

Factors impacting on business students' perceptions of accounting and Accountants

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Abstract

There has been much media criticism and scrutiny of the accounting profession and Accountants in recent times and concerns have been expressed on the potential impact of the negative image portrayed by the media on the attraction of talented students to the accounting profession. Using a cross sectional survey of business students, this study examines the existence of different stereotypes of Accountants and accounting and identifies factors which impact on the formation of stereotypes. The study finds the existence of a number of different stereotypes of both accounting and Accountants with positive and negative traits among business students. The main factors impacting on those traits were found to be gender, previous accounting studies, personality and ethical position. Areas for future research are suggested in the paper to build on these findings.

Keywords: Accounting, Accountants, stereotypes, personality traits, ethical position

1. Introduction

The popular children's writer David Walliams described one of the characters in "Grandpa's Great Escape" as follows:

'Jack's father was an accountant. He spent all day doing long boring sums and didn't find it easy to express his feelings' (p. 58)

A stereotype occurs when the social perception of a particular group leads to a simplification and generalization of that group (Albu et al., 2011), based on the probability that they have a given attribute (Allport, 1979), thus creating beliefs about the characteristics of groups of individuals (Stangor, 2000). There are undoubtedly many stereotypes of Accountants in the popular media and the depiction in Grandpa's Great Escape is but one. While Accountants have frequently been the subject of ridicule in these depictions, recent financial scandals have brought much negative publicity to the accounting profession. This is likely to have consequences for attraction of talent to the profession and the esteem with which the profession is held in society.

The main objective of this paper is to examine the current perception of business students of the accounting profession and of Accountants. A distinction is drawn between perceptions of the accounting profession and of Accountants, as the social image of the profession itself may differ from the characteristics expected of Accountants (Richardson et al, 2015) and therefore stereotypical perceptions can be found on both the accounting profession (tasks and duties) and the Accountants (personality characteristics).

As set out by Hinton (2000), there are three conditions that help to define a stereotype: A group of people are identified by specific characteristics; a set of additional characteristics are attributed to the group; and when identifying a person as member of the group the stereotypical characteristics are fully applied to him/her. Wells (2015) explained that the cognitive process of forming perceptions about certain groups usually involves the assignment of labels and these labels are called precisely stereotypes. Therefore, stereotyping in this context have a similar meaning to general perception or public image as stereotypes are the label given to a particular group.

Previous literature has shown that stereotypes of Accountants have positive and negative traits: Accountants are expected to be boring and dull (Dimnik and Felton, 2006; Smith and Jacobs 2011) but trustful and reliable (Carnegie and Napier, 2010) sometimes with mixed perceptions (“boring but honest”) as pointed by Friedman and Lyne (2001). The perception of Accountants is usually intertwined with the perception of the profession itself (Richardson et al, 2015). The accounting stereotypes goes from the traditional bookkeeping activity to the contemporary role of modern accounting (Carnegie and Napier, 2010). Recent financial scandals have impacted on perceptions of accounting and the accounting profession and it is unclear if descriptions of stereotypes in the literature are the same as the stereotypes which exist currently in people’s minds. Therefore, the first objective of the study is to identify the stereotypes of accounting and Accountants as they currently exist among accounting and business students. The second objective of this paper is to examine a number of factors affecting the formation of stereotypes.

The paper contributes to the literature by presenting empirical evidence of the existence of stereotypes on accounting and Accountants based on the dimensions suggested by Richardson (2015)¹. Stereotypes of the accounting profession are found with positive and negative traits as expected (accounting is useful, accounting is mechanical, accounting is knowledge based and accounting is dry). Empirical evidence is also found on those stereotypes related to Accountants (Accountants are dreary, Accountants are tragic, Accountants are professionals, Accountants lack morals) and therefore identifying the stereotypes of the profession and the professional.

In addition, the paper finds that gender and previous studies of accounting are two significant factors in explaining differences in these stereotypes.

The remainder of this paper is structured as follows. The second section presents a review of the existing literature and formulates a number of hypotheses and research questions. The third section describes the sample and research methods employed in testing the hypotheses. The results and discussion are then presented in section 4 and section 5 contains concluding remarks.

¹ Richardson thesis (2015) categorised two basic roles (traditional bookkeeping and contemporary professional role). Nuancing the positive and negative elements of the two basic stereotypes creates subtypes that become distinguishable variations of the traditional and contemporary role for both accounting and Accountants

2. Literature review and hypotheses development

Existing stereotypes:

Previous literature has shown evidence of the existence of stereotypes of accounting and Accountants. From literature (Carnegie and Napier, 2010) to movies (Dimnik and Felton, 2006) and popular culture (Evan and Frasier, 2012), the accounting profession has been widely represented by stereotypes which are often said to be inaccurate and harmful (Richardson et al, 2015; Wells, 2015; Wells, 2017).

Any stereotype has positive and negative traits, and the accountant has traditionally been shown as a dull, boring and timid character (Smith and Jacobs, 2011), weak and unimaginative (Smiths and Briggs 1999, Smiths and Jacobs, 2011), but sometimes reliable and honest (Fisher & Murphy 1995, Evans & Jacobs 2010). A negative perception related to the corruption and fraud role of Accountants (Friedman and Lyne, 2001, Smith and Jacobs, 2011) is likely to have emerged more strongly after an economic or financial scandal (Mc Can et al, 2015). While acknowledging positive traits, Richardson et al. (2015) concludes that the stereotypical accountant generally appears in a negative way.

A negative stereotype is a particular concern for a profession which is based on reputation and social acceptance by the community in accordance with the legitimacy theory (Deegan, 2000). It is worrying for the profession that society generally expects individual people to act in line with their stereotype (Miley & Read 2012).

Previous literature pointed out the mismatching between the skills and competences the accounting profession requires, as a real accounting education gap (Bui and Porter, 2010), with a general perception of the accounting profession that does not reflect the duties performed by Accountants in the 21st century (Albrecht and Sack 2000). We expect a higher knowledge and contact with accounting to bring a better perception of the accounting discipline and the role of its professionals. A better understanding and deeper contact with accounting, in line with the contact hypothesis might bring a more positive portrait of accounting and Accountants (Wells 2017, Friedman and Lyne, 1997).

