Chapter 5: Differences in moral judgement – survey evidence

As pointed out in chapter one, the claim of Descriptive moral relativism, with regards to corporate governance, is that there are significant moral differences between groups regarding the obligations and objectives of corporations. This study investigates this claim in several ways, including the use of a structured questionnaire survey amongst a class of professional accounting students at the University of Pretoria. The results of this questionnaire survey are presented in this chapter; details regarding its development were presented in chapter four.

There are two specific research objectives that are achieved through the survey. These are:

1.2 To identify the extent to which professional accounting students in South Africa of different racial groups agree regarding the objectives and obligations of corporations; and

1.3 To identify the extent to which professional accounting students in South Africa agree with the Anglo-American model of corporate governance regarding the objectives and obligations of corporations.

How the survey achieves each of these research objectives, and answers the implicit questions regarding descriptive moral relativism, is addressed in turn. Research objective 1.3 is addressed first as this involves a consideration of the respondent group in its entirety. Differences between racial groups are subsequently reported on and discussed, addressing research objective 1.2. There is also an exploratory element to this study, and accordingly the results of investigations into differences between genders, and any differences that can be associated with both racial group and gender are also presented.

The respondent group was a class of professional accounting students at the University of Pretoria. All students were enrolled in a third-year taxation course that is mandatory for students wishing to eventually qualify as South African Chartered Accountants. The total number of responses was 157, of which 65 (41 percent) were male and 92 (59 percent) female. In terms of racial group, 77 (49 percent) were White, 63 (40 percent) were Black[31], 14 (9 percent) were Indian, 2 (1 percent) were Coloured (of mixed race) and 1 (1 percent) was Asian. The breakdown of the respondent group by gender and then by racial group is shown in figure 5.1. Although the respondent group as a whole provided 157 responses and is of a

size suitable for analysis, some of the subgroups are small and consequently any analysis dealing with these can only be considered tentative. This is particularly true for the Asian, Coloured and Indian groups, none of which had more than 14 responses in total. Care is also taken when analysing racial groups by gender, as, for instance, the Black male responses totalled only 21 and White male responses only 34.

Across all 157 respondents and 68 questionnaire items (providing a total of 10,676 items), 113 items did not have responses. As this represents only 1 percent, missing data is not considered to have a significant effect.

Figure 5.1
Gender and racial group of respondents
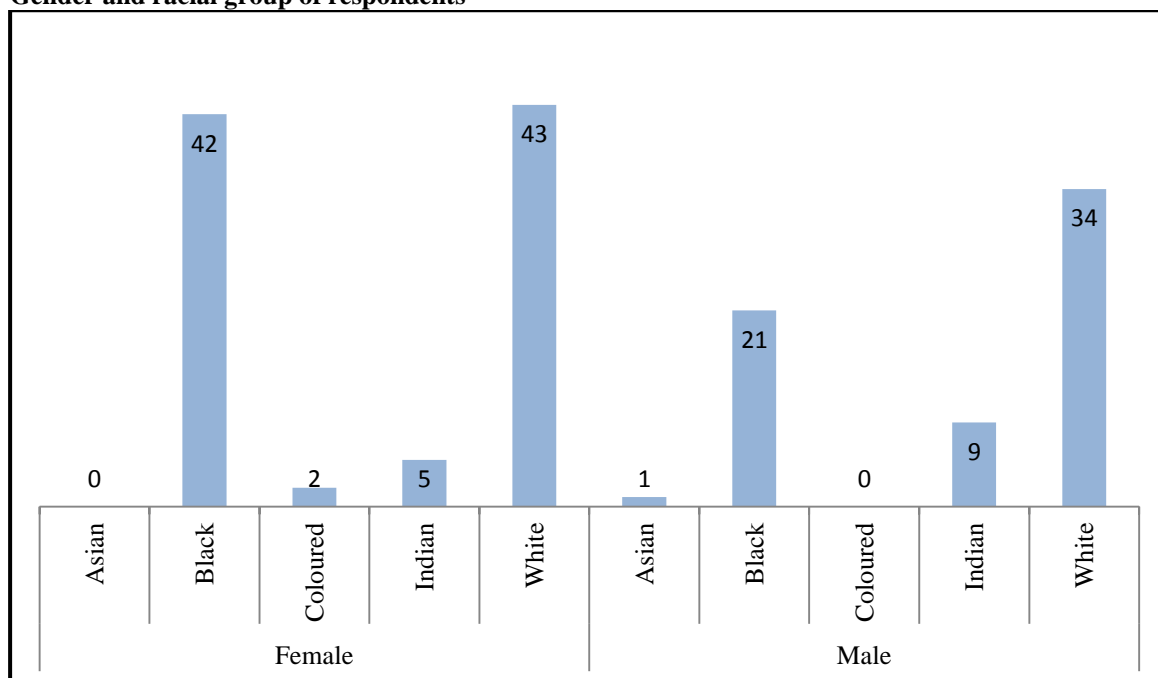
5.1 The views of professional accounting students in South Africa

As discussed in chapter four, an understanding of the views of the respondents is obtained initially through an analysis of the mean of the mean respondent scores on each scale, as well as through an analysis of the frequency distributions of the responses for each scale.

Analysis of means

For each respondent, the mean score for each scale was calculated. Table 5.1 presents the mean of these scale means for all 157 responses, ranked in descending order.

Table 5.1
Mean of the mean scores, all respondents

Moral obligations of corporations: original scales		Moral obligations of corporations: factor analysis scales		Moral objectives of corporations	
Scale	**Mean of means**	**Scale**	**Mean of means**	**Scale**	**Mean of means**
SHAR	5.54	F-SHAR	5.51	S&E	5.24
EMPL	5.43	F-CONSEMP	5.38	EFFC	5.05
LOCL	5.08	F-REJC	5.34	F-EQS&E	5.05
CONS	5.07	F-COMM	4.97	PART	5.00
NATL	4.74	F-ECONREP	4.85	EQTY	4.86
GOVT	4.40	F-ACCPFIN	4.74		
SUPP	4.25	F-SUPP	4.23		
		F-GOVT	4.02		

It is immediately apparent from the table that the respondents tended to score very highly throughout the questionnaire. The lowest mean of the scale means is 4.02 (F-GOVT), which corresponds to 'Slightly Agree' on the Likert scale used. The conclusion can therefore be drawn that, as a group, the respondents believe (1) that corporations do have moral obligations to their stakeholders, and (2) that there is moral benefit to be obtained from following corporate objectives that address social and environmental concerns, increase financial performance and efficiency, decrease inequality and encourage the participation of stakeholders (that is, all four possible objectives).

This appears to provide clear support that the respondents maintain a stakeholder view of the corporation. Although no quantitative data have been gathered from any jurisdictions which adopt a traditional Anglo-American shareholder model of corporate governance to enable a quantitative comparison, the basic tenets of the shareholder model (as presented in chapter

two) suggest that adherence to a shareholder model would be reflected in certain specific responses to the questionnaire. Six theoretical expectations for a shareholder model are accordingly postulated, as follows.

Firstly, a score of between 5 and 6 ('Mostly Agree' to 'Completely Agree') on the SHAR and F-SHAR scales, representing the moral obligations of corporations to shareholders, would be expected as this would reflect the primacy of shareholder interests. The mean scores on these scales were 5.54 for SHAR and 5.51 for F-SHAR, and for both the original scales and the factor analysis scales this score was higher than any of the other scales. The higher score given to shareholders, over all other stakeholder groups, suggests that the respondent group leans towards a shareholder orientation. This is supported by the fact that the single questionnaire item with the highest mean score was the item representing the moral obligation to report on economic activities to shareholders (V9, with a mean of 5.86). However, due to a low primary loading, this item was excluded from the factor analysis (see section 4.1 in chapter four).

