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Stereotypes, Students' Perceptions and Inherent Creativity: Further Australian Evidence

Peter Baxter

University of the Sunshine Coast, pbaxter@usc.edu.au

Marie Kavanagh

University of Southern Queensland

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Recommended Citation

Baxter, Peter and Kavanagh, Marie, Stereotypes, Students' Perceptions and Inherent Creativity: Further Australian Evidence, *Australasian Accounting, Business and Finance Journal*, 6(5), 2012, 81-100.

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Keywords

Perceptions, Personality, Accounting, Students

Cover Page Footnote

An earlier version of this paper has benefited from participants' comments at the 2008 Accounting and Finance Association of Australia and New Zealand (AFAANZ) Conference. Dr Baxter acknowledges the financial support of an Internal Seed Research Grant from the University of the Sunshine Coast. The authors also appreciate the comments from Monte Wynder and David Gadenne, as well as the two anonymous reviewers.



Stereotypes, Students' Perceptions and Inherent Creativity: Further Australian Evidence

Peter Baxter^{1*} and Marie Kavanagh²

Abstract

The objectives of this study are to: ascertain how first year university students perceive accounting in a time period following the high profile corporate collapses of the early 21st century; understand the factors that influence these perceptions; and determine if there is an association between students' perceptions of accounting and their inherent creativity. The findings of the study show that the majority of first year university students still hold a traditional stereotypical perception of accounting. School teachers and subjects were reported by the students as being the main influences on their perceptions. Students' perceptions of accounting are also linked to their inherent creativity. A limitation of the study is that the sample is drawn from students at two Australian universities. Therefore, the results may not generalise to other institutions. This study contributes to the existing body of knowledge on students' perceptions of accounting and the impact of various factors. There are implications for educators in designing appropriate curricula and the promotion of accounting by the accounting profession.

Keywords: Perceptions; Personality; Accounting; Students.

JEL Code: M40.

¹ University of the Sunshine Coast.

² University of Southern Queensland.

* Corresponding author pbaxter@usc.edu.au

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Introduction

Research suggests that young adults tend to develop career aspirations based on pre-conceived ideas, insufficient information and inaccurate perceptions about occupations and their work environment (Greenhaus 2000; Hildebeitel 2000). A substantial body of research has examined how students' perceptions of accounting influences their choice of academic major and their career decision. Studies such as Cohen and Hanno (1993), Hermanson and Hermanson (1995), Saemann and Crooker (1999), Mladenovic (2000), and Jackling (2001) report that many university students have a negative perception of accounting as being too number-oriented and boring which impacts on their decision not to major in accounting. In the US, Saemann and Crooker (1999) and Geiger and Ogilby (2000) report that traditional perceptions of precision and order in the profession discouraged more creative individuals from specialising in accounting.

Creativity in solving accounting problems has been widely recognised as being an important skill that accounting graduates should possess. For example, the use of creativity in problem solving is an implicit component of several of the *Threshold Learning Outcomes for Accounting* identified by the Australian Learning and Teaching Council (ALTC) in the Academic Standards Statement for Accounting (ALTC 2010). More specifically, being creative in the determination of solutions to accounting problems is an important aspect of those *Outcomes* relating to judgement and application skills. These threshold learning outcomes are also acknowledged in the *Professional Accreditation Guidelines for Australian Accounting Degrees* jointly issued by CPA Australia and the Institute of Chartered Accountants in Australia (ICAA) (CPA Australia & ICAA 2012). More broadly, the *Australian Qualifications Framework (AQF)* (AQF Council 2010, p46) specifies that graduates of a Bachelor Degree will have 'cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence'.

On the other hand, high-profile corporate collapses and scandals in countries such as the US, Australia, Italy, the UK and the Netherlands have sharply undermined public confidence in corporate financial reporting, auditing and regulation (Carnegie & Napier 2010). In response, professional accounting bodies continue to endeavour to send positive messages about the post-Enron state of the profession (Parker 2005). Despite the widespread efforts to change the public image of accountants, little attention has been given in the post-Enron period to empirically studying the image (Carnegie & Napier 2010). A notable exception is a US study by Theuri and Weickgenannt (2008) that examines the impact of recent ethical scandals on students' perceptions of the accounting profession. This study finds that student maturity is a significant determinant of differentiation in these perceptions. Australia has also experienced major corporate collapses, however their impact on students' perceptions of accounting has not been tested.

The traditional stereotypical image of accounting is one factor that may have contributed to a decline in the number of students undertaking accounting in Australian high schools (Kavanagh 2004; Richardson and Alcock 2010) and those overseas (Albrecht & Sack 2000; Byrne & Willis 2003; Fedoryshyn & Tyson 2003). Accounting firms and the professional bodies have sought to counteract the conservative image of the accounting stereotype through their recruitment brochures and websites (Jeacle 2008). However, it is not clear whether these efforts to change the stereotype have been effective. Indeed, evidence suggests that the proportion of university students studying accounting as a major study is continuing to decline, and this has impacted on the supply of accounting graduates to the profession (Jackling & Calero 2006; McDowall & Jackling 2010).