A consequence of negative stereotypes may be that students with the appropriate skills and capabilities may be discouraged from entering the profession (Albrecht & Sack, 2000). To reverse the effects of

negative stereotypes, accounting firms have enhanced the positive message sent from their corporate webpages, as essentially they do not want to recruit a beancounter (Jeacle, 2008). They have moved to creating an image of a value adding expert (Ewing et al. 2001) in an effort to avoid a self-fulfilling prophecy (Friedman & Lyne, 2001).

Richardson et al. (2015) point out that stereotypes of the accounting profession (professional role performed by Accountants) are sometimes intertwined with stereotypes of Accountants (characterised by perceived personality traits), with physical and personality traits dominating the perception of the professional tasks. As explained by Fiske et al (2002), group stereotypes have two dimensions: personal attributes and task performance.

While the accounting profession has evolved along with the financial markets (Albrecht and Sack, 2000), facing a significant transformation (Hopwood 1994), the social perception of accounting as a bookkeeping activity is almost the same one it was fifty years ago (Parker, 2000; Coate et al, 2003).

Previous studies show that the accounting profession is viewed as less challenging, less interesting with less interaction with others, less glamorous and less social status compared to other careers such as law, engineering, or medicine (Wells and Fieger, 2006, Hardin et al., 2000). The accounting profession is portrayed as not compatible with creativity (Albrecht & Sack 2000). Accounting is expected to have a predictable curriculum and to be routine and boring (Mathews et al. 1990). As a consequence, students who possess the skills and abilities required by the profession, may be directed to other career opportunities (Hardin et al, 2000).

Given that existing accounting literature has not separated the stereotypes of the accounting profession from the personal traits related to Accountants (Richardson et al, 2015), this study examines the existence of separate stereotypes of Accountants and the accounting profession. This examination of the existence of separate stereotypes is important for addressing the formation and changing of stereotypes. It is only by understanding the different types of stereotypes that efforts can be directed to changing perceptions of roles and tasks separately to efforts to change perceptions of personal characteristics. Therefore, the first hypothesis of this paper is the following:

H1: There are separately identifiable stereotypes of accounting and Accountants with positive and negative traits

Factors affecting the formation of stereotypes

Despite the extended literature about stereotypes of the accounting profession, most of the studies describe the stereotype and its public perception: Accountants portrayed in films (Dimnik and Felton, 2006, Felton et al, 2008,) music (Smiths and Jacobs, 2011) or literature (Carnegie and Napier, 2010) and little research examines how these stereotypes are formed (Warren & Parker, 2009) . The consequence of this perception is that it becomes a self-fulfilling prophecy (Friedman & Lyne, 2001) and students with appropriate skills are discouraged from entering the profession (Albrecht & Sack, 2000), particularly the “best and brightest” (Cory, 1992; Smith & Briggs, 1999). Saeman & Crooker (1999) found that the initial negative perception improves following deeper contact with the profession.

According to Holland (1973), behavioural studies suggest that individuals decide their career on vocational stereotypes, and stereotyping (or the prototypical perception of a group) is generally formed in the early years of a person’s life (Richardson et al, 2015) through socialisation processes. These processes include not only the exposure to social media such as television or cinema, but also the opinions and perceptions of closer people (such as parents and teachers) and institutions (such as schools or universities). Family and friends can be considered as the strongest transmitters of culture stereotypes (Mackie et al., 1996) .

Previous studies found evidence that a significant number of students decide their professional career while still at high school and their teachers are key in this decision making process (Hardin et al 2000). Wells and Fieger (2006) found that high school teachers do not have a very positive opinion of accounting as an interesting career opportunity relative to other careers, which discourages students (Fisher & Murphy, 1995; Byrne and Willis, 2005). A lack of understanding about the profession among high school teachers and counsellors has been pointed to in previous research (O'Bryan, and Quirin,2000 and Wells and Fieger, 2006).Some studies point to the benefits of increasing contact with the accounting profession, showing a better perception of Accountants with increased knowledge and exposure (Friedman and Lyne ,1997, Fedoryshyn and Tyson, 2003). While results are mixed, findings suggest that contact with Accountants is one of the most effective way to change perceptions of the profession (Cory 1992, del Campo et al, 2016)). However, these changes relate the duties performed (Wells, 2017) and this may not necessarily a changed perception of the accountant personality.

Some authors have studied the personal characteristics that may affect the perception of accounting and Accountants. Saeman & Crooker (1999) found that students with a high creativity self-perception are discouraged by the beancounter image of the profession and creative people were therefore

encouraged to focus on careers others than accounting (Hermanson et al, 1995; Saemann & Crooker, 1999).

Gender is also identified as a factor affecting perceptions of the accounting profession, not only because women joined the labour market later, but also because men and woman have different perception of the world engaging with it in a different way (Hames, 1994), and may present different ethical positions (Sharp et al, 1998). As explained by Hines (1988), accounting both reflects and shapes reality, as in the accounting profession women have traditionally achieved lower performance evaluations (Jonnergard et al, 2010), and are generally perceived as less likely to succeed (Anderson et al, 1994). Mothering difficulties for professional women (Dambrin and Lambert, 2008) and the glass ceiling (Broadbent et al, 2008) have proved challenging for women.

We expect students with a higher self-perception of their creativity to have a poorer perception of Accounting and Accountants, as there is a general perception of accounting as a highly based on rules profession and Accountants as obsessed with details, and lack creativity (Albrecht and Sack, 2000, Carnegie and Napier 2010), and more creative students are discouraged by the image of “order and precision” (Saemann and Croker, 1999).

Given the previous findings, previous knowledge of the accounting profession, gender, and creativity are expected to affect the perception of accounting and Accountants:

H2: There are significant differences in the perceptions of accounting and Accountants related to (a) previous accounting studies , (b) contact with the profession (c) first year students (d) gender, and (e) creativity personality

Ethical position:

Accounting scandals have had a negative effect on the credibility of the profession (Mc Cann et al 2015), as Accountants were perceived to have had a role in the in the frauds committed (Carnegie & Napier 2010, Smith & Jacobs 2011). These accounting scandals are likely to have impacted the stereotypes of Accountants and accounting. It would be expected that the stereotypes would differ between individuals with different relativist/idealist positions (Forsyth, 1980). Moral philosophy refers to the relativist and/or idealist position, where relativism describes the rejection of universal moral principles and rules, and idealism refers to the perception of the consequences of an action, and how they affect

the welfare of others (Forsyth, 1980). Based on Forsyth (1980) and Barnett et al (1994), individual can be classified into four categories, depending on their position on idealism and relativism as shown at Figure 1.

