



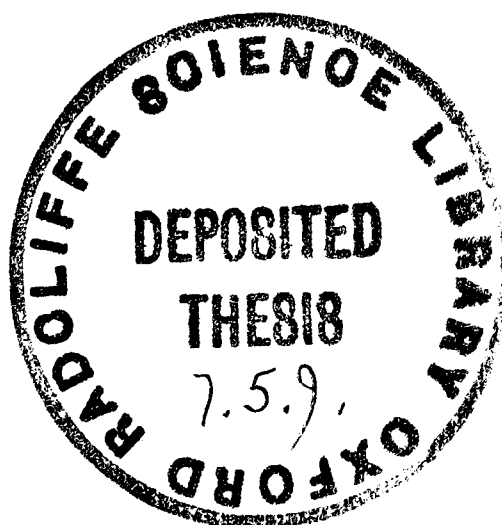
SOCIAL IDENTITY THEORY AND INTERGROUP ATTRIBUTIONS

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A dissertation submitted for the degree of Doctor of Philosophy, in the
Faculty of Psychological Studies, University of Oxford.

Hilary Term, 1991



Approximately 96,000 words

*The date given by Bodley is
obviously wrong.*

CONTENTS

ACKNOWLEDGEMENTS	ix
LIST OF TABLES	xi
LIST OF FIGURES	xvii
ABSTRACT	xx
SUMMARY	xxi
CHAPTER 1 INTRODUCTION	1
1.1 The Social Psychology of Intergroup Relations	1
1.2 Attributions and Intergroup Relations	3
1.3 Aim of the Thesis	6
1.4 Groups Used in the Thesis	7
1.5 Structure of the Thesis	10
CHAPTER 2 SOCIAL IDENTITY THEORY	14
2.0 Introduction	14
2.1 The Development of the Theory	15
2.1.1 Social Categorization	16
2.1.2 Social Comparison and Social Identity	22
2.2 The Nature of Intergroup Behaviour	27
2.3 Hypotheses emerging from this Model	36
2.4 Empirical Work on the Intergroup Perception Factors	38
2.4.1 The Effect of Status Differentials	39
2.4.2 Legitimacy and Stability	43
2.5 Critiques of Social Identity Theory	50

CHAPTER 3	INTRA-GROUP VARIATIONS IN PERCEPTIONS	
	OF THE STATUS HIERARCHY	55
3.0	Introduction	55
3.1	Intra-Group Variability	55
3.1.1	Variability in Perceptions of Legitimacy and Stability	59
3.2	Study 1: The Effect of Intra-group Variability in the	
	Intergroup Perception Factors on Intergroup Behaviour	61
3.2.1	The Intergroup Perception Ladder	62
3.2.2	Predictions	64
3.2.3	Pilot Studies	65
3.2.4	Method	66
3.2.5	Results	75
3.2.6	Discussion	85

CHAPTER 4	SOCIAL ATTRIBUTIONS	90
4.0	Introduction	90
4.1	Attribution Theories	92
4.1.1	The Correspondent Inference Theory	92
4.1.2	The Covariation and Configuration Model	94
4.1.3	Influences in the Attribution Process	96
4.1.4	Attributional Theories	98
4.1.5	Self-Serving Attributions	101
4.1.6	Criticisms of Attribution Theory	102
4.2	Social Attribution Theory	103
4.2.1	Intergroup Attributions	104
4.3	Empirical Research on Intergroup Attributions	112
4.3.1	Intergroup Attributions for Actions	113
4.3.2	Intergroup Attribution for Outcomes	119
4.3.3	Intergroup Attributions for Social Circumstances	127
4.3.4	Intergroup Attribution of Blame for Accidents and Crimes	134
4.4	Conclusion	138

CHAPTER 5	INTERGROUP ATTRIBUTIONS IN MINIMAL GROUPS	139
5.0	Introduction	139
5.1	Study 2: Bias in Intergroup Product Evaluation and Causal Attributions in Minimal Groups - Trial 1	142
5.1.1	Predictions	142
5.1.2	Method	143
5.1.3	Results	146
5.1.4	Discussion	157
5.2	Study 3: Bias in Intergroup Product Evaluation and Causal Attributions in Minimal Groups - Trial 2	158
5.2.1	Predictions	159
5.2.2	Method	159
5.2.3	Results	160
5.2.4	Discussion	171
5.3	General Discussion of Experiments 2 and 3	172