In summary, decreasing interest in accounting as a profession has been attributed to stereotypes of accounting as dull and boring. The professional bodies and accounting firms

have attempted to counter this stereotype by focusing on the creative and entrepreneurial dimension of the accounting profession, as evidenced in their television and print advertisements in recent years. However, accountants have been accused of excessive entrepreneurship and creativity in the scandals surrounding numerous corporate failures, such as Enron (Jackling & Calero 2006). The purpose of this research, therefore, is to determine whether creative individuals are attracted to accounting, and how accounting is perceived by those studying an introductory accounting course. The study focuses on first year university students since it is often in this stage that students make choices that will influence their future career directions (Jackling & Calero 2006).

Data from this study will assist the accounting professional bodies and firms to assess whether their promotional efforts in recent years have been successful in improving the image of accounting amongst students. While studies of this nature have been conducted overseas (e.g. Saemann & Crooker 1999), their results are now dated and there are no known Australian studies which specifically examine university students' perceptions of accounting in the context of their inherent creativity. Recent Australian research by McDowall and Jackling (2010) examines undergraduate students' attitudes towards accounting, however this study uses only a small sample and the students' inherent creativity is not considered.

The paper proceeds as follows. In the next section the prior literature is reviewed and the research questions are developed. Next, the research method is explained. This is followed by a discussion of the results. Finally, the conclusions, implications for practice, limitations of the paper and future research opportunities are discussed.

Literature Review

Stereotyping and Accounting

A stereotype can be defined as "...a collection of attributes believed to describe the members of a social group" (Dimnik & Felton 2006, p131). Hinton (2000) suggests that stereotyping involves three elements. First, groups are distinguished from the rest of society by reference to a particular identifying characteristic such as nationality, gender or occupation. Second, other stereotypical characteristics are associated with members of the groups. Finally, whenever a person is identified as belonging to a particular group, society will attribute the stereotypical characteristics to that person.

Despite the widespread efforts of the professional bodies and accounting firms to change the public perception of accounting, there is substantial evidence that it is difficult to change stereotypes (Johnston 1996; Wells 2010). Johnston (1996) suggests that an important reason for this is that those holding stereotypical perceptions tend to give greater weight to people who confirm the stereotype than to people who appear to challenge the stereotype.

Social Identity Theory, as developed by Tajfel and Turner (1986), can be used to explain how people categorise themselves as members of various social groups. According to this theory, stereotypes sum up society's attitude to different groups. Individuals generally prefer to be members of groups with positive rather than negative stereotypes. Members of groups subject to negative stereotypes are more likely to work to change the stereotype if they wish to enhance their standing in society (Carnegie & Napier 2010).

The literature on the popular perceptions of accounting identifies two major accounting stereotypes (Carnegie & Napier 2010). The first of these is the 'traditional accountant' or 'beancounter' stereotype. The positive aspects of this stereotype are that they are "...honest and trustworthy, careful with money, painstaking, reliable, polite and well-spoken" (Carnegie & Napier 2010, p364). However, on the negative side, 'traditional

accountants' are dull, boring, excessively fixated with money, pedantic and shabby. Since the late 1960s, the professional accounting bodies and Big 4 accounting firms have attempted to deter the 'traditional accountant' stereotype, so as to "...recruit the best and brightest of students" (Smith & Briggs 1999, p28) and to overcome the shortage of accounting graduates wishing to enter the profession (Albrecht & Sack 2000; Dimnik & Felton 2006).

The second major accounting stereotype has been referred to as the 'business professional' (Carnegie & Napier 2010) and the 'colourful accountant' (Jeacle 2008). This stereotype has been used by the accounting profession to counteract the negative aspects of the 'traditional accountant'. In this regard, the 'business professional' has the "...characteristics of the executive, the manager and even the entrepreneur...a thrusting, proactive and much more creative being" (Hopwood 1994, p229). However, the modern stereotype of accountants as 'business professionals' carries its own stigma of dishonesty and lack of respectability (Jeacle 2008, p1318). Accountants being implicated in major corporate collapses such as Enron have exposed the fragility of the accounting profession's attempts to project the 'business professional' stereotype in a positive light (Carnegie & Napier 2010).