(insert Figure 1 about here)

Previous literature has found empirical evidence on the relationship between individuals' moral position and their ethical judgements (Barnett et al., 1994; Bass et al., 1999). According to Forsyth (1992), idealism measures how the welfare of others affects individual decisions and those with higher idealistic personalities will be concerned about public interests in their decisions. Relativism measures to what extent individuals apply a common moral code depending on their idiosyncratic circumstances. Elias (2002) found that individuals who are higher in idealism, or lower in relativism, judged earnings management more harshly, and that is, more unethical.

It is likely that the degree of blame attributed to Accountants as a result of the financial scandals and consequently their perception of Accountants and accounting will differ depending on the ethical position of an individual.

H3: There are significant differences in perceptions of accounting and Accountants based on an individual's ethical position

3. Research Method

To test the hypotheses in this study, a cross sectional survey questionnaire is used. The sample consisted of students enrolled in an Irish University. Data was collected in Autumn and the anonymity was assured. Students were given a pen and paper survey with 4 sections. The first section was about demographical data, shown on table 1. The second section asked the students about their perceptions about stereotypes of accounting and Accountants, the third section measures students' creativity self-perception personality and finally the fourth section gathered information about their ethical position

Variable measurement:

Stereotypes:

Richardson et al (2015) carried out a comprehensive literature review on perceptions of accounting and Accountants and identified the most common perceptions evidenced in the literature. He calls for empirical studies to examine the validity of these measures. Based on Richardson's literature review we have measured stereotypes based on 48 statements (using a 1-7 likert scale) reflecting the portrayal of Accountants and accounting (refer appendix A for survey) in the media (Richardson, 2015). These statements can be classified in two dimensions (Bookkeeping activity and Contemporary role) with positive and negative traits for both Accounting and Accountants, as shown on Appendix B.

Independent variables:

- Previous accounting studies:

Students were asked about their previous knowledge of accounting. The answers may vary from No previous accounting studies; only studies at the Junior Certificate level; studies at Junior Cert and Leaving Certificate; and studies only at Leaving Certificate level.

- First year students:

Participants are classified in first year students and non first year students - Working experience:

Participants were asked about their previous working experience and previous contact with the job market. Answers can be yes for previous experience or no otherwise.

- Gender:

Students are classified in two groups, male and female students..

- Creativity self-perception:

A creativity self-perception variable was included in the survey taken from Saemann and Croker (1999) and based on Gough's 30-item Creative Personality Scale (CPS) (Gough, 1979). Students were asked to indicate which of the 30 personality characteristics regarding creativity best described them. Of the 30 adjectives, 12 of them implied lower creativity and were scored negatively, thus the variable range was -12 and +18.

- Ethical position

An Ethics Position Questionnaire (EPQ) was also included with 10 individualistic-10 relativistic statements as used by Bryan et al (2011) and based on Forsyth's (1980) measurement found to be a two

factor structure and with adequate reliability and validity (Bryant et al, 2001; Elias, 2002). Students were asked to indicate the extent of their agreement on a 1 to 7 likert scale.

After excluding those surveys that were not properly answered, our final sample is composed by 516 answers whose descriptive statistics can be found on Tables 1 and 2.

(Insert Table 1 here)

(insert Table 2 here)

4 Results and discussion

Exploratory Factor analysis

Exploratory factor analysis was carried out on the 24 statements of perceptions of accounting 24 statements of perceptions of Accountants. Sample size is above the minimum recommended level of X (Young and Perarce, 2013).

Accounting stereotypes:

To run an exploratory analysis, we first check the correlation between our variables, excluding those with lower correlations ($<0,3$). No correlations over 0,9 that could indicate multicollinearity problems were found, as the later determinant score showed.

Before the exploratory factor analysis was run, statements with correlations of less than 0.3 were excluded. No correlations of greater than 0.9 existed indicating that multicollinearity was not a problem. EFA results revealed four factors with eigenvalues >1.0 , which explain 62,78% of the total variance. The KMO value was 0.774 , above the recommended value of 0.6 and the Bartlett's Test of Sphericity shows statistical significance, thus supporting the factorability. The first factor accounts for 27.15% of the variance. Table 3 shows factor loadings for accounting perceptions, revealing strong loadings when using Varimax rotation. Factor loading are above 0,5 and a high number of them above 0,7, indicating how these variables contribute to the factor.

When analysing the reliability of the factor solution (Table 4) , we get positive results for the four groups, with Cronbach Alpha slightly low for two of the constructs (Accounting is mechanical, Accounting is knowledge based), but acceptable and in line with prior research (García Osma et al, 2018), supporting its reliability.

(Insert Table 3 here)

(Insert Table 4 here)

Accountants stereotypes:

We run an exploratory factor analysis for all items related to Accountants perceptions. We excluded those variables with lower correlation coefficients and those loading on more than one factor. Our study results in four factors with eigenvalues > 1.0, that explains 60,03% of the variance. KMO test (0,879) and Bartlett test (0,00) are acceptable, supporting the factorability of the matrix. The Cronbach Alpha for the exploratory factor analysis is 0,814, above the minimum recommended level. Table 5 shows factor loadings for Accountants perceptions, revealing strong loadings also when using Varimax rotation.

When analysing the reliability of the factor construction (Table 6), Cronbach Alpha's are above 0,7 for each factor indicating acceptable reliability in line with prior research (García Osma et al, 2018).

(Insert Table 5 here)

(Insert Table 6 here)

The results of this analysis support the presence of different dimensions of stereotypical perceptions of Accountants (Accountants are dreary, Accountants are tragic, Accountants are professional Accountants are lacking morals) and accounting (Accounting is useful, accounting is mechanical, accounting is knowledge based and accounting is dry) as suggested by Richardson et al (2015) . Table 7 shows the values for the factors created.

(Insert Table 7 here)

As show on the correlation matrix, there are statistically significant correlations between these perceptions, suggesting a relationship between the perception of Accounting and Accountants. As expected, we find that the factors comprise positive and negative traits (Carnegie and Napier, 2010). For example, there are positive and statistically significant correlations between the statements 'Accounting is useful' and 'Accounting is mechanical'. The correlations are strongest for those statements related to the perceptions of Accountants particularly for those statements that imply a *negative* perception of Accounting and Accountants. As table 7 shows, the statement 'Accounting is dry'

is highly correlated with the statements 'Accountants are dreary', 'Accountants are tragic' and 'Accountants are lacking morals. Higher correlations between the negative perceptions show negative perceptions are strongly related.