CHAPTER 6 CAUSAL ATTRIBUTIONS AND ORDINARY EXPLANATIONS	177
6.0 Introduction	177
6.1 Critiques of Attribution Methodology	178
6.1.2 The Predominance of Causal Explanations	181
6.1.3 The Culture Delimitations of Causal Attributions	184
6.2 The Development of Experimental Material	188
6.2.1 Pilot Study 1: Selection of the Vignettes	189
6.2.2 Method	189
6.2.3 Results	195
6.2.4 Discussion	201
6.3 Pilot Study 2: Selection of Explanations	203
6.3.1 Method	203
6.3.2 Results	205
6.3.3 Discussion	227

CHAPTER 7	ATTRIBUTIONS AND THE INTERGROUP	
PERCEPTION FACTORS		228
7.0	Introduction	228
7.1	Intergroup Biases in Attributions	229
7.1.1	Attributions to Individual Group Members	229
7.1.2	Attributions to Groups as a Whole	231
7.2	Study 4: Inter-race Bias in Attributions as a Function of the Intergroup Perception Factors	231
7.2.1	Method	233
7.2.2	Results	240
7.2.3	Discussion of Action Vignettes	249
7.2.4	Discussion of Outcome Vignettes	257
7.2.5	Discussion of Social Issue Vignettes, Weighted Room Bias and Integration Scores	270
7.2.6	General Results and Conclusion	271
7.3	Study 5: Inter-Gender Bias in Attributions as a Function of the Intergroup Perception Factors.	274
7.3.1	Method	274
7.3.2	Results	279
7.3.3	Discussion of Action Vignettes	286
7.3.5	Discussion	293
7.3.5	Discussion of Social Issue Vignettes and Funding Bias	305
7.3.6	General Results and Conclusion	306

CHAPTER 8	INTERGROUP ATTRIBUTION TO CRIME	309
8.0	Introduction	309
8.1	Attribution Theory and Crime	309
8.1.1	Attribution of Blame to Victims	310
8.1.2	Factors Affecting Attribution of Blame	313
8.1.3	Rape	316
8.2	Intergroup Judgments of Crime	319
8.3	Aim of the Empirical Research	321
8.3.1	General Method	322
8.3.2	Results of the Factor Analysis	324
8.3.3	Discussion	331
8.4	Study 6: The Effect of Gender Intergroup Perceptions on Attributions of Blame in a Crime Situation.	333
8.4.1	Method	335
8.4.2	Results	337
8.4.3	Discussion	360
8.5	Study 7: Race Differences in the Attribution of Blame for an Inter-racial Crime	364
8.5.1	Method	367
8.5.2	Results	369
8.5.3	Discussion	386
8.6	Conclusion	389

CHAPTER 9	GENERAL DISCUSSION AND CONCLUSIONS	390
9.0	Introduction	390
9.1	The Empirical Work of the Thesis	391
9.1.1	Summary of the Findings	391
9.1.2	Discussion of the Findings	394
9.1	Limitations of the Studies	400
9.2	Future Directions	403
9.3	Conclusions	404

REFERENCES	406
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APPENDIX A

Study 1: Material and analyses.

APPENDIX B

Study 2: Material and analyses.

Study 3: Material and analyses.

APPENDIX C

Pilot Study 1: Material and analyses.

Pilot Study 2: Material and analyses.

APPENDIX D

Study 4: Material and analyses.

Study 5: Material and analyses.

APPENDIX E

Study 6: Material and analyses.

Study 7: Material and analyses.

ACKNOWLEDGEMENTS

In the course of any thesis, especially one as lengthy as this, the myriad of people who have provided help and support is almost boundless. I regret that I am unable to mention everyone individually.

My first acknowledgement is to Jos Jaspers, under whose supervision this thesis was planned and started. The months I spent working with him before his untimely death were filled with richness and inspiration. My thanks also go to Mansur Lalljee, on whom fell the unenviable role of substitute supervisor and who had the onerous task of guiding the thesis to its final conclusion.

Many friends and colleagues, both in England and South Africa, have helped in ways both practical and emotional. However, my special thanks go to Bob Abelson, Sue Armstrong, Cheryl de la Rey, Nick Gotts, Helen Kuttner, Kathy Parkes, Paul Sparks, Alison Todes and the Weiss family.

Numerous people acted as interviewers for the various studies in this thesis. My thanks in this respect go to: Jeremiah Blose, Dudu Bophela, Fiona Dove, Eunert Gumbi, Lynn Irvine, Barbara Mthembu, Connie Ngcobo, Inge Petersen, Marie-Louise Stark and Billi Vermaak.

I am particularly grateful to the various institutions that provided the financial assistance which enabled me to embark on this degree and perform the relevant research: The British Council, the Institute for Research

Development, Lady Margaret Hall and the University of Natal. In accordance with the wishes of the Institute for Research Development, I should like to state the following:

The financial assistance of the Institute for Research Development towards this research is hereby acknowledged. Opinions expressed in this publication and conclusions arrived at, are those of the author and are not necessarily to be attributed to the Institute for Research Development.