Secondly, a low score of between 1 and 3.5 (indicating disagreement) on the scales representing the moral obligations of corporations to other stakeholders (GOVT, F-GOVT, LOCL, NATL, F-COMM, CONS, SUPP, F-SUPP, EMPL, F-CONSEMP) would be expected. This includes the government, the local and wider community, employees, consumers and suppliers, and corresponds to Friedman's (1970) insistence that corporations do not have social responsibilities to these stakeholders. The mean of the mean scores for these scales were all above 4, indicating that the respondent group does believe that corporations have moral obligations to these stakeholders. In this respect the respondent group follows a stakeholder orientation.

Thirdly, a low score, ranging from 1 to 3.5 (indicating disagreement), would be expected on the F-ECONREP scale, that represents the moral obligation of corporations to report on its economic activities to stakeholders other than shareholders. Again, this reflects the primacy of shareholder interests and the traditional accounting framework in which reporting on economic activities is designed and performed specifically for shareholders. The mean of the mean scores for this scale was 4.85, indicating that the respondent group believes that corporations do have a moral obligation to report on economic activities to other stakeholders, and thus reflecting a stakeholder orientation.

Fourthly, a low score, ranging from 1 to 3.5 (indicating disagreement), would be expected on the F-ACCPFIN scale, that represents the moral obligation of corporations to accept projects that generate financial benefits for stakeholders other than shareholders. Again, this refers to the shareholder model in which managers act always to increase shareholder wealth, without consideration for whether or not financial benefits are generated for other stakeholders. The mean score on this scale was 4.74, again reflecting a stakeholder orientation on the part of the respondent group.

Fifthly, a high score, ranging from 3.5 to 6 (indicating agreement), would be expected on the EFFC scale, representing the belief that moral benefits are generated when corporations aim to improve financial performance and efficiency. This reflects the underlying moral philosophy of the shareholder model, referring largely to utilitarian principles. The mean score on this scale was 5.05. On its own this would appear to suggest that the respondent group leans towards a shareholder orientation. However, the mean scores on the S&E, PART and EQTY scales, which present alternative corporate objectives that involve greater consideration of the wider group of stakeholders, were 5.24, 5.00 and 4.86 respectively. This indicates that the respondent group identifies moral benefits with all of these objectives presented, and not only with improved financial performance and efficiency. It is difficult to marry a shareholder orientation with these scores, where the respondent group scored higher on corporate objectives that address social and environmental concerns, and returned a similar score for corporate objectives that encourage the participation of stakeholders. Scores on these scales rather suggest a stakeholder orientation.

Lastly, within a strong shareholder orientation companies would not be expected to reject projects that cause harm to stakeholders (other than shareholders). The F-REJC scale includes items that refer to rejecting projects that harm a range of stakeholders, including shareholders. Of the seven questionnaire items making up the scale, two refer to shareholders (the others referring to consumers, the local community and employees). Consequently, very low mean scores of between 1 and 2 (indicating 'Completely disagree' and 'Mostly disagree') would not be expected, and scores between 2 and 4.5 could reasonably be expected within a strong shareholder orientation. The mean of the mean scores for the respondent group was high, at 5.34. This suggests that despite the inclusion of the shareholder items, respondents scored highly on the other questionnaire items. This is supported by a review of the mean of the

scores for each of the items making up the F-REJC scale, presented in table 5.2 (in descending order).

Table 5.2
Mean scores for items making up scale F-REJC

Questionnaire item	Mean
Moral obligation to reject projects with financial harm for shareholders	5.53
Moral obligation to reject projects with financial harm for employees	5.53
Moral obligation to reject projects with soc. & env. harm for employees	5.47
Moral obligation to reject projects with soc. & env. harm for consumers	5.38
Moral obligation to reject projects with soc. & env. harm for shareholders	5.37
Moral obligation to reject projects with financial harm for consumers	5.08
Moral obligation to reject projects with financial harm for local community	5.05

It is clear from these mean scores that the respondent group agreed with the assertion that corporations have moral obligations to reject projects that cause harm to various stakeholders. Although rejecting projects with financial harm for shareholders was given the highest score, this was the same as the score for employees, and similar to the scores for all other items (none being below 5). Accordingly, the scores on the F-REJC scale support a stakeholder orientation.

Analysis of the mean of the mean scores for each of the scales suggests that on the whole, the respondent group adopts a stakeholder orientation. The only evidence suggesting otherwise is the primacy given to the scales representing shareholder interests, which indicates that the respondent group does consider shareholder interests to be paramount. However, the small difference in mean scores between the scales (particularly the top two or three), together with the high scores on the F-ECONREP, F-ACCPFIN and F-REJC scales, indicate that the respondent group does not adopt a wholehearted shareholder orientation. The group can

consequently be described as maintaining a stakeholder orientation within which shareholders are considered the primary stakeholder, followed closely by employees.
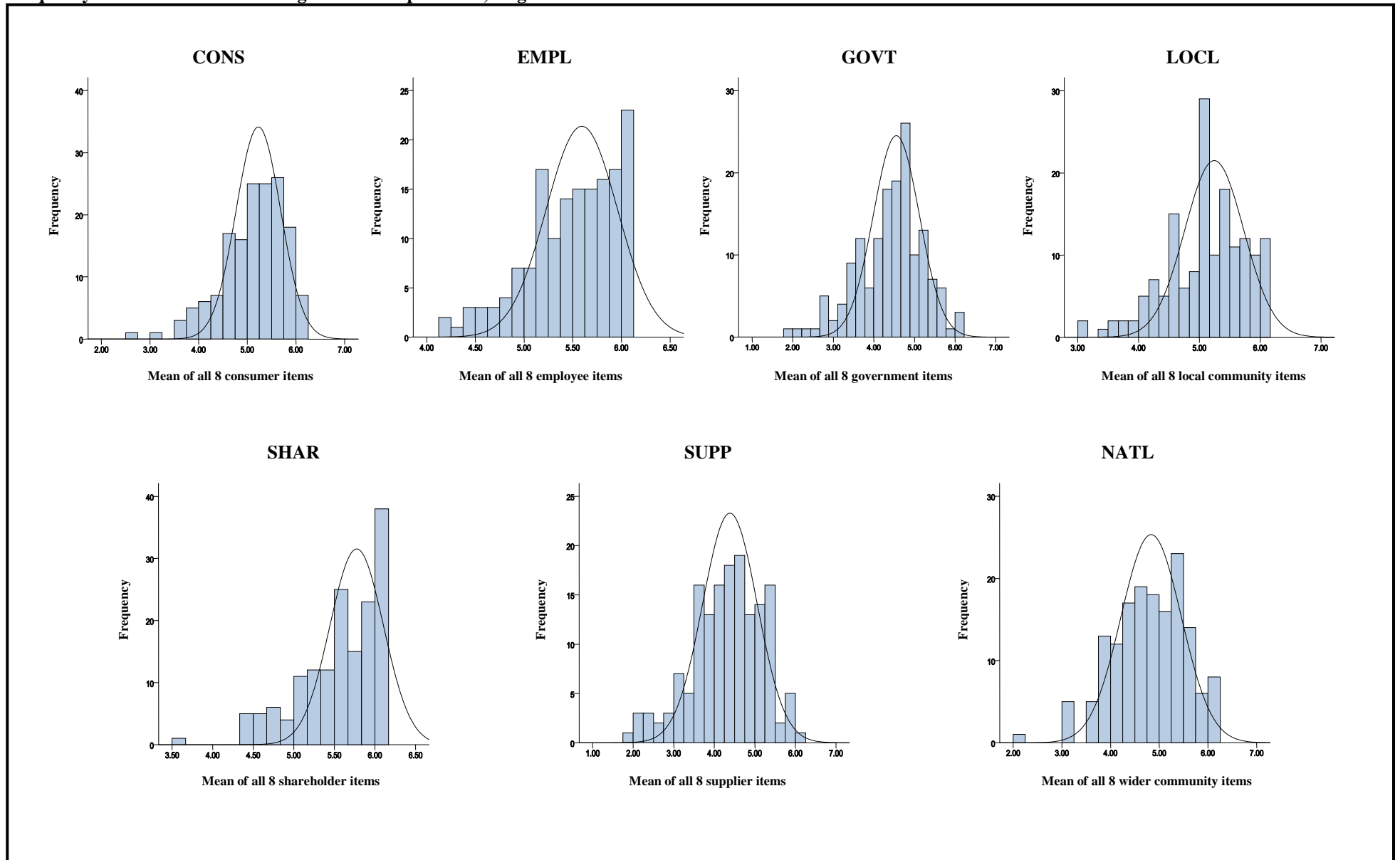
Frequency distributions