These results support our first hypothesis and present empirical evidence of current perceptions of accounting and business students of accounting and of Accountants , that include positive and negative traits. These results are also in line with previous literature (Richardson et al, 2015) suggesting that those traits relating to personality were more negative than those relating to professionalism (Coate et al, 2003; Cory, 1992).

To understand the effects of our independent variables on the stereotypes and to test our hypotheses, we ran a regression model and results are shown in table 8.

Tests were conducted to ensure the assumptions of normality, linearity and multicollinearity.

We found that the main predictors of Accounting stereotypes ($R^2=0,23$, $p<0,01$) are *Previous accounting studies* and idealistic personality . When analyzing the regression results for each of the factors (*Accounting is useful*, *Accounting is mechanical*, *Accounting is knowledge based*, and *Accounting is dry*), personality variables are the main predictors but for Accounting is dry perception. The variables significantly related to *Accounting is dry* ($R^2=0,08$, $p<0,01$) are previous accounting studies ($\beta=-0,25$, $p<0,01$) and gender ($\beta=-0,25$, $p<0,01$), with no effect of personality traits on this perception. Therefore, the main predictors of *Accounting is dry* are previous accounting studies and gender, as a deeper knowledge of accounting improves students perceptions, reducing the negative image of Accounting as boring and uninteresting. Male students perceive more often Accounting as a dry profession than female students.

As a conclusion, the perception of *Accounting is useful*, *Accounting is mechanical*, or *Accounting is knowledge based* are not affected by *gender*, *previous accounting studies* or *Working experience*, but only by personality variables, suggesting that the perception of Accounting could be predicted only by personality and ethical position. Idealistic personality is the most relevant factor to explain the perception of *Accounting is useful*, *Accounting in mechanical* and *Accounting is knowledge based*, and with a positive and statistically significant effect . According to Bryan et al (2001) Individuals high in

idealism seek to minimize the harm to others, suggesting they tend to understand accounting more useful, mechanical and knowledge based than those with lower idealism.

When analysing the regression results for perceptions of Accountants ($R^2=0,15$, $p<0,01$), *Previous accounting studies* ($\beta=-0,14$, $p <0,01$), *gender* ($\beta=-0,10$, $p <0,01$), *first year students* ($\beta=-0,08$, $p <0,01$) and *relativistic personality* ($\beta=-0,31$, $p <0,01$) were found to be significant variables.

The stereotype of *Accountants are dreary* ($R^2=0,09$, $p<0,01$) is significantly related to *Previous accounting studies*, *working experience*, *gender*, *first year students*, *idealistic personality* and *relativistic personality*. Contact with accounting (with previous accounting studies and working experience) have a negative and statistically effect on the perception of *Accountants are dreary* as we expected, as those students with previous studies on Accounting or previous contact with the job market through internships of part-time employment, are less likely to label Accountants as dreary. In line with this, first year students have a positive and significant effect, as these new university students lack accounting knowledge and have a more negative image of Accountants. Gender is also another predictor, as male students tend to perceive Accountants as dull and timid more often than female students. Finally, both idealistic and relativistic personality variables affect this perception, as students with lower idealism and higher relativism perceive *Accountants are dreary* more frequently. Individuals with low idealism and high relativism believe that reject moral rules, believing that moral decisions are subjective (Forsyth, 1980)

Similar results are found for *Accountants are tragic* ($R^2=0,09$, $p<0,01$), and again the main predictors are *Previous accounting studies*, *first year students*, *idealistic and relativistic personality*. The effect of previous accounting studies and first year on the perception of *Accountants are tragic* can be explained in terms of the ignorance of the role of the accountant, as there is a negative and significant effect of previous accounting studies and a negative and also significant effect of first year students. The effect of personality is again significant, and idealistic personality have a negative and significant effect while relativistic personality has a positive and also significant effect.

For the factor *Accountants are lacking morals* ($R^2=0,10$, $p<0,01$) the main contributor is *Relativistic personality*, which has the larger and positive contribution, followed by *Previous accounting studies* and

gender . Individuals with higher relativistic personality consider situations as unique (Bryan et al, 2001), affecting the perception of Accountants.

A deeper knowledge of the accounting profession measured by previous accounting studies, affects the image of Accountants as lacking morals of fraud related, Gender is also relevant in the prediction of the perception of *Accountants are lacking morals*, which shows a negative and significant coefficient, meaning male students tend to consider Accountants are lacking morals more frequently than female students. .

Finally, the image of Accountants are professional ($R^2=0,29$, $p<0,01$) can be explained mainly by personality traits, idealistic personality and relativistic personality, and also by creativity self-perception, concluding that the perception on Accountants are professional can only be predicted by personality and variables like gender or previous accounting studies are not making a significant contribution to the prediction of this stereotype. Idealistic personality is the most relevant driver with the higher contribution, presenting a positive coefficient. Idealism describes individuals' attitudes toward the consequences of an action, and how these consequences affect the welfare of others. (Elias, 2002). Those individuals with high idealism and high relativism reject moral rules and understand decisions are subjective (Forsyth, 1980)

Most of the relationships that we hypothesized in H2 about factors affecting the stereotypes are supported by our results: we found empirical evidence on the effect of gender, previous knowledge on the formation of stereotypes of both accounting and Accountants: Previous accounting studies is relevant in the prediction of the perception of Accounting is dry, Accountants are dreary, Accountants are tragic and Accountants are lacking morals. Gender is also significant in explaining the creation of the image of Accountants for Accounting is dry, Accountants are dreary, Accountants are lacking morals , The creativity personality only had a significant impact on the professional perception of Accountants.

We found that increasing the contact with accounting and Accountants, through studies or working experience, improves the perceptions particularly in those related to the *negative* stereotypes. In Accounting, only a significant change is found and it was on the perception of Accounting as a boring activity, and this change is statistically significant. On the contrary, the change is higher when we look at

the Accountants stereotypes, concluding that the perceptions of Accountants as dull, pathetic and fraud related change significantly, when students increase their contact and knowledge, as we expected.