In the final instance, the responsibility for this work is entirely my own. I hereby declare that this dissertation is the result of my own work.

[Signature removed from online version of thesis]

Signed:

LIST OF TABLES

CHAPTER 3	INTRA-GROUP VARIATIONS IN PERCEPTIONS OF THE STATUS HIERARCHY	55
Table 3.2.1	Perceived Present Intergroup Differences	68
Table 3.2.2	Stability Scores	69
Table 3.2.3	Sample Distribution within the Race x Stability x Legitimacy Conditions	70
Table 3.2.4	Study 1: MANOVA Results	75
Table 3.2.5	Study 1: Summary of the Univariate ANOVA Analyses	76
Table 3.2.6	Study 1: Dependent Variable Means	77
Table 3.2.7	Rotated Factor Loadings	85
CHAPTER 4	SOCIAL ATTRIBUTIONS	90
Table 4.2.1	Predictions for Intergroup Attributions under Three Different Attribution Theories	108
Table 4.2.2	Intergroup Attributions Reflecting Ingroup Favouritism	109
Table 4.2.3	Intergroup Attributions Reflecting Ingroup Favouritism for Outcomes	110
Table 4.2.4	Attributions for "Explaining Away" Positive Behaviour of a Disliked Outgroup	111

CHAPTER 4 (Continued)

Table 4.3.1	Intergroup Bias in Attributions for Actions: Summary of Results	118
Table 4.3.2	Intergroup Bias in Attributions for Outcomes: Summary of Results	125
Table 4.3.3	Intergroup Bias in Attributions for Social Circumstances: Summary of Results	130

**CHAPTER 5 INTERGROUP ATTRIBUTIONS IN MINIMAL
GROUPS****139**

Table 5.1.1	Study 2: Principal Component Factors of the Attributions	147
Table 5.1.2	Study 2: Summary of the ANOVA Analyses	148
Table 5.1.3	Study 2: Means and Standard Deviations of the Evaluation Marks, Internal and External Attributions	149
Table 5.1.4	Study 2: Internal Attribution for Failure Analysis of Simple Main Effect	151
Table 5.1.5	Study 2: Correlations between bias in Mark Allocation and Bias in Attributions	154
Table 5.1.6	Study 2: Preference for Attributions Applied to Personal Success and Failure	156
Table 5.2.1	Study 3: Principal Component Factors of the Attributions	160

CHAPTER 5 (Continued)		
Table 5.2.2	Study 3: Means and Standard Deviations of the Evaluation Marks, Internal and External Attributions	162
Table 5.2.3	Study 3: Summary of the ANOVA Analyses	163
Table 5.2.4	Study 3: Marks Allocated for Success Analysis of Simple Main Effect	164
Table 5.2.5	Study 3: Internal Attributions for Failure Analysis of Simple Main Effect	166
Table 5.2.6	Study 3: Correlations between Bias in Mark Allocation and Bias in Attributions	168
Table 5.2.7	Study 3: Preference for Attributions Applied to Personal Success and Failure	170
 CHAPTER 6 CAUSAL ATTRIBUTIONS AND ORDINARY EXPLANATIONS		
		177
Table 6.2.1	Action Vignettes	191
Table 6.2.2	Outcome Vignettes	192
Table 6.2.3	Social Issue Vignettes	193
Table 6.2.4	Content Analysis of Action Vignettes	196
Table 6.2.5	Selected Action Vignettes	197
Table 6.2.6	Content Analysis of Outcome Vignettes	198
Table 6.2.7	Selected Outcome Vignettes	199
Table 6.2.8	Content Analysis of Social Issue Vignettes	200
Table 6.2.9	Selected Social Issue Vignettes	201

CHAPTER 6 (Continued)

Table 6.3.1	Summary of the Action Vignettes Factor Analyses	205
Table 6.3.2	Selected Explanations for Action Vignettes with Mean Social Desirability Assessment	211
Table 6.3.3	Summary of the Outcome Vignettes Factor Analyses	212
Table 6.3.4	Selected Explanations for Outcome Vignettes with Mean Social Desirability Assessment	218
Table 6.3.5	Summary of the Social Issues Vignettes Factor Analyses	219
Table 6.3.6	Selected Explanations for Social Issues Vignettes pertaining to Race with Mean Prejudice Assessment	225
Table 6.3.7	Selected Explanations for Social Issues Vignettes pertaining to Gender with Mean Prejudice Assessment	226