The frequency distributions of all 157 responses are depicted in histograms in figures 5.2, 5.3 and 5.4. Figure 5.2 presents frequency distributions for the seven original scales concerning the moral obligations of corporations; figure 5.3 presents frequency distributions for the eight factors identified from the exploratory factor analysis concerning the moral obligations of corporations; figure 5.4 presents frequency distributions for the five scales concerning the moral objectives of corporations. The normal 'bell' curve distribution has been superimposed on all of the histograms for comparison purposes.

The frequency distributions illustrate the number of responses that correspond to the various mean scores on each scale (the size of the 'bins' in which the means are grouped was determined automatically using SPSS). This provides a visual depiction of the responses and illustrates the dispersion, range, skewness and kurtosis of the responses, all of which cannot be determined from the analysis of means only.
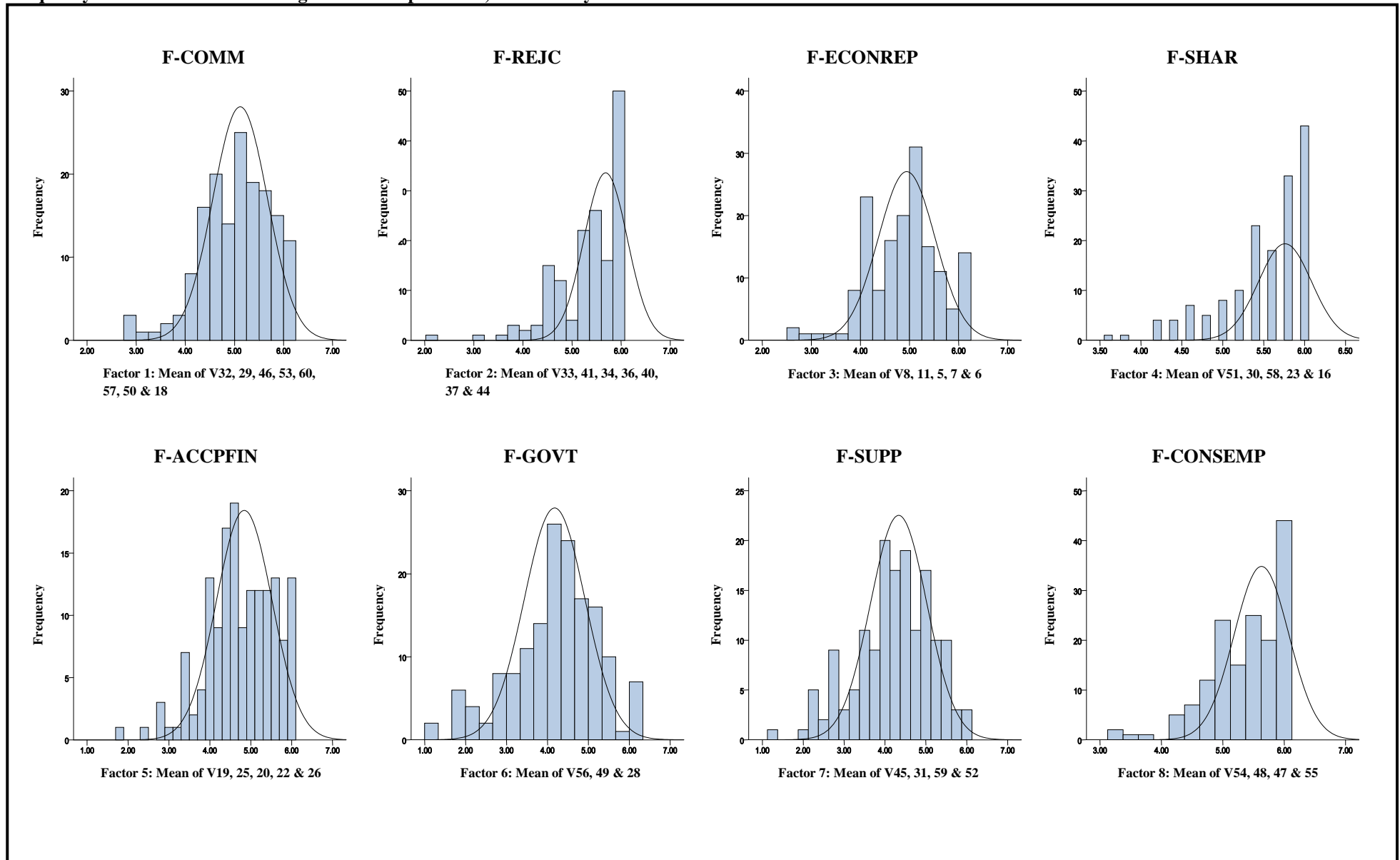
A review of the histograms reveals that the majority of the responses across all the scales fell well within the 3.5 to 6 range, representing agreement with the questionnaire statements, and thus reflecting wide moral obligations and objectives. This reflects a stakeholder orientation. Inspection of the highest and lowest mean scores for each scale confirms a stakeholder orientation, where the highest mean score was 6 ('Completely agree) across all scales, whereas the lowest mean score was typically above 2 ('Mostly disagree') and was never 1 ('Completely disagree').

Figure 5.2
Frequency distributions: Moral obligations of corporations, original scales

Figure 5.3
Frequency distributions: Moral obligations of corporations, factor analysis scales