A one-way between-groups analysis of variance was conducted to explore the impact of the different personalities according to their idealism and relativism on the perception of accounting and Accountants. Based on Forsyth (1980) we can conclude there are four types of personality: situationist, absolutist, subjectivist, and exceptionalist. Situationists (high idealism, high relativism) reject the application of universal moral principles. Subjectivists (low idealism, high relativism) reject moral rules and believe negative consequences do not necessarily imply an action is immoral), Absolutists (low relativism, high idealism) approve those actions resulting in positive consequences for all, and exceptionists (low idealism, low relativism) accept moral rules in principle but willing to violate moral rules in order to avoid negative consequences), We found statistically significant differences as shown on all of Accounting and Accountant perception variables but for Accounting is dry. The effect size calculated using eta squared goes from small to medium effect according to Cohen (1988) classification, in line with a sample size of our research. Welch and Brown-Forsythe robust tests were also conducted, supporting the results shown on the ANOVA table. Post-hoc comparisons using the HSD test show statistically significant differences arising among the personality groups on Table 10.

We conclude that our hypothesis H3 about the ethical position has been supported, and there is empirical evidence about different stereotypes for different ethical personality as expected.

5 Conclusions and implications

The objective of this research paper is to understand the existing stereotypes on Accountants and accounting, and to identify the main factors that explain these perceptions. Our results show that the stereotypes are alive and in line with previous literature conclusions.

Using a questionnaire with the 48 statements made by Richardson (2015) and given to more than 500 students, we have discovered that there are different perceptions on accounting and Accountants, considering both positive and negative traits. According to our exploratory factor analysis, we found four stereotypes on Accounting and four stereotypes on Accountants, with positive and negative traits, for both traditional role contemporary role. The Accounting stereotypes are *Accounting is mechanical*, *Accounting is useful* (based on the traditional role) and *Accounting is dry* and *Accounting is knowledge based* (based on the contemporary role) showing the profession with both positive and negative traits.

The stereotypes on Accountants are even more clearly defined, and present them as dreary and tragic (according to the traditional role), and as *lacking morals* and *professional* (in line with the contemporary role) defined by Richardson et al (2015).

The main factors effecting these perceptions are gender and previous accounting studies, as gender affects particularly the negative stereotypes on both accounting and Accountants. Those individuals who had previous studies on accounting are less likely to have a negative perception on Accountants and accounting, suggesting that the contact with the profession improves the perception of the profession (Navallas et al 2017) .

Another factor that helps to understand the formation of these stereotypes is the ethical position. We found statistically significant differences for all Accounting and Accountant stereotypes but for Accounting is dry, meaning that their ethical and moral principles affect their perceptions. In general terms, those individuals with a subjectivist position (low idealism, high relativism) show different perception on Accounting and Accountants.

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Figure 1: Idealistic/relativistic personality

	High relativism	Low relativism
High idealism	<p>Situationist</p> <p>Rejects the application of universal moral principles. Believes that moral acts should have positive consequences for all persons affected by an action or decision</p>	<p>Absolutist</p> <p>Approves actions that result in positive consequences for all individuals. Also, believes that actions should conform to absolute moral principles</p>
Low idealism	<p>Subjectivist</p> <p>Rejects moral rules, and believes that moral decisions are subjective, individualistic judgements. Believes that negative consequences do not necessarily make an action immoral.</p>	<p>Exceptionist</p> <p>Accepts moral rules in principle, but willing to violate moral rules in order to circumvent negative consequences. An action is not condemned automatically because the action involves negative outcomes for some.</p>

From Barnett et al (1994) and Forsyth (1980)

Table1: independent variables: gender, first year, studies and working experience

gender	Frequency	%
male	242	47
female	265	51
na	8	2%

Total	515
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first year students	Frequency	%
first year	340	66
non first year	171	33
na	4	1
Total	515	100

accounting studies	Frequency	%
No previous studies	70	14
Junior Certificate	258	50
Leaving Certificate	42	8
Junior+ Leaving Cert	134	26
na	11	2
Total	515	100

Working experience	Frequency	%
No	206	40
Yes	309	60
Total	515	100

Table2: independent variables: personality variables

	Mín	Max	Mean	Std dev
idealistic personality	0	70	50,06	14,67
relativistic personality	0	70	40,11	14,93

creativity self perception	-5	13	2,79	3,20
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Table 3: Perceptions of Accounting: Exploratory Factor analysis

	1	2	3	4
Accounting is about the application of rules	0,123	0,290	0,567	0,097
Accounting requires expertise in accounting, tax and other regulation	0,122	0,383	0,637	0,015
Accounting is complex and diverse	0,165	-0,127	0,758	0,051
Accounting is routine	0,055	0,684	0,313	0,118
Accounting is intellectually challenging	0,094	0,059	0,712	-0,191
Accounting is repetitive	0,062	0,755	0,012	0,232
Accounting is bookkeeping	0,068	0,784	0,062	0,012
Accounting is boring	-0,060	0,149	0,036	0,889
Accounting is used in making major decisions	0,642	0,222	0,316	-0,050
Accounting provides decision support for managers	0,838	0,006	0,141	0,059
Accounting practice requires technical and ethical competence	0,818	-0,105	0,096	-0,072
Accounting is numbercrunching	0,621	0,289	0,032	0,261
Accounting is uninteresting	0,148	0,132	-0,077	0,876

We use principal components with Varimax rotation to extract all factors with eigenvalue > 1

Table 4: Accounting: Reliability analysis

Constructs	Items	Loading	% Variance explained	Bartlett's (<0,5)	KMO index (recommended >0,6)	Alpha (>0,7)
Useful	Accounting is used in making major decisions	0,737	57,44%	0,00	0,74	0,75
	Accounting provides	0,839				

	decision support for managers					
	Accounting is numbercrunching	0,780				
	Accounting practice requires technical and ethical competence	0,665				
Mechanical	Accounting is routine	0,780	61,80%	0,00	0,67	0,69
	Accounting is repetitive	0,809				
	Accounting is bookkeeping	0,769				
Knowledge based	Accounting is about the application of rules	0,662	49,84%	0,00	0,69	0,66
	Accounting requires expertise in accounting, tax and other regulation	0,756				
	Accounting is complex and diverse	0,699				
	Accounting is intellectually challenging	0,704				
Dry	Accounting is uninteresting	0,907	82,23%	0,00	0,5	0,78
	Accounting is boring	0,907				