**CHAPTER 7 ATTRIBUTIONS AND THE INTERGROUP PERCEPTION
FACTORS** **228**

Table 7.2.1	Study 4: Least Square Means of Action Vignette Attribution Evaluation Scores	241
Table 7.2.2	Study 4: Summary of the Univariate ANOVA Analyses of the Action Vignettes	242
Table 7.2.3	Study 4: Least Square Means of Outcome Vignette Attribution Evaluation Scores	251
Table 7.2.4	Study 4: Summary of the Univariate ANOVA Analyses of the Outcome Vignettes	252
Table 7.2.5	Study 4: MANOVA Results	259

CHAPTER 7 (Continued)		
Table 7.2.6	Study 4: Summary of the Univariate ANOVA Analyses for Social Inequality Vignettes, Weighted Room Bias and Integration Scores	260
Table 7.2.7	Study 4: Least Square Means of Weighted Room Bias, Integration Scores and Attribution Prejudice in Social Issue Vignettes	261
Table 7.3.1	Study 5: Least Square Means of Action Vignette Attribution Evaluation Scores	280
Table 7.3.2	Study 5: Summary of the Univariate ANOVA Analyses of the Action Vignettes	281
Table 7.3.3	Study 5: Least Square Means of Outcome Vignette Attribution Evaluation Scores	287
Table 7.3.4	Study 5: Summary of the Univariate ANOVA Analyses of the Outcome Vignettes	288
Table 7.3.5	Study 5: MANOVA Results	294
Table 7.3.6	Study 5: Summary of the Univariate ANOVA Analyses	296
Table 7.3.7	Study 5: Least Square Means of Funding Bias and Social Inequality Vignettes Attribution Scores	297
CHAPTER 8 INTERGROUP ATTRIBUTION TO CRIME		309
Table 8.3.1	Question Content, with Mean and Standard Deviations of their Ratings	325
Table 8.3.2	Sorted Factor Loadings of the Crime Questions	327
Table 8.4.1	Study 6: MANOVA Results	339

CHAPTER 8 (Continued)

Table 8.4.2	Study 6: Least Square Means of Dependent Variables, converted back to the original scales	340
Table 8.4.3	Study 6: Summary of the Univariate ANOVA Analyses of the Dependent variables	341
Table 8.5.1	Study 7: MANOVA Results	370
Table 8.5.2	Study 7: Least Square Means of Dependent Variables, converted back to the original scales	371
Table 8.5.3	Study 7: Summary of the Univariate ANOVA Analyses of the Dependent Variables	372

CHAPTER 9 GENERAL DISCUSSION AND CONCLUSIONS 390

Table 9.1.1	Summary of the Findings of the Studies Testing the Intergroup Perception Factor Hypotheses	392
Table 9.1.2	Percentage of the Groups in the Legitimate Conditions	395

LIST OF FIGURES

CHAPTER 2	SOCIAL IDENTITY THEORY	14
Figure 2.1	Tajfel's Model of Insecure Intergroup Social Comparisons	29
Figure 2.2	Model Depicting the Status and Comparison Security Dichotomies	33
Figure 2.3	Graph Depicting Group Bias Anticipated under the various condition of the Intergroup Perception Factors.	38
CHAPTER 3	INTRA-GROUP VARIATIONS IN PERCEPTIONS OF THE STATUS HIERARCHY	55
Figure 3.2.1	Graph of Race Attitudes Scores	80
Figure 3.2.2	Graph of Vote Bias	82
Figure 3.2.3	Graph of Integration Scores	84
CHAPTER 5	INTERGROUP ATTRIBUTIONS IN MINIMAL GROUPS	139
Figure 5.1.1	Study 2: Marks for Successful Performance	150
Figure 5.1.2	Study 2: Internal Attribution for Failure	152
Figure 5.2.1	Study 3: Marks for Successful Performance	164
Figure 5.2.2	Study 3: Internal Attribution for Failure	166
Figure 5.2.3	Study 3: External Attributions for Success	167