F-COMM

Factor 1: Mean of V32, 29, 46, 53, 60, 57, 50 & 18

F-REJC

Factor 2: Mean of V33, 41, 34, 36, 40, 37 & 44

F-ECONREP

Factor 3: Mean of V8, 11, 5, 7 & 6

F-SHAR

Factor 4: Mean of V51, 30, 58, 23 & 16

F-ACCPFIN

Factor 5: Mean of V19, 25, 20, 22 & 26

F-GOVT

Factor 6: Mean of V56, 49 & 28

F-SUPP

Factor 7: Mean of V45, 31, 59 & 52

F-CONSEMP

Factor 8: Mean of V54, 48, 47 & 55

Figure 5.4
Frequency distributions: Moral objectives of corporations

EFFC — Mean of all 3 efficiency items

EQTY — Mean of all 3 equity items

PART — Mean of all 3 participation items

S&E — Mean of all 3 social and environmental items

F-EQS&E — Objectives factor: Mean of V66, 70, 62, 72, 68 & 64
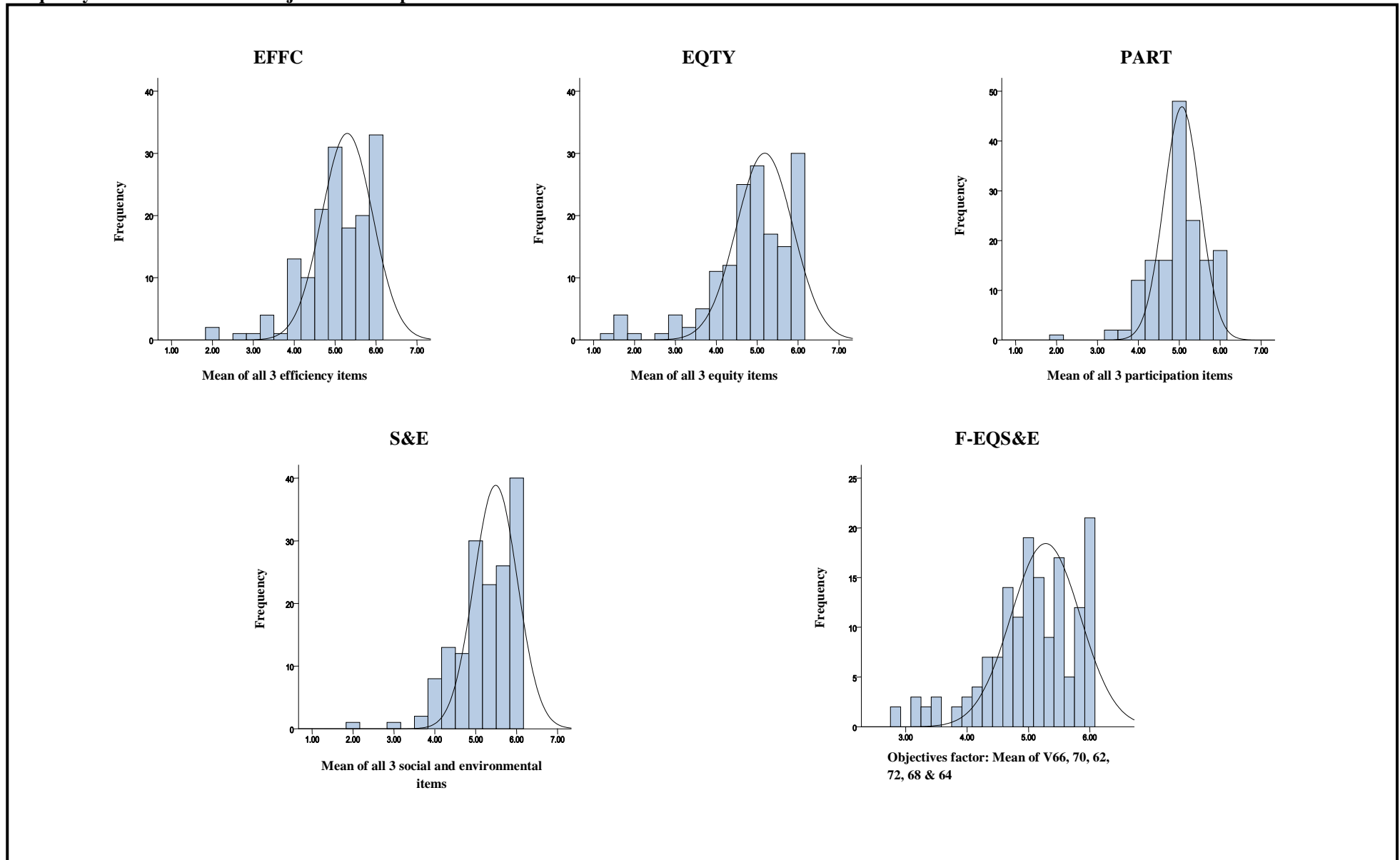
The degree to which the respondents were biased towards moral agreement is also evident in the negative skewness of the distributions. That is, instead of approximating the normal distribution in which the responses are symmetrically distributed, the actual responses for some scales are biased towards higher scores, reflected in histograms that are 'bunched to the right' and have small or non-existent right-hand tails. This is particularly noticeable in the SHAR, F-REJC, F-SHAR, F-CONSEMP, EFFC, EQTY and S&E scales, all of which have negative skewness coefficients with a magnitude greater than -1. Furthermore, the modes (representing the mean score 'bin' with the highest number of responses) for EMPL, SHAR, F-REJC, F-SHAR, F-CONSEMP, EFFC, EQTY, S&E and F-EQS&E are all 6. As 6 was the highest available response, and following the curve of the normal distribution, it can be hypothesised that some respondents would have scored higher if they could. Conceptually, however, a response of 6 corresponded to 'Completely agree', so it is difficult to conceive of a response which indicates more agreement with the questionnaire statements.

It is noticeable that the scales with significantly negatively skewed distributions and high modes include the scales that deal with shareholders' and employees' interests (as well as the different corporate objectives). The frequency distributions thus confirm the view suggested by the analysis of means, that the respondent group maintains a stakeholder orientation within which shareholders are considered the most important stakeholder, followed closely by employees.

Normality and outliers

Certain statistical tests and measures are limited to data which is normally distributed. Data which does not fit this distribution can be transformed to limit the effects of skewness and kurtosis, and allow these statistics to be applied. Following De Vaus (2002, p.78), mild to moderate negative skewness can be transformed by squaring the data. In the untransformed data, 15 of the scales had either a skewness or kurtosis coefficient with a magnitude greater than -1. After squaring the data, only one scale had such a coefficient.

Outliers are extreme cases in the data. These can distort certain statistical tests and measures and accordingly need to be investigated to ensure that they are not due to data collection errors, and/or minimised where possible. Outliers were identified using SPSS' boxplots, which defines outliers as those cases which exceed 1.5 times the interquartile range above the third quartile or below the first quartile. Regarding the mean responses on the 20 scales

(providing 3,140 mean responses) a total of 46 outliers were identified in the untransformed data. After squaring the data, only 13 outliers remained. The actual questionnaires for these 13 outliers were then inspected to ensure that no errors in data collection and input had occurred. Given the relatively small number of outliers, and no apparent reason to exclude these cases, no further action was taken.

As transforming the data results in reduced skewness, kurtosis and outliers, data analysis was conducted, where necessary and appropriate, on the transformed data. This is indicated in the results that follow.

Conclusion

Based on a consideration of the theoretical expectations of the shareholder model of corporate governance and an analysis of the means and frequency distributions of the respondent group it is possible to conclude that the respondents maintain a stakeholder orientation, within which shareholders feature prominently, and that they do not subscribe to the traditional tenets of the Anglo-American shareholder model.

Within the limits of the non-statistical generalisability discussed in chapter four, the conclusion can then be drawn that there are significant differences between the moral beliefs of professional accounting students in South Africa and the morality that underlies the Anglo-American shareholder model of corporate governance.

5.2 The views of professional accounting students of different racial groups

Two methods are adopted in understanding how the views of the respondents of different racial groups differ. Firstly, the mean of the mean scores for each scale are compared across the five racial groups, and are evaluated using several different measures of effect size; and secondly, contingency tables for Black and White students are presented and analysed. The former is considered preferable as it makes use of metric data; contingency tables are however provided to provide a thorough exploration of the data and to confirm the results of the means analysis.

Analysis of means

Table 5.3 presents the mean of the mean scores for each of the scales, by racial group. For analysis across all five racial groups, Eta (η), Eta squared (η^2) and the range (being the difference between the highest and lowest mean of means across the five racial groups) are shown. For analysis between Black and White respondents only, the difference between the mean scores, Pearson's correlation coefficient (r), and the coefficient of determination (R^2) are shown. The Black and White respondent scores are shown in bold and are considered separately as none of the other groups have more than 14 respondents.

