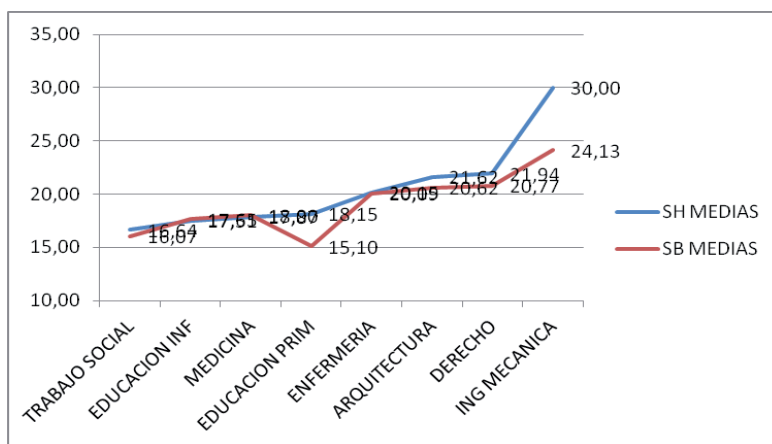**Figure 2**. Averages of CUVIA and CUVIB in degrees in Tabasco (México)

Figure 3. Averages of Hostile Sexism and Benevolent Sexism in Catalonia.
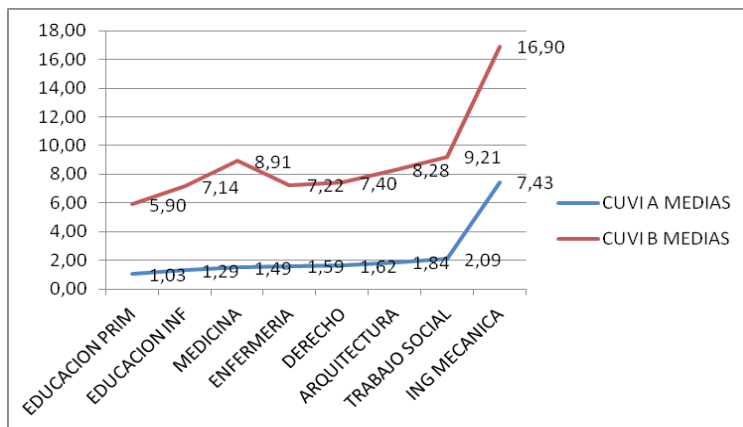
Figure 4. CUVIA and CUVIB averages in degree courses in Catalonia.

Table 4. T-Test on the comparison between degrees in the different regions and the effect size.

Degree	SH	SB	ES SH	ES SB
LAW	t=1.68	t=3.89	0.32	0.76
EDUCATION	t=6.63	t=11.82	0.64	1.088
PSYCHOLOGY AND NURSING	T=0.05	T=1.58	0.007	0.21
ENGINEERING	T=0.86	T=2.96	0.26	0.92

Regarding Benevolent Sexism, the charts show a general increase in the level of sexism in more masculinised courses (engineering and administration), within the two regions.

In the test to compare the degrees between regions, results are obtained that help test our hypotheses on gender stereotypes, which can be seen in Table 4.

Clearly significant differences in both SH and SB are noted to only appear in law and especially education degrees. In psychology and nursing, differences are non-significant, and in engineering there are only differences in SB. Regarding effect sizes, only levels concerned with SB comparison in education and engineering qualify as high (Cohen, 1988). SH in education and SB in law are medium, and the remaining effects are low.

In law degrees, the prevalence of benevolent sexism is quite high, as expected, and hostile sexism is lower, but going in the same direction. In education-based degrees, the result is quite surprising: the differences are highly significant in both SH and especially SB. Note that the effect size for SB would qualify as very high (Cohen, 1988). In contrast, in psychology and nursing degrees, the differences are nonsignificant.

A significant difference was found in the T-Test and the effect size of the comparison and the effect size for the humanities degrees and less humanised degrees in Tabasco (Mexico).

It can be observed that clearly significant differences in both SH and SB only appear in administration and psychology degrees. In education and engineering, effect size differences are medium in both SB and SH (Cohen, 1988).

Table 5. T-Test on the comparison in Tabasco (México) between humanities and technical degrees and the effect size.