CHAPTER 7 ATTRIBUTIONS AND THE INTERGROUP PERCEPTION

FACTORS	228
Figure 7.2.1 Study 4: Evaluation Scores on Vignette A	244
Figure 7.2.2 Study 4: Evaluation Scores on Vignette B	245
Figure 7.2.3 Study 4: Evaluation Scores for Vignette C	247
Figure 7.2.4 Study 4: Evaluation Scores of Vignette D	249
Figure 7.2.5 Study 4: Evaluation Scores of Vignette F	254
Figure 7.2.6 Study 4: Evaluation Scores on Vignette G	256
Figure 7.2.7 Study 4: Evaluation Scores on Vignette H	257
Figure 7.2.8 Study 4: Attribution Prejudice Scores on Vignette I	263
Figure 7.2.9 Study 4: Attribution Prejudice Scores on Vignette J	264
Figure 7.2.10 Study 4: Attribution Prejudice Scores on Vignette K	266
Figure 7.2.11 Study 4: Attribution Prejudice Scores on Vignette L	267
Figure 7.2.12 Study 4: Ingroup Favouritism on the Room Task	268
Figure 7.2.13 Study 4: Integration Scores	270
Figure 7.3.1 Study 5: Graph of Evaluation Scores on Vignette A	283
Figure 7.3.2 Study 5: Graph of Evaluation Scores on Vignette B	285
Figure 7.3.3 Study 5: Graph of Evaluation Scores on Vignette E	290
Figure 7.3.4 Study 5: Graph of Evaluation Scores on Vignette F	292
Figure 7.3.5 Study 5: Graph of Prejudice Scores on Vignette I	299
Figure 7.3.6 Study 5: Graph of the Prejudice Scores on Vignette J	300
Figure 7.3.7 Study 5: Graph of Prejudice Scores on Vignette K	302
Figure 7.3.8 Study 5: Graph of the Prejudice Scores on Vignette L	303
Figure 7.3.9 Study 5: Ingroup Favouritism in Funding	305

CHAPTER 8	INTERGROUP ATTRIBUTION TO CRIME	309
Figure 8.4.1	Study 6: Graphs of Recommended Sentence	344
Figure 8.4.2	Study 6: Graphs of Blame to Assailant's Aggressiveness	346
Figure 8.4.3	Study 6: Graphs of Blame to Victim's Passivity	349
Figure 8.4.4	Study 6: Graphs of Blame to Victim's Actions	351
Figure 8.4.5	Study 6: Graph of Blame to Victim's Vulnerability	354
Figure 8.4.6	Study 6: Graph of Blame to Social Conditions	357
Figure 8.4.7	Study 6: Graph of Blame to Social Values	359
Figure 8.5.1	Study 7: Graph of Recommended Sentence	374
Figure 8.5.2	Study 7: Graph of Blame to Assailant's Aggressiveness	376
Figure 8.5.3	Study 7: Graph of Blame to Victim's Passivity	378
Figure 8.5.4	Study 7: Graph of Blame to Victim's Actions	380
Figure 8.5.5	Study 7: Graph of Blame to Victim's Vulnerability	383
Figure 8.5.6	Graph of Blame to Social Conditions	385

ABSTRACT

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D.Phil.
Hilary Term, 1991

Social Identity Theory and Intergroup Attributions

The central proposition of this thesis is that intergroup attributions and explanations, like any other intergroup behaviour, are affected by the perceived relations between the groups. Social Identity Theory (SIT) was adopted as the theoretical framework within which to investigate intergroup relations. According to this theory, intergroup behaviour is affected by the relative status the groups bear to each other, together with the perceived legitimacy and stability of this status hierarchy. The thesis proposes two amendments to the theory. It is argued that perceived legitimacy and perceived stability have different effects on intergroup behaviour and hence can not be subsumed under the general category of "insecure comparisons". It is also suggested that intragroup variability exists in these perceptions. A study was conducted which confirmed these propositions, and predictions emerging from SIT concerning the effect of these perceptions on intergroup behaviour and attitudes received considerable support.

In examining the effect of the intergroup perception factors on bias in intergroup attributions, the thesis focuses on two types of groups: race and gender. Three types of attribution were considered in different studies: explanations of intergroup inequality, attributions of blame for rape or robbery and attributions for individual group members' actions and outcomes. The results indicate that the relative status of the groups, together with the perceptions of the legitimacy of this status hierarchy influence the first two - the explanations for inequality and the attributions of blame made to the victim and perpetrator of crimes. In general, it appears that the '*prise de conscience*' of the illegitimacy of the intergroup situation is the motivating force in rejecting the domination of the high status group over the low status group, by members of both the high and low status groups.

However, the third type of attributions, the intergroup explanations made for individual group members' actions and outcomes were not in general affected by these factors. It was suggested that either the intergroup aspect of these vignettes lacked the salience to elicit an intergroup response, or that the actors in the vignettes were treated as atypical of the groups.