The η coefficient measures the degree to which the scores are associated with the different racial groups, and η^2 provides an indication of how much of the variance can be explained by racial group. Both η and η^2 include non-linear associations. The r coefficient, and R^2, do the same, but are limited to a linear association (which is identical to η and η^2 where there are only two categories). All of these measures were calculated using the data transformed for normality. The five scales with the largest coefficients have been highlighted in table 5.3.

Inspection of the means and the η coefficient shows that there is little association between the five different racial groups and the mean of the mean scores across most of the scales. Using Blaikie's (2003, p.100) convention regarding measures of association (see section 4.1 in chapter four), the association is negligible in three of the scales (EMPL, EQTY & F-EQS&E), weak in sixteen scales and moderate in only one (F-COMM). These low associations are supported by the η^2 coefficients, which indicate that very little of the variance in the mean scores (at most 13 percent on F-COMM) can be explained by differences across the five racial groups. The largest difference in scores (1.64) is between Black and Coloured respondents on the F-COMM scale. However, as there were only two Coloured respondents, this difference cannot be interpreted meaningfully.

Table 5.3
Means by racial group

	Scale																			
	Moral obligations of corporations, original scales							Moral obligations of corporations, factor analysis scales								Moral objectives of corporations				
Racial group	CONS	EMPL	GOVT	LOCL	NATL	SHAR	SUPP	1: F-COMM	2: F-REJC	3: F-ECONREP	4: F-SHAR	5: F-ACCPFIN	6: F-GOVT	7: F-SUPP	8: F-CONSEMP	EFFC	EQTY	PART	S&E	F-EQS&E
Asian	4.50	5.00	4.13	4.00	3.88	5.88	3.50	4.13	4.86	4.60	5.80	3.80	4.00	3.50	5.00	4.67	5.00	5.00	4.67	4.83
Black	**5.07**	**5.45**	**4.47**	**5.23**	**4.94**	**5.52**	**4.21**	**5.20**	**5.28**	**4.84**	**5.53**	**4.93**	**4.21**	**4.21**	**5.45**	**4.95**	**4.92**	**5.15**	**5.24**	**5.08**
Coloured	5.25	5.38	4.75	4.31	3.69	5.13	4.31	3.56	5.00	5.40	5.10	4.70	4.33	4.38	5.25	5.33	4.83	4.83	4.50	4.67
Indian	5.21	5.49	4.25	5.21	4.87	5.59	4.47	5.15	5.55	4.67	5.54	4.81	3.73	4.46	5.59	5.17	4.83	5.10	5.33	5.08
White	**5.04**	**5.42**	**4.36**	**4.96**	**4.59**	**5.55**	**4.25**	**4.80**	**5.38**	**4.89**	**5.48**	**4.59**	**3.91**	**4.20**	**5.29**	**5.10**	**4.81**	**4.87**	**5.24**	**5.03**
η *	0.11	0.09	0.11	0.28	0.29	0.11	0.10	0.36	0.14	0.13	0.11	0.24	0.17	0.10	0.18	0.12	0.08	0.22	0.12	0.07
η^2 *	0.01	0.01	0.01	0.08	0.09	0.01	0.01	0.13	0.02	0.02	0.01	0.06	0.03	0.01	0.03	0.01	0.01	0.05	0.02	0.01
Range	0.75	0.49	0.62	1.23	1.25	0.75	0.97	1.64	0.69	0.80	0.44	1.13	0.60	0.96	0.59	0.66	0.19	0.32	0.83	0.41
Black:White difference	0.03	0.03	0.11	0.27	0.35	-0.03	-0.04	0.40	-0.10	-0.05	0.05	0.34	0.30	0.01	0.16	-0.15	0.11	0.28	0.00	0.05
r (Black and White only) *	0.04	0.04	0.07	0.22	0.24	0.02	0.01	0.30	0.06	0.03	0.06	0.22	0.16	0.01	0.13	0.10	0.08	0.22	0.02	0.05
R^2 (Black and White only) *	0.01	0.01	0.01	0.05	0.06	0.00	0.00	0.09	0.00	0.00	0.00	0.05	0.03	0.00	0.02	0.01	0.01	0.05	0.00	0.00

* These coefficients have been calculated using data transformed for normality

When considering Black and White respondents only, evaluation of the *r* coefficient indicates that the associations between Black and White racial group and the mean scores on most of scales are similarly either negligible or weak. The strongest (moderate) association is found on the F-COMM scale, with a correlation coefficient of 0.30. The highest R^2 coefficient (F-COMM) is 0.09, meaning that only 9 percent of the variance in the outcome can be explained by differences in racial group. As all of the R^2 coefficients are below 0.10 (some approximating zero when rounded to two decimal places), it is possible to conclude that the variance in the mean scores on the various scales cannot be adequately explained in terms of differences between Black and White racial groups.

The largest difference in mean scores between Black and White respondents is 0.40, on the F-COMM scale. As possible scores range from 1 to 6, the fact that the mean of the mean scores of Black and White respondents do not differ by even half a point across all 20 scales shows that overall, the difference in the mean responses between these groups is of little practical significance.

It should be noted, however, that there is some indication of a very weak relationship between Black and White respondents across most of the scales, and a slightly stronger (but still weak) relationship in six specific scales. These six scales include F-COMM, NATL and LOCL that all deal with moral obligations to the community (with F-COMM showing a moderate association), F-ACCPFIN that deals with accepting projects that have financial benefits for stakeholders other than shareholders, F-GOVT dealing with moral obligations to government entities and PART dealing with encouraging the participation of stakeholders.

Contingency tables

The second method used to detect any association between racial groups and the mean scores on the various scales involves the construction of contingency tables, in which racial groups are tabulated against the means for each scale, and certain related coefficients are evaluated. As contingency tables cannot deal with interval data, the mean scores were first re-coded as categorical data, into four categories labelled 'Low', 'Moderate', 'High' and 'Very high'. The intention was to re-code the responses into four categories of approximately equal size as far as possible, and was performed using SPSS' 'visual binning' function. Note that the upper endpoints of each category were included in the categories for all scales except F-SHAR, F-

CONSEMP & S&E. For these scales this would have resulted in only three categories, in order to obtain four categories the upper endpoints were excluded from each category. One of the endpoints for the PART scale was manually adjusted by 0.001 in order to ensure all four categories were populated.

For measures of association that involve the calculation of a Chi-squared statistic, contingency tables should not include any cells with an expected frequency of less than 1, and not more than 20 percent of the expected frequencies should be less than 5 (Blaikie, 2003, p.98). As the expected frequencies of Asian and Coloured respondents in some categories is inevitably less than 1, and the inclusion of the Indian responses results in expected frequencies of less than 5 in more than 20 percent of the cells (in most if not all of the contingency tables), these racial groups have all been omitted. The re-coding was performed using only the responses from Black and White respondents.

The contingency tables for all of the scales are presented in table 5.4. For each of the two racial groups, the number of responses for each category of mean score is shown in each cell. The proportion of the total for each racial group is shown as a percentage in brackets. The percentages in the total row reflect the expected frequency for each category assuming there is no difference between racial groups. In order to identify patterns in any associations, all overrepresentations are shown in bold. In addition, all cells where the actual frequency percentage differs from the expected frequency percentage by 10 percent or more are highlighted.