Tabasco				
DEGREES	SH	SB	ES SH	ES SB
EDUCATION / ENVIRONMENTAL ENG.	2.91	2.18	0.69	0.51
PSYCHOLOGY/ ADMINISTRATION	3.404	4.91	0.77	1.01

Table 6. T-Test in Catalonia between humanities and technical degrees and the effect size.

Catalonia				
DEGREES	SH	SB	ES SH	ES SB
EDUCATION / ENVIRONMENTAL ENG.	5.73	2.14	1.173	0.38
SOCIAL WORK/ LAW	2.4	2.39	0.43	0.44

In Catalonia, we also found differences between sexism in different degree courses (humanities and technical), which tells us that the university students change their view of sexism and stereotypes in accordance with the research being conducted. A highly significant difference in benevolent sexism in psychology and administration degrees was observed (Cohen, 1988).

Internationally, the hypothesis raised to consider the different degree courses and sexism indexes says that it tends to be higher in the rate of violence. While comparing professional profiles, technical degrees are more masculine in contrast to humanistic degrees. This aim was evaluated by using a parametric measure of association (Pearson correlation) and a nonparametric measure (Spearman rho). In both Tabasco and Catalonia, relationships are clear. In the different degree courses, there is a strong correlation between levels of SH and CA on the one hand and between the levels of SB and CUVI B on the other.

Globally, degrees with higher levels of sexism also tend to show higher levels of violence. While comparing professional profiles, technical degrees are more masculinised in contrast to humanities degrees. In all degrees, there is a higher number of girls who have participated than the number of boys, so we cannot comment on whether humanities degrees are chosen by girls or boys, but the sexism levels can be seen within them plus the gender stereotypes within the analysis performed. In Tables 7 and 8, we can see that both Pearson's correlation coefficient such as Spearman's rho between types of sexism (H and B) and the different types of violence (CUVIA and CUVIB) show that subject ranking in the levels of both variables is not random, because there is statistical significance.

Table 7. Pearson and Spearman coefficient correlation between the types of sexism and violence in Catalonia

Hostile Sexism and Cuvi A		Benevolent Sexism and Cuvi B					
Pearson	.892**	Spearman	.405	Pearson	.697	Spearman	.476
Sig (Bilateral)	.003	Sig (Bilateral)	.320	Sig (Bilateral)	.055	Sig (Bilateral)	.233
N	8	N	8	N	8	N	8

* The correlation is significant at level 0.01 (bilateral)

Table 8. Pearson and Spearman coefficient correlation between the types of sexism and violence in Tabasco (Mexico)

Hostile Sexism and Cuvi A		Benevolent Sexism and Cuvi B					
Pearson	.617	Spearman	.536	Pearson	.304	Spearman	.000
Sig (Bilateral)	.140	Sig (Bilateral)	.215	Sig (Bilateral)	.507	Sig (Bilateral)	1
N	7	N	7	N	7	N	7

* The correlation is significant at level 0.01 (bilateral)

DISCUSSION AND CONCLUSIONS

This study intended to compare sexism and violence among university students by types of degree courses and between Mexican and Catalonian students.

The results obtained tested the hypothesis raised at the beginning of the investigation: there are degree-subject stereotypes within the university community, manifested by more sexism and more violence within degree courses defined as "technical" and much less in the degrees defined as "humanistic". Furthermore, the two tests show good statistical behaviour on detection and devising profiles with the students in the two regions (León-Ramirez & Ferrando, 2014).

The creation of the interdepartmental promotion of women as a target to promote rights, equality and non-discrimination between men and woman has not succeeded in Catalonia in bringing down levels of prejudices and gender stereotypes. Rather, we have obtained results showing that the benevolence of sexism is emphasised more in technical degrees than in humanised degrees. The

majority of Catalonian universities have a Gender Equality Observatory (including the University of Lleida), as do some Mexican universities, which are still setting up these lines of research within their syllabus.