SUMMARY

The central proposition of this thesis is that intergroup attributions, like any other intergroup behaviour, are influenced by the perceived intergroup relations. The theory of intergroup relations which was taken as the framework for the study was Social Identity Theory (Tajfel, 1978; Tajfel and Turner, 1979, 1986). However, the first part of the thesis proposes some amendments to the theory. Tajfel (1978) hypothesized that the nature of intergroup behaviour would be affected by the status of the groups with respect to each other, and whether this status hierarchy is perceived to be secure (legitimate and stable) or not. The treatment of these intergroup perception factors by Tajfel (1978, 1979b), in discussion, and by others in empirical investigations (*e.g.* Caddick, 1982, Turner and Brown, 1978), implied that groups are homogeneous in these perceptions. It is proposed here that in real groups this is not the case, and variations can be found within any group at a given time. Further, it argued that the perceptions of legitimacy and stability have different effects on intergroup behaviour, which must be considered in predictions of intergroup relations. Study 1, which used black and white students as subjects, provided some support for this contention. The effect of perceived legitimacy was as predicted by Social Identity Theory. Those whites (the high status group) who perceived the intergroup hierarchy as illegitimate did not display ingroup favouritism, while those blacks who perceived the situation as illegitimate demonstrated

assertive ingroup favouritism. The proposed interactive effects between legitimacy and stability were not confirmed.

Subsequent studies concentrated on intergroup attributions. Study 2 and 3 investigated intergroup bias in attributions within a minimal group experiment and the relationship between bias in attributions and bias in group product evaluations. The attributions in question were internal and external attributions for the successful or unsuccessful performance of ingroup and outgroup members. The predicted correlations between the attributions and the performance of evaluations were found, but the ingroup favouritism within both the evaluations and attributions were neither as strong nor as consistent as anticipated. It is suggested that this was caused by inadvertent status differentials being created between the groups in both studies, and by experimental technique problems.

The remainder of the studies used real groups, focusing on two types - race (black and white) and gender (men and women) in South Africa. Although the race studies isolated the perceptions of the white-superordinate, black-subordinate hierarchy, and the gender studies the perceptions of the men-superordinate, women-subordinate hierarchy, both sets of studies used both black and white, male and female adults. The selection of the subjects was not strictly random, but consisted of a wide range of the Durban population. As blacks and whites constitute culturally different groups, efforts had to be made to ensure that the materials used in the attribution experiments were appropriate for both. The research reported in pilot studies 1 and 2 details the steps taken to find appropriate vignettes and explanations to be used in the studies of attributions for

actions, outcomes and intergroup inequality. The explanations used did not represent a known typology of explanations, but were selected such that they embodied a range of evaluative connotations. In the case of the action and outcome vignettes, four explanations were provided such that two presented a positive picture of the actor, and two a negative picture. This allowed for evaluative ratings of the actors in the vignettes to be deduced from the subjects' responses. In the case of the vignettes about the groups' inequalities, the explanations allowed for a measure of prejudice towards the lower status group to be derived.

Study 4 investigated whether the perceptions of the race hierarchy affect attributions for the actions and outcomes of individual group members, and explanations for racial inequalities. Study 5 investigated whether the perceptions of the gender hierarchy affect these attributions with respect to male and female actors, and gender inequality. The results from the vignettes concerning intergroup inequality in both these studies provided considerable support for the predictions. The index of prejudice that emerged from all the social issue vignettes together with the measure in ingroup favouritism and outgroup discrimination were affected by perceptions of legitimacy. The subjects in the high status groups (whites and men, respectively) in the Legitimate conditions (both Stable and Unstable) displayed more prejudice and bias against the low status group than did the high status subjects in the Illegitimate conditions. The concomitant prediction that subjects from the low status groups (blacks and women, respectively) in the Illegitimate conditions would display ingroup favouritism was not as strongly supported. There was little support for this prediction

from the blacks in the race study, but considerably more from the women (especially the white women) in the gender study. It is suggested that this may be due to the very low numbers of blacks in the Legitimate conditions, and to the social climate at the time during which the studies were performed.

The subsidiary hypotheses concerning the interaction between legitimacy and stability (*i.e.* (i) that subjects from the high status groups in the Legitimate-Unstable condition would display the most ingroup favouritism and outgroup prejudice; and (ii) that subjects from the low status groups in the Legitimate-Stable condition would evince the least ingroup favouritism) received some, though less consistent support. The low numbers of subjects in the Legitimate-Stable and Legitimate-Unstable conditions may again account for this finding.

However, the results concerning the evaluation bias in attributions for actions and outcomes of individual group members did not provide much support for the hypotheses. In very few of the vignettes did the effect of Legitimacy manifest. However, it is interesting to note that the most consistent finding in the race study was that whites in the Legitimate-Unstable condition (hypothesized to be the most prejudiced) did demonstrate the most intergroup bias. This was not mirrored in the gender study.