Students' Perceptions of Accounting

A considerable body of research provides evidence that accounting has an unfavourable image among students and others. Boughen (1994) suggests that the mention of 'accountant' conjures up an image of 'a chinless, bespectacled, nervous pencil pusher' as the typical stereotype. Zeff (1989) discovers that students view accounting as characterised by courses consisting of collections of rules to be memorised which results in a rule-based type of educational experience. Albrecht and Sack (2000) suggest that the decline in student numbers electing to major in accounting is due to the unfavourable stereotype of accountants and their work.

Jackling (2002) finds that the majority of business students studying first year core units in accounting have negative perceptions of the accounting profession. Negative views of the accounting profession are also associated with the view that accounting requires ability or skill with numbers (Mladenovic 2000; Parker 2001) and is steeped in rituals that have existed for centuries (Christensen 2004). Given that little research has focused on studying business students' perceptions of accounting in the post-Enron period, the present study seeks to determine first-year university business students' perceptions in a time period after the high profile corporate collapses of the early 21st century. Thus this leads to the following research question:

Research Question 1: How do first year university business students perceive accounting?

Jackling and Kenely (2009) use the Theory of Reasoned Action (TRA) to examine personal and social influences on students' decisions to major in accounting. TRA suggests that "...the intentions to pursue a particular career path are determined by personal and social influences" (Jackling & Kenely 2009, p143). This theory has been widely used in several other studies on students' choice of an accounting major (e.g. Cohen & Hanno 1993; Felton et al. 1995; Allen 2004; Tan & Laswad 2006). Jackling and Kenely (2009) find that 'Reference Groups' were an important social influence on deciding on a particular course of study, particularly for international students. In making decisions about a major at university and subsequent career choices, students are often influenced by their parents, relatives, peers, teachers, counsellors and other authorities such as governments. The present study attempts to understand whether these reference groups as well as other factors also influence the

perceptions of accounting held by first year university students. Thus the following research question is proposed:

Research Question 2: What factors influence first year university students' perceptions of accounting?

Inherent Creativity and Students' Perceptions

The employment choice of accounting graduates and their commitment to the organisation where they work can be influenced by their personality (Hunt, Falgiani & Intrieri 2004). Kovar, Ott & Fisher (2003) used the Myers-Briggs Type Indicator (MBTI) to examine the characteristics of graduating accounting students recruited from accounting programs. They suggested that accounting was attracting students who were sensing, thinking and judgemental and that there is a need to attract and/or educate students with a broader range of characteristics particularly those related to perception, feeling and intuition. Thus students' personalities and their perceptions of accounting are important because the individual's choice of career can be influenced by the stereotypes they associate with accounting.

Technical accounting competence is no longer the only skill required by accounting firms of graduates – rather attributes such as critical thinking, communication and clarity of articulation, initiative, self-management and creativity are highly valued (Boughen 1994; Smith & Briggs, 1999; Kavanagh et al. 2009). Creativity in solving accounting problems has been widely recognised as being an important skill for accounting graduates by the Australian Learning and Teaching Council (ALTC) in the Academic Standards Statement for Accounting (ALTC 2010), the Australian accounting professional bodies (CPA Australia & ICAA 2010) and the *Australian Qualifications Framework* (AQF Council 2010). This leads to the following research question:

Research Question 3: Is there an association between students' inherent creativity and their perceptions of accounting?

Research Approach

Research Design and Data Collection

The data used in this paper were collected via a survey instrument completed by students studying the first-year undergraduate introductory accounting course at two Australian universities. The first is a large university situated in a capital city and the second is a smaller regional university. Two universities were included in the study to improve the potential generalisability of the results and to increase the sample size. The course at both universities is one of the common foundation courses studied by all students enrolled in either a Bachelor of Commerce or Bachelor of Business degree. Both courses provide students with an introduction to the fundamental concepts and processes of accounting. At both universities, students studying degrees from other Faculties may also study the course as an elective.

The survey instrument³ was completed by students in lectures towards the start of the semester to limit the impact of the introductory course on the students' perceptions of accounting. The survey instrument comprised 3 main sections. The first section sought a range of demographic information.

The second section of the survey instrument gathered information on the students' inherent creativity, as one dimension of their personality. The 30-item Creative Personality Scale (CPS) developed by Gough (1979) was used for this purpose. The CPS contains a set of 30 adjectives and the students were asked to tick all adjectives that they felt best described their personality. The possible scores on the CPS ranged from -12 to +18⁴ with a higher score indicating a more creative individual. The CPS was used in this study to enable comparisons with several prior studies (Saemann & Crooker 1999; Worthington & Higgs 2003) that use the CPS in their study of accounting and finance majors respectively.

The third section of the survey instrument asked the students about their perceptions of accounting. The instrument used to gather this information was developed by Saemann and Crooker (1999). It comprised 36 pairs of adjectives representing opposing perceptions of accounting. The students were asked to circle the appropriate number on the 5-point scale between the pairs of adjectives to express the strength of their opinion in the particular direction. Worthington and Higgs (2003) use a similar instrument in their study of factors influencing the decision to study a finance major. Byrne and Willis (2005) also use the same instrument to assess the perceptions of accounting held by Irish secondary students. This section of the survey also asked the students to indicate what influences their perceptions of accounting.