Table 5: Accountants: Factor analysis

	1	2	3	4
Accountants are dull	0,697	0,235	0,081	-0,167
Accountants are a joke	0,325	0,784	0,126	0,023
Accountants cannot be trusted	0,169	0,668	0,316	-0,096
Accountants are pathetic	0,232	0,811	0,158	-0,041
Accountants create and operate behind	0,184	0,460	0,600	-0,056

a false image of honesty				
Accountants lack spontaneity	0,660	0,116	0,315	0,019
Accountants are willing participants in corporate fraud	0,376	0,249	0,566	-0,158
Accountants are timid	0,725	0,158	0,194	0,075
Accountants are nerds	0,649	0,282	0,136	-0,024
Accountants would sacrifice a client or job to uphold ethical and professional principles	-0,010	0,114	-0,104	0,788
Accountants would sacrifice a client or job to uphold ethical and professional principles	0,081	-0,126	-0,100	0,713
Accountants have a poor fashion sense	0,645	0,107	0,310	0,046
Accountants are unethical	0,297	0,189	0,730	0,016
Accountants manipulate the uncertainties in accounting for self interest	0,265	0,108	0,751	0,071
Accountants pay attention to details	-0,155	-0,251	0,308	0,635
Accountants can be relied upon to blow the whistle when wrongdoings are discovered	-0,014	0,035	0,023	0,739

We use principal components with Varimax rotation to extract all factors with eigenvalue > 1

Table 6: Accountants: Reliability analysis

Constructs	Items	Loading	% Var	Bartlett's (<0,5)	KMO index (recommended >0,6)	Alpha (>0,7)
Dreary	Accountants are dull	0,717	53,830%	0,000	0,82	0,78
	Accountants lack spontaneity	0,750				
	Accountants are timid	0,760				
	Accountants are nerds	0,717				
	Accountants have a poor fashion sense	0,723				

Tragic	Accountants are a joke	0,874	69,996%	0,000	0,68	0,78
	Accountants cannot be trusted	0,772				
	Accountants are pathetic	0,861				
Professional	Accountants would sacrifice a client or job to uphold ethical and professional principles	0,770	52,798%	0,000	0,75	0,70
	Accountants can be trusted to protect the interests of others before themselves	0,723				
	Accountants pay attention to details	0,678				
	Accountants can be relied upon to blow the whistle when wrongdoings are discovered	0,732				
Lacking morals	Accountants create and operate behind a false image of honesty	0,779	60,878%	0,000	0,75	0,784
	Accountants are willing participants in corporate fraud	0,772				
	Accountants are unethical	0,803				
	Accountants manipulate the uncertainties in accounting for self interest	0,767				

Table7: Accounting and Accountants stereotypes

	Min	Max	Mean	Std dev
accounting is useful	0	28	20,497	5,391
accounting is mechanical	0	21	15,132	3,916
Accounting is knowledge based	0	28	21,101	4,332
accounting is dry	0	14	7,070	3,788
	Min	Max	Mean	Std dev

Accountants are dreary	0	35	15,809	6,500
Accountants are tragic	0	21	6,541	4,067
Accountants are lacking morals	0	28	10,983	4,974
Accountants are professional	0	28	18,125	4,935

Table 8: Correlation matrix

		1	2	3	4	5	6	7	8	9	10
1	accounting is useful	1,000									
2	accounting is mechanical	,236**	1,000								
3	accounting is knowledge based	,378**	,337**	1,000							
4	accounting is dry	,126**	,298**	-0,001	1,000						
5	Accountants are dreary	0,072	,265**	-0,044	,618**	1,000					
6	Accountants are tragic	-0,065	0,027	-,179**	,417**	,562**	1,000				
7	accountants are lacking morals	,141**	,163**	-0,044	,486**	,632**	,567**	1,000			
8	Accountants are professionals	,675**	,121**	,357**	-0,033	-0,054	-,111*	-0,042	1,000		
9	Accounting	,738**	,681**	,673**	,493**	,313**	0,049	,267**	,485**	1,000	
10	Accountants	,306**	,234**	0,038	,576**	,843**	,722**	,808**	,284**	,430**	1,000
11	Gender	0,066	0,011	,118**	-,097*	-,149**	-,105*	-,132**	0,083	0,048	-,118**
12	first year students	,141**	-0,032	,100*	0,045	,111*	,113*	0,055	0,049	,109*	,122**
12	accounting studies	0,071	-0,049	0,029	-,228**	-,158**	-,150**	-,163**	,114*	-0,047	-,136**
14	creativity self perception	0,005	-0,033	-0,062	0,055	0,070	,091*	,091*	0,044	-0,014	,108*
15	idealistic personality	,536**	,231**	,268**	0,078	-0,036	-0,086	0,047	,501**	,460**	,154**
16	relativistic personality	,378**	,153**	,193**	,118**	,169**	,119**	,234**	,371**	,343**	,331**
17	previous experience	0,082	-0,039	0,059	-0,025	0,009	-0,024	-0,030	,099*	0,039	0,022
			11	12	13	14	15	16	17		
11	Gender		1,000								

12	first year students		-0,013	1,000							
12	accounting studies		-0,045	0,022	1,000						
14	creativity self perception		-,252**	0,056	-0,016	1,000					
15	idealistic personality		,216**	,127**	0,057	-,089*	1,000				
16	relativistic personality		-0,003	,142**	0,041	,092*	,527**	1			
17	previous experience		,111*	,144**	,136**	-0,017	0,066	0,051	1,000		
	** . Significant levels at 0,01										
	* . Significant levels at 0,05										

Table 9: Multiple regression on Accounting and Accountant stereotypes.