Studies 6 and 7 investigated whether the intergroup perception factors (referring to the gender and race hierarchy, respectively) influenced attributions of blame for a crime (either rape or robbery) against a women victim by a male assailant. In the gender study, the victim and assailant were

portrayed as being of the same race, and in the race study the actors were of different races. Respondents assigned blame to 23 different aspects of the assailant, the victim and society. These ratings were subjected to factor analysis. Six factors emerged from the responses of the subjects, two assigning blame to social factors, one to the assailant and three concerning the victim. The results of Study 6 provided some support for the hypotheses. In general, subjects who viewed the gender hierarchy as illegitimate recommended higher prison sentences for the assailant, attributed less characterological blame to the victim and more blame to women's vulnerability and ascribed less blame to social factors than did subjects in the Legitimate conditions. It must be noted, however, that these responses were stronger from the white subjects than the black. There was also some support for the subsidiary hypotheses concerning the interaction between legitimacy and stability.

Study 7 attempted to investigate the effect of the race intergroup perception factors on attributions of blame when the crime was inter-racial. Unfortunately the distribution of subjects across the different conditions was so discrepant that the subsidiary hypotheses could not be tested. There was some support for the prediction that whites in the Illegitimate would give less group-serving responses than those in the Legitimate condition. But the concomitant prediction that blacks in the Illegitimate condition would give more group-serving responses than those in the Legitimate conditions was not verified. Possible reasons for the weak effects in Study 7, were firstly, the distribution in the different conditions, and secondly, that the crimes were fundamentally inter-gender although only the inter-racial aspect was

considered. This may have confounded the responses. Clear differences concerning the perceptions of the different crimes by the races emerged from the results.

In the final chapter, the results of the different studies were summarized and discussed. The limitations of these quasi-experimental studies were elaborated and the implications of the results for future research expressed. Despite the limitations it was concluded that these studies provide evidence for the role of intergroup attributions in enhancing and maintaining intergroup positions.

CHAPTER 1

INTRODUCTION

1.1 The Social Psychology of Intergroup Relations

Over the past two decades, there has been an exponential rise in research into intergroup relations. This research encompasses the study of ethnocentrism, prejudice, racism, sexism, and all behaviours and attitudes which characterize the interaction of different social groups. Previously, the field had not only suffered severe neglect, but had been dominated by a largely a-social, individualistic orientation, typical of the general field of social psychology.

The prevalent theories of intergroup relations were individualistic in nature, confining themselves to what Doise (1986) refers to as the first and second level of explanation. They focus largely on intra-psychic processes; or on interpersonal face-to-face interactive processes; or most commonly on a combination of both. Examples of this are theories such as the Frustration-Aggression hypothesis (Berkowitz, 1972; Dollard *et al.*, 1939); the Authoritarian Personality (Adorno *et al.*, 1950) and the Belief Similarity and Congruence theory (Rokeach *et al.*, 1960).

In the late 1960's a critique of the prevalent theories and practice of social psychology emerged. Among the many concerns voiced were: the a-theoretical nature of the discipline, along with the sacrifice of ecological

validity in favour of experimental exactitude (Tajfel, 1972); the parochialism and (North American) cultural bias together with the tendency to promote and maintain the status quo (Innes and Fraser, 1971; Moscovici, 1972; Sampson, 1977, 1978); and the lack of social context (Billig, 1976; Resler and Walton, 1974; Steiner, 1974). The theories of intergroup relations were, in particular, criticized for the lack of attention given to large scale social or group processes, and for the fallacy of proposing a linear extrapolation from individual to group situations (Sherif and Sherif, 1979; Tajfel, 1972, 1979a).

From the various critiques emerged a new school of social psychology, which was committed to a non-reductionist, socially relevant discipline. Within the field of intergroup relations, the emphasis moved to research which was characterized by, what Doise (1986) termed, the third and fourth levels of explanation. Social factors such as status, race, gender and other determinants of social position are explicitly considered; and the importance of ideology, social norms, beliefs, values and representations acknowledged. The long established work of Kurt Lewin and Muzafer Sherif, which embodied these principles, were revitalized and new avenues of research established.

In the 1970's, Henri Tajfel along with various associates developed Social Identity Theory, which represents the most comprehensive theory of intergroup relations available. Like Sherif, Tajfel sought to develop a theory which would explain intergroup behaviour as a group process within the broad social context. Its prevailing superiority stems from its integration of psychological factors (cognitive and motivational) with social reality. In addition, it is remarkable in its ability to explain the behaviour of different

types of groups, from inter-racial behaviour to football team supporters; and to provide a basis for understanding social change. However, most importantly, Social Identity Theory provides a rich substrate for the generation of new ideas.