Results

Descriptive Statistics

Table 1 provides the descriptive statistics for the categorical and continuous variables. A combined total of 540 students from the 2 universities completed the survey during their regular lectures, out of a total enrolment of 650 students. This represents an 83% response rate. The majority of students in the sample were: female; aged between 16 and 25; of Australian origin; and studying a non-accounting major. For those students with some prior study of accounting, their average level of enjoyment of this prior study was 3.27 on a 5 point scale with a higher score indicating a greater enjoyment level. The vast majority of students did not have any prior work in accounting, meaning they had no exposure to the practical work of accountants. While comparative data on the demographic characteristics of students at other universities is not available, there is nothing to suggest that the characteristics of students in the sample are substantially different to other universities.

³ See Appendix A.

⁴ This range of scores was due to some items on the CPS (such as commonplace, conventional and honest) being given a score of -1 if selected by the students and other items (such as informal, inventive and original) being given a score of +1 if selected by the students.

Table 1
Descriptive Statistics of Students in Sample

Panel A – Categorical variables

Number of students	540		
Age	<16 (0.2%); 16-20 (71.7%); 21-25 (20.2%); >25 (7.9%)		
University	Capital City (55.4%)	Regional (44.6%)	
Gender	Female (58.0%)	Male	(42.0%)
Country of origin	Australia (66.8%)	Other	(33.2%)
	<u>Yes</u>		<u>No</u>
Enrolled in an accounting major	26.7%	73.3%	
Some prior study of accounting	57.1%	42.9%	
Completion of year 12 in 2006	42.6%	57.4%	
Some prior work in accounting	10.1%	89.9%	

Panel B – Continuous variables

	Minimum	Maximum	Mean	Std Dev	Skewness	Kurtosis
Grade point average	2.00	7.00	5.352	0.958	-0.949	1.756
Number of courses	1	5	3.667	0.796	-1.734	2.775
Enjoyment of prior study of accounting	1	5	3.278	1.116	-0.373	-0.583
OP score ⁵ (if year 12 completed in 2006)	1	25	7.374	4.889	0.678	0.119
Years lived in Australia	0.04	34	4.089	6.592	2.887	9.654
Years since completing year 12	0	31	4.727	5.659	2.881	8.628
Years of prior work in accounting	0	20	2.894	4.188	3.255	11.240

Students' Perceptions of Accounting

Consistent with prior studies using the Saemann and Crooker (1999) perception instrument, an exploratory factor analysis was conducted to identify a reduced number of underlying constructs from the 36 pairs of adjectives. A principal components analysis was undertaken to transform these adjective pairs into a smaller, more conceptually coherent set of pairs. This process reduced the number to 26 pairs suggesting three distinctive factors. These factors

⁵ Overall Position (OP) scores are awarded to year 12 students based on their performance in Queensland Studies Authority approved subjects and the Queensland Core Skills (QCS) Test. The scores are used to determine students' eligibility for entrance to universities.

capture students' perceptions of accounting as boring, definite and precise. The internal reliabilities (Cronbach's Alphas) of the three factors are 0.632 (boring), 0.808 (precise) and 0.827 (definite). These compare favourably with those reported by Saemann and Crooker (1999), Worthington and Higgs (2003) and Byrne and Willis (2005). Table 2 shows the paired adjectives that are included in each of the factors.

Table 2
Paired Adjectives Loading on Perception Factors

Factor 1	Boring		Alpha 0.632
Interesting	1	5	Boring
Exciting	1	5	Dull
Fascinating	1	5	Monotonous
Absorbing	1	5	Tedious
Interaction	1	5	Absorbing
Adaptable	1	5	Inflexible
Variety	1	5	Repetition
Factor 2	Definite		Alpha 0.827
Intuition	1	5	Facts
Flexible	1	5	Structured
Dynamic	1	5	Stable
Ambiguity	1	5	Certainty
Abstract	1	5	Concrete
Conceptual	1	5	Analytical
Imagination	1	5	Logic
New ideas	1	5	Established rules
Alternative views	1	5	Uniform standards
Extrovert	1	5	Introvert
Changing	1	5	Fixed
Factor 3	Precise		Alpha 0.808
Imprecise	1	5	Accurate
Overview	1	5	Details
Superficial	1	5	Thorough
Novelty	1	5	Methodical
New solutions	1	5	Standard operating procedures
Verbal	1	5	Mathematical
Originality	1	5	Conformity
Unpredictable	1	5	Routine