Since 1990, the Interdisciplinary Seminary Studies of the Woman (SIED, henceforth) has been at work in Lleida. It is an association for people interested in the gender perspective. As its website presentation states, one of its goals is to facilitate scientific production in this field that will serve as a starting point for taking the principle of equality forward in society. The relationship between the SIED and the Dolors Piera Centre of Equality and opportunities for and promotion of women at Lleida University is clear, as was expressed in the work groups at the 1st meeting held by the Gender Equality Unit. In Mallorca, as mentioned in the Centre presentation on its website, "The Centre is the result of the SIED's effort to promote equal opportunities between women and men" (Institute for Women, 2010)

"Male" and "female" attributes do not cause behaviour, rather, they define gender behaviour

(Anderson, 2005). Several lines of investigation have suggested that the meaning of violence depends upon the context and the gender of the offender and the victim. These are reflected in the average differences between the types of subjects chosen by the students considered in the groups. Engineering degrees have a high peak in the measures of all variables SH, SB, CUVI A and CUVI B, and this is not justified by culture. These results are replicated in Tabasco (Mexico) and Catalonia, although perhaps in Tabasco (Mexico) the intensity of sexism is greatly accentuated but its manifestation in other types of degrees is similar.

According to the Theory of Social Roles, "Gender stereotypes and behavioural differences between the sexes come from the division of roles and sexual hierarchy. Groups are assigned traits associated with the roles they play and the social position they occupy" (Eagly & Koenig, 2006), so that when analysing the results we find that students taking more technical or masculinised degrees tend to display more benevolent sexism, demonstrated by the low level of acceptance of women in this type of degree.

In a comparative study among primary students between Bolivia and Catalonia (Capdevila, 2014), we found that teachers in Bolivia have more gender stereotypes than in Catalonia; nevertheless, in spite of this difference between teachers, children keep on repeating their behaviour and use stereotypes in games that lead to gender discrimination. In comparison with our study, we can say that it indicates that, although we have a higher intensity of stereotypes in Latin countries than in Catalonia, we have the same patriarchal influence in the same direction albeit with a different intensity.

Our results regarding gender stereotypes amongst students match those found in Asian-Chaves (2015). Regarding students' greater knowledge and better attitude (Sevilla) in Labour Sciences, especially business administration and management, in gender terms this is mainly due to the training they have received. The results appear to support training carried out by specific subjects regarding cross-discipline education on gender issues.

When looking at the differences between countries, Tabasco (Mexico) represents the highest rate of hostile sexism but surprisingly, the study shows that sexism is more benevolent than in Catalonia. These data are similar to results obtained by Löckenhoff, *et al.* (2014) who found that the differences between personality and sexist stereotypes could be explained within the framework of nations with strong social norms (in the case of Latin American countries) and the lower tolerance for deviant conduct, which restricted the range of behaviour, for men as well as women, and therefore limited opportunities to express and see the innate gender differences in personality. Alternatively, the strictest nations can see different behaviours differentiated by sexual role and promote the attribution and the frame effects of references. Although our correlational findings, of course, cannot suggest direct causes, these considerations suggest that our findings are consistent with facts. The results of our study in Tabasco (Mexico) replicate the academic profiles where it was noted that engineering students express more hostile sexism (Paredes, 2012), followed by medicine and anthropology students.

Regarding benevolent sexism, this trend continues: chemical engineering students indicated major benevolent sexist attitudes compared to medicine students, and both disciplines demonstrated more sexism than anthropology students who were, in general, more benevolent. One explanation for this is that anthropology is a more humanistic degree, and the same is also observed in Catalonia. This investigation promotes equal education in technical degrees since education and training (Asian-Chaves, 2014) play a vital role in changing cultural patterns and promoting a new, more egalitarian vision of gender relations.

It remains to be investigated whether these changes have occurred at the expense of requiring women to enter a "masculinised" world in labour or academic matters, because gender stereotypes also exist when selecting the study subject. The egalitarian principle in the educational field to achieve equality between men and women in all professions and degrees will not be easy to accomplish while prejudices remain in social areas and the workplace (Borja and Fortuny, 1991), although it is still the case that more women enrol at universities than men; in the 2013/14 academic year, 56 % of students enrolled at Lleida University were women. Mosteiro (1997), in the review carried out on gender

stereotypes and the conditioning during the degree selection, argues that there has been a massive incorporation of women into university studies. In spite of this, sexist behaviour and attitudes still exist that restrict opportunities for women regarding training and professionalisation which is mainly expressed in their career choices.

Our article corroborates the approach of Bolaños (2003). It is necessary to choose epistemological and pedagogical positions which transcend the traditional outlook of education and the curriculum. In a cross-sectional sense, the university may be the element which helps future professionals live in an equal world.

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