Table 5.4
Contingency tables: racial group by scale means

Racial group	Mean score					Racial group	Mean score				
	Low	Moderate	High	Very high	Total		Low	Moderate	High	Very high	Total
CONS						**NATL**					
Black	**18 (29%)**	11 (18%)	**17 (27%)**	**17 (27%)**	63 (100%)	Black	12 (19%)	13 (21%)	**18 (29%)**	**20 (32%)**	63 (100%)
White	21 (27%)	**21 (27%)**	19 (25%)	16 (21%)	77 (100%)	White	**28 (36%)**	**23 (30%)**	11 (14%)	15 (20%)	77 (100%)
Total	39 (28%)	32 (23%)	36 (26%)	33 (24%)	140 (100%)	Total	40 (29%)	36 (26%)	29 (21%)	35 (25%)	140 (100%)
EMPL						**SHAR**					
Black	18 (29%)	13 (21%)	**22 (35%)**	10 (16%)	63 (100%)	Black	**20 (32%)**	11 (18%)	12 (19%)	**20 (32%)**	63 (100%)
White	**24 (31%)**	**20 (26%)**	21 (27%)	12 (16%)	77 (100%)	White	20 (26%)	**22 (29%)**	**20 (26%)**	15 (20%)	77 (100%)
Total	42 (30%)	33 (24%)	43 (31%)	22 (16%)	140 (100%)	Total	40 (29%)	33 (24%)	32 (23%)	35 (25%)	140 (100%)
GOVT						**SUPP**					
Black	15 (24%)	15 (24%)	**19 (30%)**	**14 (22%)**	63 (100%)	Black	**17 (27%)**	16 (25%)	13 (21%)	**17 (27%)**	63 (100%)
White	**23 (30%)**	**19 (25%)**	22 (29%)	13 (17%)	77 (100%)	White	18 (23%)	20 (26%)	**22 (29%)**	17 (22%)	77 (100%)
Total	38 (27%)	34 (24%)	41 (29%)	27 (19%)	140 (100%)	Total	35 (25%)	36 (26%)	35 (25%)	34 (24%)	140 (100%)
LOCL						**F-COMM**					
Black	12 (19%)	13 (21%)	**18 (29%)**	**20 (32%)**	63 (100%)	Black	12 (19%)	12 (19%)	**21 (33%)**	**18 (29%)**	63 (100%)
White	**25 (33%)**	**24 (31%)**	16 (21%)	12 (16%)	77 (100%)	White	**26 (34%)**	**24 (31%)**	16 (21%)	11 (14%)	77 (100%)
Total	37 (26%)	37 (26%)	34 (24%)	32 (23%)	140 (100%)	Total	38 (27%)	36 (26%)	37 (26%)	29 (21%)	140 (100%)

Table 5.4 (continued)
Contingency tables: racial group by scale means

Racial group	Mean score				
	Low	Moderate	High	Very high	Total
F-REJC					
Black	**18 (29%)**	12 (19%)	17 (27%)	**15 (24%)**	63 (100%)
White	19 (25%)	**16 (21%)**	**28 (36%)**	14 (18%)	77 (100%)
Total	37 (27%)	28 (20%)	45 (32%)	29 (21%)	140 (100%)
F-ECONREP					
Black	**23 (37%)**	10 (16%)	15 (24%)	**15 (24%)**	63 (100%)
White	19 (25%)	**19 (25%)**	**25 (33%)**	14 (18%)	77 (100%)
Total	42 (30%)	29 (21%)	40 (29%)	29 (21%)	140 (100%)
F-SHAR					
Black	11 (18%)	12 (19%)	17 (27%)	**23 (37%)**	63 (100%)
White	**15 (20%)**	**19 (25%)**	**26 (34%)**	17 (22%)	77 (100%)
Total	26 (19%)	31 (22%)	43 (31%)	40 (29%)	140 (100%)
F-ACCPFIN					
Black	15 (24%)	14 (22%)	9 (14%)	**25 (40%)**	63 (100%)
White	**23 (30%)**	**25 (33%)**	**21 (27%)**	8 (10%)	77 (100%)
Total	38 (27%)	39 (28%)	30 (21%)	33 (24%)	140 (100%)

Racial group	Mean score				
	Low	Moderate	High	Very high	Total
F-GOVT					
Black	**13 (21%)**	13 (21%)	16 (26%)	**20 (32%)**	63 (100%)
White	14 (18%)	**31 (40%)**	20 (26%)	12 (16%)	77 (100%)
Total	27 (19%)	44 (32%)	36 (26%)	32 (23%)	140 (100%)
F-SUPP					
Black	**20 (32%)**	13 (21%)	17 (27%)	12 (19%)	63 (100%)
White	22 (29%)	**21 (27%)**	20 (26%)	14 (18%)	77 (100%)
Total	42 (31%)	34 (25%)	37 (27%)	26 (19%)	140 (100%)
F-CONSEMP					
Black	12 (19%)	13 (21%)	14 (23%)	**23 (37%)**	63 (100%)
White	**15 (20%)**	**22 (29%)**	**23 (30%)**	17 (22%)	77 (100%)
Total	27 (19%)	35 (25%)	37 (27%)	40 (29%)	140 (100%)
EFFC					
Black	**25 (41%)**	12 (20%)	13 (21%)	11 (18%)	63 (100%)
White	23 (30%)	15 (20%)	**21 (27%)**	**18 (23%)**	77 (100%)
Total	48 (35%)	27 (20%)	34 (25%)	29 (21%)	140 (100%)

Table 5.4 (continued)
Contingency tables: racial group by scale means

Racial group	Mean score				
	Low	**Moderate**	**High**	**Very high**	**Total**
EQTY					
Black	**12 (19%)**	22 (36%)	**13 (21%)**	**15 (24%)**	63 (100%)
White	13 (17%)	**38 (49%)**	14 (18%)	12 (16%)	77 (100%)
Total	25 (18%)	60 (43%)	27 (19%)	27 (19%)	140 (100%)
PART					
Black	14 (23%)	19 (31%)	8 (13%)	**20 (33%)**	63 (100%)
White	**30 (39%)**	**25 (33%)**	**12 (16%)**	10 (13%)	77 (100%)
Total	44 (32%)	44 (32%)	20 (15%)	30 (22%)	140 (100%)
S&E					
Black	**15 (24%)**	10 (16%)	17 (27%)	**20 (32%)**	63 (100%)
White	17 (22%)	**18 (23%)**	**28 (36%)**	14 (18%)	77 (100%)
Total	32 (23%)	28 (20%)	45 (32%)	34 (25%)	140 (100%)
F-EQS&E					
Black	18 (29%)	9 (15%)	**17 (27%)**	**18 (29%)**	63 (100%)
White	**24 (31%)**	**19 (25%)**	19 (25%)	15 (20%)	77 (100%)
Total	42 (30%)	28 (20%)	36 (26%)	33 (24%)	140 (100%)

Inspection of the tables reveals that White respondents are overrepresented in the 'Very high' category in only a single table (EFFC), yet they are overrepresented in the 'Low' category in 10 tables (out of a total of 20). This suggests that White respondents' views are less extreme than Black respondents, who dominate the overrepresentation in the 'Very high' category and share the overrepresentation in the 'Low' category. This does, however, ignore the fact that the amount of overrepresentation varies from scale to scale, and when looking only at significant variations from expected frequencies, only five instances are identified:

F-ACCPFIN: Black respondents overrepresented in the 'Very High' category by 16 percent

F-ACCPFIN: White respondents underrepresented in the 'Very High' category by 14 percent

F-GOVT: Black respondents underrepresented in the 'Moderate' category by 11 percent

PART: Black respondents overrepresented in the 'Very High' category by 11 percent

NATL: Black respondents underrepresented in the 'Low' category by 10 percent

These variations confirm the weak relationships identified in these scales from the means analysis.