Separate variables were then created for each of the factors using the combined average scores of the individual variables comprising each of the factors. A higher score on the boring factor demonstrates that the students perceive accounting to be more boring, dull and monotonous. A higher score on the definite factor indicates that the students view accounting as more factual, structured and stable. A higher score on the precise factor

suggests that the students believe accounting is more accurate, based on details and thoroughness. Table 3 provides the mean scores for the perception factors. Overall, the mean scores for the sample are: 3.455 (boring); 3.721 (definite) and 3.802 (precise). One sample t-tests revealed that these means are all significantly greater than 3 ($p < .001$) which is the mid-point on the perception variable scale of 1 to 5. In response to research question 1, these results suggest that the students in the sample overall held a traditional stereotypical perception of accounting.

Further tests were conducted to determine whether there were differences in perceptions of accounting between: accounting and non-accounting majors; and males and females. Table 3 provides the mean scores for the three perception factors between these different sub-groups. There is no significant difference in the means of the perception factors between males and females, and like the findings of Saemann and Crooker (1999), more females than males are opting to study accounting. However, the mean score for the boring factor is significantly lower for accounting majors (3.173) than for non-accounting majors (3.568). This suggests, perhaps unsurprisingly, that accounting majors perceive accounting to be less boring and more interesting than non-accounting majors. This also concurs with the findings of Saemann and Crooker (1999) who found that students were much more likely to choose an accounting major when they considered accounting to be interesting.

Table 3
Mean Scores for Perception Factors

Factor	Overall	Accounting majors	Non-accounting majors	Females	Males
BORING	3.455	3.173	3.568**	3.432	3.492
DEFINITE	3.721	3.678	3.738	3.737	3.688
PRECISE	3.802	3.768	3.812	3.814	3.785

** $p < .01$

* $p < .05$

Influences on Perceptions

Table 4 shows the percentages of students who indicated the factors that influence their perceptions of accounting. The most common reported influence is teachers (50.4%), followed by subjects studied while at school (40.6%), the internet (36.9%) and accountants they know (35.9%). This is somewhat similar to the findings of the Byrne and Willis (2005) study that revealed studying the subject at school was the most important influence, closely followed by factual media and the influence of teachers.

Table 4
Influences on Perceptions of Accounting

<u>Influences on perceptions:</u>	
Teachers	50.4%
School subjects	40.6%
The internet	36.9%
Accountants they know	35.9%
Books	32.6%

Family	28.1%
Friends	21.1%
Work experience	20.7%
TV shows	19.8%
Movies	16.7%
Careers guidance counsellors	13.5%
Other	8.1%

To further analyse the factors influencing students' perceptions of accounting, separate regressions were run on each of the three perception factors and several independent variables using the following model. The dependent variable (*FACTOR*) represented the mean scores for each of the three perception factors. The independent variables are as defined in Table 5.

$$\begin{aligned}
 \text{FACTOR} = & a + b_1 \text{ GENDER} + b_2 \text{ AGE} + b_3 \text{ COUNTRY} + b_4 \text{ ACCMAJOR} + b_5 \\
 & \text{PRIORSTUDY} + b_6 \text{ ENJOYMENT} + b_7 \text{ YR12} + b_8 \text{ PRIORWORK} + b_9 \\
 & \text{CREATIVITY} + \varepsilon \qquad (1)
 \end{aligned}$$

Table 5
Regression Estimates of the Effects of Independent Variables on Perception Factors

<i>Variable</i>	<i>BORING</i>	<i>DEFINITE</i>	<i>PRECISE</i>
<i>Intercept</i>	4.319 (12.043)**	4.569 (15.187)**	3.659 (10.338)**
<i>GENDER</i>	-0.122 (-1.485)	-0.152 (-2.142)*	-0.104 (-1.292)
<i>AGE</i>	-0.046 (-1.045)	-0.034 (-0.868)	-0.061 (-1.410)
<i>COUNTRY</i>	-0.105 (-1.225)	-0.102 (-1.365)	-0.122 (-1.438)
<i>ACCMAJOR</i>	-0.293 (-3.031)**	-0.025 (-0.301)	-0.050 (-0.521)
<i>PRIORSTUDY</i>	0.238 (0.811)	-0.186 (-0.796)	0.507 (1.742)
<i>ENJOYMENT</i>	-0.209 (-5.404)**	-0.085 (-2.497)*	0.002 (0.052)
<i>YR12</i>	0.108 (1.224)	-0.009 (-0.124)	-0.031 (-0.358)
<i>PRIORWORK</i>	-0.285 (-2.135)*	-0.307 (-2.634)**	-0.314 (-2.340)*
<i>CREATIVITY</i>	0.001 (0.075)	0.021 (1.856)	0.028 (2.145)*
<i>Adjusted R²</i>	0.199	0.068	0.034
<i>F statistic</i>	8.503**	3.172**	2.050*