	<i>accounting</i>	<i>useful</i>	<i>mechanical</i>	<i>knowledge based</i>	<i>dry</i>	<i>Accountants</i>	<i>dreary</i>	<i>tragic</i>	<i>lacking morals</i>	<i>professional</i>
	Coeff (t stat)	coeff (t stat)	Coeff (t stat)	coeff (t stat)	coeff (t stat)	Coeff (t stat)	coeff (t stat)	coeff (t stat)	Coeff (t stat)	Coeff (t stat)
Account. studies	-0,084** (-2,108)	0,037 (0,985)	-0,081 (-1,814)	0,018 (0,409)	-0,246** (-5,618)	-0,143** (-3,385)	-0,154** (-3,536)	-0,159** (-3,636)	-0,143** (-3,300)	0,074 (1,929)
working experience	0,004 (-0,102)	0,009 (0,247)	-0,017 (-0,382)	0,043 (0,965)	-0,032 (-0,723)	-0,065 (-1,508)	-0,053** (-1,212)	-0,076 (-1,719)	-0,054 (-1,226)	0,005 (0,138)
gender	-0,039 (-0,922)	-0,034 (-0,861)	-0,037 (-0,789)	0,067 (1,446)	-0,107** (-2,304)	-0,103** (-2,317)	-0,114** (-2,491)	-0,055 (-1,187)	-0,103** (-2,255)	0,010 (0,235)
first year students	0,043 (-1,055)	0,060 (1,571)	-0,066 (-1,467)	0,063 (1,424)	0,040 (0,885)	0,084** (-1,96)	0,117** (2,647)	0,109** (2,457)	0,024 (0,548)	-0,031 (-0,793)
idealistic personality	0,405** (-8,219)	0,487** (10,487)	0,216** (3,957)	0,193** (3,578)	0,079 (1,461)	0,006 (-0,121)	-0,143** (-2,676)	-0,189** (-3,513)	-0,078 (-1,451)	0,435** (9,163)
relativistic personality	0,120** (-2,486)	0,114** (2,525)	0,039 (0,729)	0,083 (1,576)	0,062 (1,174)	0,307** (-6,03)	0,216** (4,122)	0,189** (3,602)	0,273** (5,227)	0,145** (3,134)
creativity self perception	-0,004 (-0,095)	0,032 (0,808)	-0,028 (-0,614)	-0,025 (-0,545)	0,000 (0,001)	0,031 (0,716)	-0,022 (-0,484)	0,016 (0,343)	0,006 (0,131)	0,097** (2,442)
N	491	491	491	491	491	491	491	491	491	491
R	0,484	0,567	0,247	0,293	0,285	0,385	0,307	0,296	0,314	0,539
R square	0,234	0,321	0,061	0,086	0,081	0,148	0,094	0,088	0,099	0,291
F	21,106	32,680	4,492	6,467	6,122	11,992	7,170	6,645	7,571	28,309
sig	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

Table 10: Descriptive statistics

		N	Mean	Std. Deviation	St. Error	95% Confidence interval for mean		Min	Max
						Lower Bound	Upper Bound		
Accounting is useful	situacionist	192	22,04	3,73	0,27	21,51	22,57	10,00	28,00
	absolutist	103	21,61	4,05	0,40	20,82	22,40	10,00	28,00

	subjetivist	87	20,64	4,13	0,44	19,76	21,52	11,00	28,00
	exceptionist	134	17,34	7,39	0,64	16,08	18,60	0,00	28,00
	Total	516	20,50	5,39	0,24	20,03	20,96	0,00	28,00
accounting is mechanical	situacionist	192	15,87	3,61	0,26	15,35	16,38	3,00	21,00
	absolutist	103	15,53	3,74	0,37	14,80	16,26	3,00	21,00
	subjetivist	87	14,57	3,63	0,39	13,80	15,35	0,00	21,00
	exceptionist	134	14,14	4,39	0,38	13,39	14,89	0,00	21,00
	Total	516	15,13	3,92	0,17	14,79	15,47	0,00	21,00
accounting is knowledge based	situacionist	192	22,19	3,69	0,27	21,67	22,72	4,00	28,00
	absolutist	103	21,09	4,16	0,41	20,28	21,90	4,00	28,00
	subjetivist	87	21,03	3,66	0,39	20,25	21,81	13,00	28,00
	exceptionist	134	19,59	5,21	0,45	18,70	20,48	0,00	28,00
	Total	516	21,10	4,33	0,19	20,73	21,48	0,00	28,00
accounting is dry	situacionist	192	7,01	3,76	0,27	6,48	7,55	2,00	14,00
	absolutist	103	6,93	4,15	0,41	6,12	7,74	2,00	14,00
	subjetivist	87	7,91	3,69	0,40	7,12	8,69	2,00	14,00
	exceptionist	134	6,72	3,56	0,31	6,11	7,33	0,00	14,00
	Total	516	7,07	3,79	0,17	6,74	7,40	0,00	14,00
Accountants are dreary	situacionist	192	15,54	6,09	0,44	14,67	16,41	5,00	35,00
	absolutist	103	14,08	6,76	0,67	12,76	15,40	5,00	35,00
	subjetivist	87	18,34	6,30	0,68	17,00	19,68	5,00	35,00
	exceptionist	134	15,88	6,56	0,57	14,76	17,01	0,00	35,00
	Total	516	15,81	6,50	0,29	15,25	16,37	0,00	35,00
Accountants are tragic	situacionist	192	6,29	3,80	0,27	5,75	6,83	2,00	21,00
	absolutist	103	5,69	4,14	0,41	4,88	6,50	2,00	21,00
	subjetivist	87	7,73	4,19	0,45	6,84	8,62	3,00	19,00
	exceptionist	134	6,78	4,14	0,36	6,07	7,49	0,00	21,00
	Total	516	6,54	4,07	0,18	6,19	6,89	0,00	21,00
accountants are lacking morals	situacionist	192	10,82	4,67	0,34	10,15	11,48	4,00	28,00
	absolutist	103	9,96	4,89	0,48	9,00	10,91	3,00	25,00
	subjetivist	87	12,82	4,73	0,51	11,81	13,83	4,00	26,00

	exceptionist	134	10,82	5,35	0,46	9,91	11,74	0,00	23,00
	Total	516	10,98	4,97	0,22	10,55	11,41	0,00	28,00
Accountants are professional	situacionist	192	19,54	3,87	0,28	18,99	20,09	10,00	28,00
	absolutist	103	18,64	4,29	0,42	17,80	19,48	9,00	28,00
	subjetivist	87	18,18	3,33	0,36	17,46	18,89	6,00	25,00
	exceptionist	134	15,66	6,50	0,56	14,55	16,77	0,00	28,00
	Total	516	18,12	4,94	0,22	17,70	18,55	0,00	28,00