In order to measure the strength of the association between the Black and White racial groups and the mean scores on all 20 scales, two coefficients were calculated using the information in the contingency tables. The first, Cramér's V, is a symmetrical measure of association that shows the strength of any association, whereas the second, lambda (λ), is an asymmetrical measure that specifically identifies the degree to which one variable can be said to influence the other (lambda varies depending on which variable is presumed to influence the other). In this case lambda is calculated using racial group as the predictor (independent) variable and the re-coded mean scores as the outcome (dependent) variable. These coefficients are presented in table 5.5, in descending order.

Table 5.5
Measures of association and influence: Cramér's V and lambda coefficients

Moral obligations of corporations: original factors			Moral obligations of corporations: factor analysis scales			Moral objectives of corporations		
Scale	Cramér's V	λ	Scale	Cramér's V	λ	Scale	Cramér's V	λ
NATL	0.27	0.08	F-ACCPFIN	0.35	0.11	PART	0.26	0.09
LOCL	0.25	0.08	F-COMM	0.27	0.09	S&E	0.18	0.03
SHAR	0.19	0.02	F-GOVT	0.25	0.07	F-EQS&E	0.15	0.00
CONS	0.12	0.00	F-ECONREP	0.18	0.06	EQTY	0.15	0.00
SUPP	0.10	0.03	F-CONSEMP	0.17	0.06	EFFC	0.13	0.00
EMPL	0.09	0.03	F-SHAR	0.16	0.06			
GOVT	0.09	0.01	F-REJC	0.11	0.01			
			F-SUPP	0.07	0.00			

Following Blaikie's (2003, p.100) convention for evaluating the strength of associations from the values of coefficients, the Cramér's V coefficients indicate that the associations between Black and White racial group and the mean scores on most of scales are again either negligible or weak. The associations between Black and White racial group and the mean scores on F-ACCPFIN are, however, considered to be of moderate strength (between 0.30 and 0.59).

Lambda can be interpreted as the percentage by which errors in predicting the mean scores can be reduced through knowledge of the respondent's racial group (Blaikie, 2003, p.121). For F-ACCPFIN, which has the highest lambda, knowledge of the respondent's racial group could therefore reduce prediction errors by 11 percent.

Conclusion

The overall picture given by a number of different measures - some symmetrical, some asymmetrical, some linear, some non-linear - as well as inspections of the means and the distributions through contingency tables, shows that there are no large differences between White and Black respondents. A moderate association can, however, be identified in the scale

dealing with the moral importance of the community's interests. Weak associations can also be seen in scales dealing with the participation of stakeholders as a moral objective, the moral importance of government entities' interests and the moral obligation to accept projects generating financial benefits for stakeholders other than shareholders. For all of these observed associations, Black respondents scored higher, indicating that compared to the White respondents, this group considers corporations to have greater moral obligations (particularly to the community), and sees the increased participation of stakeholders as generating more moral benefit. With regard to non-statistical generalisability referred to in chapter four (section 4.1), these associations (and the absence of associations) could also be considered to be present in the population of professional accounting students in South Africa. The implications that these associations have for the claim of Descriptive moral relativism are considered in detail in chapter eight.

5.3 Exploratory analysis

In addition to analysing the survey data to find evidence relating to the claim of Descriptive moral relativism with specific regard to the beliefs of professional accounting students in South Africa, and between those of different racial groups, there is an exploratory aspect to this analysis. In this regard, the survey data can be used to investigate (1) whether there are differences between the genders amongst the respondent group, and (2) whether gender is a moderating variable on the relationship between racial group and the mean scores. The latter can be interpreted as whether knowing the gender as well as the racial group of a respondent improves the ability to predict the outcome on the various scales.

As this analysis is not central to the research objectives, the following section is limited to a discussion of the results. The tables presenting the results themselves are provided in Appendix nine.

Association with gender

In order to identify whether there are differences in moral judgements relating to corporate governance between female and male professional accounting students in South Africa, the same analysis as in section 5.2 (in which differences between racial groups were investigated) was performed. This includes an analysis of the mean of the mean scores and the use of

contingency tables and related measures (measures of effect size were calculated using transformed data).

Comparison of the mean of the mean scores (table A9.1, the five scales with the highest coefficients have been highlighted) reveals that females scored higher than male respondents on all but one scale (S&E). While this may suggest that females maintain more of a stakeholder orientation than males, the size of the difference is small, the largest difference (on the six-point Likert scale) being 0.31 (F-ACCPFIN). Pearson's correlation coefficient (r) was low for all scales, the highest being 0.24 on the CONS scale. The coefficient of determination (R^2) was accordingly very low across all of the scales as well, reaching a maximum of 0.06 (CONS), indicating that very little of the variance in the mean scores can be explained by differences in gender. According to Blaikie's (2003, p.100) convention, 14 out of the 20 scales reflect a negligible association, with the remaining being weak. Comparison of the means does not therefore identify any practically significant differences between female and male respondents.

Inspection of the contingency tables (table A9.2) reveals that females are overrepresented in the 'Very high' category in 17 (out of 20) scales, with males being overrepresented in this category in only one scale (S&E). Male respondents are overrepresented in the 'Low' category in 18 scales, with females being overrepresented in this category in only one scale (EQTY). This confirms the suggestion that females scored higher than male respondents. However, this ignores the fact that in some cases the overrepresentation is minor. When significant variations only are considered (differences of 10 percent or more from the expected frequency percentage), only two scales are identified: EMPL and F-ACCPFIN, in both cases females being overrepresented in the higher categories and males in the lower categories.

These relationships are confirmed through the Cramér's V and lambda (λ) coefficients (table A9.3). Using Cramér's V, most of the associations are weak, with one being negligible (F-SHAR). The largest associations are found in the CONS and F-ACCPFIN scales, each with coefficients of 0.24. Using the directional measure, lambda, the coefficients drop and the highest is 0.12 in the EMPL scale. In this scale, therefore, it is possible to claim that 12 percent of the prediction errors could be eliminated if the gender of the respondent is known. In 18 of the 20 scales, however, lambda is less than 0.05.

Overall, therefore, it is possible to conclude that there are no more than minor differences between the genders, with these weak differences being located primarily in the CONS, F-ACCPFIN and EMPL scales.

Trivariate analysis

Three similar methods were adopted to identify whether or not gender can be considered to be a moderating variable between racial group and the mean scale scores: Means analysis, multiple regression and conditional contingency tables.

Analysis of means

Analysis of means, where the respondent group has been split both by racial group and by gender, reveals slightly larger differences between the groups than when either racial group or gender are considered on their own (table A9.4, the five scales with the highest coefficients being highlighted). In four scales (GOVT, F-ACCPFIN, F-GOVT & PART), the difference between the lowest and highest mean of the mean scores exceeded 0.50. For GOVT and F-GOVT this was between Black male and White male respondents, and for F-ACCPFIN and PART this was between Black female and White male respondents. Overall, the Black female group had the highest mean of the mean scores in 9 out of the 15 moral obligations scales, and the White male group had the lowest in 7 of the 15 moral obligations scales and in 4 of the 5 moral objectives scales. The greater association with both racial group and gender is also reflected in increased η coefficients, which can be considered of moderate strength in 3 of the 20 scales, weak in 13, and negligible in only 4 of the scales.

Multiple regression

Multiple regression analysis involves computing a regression line that can be used to estimate or predict the outcome on one variable, if one has knowledge of the predictor (independent) variables. In this case racial group and gender are both predictor (independent) variables and the mean scale scores is the outcome (dependent) variable. If the results indicate an improvement over bivariate linear regression by racial group (which corresponds to the means analysis from section 5.2 above) then gender can be considered a moderating variable of the relationship between racial group and the mean scale scores.