** p < .01

* p < .05

BORING: Mean scores from the *BORING* factor variables

DEFINITE: Mean scores from the *DEFINITE* factor variables

PRECISE: Mean scores from the *PRECISE* factor variables
GENDER: 1 = Female; 2 = Male
AGE: A series of categorical variables for age range, i.e. 0= <16; 1= 16-25 etc
COUNTRY: 1 = Australia; 2 = Other
ACCMAJOR: 0 = Not enrolled in an accounting major; 1 = Enrolled in an accounting major
PRIORSTUDY: 0 = No prior study of accounting; 1 = Some prior study of accounting
ENJOYMENT: 5 point scale for level of enjoyment of prior study of accounting
YR12: 0 = Year 12 not completed in 2006; 1 = Year 12 completed in 2006
PRIORWORK: 0 = No prior work in accounting; 1 = Some prior work in accounting
CREATIVITY: Scores from the Creative Personality Scale (Gough 1979)

Table 5 shows the results from these regressions. For the boring factor, accounting major, enjoyment of prior study and prior work in accounting are all significantly negative ($p < .01$). Therefore, students studying an accounting major, students who had higher enjoyment of their prior study, and those with prior work in accounting are more likely to have lower scores on this factor, thus suggesting that they find accounting more interesting and less boring. For the definite factor, the following variables were significant: enjoyment of prior study ($p < .05$), prior work in accounting ($p < .01$), and gender ($p < .05$), with females perceiving accounting to be more definite than males. This suggests that those students who enjoyed prior study and with prior work experience in accounting were less likely to view accounting as definite. For the precise factor, the following variables were significant: prior work in accounting ($p < .05$) and inherent creativity score ($p < .05$). This suggests that students with more creative personalities and those with some prior work in accounting perceive accounting to be more precise. Therefore, in response to research question 2, the following factors have been identified as significantly influencing students' perceptions of accounting: teachers; school subjects; accounting major; enjoyment of prior study of accounting; prior work in accounting; gender; and their creativity.

Students' Inherent Creativity and Perceptions of Accounting

In terms of students' inherent creativity, possible scores on the Creative Personality Scale (Gough 1979) ranged from -12 to +18, with higher scores indicating that the students believe that they are more creative. Table 6 shows the mean scores for the personality variable. The mean personality score for all students was 2.714. This is similar to the average score for finance majors (2.590) in Worthington and Higgs (2003), but lower than the average scores (3.621 and 3.766) in Saemann and Crooker (1999). Accounting majors (2.388) have a lower score than the non-accounting majors (2.821), but the difference between these two groups is not significant.

Table 6
 Mean Scores for Personality Variable

	Overall	Accounting majors	Non-accounting majors
PERSONALITY	2.714	2.388	2.821

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

Table 5 shows the results from the regressions of the three perception factors on several independent variables. *CREATIVITY* is a significant explanatory variable for the *PRECISE* perception factor but not for the other two perception factors. This suggests that students who are more creative perceive accounting to be based more on accuracy, details and being thorough. This finding is similar to Saemann and Crocker's (1999, p11) study which found that more creative individuals had less interest in accounting when they perceived it to be precise as defined by "accurate, challenging, conforming, detail oriented, mathematical, planned, practical, repetitive and thorough". This has implications for the accounting profession given that a creative individual is less likely to find the profession attractive or interesting if he or she associates it with preciseness. As indicated by the mean scores for creativity, it would appear that the profession is struggling to attract 'creative' individuals, despite concerted efforts undertaken by the professional bodies over the past decade to address issues of image and identity construction of accountants through programs and advertising campaigns (Warren & Parker 2009).

Conclusions, Implications, Limitations and Future Research

The objectives of this study are to: ascertain how first year university students perceive accounting in a time period following the high profile corporate collapses of the early 21st century; understand the factors that influence these perceptions; and determine if there is an association between students' perceptions of accounting and their inherent creativity. Given the potential influence of students' perceptions of accounting on their future career decisions, this study gathers evidence about perceptions of accounting and inherent creativity from a diverse sample of students enrolled in the introductory accounting course at two Australian universities.

From the findings of this study, it is evident that the majority of first year university students still hold the 'traditional accountant' or 'beancounter' stereotype of accounting, rather than the newer 'business professional' or 'colourful accountant' stereotype more recently promoted by the accounting profession. More specifically, the students in the sample overall still perceive accounting to be boring, definite and precise. However, perhaps unsurprisingly, accounting majors perceive accounting to be less boring and more interesting than non-accounting majors. These results suggest that the accounting professional bodies' efforts to change the image of accounting in the eyes of students towards the 'business professional' stereotype in the post-Enron period have not been particularly successful so far.