Table 12: ANOVA analysis results

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
accounting is useful	Between groups	1921,392	3	640,464	25,135	0,000
	Within groups	13046,464	512	25,481		
	Total	14967,856	515			
accounting is rmechanical	Between groups	278,994	3	92,998	6,250	0,000
	Within groups	7618,336	512	14,880		
	Total	7897,330	515			
accounting is knowledge based	Between groups	535,099	3	178,366	10,001	0,000
	Within groups	9131,275	512	17,835		
	Total	9666,373	515			
accounting is dry	Between groups	80,072	3	26,691	1,870	0,134
	Within groups	7309,084	512	14,276		
	Total	7389,155	515			
Accountants are dreary	Between groups	880,770	3	293,590	7,201	0,000
	Within groups	20874,873	512	40,771		
	Total	21755,643	515			
Accountants are tragic	Between groups	217,332	3	72,444	4,469	0,004
	Within groups	8298,966	512	16,209		

	Total	8516,297	515			
accountants are lacking morals	Between groups	409,898	3	136,633	5,673	0,001
	Within groups	12331,996	512	24,086		
	Total	12741,894	515			
Accountants are professional	Between groups	1229,031	3	409,677	18,540	0,000
	Within groups	11313,810	512	22,097		
	Total	12542,840	515			

Table 13: Post-hoc test

Post Hoc Test

			Mean differences (I-J)	Std Error	Sig.
accounting is useful	situacionist	absolutist	0,43	0,62	0,90
		subjektivist	1,40	0,65	0,14
		exceptionist	4,69*	0,57	0,00
	absolutist	situacionist	-0,43	0,62	0,90
		subjektivist	0,96	0,74	0,56
		exceptionist	4,27*	0,66	0,00
	subjektivist	situacionist	-1,40	0,65	0,14
		absolutist	-0,96	0,74	0,56
		exceptionist	3,30*	0,70	0,00
	exceptionist	situacionist	-4,69*	0,57	0,00
		absolutist	-4,26*	0,66	0,00
		subjektivist	-3,30*	0,70	0,00
accounting is rmechanical	situacionist	absolutist	0,34	0,47	0,89
		subjektivist	1,29*	0,50	0,05
		exceptionist	1,72*	0,43	0,00
	absolutist	situacionist	-0,34	0,47	0,89
		subjektivist	0,96	0,56	0,32
		exceptionist	1,38*	0,51	0,03
	subjektivist	situacionist	-1,29*	0,50	0,05
		absolutist	-0,96	0,56	0,32
		exceptionist	0,43	0,53	0,85
	exceptionist	situacionist	-1,72*	0,43	0,00
		absolutist	-1,38*	0,51	0,03
		subjektivist	-0,43	0,53	0,85
accounting is knowlegde based	situacionist	absolutist	1,10	0,52	0,14
		subjektivist	1,16	0,55	0,14
		exceptionist	2,60*	0,48	0,00
	absolutist	situacionist	-1,10	0,52	0,14
		subjektivist	0,06	0,61	1,00
		exceptionist	1,49*	0,55	0,04
	subjektivist	situacionist	-1,16	0,55	0,14

		absolutist	-0,06	0,61	1,00
		exceptionist	1,44	0,58	0,07
	exceptionist	situacionist	-2,60*	0,48	0,00
		absolutist	-1,49*	0,55	0,04
		subjektivist	-1,44	0,58	0,07
accounting is dry	situacionist	absolutist	0,08	0,46	1,00
		subjektivist	-0,89	0,49	0,26
		exceptionist	0,29	0,43	0,90
	absolutist	situacionist	-0,08	0,46	1,00
		subjektivist	-0,98	0,55	0,29
		exceptionist	0,21	0,50	0,97
	subjektivist	situacionist	0,89	0,49	0,26
		absolutist	0,98	0,55	0,29
		exceptionist	1,19	0,52	0,10
	exceptionist	situacionist	-0,29	0,43	0,90
		absolutist	-0,21	0,50	0,97
		subjektivist	-1,19	0,52	0,10
Accountants are dreary	situacionist	absolutist	1,46	0,78	0,24
		subjektivist	-2,80*	0,83	0,00
		exceptionist	-0,35	0,72	0,96
	absolutist	situacionist	-1,46	0,78	0,24
		subjektivist	-4,26*	0,93	0,00
		exceptionist	-1,81	0,84	0,14
	subjektivist	situacionist	2,80*	0,83	0,00
		absolutist	4,26*	0,93	0,00
		exceptionist	2,45*	0,88	0,03
	exceptionist	situacionist	0,35	0,72	0,96
		absolutist	1,81	0,84	0,14
		subjektivist	-2,45*	0,88	0,03
Accountants are tragic	situacionist	absolutist	0,60	0,49	0,61
		subjektivist	-1,43*	0,52	0,03

		exceptionist	-0,49	0,45	0,71
	absolutist	situacionist	-0,60	0,49	0,61
		subjektivist	-2,04*	0,59	0,00
		exceptionist	-1,09	0,53	0,17
	subjektivist	situacionist	1,43*	0,52	0,03
		absolutist	2,04*	0,59	0,00
		exceptionist	0,95	0,55	0,31
	exceptionist	situacionist	0,49	0,45	0,71
		absolutist	1,09	0,53	0,17
		subjektivist	-0,95	0,55	0,31
accountants are lacking morals	situacionist	absolutist	0,86	0,60	0,48
		subjektivist	-2,00*	0,63	0,01
		exceptionist	-0,01	0,55	1,00
	absolutist	situacionist	-0,86	0,60	0,48
		subjektivist	-2,85*	0,71	0,00
		exceptionist	-0,86	0,64	0,54
	subjektivist	situacionist	2,00*	0,63	0,01
		absolutist	2,859*	0,71	0,00
		exceptionist	1,99*	0,68	0,02
	exceptionist	situacionist	0,01	0,55	1,00
		absolutist	0,86	0,64	0,54
		subjektivist	-1,99*	0,68	0,02
Accountants are are professionals	situacionist	absolutist	0,90	0,57	0,40
		subjektivist	1,37	0,61	0,11
		exceptionist	3,88*	0,53	0,00
	absolutist	situacionist	-0,90	0,57	0,40
		subjektivist	0,47	0,68	0,90
		exceptionist	2,98*	0,62	0,00
	subjektivist	situacionist	-1,37	0,61	0,11
		absolutist	-0,47	0,68	0,90
		exceptionist	2,51*	0,65	0,00

exceptionist	situacionist	-3,88*	0,53	0,00
	absolutist	-2,98*	0,62	0,00
	subjetivist	-2,51*	0,65	0,00