The results are presented in table A9.5. The multiple correlation coefficient, R, can be compared to Pearson's correlation coefficient *r* in the bivariate analysis (table 5.3). There was

some improvement in all scales other than F-ECONREP, F-COMM and EFFC, which all remained constant (the six scales with the highest R are highlighted in table A9.5). The coefficient of determination, R^2, is accordingly also greater across most scales, indicating that the model 'fits' the data better than the bivariate analysis. However, as the highest R^2 is 0.10 (PART), at best the model explains only 10 percent of the variance in the scale scores. The standard error statistics can also indicate whether or not the multiple regression provides better estimates than bivariate analysis. The standard error for the multiple regression is lower than or the same as the bivariate regression in 11 of the 20 scales, and the increases in the other 9 scales are negligible. In this aspect the multiple regression model is approximately the same as bivariate analysis.

In some cases (such as EMPL), the improved correlation coefficient reflects the association (albeit weak) between gender and the mean scale scores, and racial group contributes little to the outcome variable. To identify the relative contributions of gender and racial group more clearly, the standardised beta coefficients (Beta) are inspected. In some scales, either racial group or gender is dominant, reflecting the bivariate analyses reported above, and in other scales Beta is low for both variables, reflecting the lack of an association with either racial group or gender (also identified in the bivariate analysis). For three scales (F-ACCPFIN, F-CONSEMP and PART) Beta for both predictor variables is greater than 0.10, indicating that for these scales both racial group and gender contribute to the stronger associations identified by the correlation coefficient.

As noted above, the multiple regression line can be used to estimate or predict the outcome, given certain values for the predictor variables. In order to arrive at an estimate for the scale scores, the following equation (based on data squared for normality) can be used:

$$Y = \overline{b_r X_r + b_g X_g + a}$$

Where Y is the scale score, X_r is the racial group of the respondent (1 for White, 2 for Black), and X_g is the gender of the respondent (1 for male, 2 for female). The slope of the line and the intercept are reported in table A9.5, where b_r is beta (*b*) for the racial group variable, b_g is the beta (*b*) for the gender variable and *a* is the constant[32]. Due to the poor 'fit' of the model (as represented by the R^2 statistics), the estimate provided by this equation cannot be relied upon with much confidence, and the equation is reported here for completeness.

Finally, collinearity, which refers to the correlation between the independent variables, can present problems in multiple regression. Two diagnostic measures are accordingly calculated: Tolerance and the Variance Inflation Factor (VIF), and low levels of correlation (and therefore acceptable collinearity) are reflected when these measures approximate 1. As the VIF statistics calculated by SPSS range from 1.01 to 1.02, and all of the Tolerance statistics are 0.99, collinearity is not considered to be a problem.

Conditional contingency tables

Conditional contingency tables are similar to the contingency tables used in the investigations of differences between racial groups in section 5.2 and between genders above. However, the use of conditional contingency tables introduces a third variable by separating each of the contingency tables from table 5.4 into two tables: one for female respondents only and one for male respondents only, thereby holding gender constant. This procedure results in twice as many contingency tables, and reduces the number of respondents in each table significantly. As visual inspection of the tables is less useful when the number of respondents is low, the tables have not been reproduced. However, the usual measures of association (Cramér's V) and influence (lambda) have been calculated (table A9.6).

For all scales, there is some increase in either the Cramér's V or the lambda coefficients when gender is introduced as a third variable. In many cases, however, the increase is marginal. There are seven scales in which, for either the female or male table, Cramér's V exceeds 0.30, or lambda exceeds 0.10: LOCL, GOVT, F-ACCPFIN, F-COMM, F-GOVT, S&E and F-EQS&E. These reflect four areas: moral obligations to the community, moral obligations to government entities, the moral obligation to accept projects with financial benefits for stakeholders other than shareholders, and social and environmental concerns as a moral objective. Note that even in these scales, the measures are low; the highest coefficients being found in F-ACCPFIN (Females), where Cramer's V is 0.42 and lambda 0.17. Even in this case, prediction errors are reduced by only 17 percent when the respondent is female and one knows their racial group.

The combination of means analysis, multiple regression and conditional contingency tables indicates that gender is a moderating variable in the relationship between racial group and the mean scale scores for some scales, and that therefore it is beneficial to know both a

respondent's gender and racial group if predictions are to be made. As with the bivariate analysis, the relationships identified in the trivariate analysis are, however, weak.

5.4 Conclusion

Determining whether or not there are differences between racial groups and genders amongst a group of students is a descriptive question. In this chapter a number of different techniques have been used to identify and explore the relationships between racial groups, gender and scores representing moral judgements. The primary purpose has been to determine firstly whether there are differences between the respondent group of professional accounting students in South Africa and the Anglo-American model of corporate governance, and secondly, whether there are differences between respondent students of differing racial groups.

The first question has been answered in the affirmative, through a relatively straightforward inspection of the mean scores of the respondent group and the distribution of their responses. These responses were compared to theoretical expectations based on the Anglo-American shareholder model of corporate governance. It was clear that the respondent group rated the moral obligations and objectives of corporations that included the interests of a range of stakeholder groups highly, and accordingly can be described as maintaining a stakeholder orientation. Notably, however, shareholders were rated higher than other stakeholders, although the difference was typically marginal. Within the limits of the non-statistical generalisability discussed in chapter four (section 4.1), it can then be suggested that the same is true of the population of professional accounting students in South Africa.

Differences between racial groups were identified by comparing the means of the different racial groups. The small number of respondents in certain racial groups restricted any meaningful comparison to Black and White students only. Measures of effect size were used to assess associations between the mean scores and racial groups. No large differences were identified on any scales and on only one scale could the association be considered to be of moderate strength. This scale reflected the moral importance of the interests of the community. On most scales the associations were either weak or negligible; the scales dealing with the moral obligation to accept projects with financial benefits to stakeholders other than shareholders, the moral importance of stakeholder participation as a corporate objective and

the moral importance of government entities' interests showed marginally higher associations than other scales, although these also could only be considered weak.

The results of the comparison of means were supported by an analysis of contingency tables. With the possible exception of the moral importance of the community's interests, there were therefore no practically significant differences in moral judgements relating to corporate governance between racial groups in the respondent group. Within the limits of non-statistical generalisability discussed in chapter four, it can then be suggested that the same is true of professional accounting students in South Africa generally.

The nature of the data also enabled investigations into possible associations between moral judgements relating to corporate governance and gender, and the combined effect of both racial group and gender. Using the same techniques as the analysis by racial group, only weak and negligible associations were identified with gender. Minor associations (still considered weak) were found in those scales dealing with the moral importance of consumers' and employees' interests and the moral obligation to accept projects with financial benefits to stakeholders other than shareholders.

The effect of both racial group and gender was investigated through means analysis, multiple regression and conditional contingency tables. Measures of effect size suggest that there are moderate associations with both racial group and gender for scales dealing with the moral importance of stakeholder participation as a corporate objective, the moral importance of the community's and government entities' interests, and the moral obligation to accept projects with financial benefits to stakeholders other than shareholders. Although several weak associations were also identified when both racial groups and gender were considered, the amount of variance in the scale scores that can be explained by racial group and gender remained very low, indicating that there are other unknown factors that play a significant role in the respondents' scale scores. These results were largely confirmed through multiple regression and conditional contingency tables.

Finally, it should be remembered that although no associations of real practical significance were identified between racial groups (with perhaps one exception), the absence of differences in moral judgements is of considerable theoretical importance when the claims and arguments of moral relativism are considered. The implications that the identified differences with the Anglo-American stakeholder model, and the absence of differences

between racial groups, have for the claims and arguments of moral relativism are discussed further in chapter eight. The next chapter presents the results of qualitative interviews with a sample of professional accounting students in South Africa.