School teachers and their school subjects were also reported by the students as being the main influences on their perceptions. However in this sample, prior study at high school was not a significant influence in the boring, precise, definite perceptions. This may be because the number of students who are entering university with no prior knowledge has increased to over 60% in most first year university accounting courses. Regression analysis highlighted that prior work in accounting and the enjoyment of prior study impact on students' perceptions. Students' perceptions of accounting are also linked to their inherent creativity, in that students who are creative perceive accounting to be based more on accuracy and details.

These findings have several implications for the accounting professional bodies and academics in their ongoing attempts to attract students to major in accounting and pursue a career within the profession. First, as first year students still appear to hold a traditional image of accounting, additional initiatives need to be undertaken by the professional bodies to change students' perceptions. Due to the fact that school teachers and subjects are the major influences on first-year students' perceptions, the professional bodies are continuing to

be more actively involved in schools to promote accounting as an exciting and rewarding career path, and in the case of the ICAA to influence curriculum. In the future, this could include using school-based activities to promote the importance of creativity which is a skill not traditionally associated with accounting. This may help to influence the negative perception gained by high school students who study accounting delivered in a very traditional manner particularly in the final years.

The findings also have implications for universities managing the development of critical thinking and creative skills as part of accounting programs. Academics who design and deliver accounting courses for students need to provide an educational environment in their courses that has a positive influence on students' perceptions about accounting. In line with the ALTC's Academic Standards Statement for Accounting (ALTC 2010), the accounting professional bodies' accreditation guidelines (CPA Australia & ICAA 2012) and the *AQF* (AQF Council 2010), academics need to develop professional skills such as creativity, adapting and responding to challenges, critical thinking, problem solving, communication and self-management by embedding activities to engage students in real case studies and designing assessment items in the curriculum to assure learning. This will require time, training and support from universities to enable academics to develop skills to enable them to continue to deliver the knowledge and content required for accreditation, but in a less traditional manner that assists students to understand the essential and diverse nature of accounting and the services that accountants provide in the business world. As Kovar, Ott & Fisher (2003) suggest, changing the curriculum in accounting programs is one of the strategies to attract and retain individuals with a broad range of personality characteristics, and it will assist in reversing students' stereotypical perceptions of accounting as being definite, boring and precise. Furthermore, more integration of generic skills is essential since Chen, Jones and McIntyre (2008) suggest that the importance of the first year accounting course is critical to selling the profession to students.

The data reported in this study are subject to several limitations. First, the sample is drawn from only first year university students. As other studies have found, perceptions change as a result of maturity levels (Theuri & Weickgenannt 2008). Second, the sample was taken at only two universities. While administered in lectures, participation in the study was voluntary and some students chose not to participate, and this may affect the generalisability of results. Another limitation is that all measures were self-reported. It is possible that some students may have knowingly reported inaccurate or embellished information particularly in the case of inherent creativity.

There are several opportunities for further research arising from the results and limitations of this study. Chen, Jones and McIntyre (2008) suggest that the perceptions of the profession by accounting students change by the time they graduate. Therefore, consistent with McDowall and Jackling (2010), future research should examine whether this is true in the Australian context by undertaking a longitudinal study to assess changes in students' perceptions over time. Another likely extension of this study would be to investigate the numbers of students proceeding with, and completing, an accounting major. Future studies could also examine including these variables and others to tease out specifically where perceptions and influences are sourced. Finally, the study should be expanded to include students at other universities.

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Appendix A – Survey Instrument

Section A: Demographic Data (Please tick the appropriate response)

1. What is your gender?

Female; Male

2. What is your age?

16-20; 21-25; 26-30; 31-35; 36-40 ; 41-45; 46-50 ; 51-55 ;
 56-60; 61-65; 66-70; 71-75; 76 or over

3. What is your country of origin? _____

4. If your answer to Question 3 was not Australia, how many years have you lived in Australia? _____

5. In a sentence, describe what you expect to get out of BUS 106 Introductory Accounting.

6. Are you a Headstart Program student?

Yes; No

If Yes, please move to Section B. If No, please continue from Question 7.

7. Are you currently enrolled in the Bachelor of Business (Accounting) program at USC?

Yes; No

8. If No to Question 7, in which degree are you currently enrolled? (Please write the name of the degree (e.g. Bachelor of Business) as well as the major (e.g. Management). If you are studying more than 1 degree or major, please write each of them.

9. What is your current Grade Point Average (GPA) (if known)? _____

10. How many courses are you studying at USC this semester? _____

11. Prior to coming to University, have you previously studied accounting/bookkeeping/business principles at any of the following? (Please tick all that apply)

High school (Years 11 and 12)

High school (Years 9 and 10)

TAFE

Other (please specify) _____

12. If you ticked any of the answers in Question 11, what was your overall level of enjoyment of your prior study of accounting /bookkeeping/ business principles? (Please circle the appropriate number on the following 5-point scale).

Not enjoyed 1 2 3 4 5 Greatly enjoyed

13. Did you complete Year 12 in 2006?

Yes; No

14. If Yes to Question 13, what was your OP (Overall Position) score?

15. If No to Question 13, how many years has it been since you completed Year 12 or left high school? _____

16. Do you currently work or have you previously worked in an accounting type role/s?

Yes; No

17. If Yes to Question 16, what is the total number of years of employment experience you have had in accounting roles? _____

18. If Yes to Question 16, what type/s of organisations have you worked for? (please tick all in which you have worked)

- Public accounting firm
- Commercial business
- Government department
- Non-profit organisation
- Other (please specify)_____

Section B: Personality Data

19. What follows are adjectives that may be used to describe people. Consider each adjective and tick all that you honestly feel best describes you.

<input type="checkbox"/>	Clever	<input type="checkbox"/>	Capable	<input type="checkbox"/>	Cautious
<input type="checkbox"/>	Commonplace	<input type="checkbox"/>	Confident	<input type="checkbox"/>	Conservative
<input type="checkbox"/>	Conventional	<input type="checkbox"/>	Dissatisfied	<input type="checkbox"/>	Egotistical
<input type="checkbox"/>	Honest	<input type="checkbox"/>	Humorous	<input type="checkbox"/>	Individualistic
<input type="checkbox"/>	Informal	<input type="checkbox"/>	Insightful	<input type="checkbox"/>	Intelligent
<input type="checkbox"/>	Inventive	<input type="checkbox"/>	Mannerly	<input type="checkbox"/>	Narrow interests
<input type="checkbox"/>	Original	<input type="checkbox"/>	Pompous	<input type="checkbox"/>	Reflective
<input type="checkbox"/>	Resourceful	<input type="checkbox"/>	Self-confident	<input type="checkbox"/>	Sexy
<input type="checkbox"/>	Sincere	<input type="checkbox"/>	Snobbish	<input type="checkbox"/>	Submissive
<input type="checkbox"/>	Suspicious	<input type="checkbox"/>	Unconventional	<input type="checkbox"/>	Wide interests

Section C: Perception Data

20. Following are several pairs of words. Think of them as opposites. Consider each pair and select the word that you feel best describes the accounting profession and/or the work of an accountant.

Please circle the appropriate number on the 5-point scale between the words to express the strength of your opinion in the particular direction.

Boring	1	2	3	4	5	Interesting
Creative solutions	1	2	3	4	5	Cut and dry (fixed)
Repetition	1	2	3	4	5	Variety
New ideas	1	2	3	4	5	Established rules
Challenging	1	2	3	4	5	Easy
Dull	1	2	3	4	5	Exciting
Flexible	1	2	3	4	5	Structured
Solitary	1	2	3	4	5	Interaction with others
Conformity	1	2	3	4	5	Originality
Dynamic	1	2	3	4	5	Stable
Standard operating procedures	1	2	3	4	5	New solutions
Extrovert	1	2	3	4	5	Introvert
Conceptual	1	2	3	4	5	Analytical
Innovation	1	2	3	4	5	Compliance
Intuition	1	2	3	4	5	Facts
Ambiguity	1	2	3	4	5	Certainty
Planned	1	2	3	4	5	Spontaneous
People-oriented	1	2	3	4	5	Number crunching
Practical	1	2	3	4	5	Theoretical
Tedious	1	2	3	4	5	Absorbing
Fascinating	1	2	3	4	5	Monotonous
Abstract	1	2	3	4	5	Concrete
Effectiveness	1	2	3	4	5	Efficiency
Imagination	1	2	3	4	5	Logic
Thorough	1	2	3	4	5	Superficial
Unpredictable	1	2	3	4	5	Routine
Details	1	2	3	4	5	Overview
Accurate	1	2	3	4	5	Imprecise
Alternative views	1	2	3	4	5	Uniform standards
Changing	1	2	3	4	5	Fixed
Methodical	1	2	3	4	5	Novelty
Record keeping	1	2	3	4	5	Decision making
Benefits society	1	2	3	4	5	Profit driven
Prestigious	1	2	3	4	5	Ordinary
Adaptable	1	2	3	4	5	Inflexible
Mathematical	1	2	3	4	5	Verbal

21. What influences your perceptions of the accounting profession and/or the work of an accountant? (please tick all that are relevant)

- my teacher/s
- a family member who is an accountant
- TV Shows
- careers guidance counsellors
- books
- an accountant I know (other than family)
- internet
- movies
- school subjects studied
- my friends and their family
- personal work experience
- other (please specify)_____

Thank you for taking the time to complete this survey.