This thesis takes Social Identity Theory as its theoretical framework.

1.2 Attributions and Intergroup Relations

The explanation presented for any event has the power to interpret reality in a certain way, and has implications for the subsequent behaviour of people holding that explanation. For example, consider the following interpretations made for the same event, in this case the 1989 South African Breweries (SAB) strike called by FAWU (Food and Allied Workers Union) :

The strike was called when management "cancelled its recognition agreement with FAWU management's decision to cancel the agreement was part of the company's campaign to introduce changes to the national recognition agreement".

(Work in Progress, 1989, p. 46)

"We believe SAB's offer is more than fair, and we regret that FAWU's unrealistic demands have led to this action".

(Spokesman for SAB, reported in
The Daily News, 12/10/89)

In the first report, management's reneging on the contract is presented as the cause of the strike. The strike thus emerges as reasonable and worthy of support. However, in the second report, the strike is explained as the result of unfeasible demands of the union. The possibility of a real basis to the action is implicitly denied, leading the reader to dismiss the validity of the strike.

It is clearly in the interests of any political system which wishes to maintain its hegemony, to ensure that its version or interpretation of events is accepted. South African history is filled with examples of the means by which the State has attempted to maintain this control, such as preventing the dissemination of opposing ideas through the censorship of media and silencing proponents of these ideas. State authorities have also tried to directly coerce anti-*apartheid* activists to change their ideas:

Former detainees have told of pressures exerted upon them to accept the "reasonable" interpretation of South African reality given by security police.

(Foster, 1989, p. 33)

In the case of intergroup discrimination, attributions contribute by developing and maintaining negative images of the outgroup through stereotyping, and through the biased interpretations of behaviours of outgroups. Stereotyping is the process by which traits and characteristics are attributed to people as a function of the social category or group to which they belong. Oppressed groups are invariably stigmatized with negative ascriptions (*e.g.* dishonesty, laziness, dirtiness) which are taken as fact by the dominant group, and frequently internalized by members of the oppressed groups themselves (Fanon, 1950). In biased attributions of behaviour, there are distorted interpretations of the behaviour of the ingroup and the outgroup; the outgroup behaviour being interpreted in a negative fashion, whereas the behaviour of the ingroup is interpreted positively.

However, such explanations and attributions could be argued to have two functions. The first is the role of explanations as contributing to, or causally influencing behaviour. The other is as justifications or

rationalizations of already existing prejudiced attitudes and behaviour. A number of studies have supported the hypothesis that intra- and interpersonal judgments and behaviour are affected by the causal attributions held (Town and Harvey, 1981; Yarkin *et al.*, 1981). Attributions have been correlated with behaviour in the areas of academic achievement (Dweck, 1975), depression (Seligman *et al.*, 1979) and marital and interpersonal conflicts (Fincham, 1985; Sillars, 1981). Similarly, there is evidence that individuals bias attributions to justify their behaviour and present a positive 'face' (Goffman, 1959; Semin and Manstead, 1983; Tedeschi and Reiss, 1981).

These two functions would appear to inter-relate in a manner that make it difficult to determine which came first or which is in operation at a given point. Cooper and Fazio (1986) describe an expectancy-behaviour feedback loop, proposing that:

... one of the important bases of intergroup conflict can be found in the motivated misuse of attributional rules and that the attitudes thus formed serve to further sustain and nurture the conflict.

(Cooper and Fazio, 1986, p. 184)

Numerous authors have discussed the role of attributions in intergroup conflict, exploring the way in which traditional attribution theories may be extended to encompass the intergroup context (Hewstone, 1988; Jaspars and Hewstone, 1982; Pettigrew, 1979; Rosenberg and Wolfsted, 1977). However, little attention has been paid to the proposition that there is "*motivated misuse of attributional rules*" (*ibid.*), i.e. that existing prejudices and attitudes influence the nature and type of attribution used. In this light, it

may be argued that the explanations and attributions selected in an intergroup situation actively reflect and reinforce the intergroup relationship. This thesis will attempt to address this question.

1.3 Aim of the Thesis

To address this question, it is first necessary to consider how behaviour and attitudes in general are affected by intergroup relations. Social Identity Theory proposes that intergroup bias in such behaviours as the allocation of resources are affected by a number of factors implicit within the intergroup situation. These factors, which will be termed the intergroup perception factors, involve, firstly, the relative status the groups have to each other, *i.e.* whether one has higher status relative to the other; and secondly, whether this status hierarchy is seen as legitimate or stable by the respective group members. The configuration of these intergroup perception factors determine the degree and direction of bias. The first part of thesis will aim to elaborate the role of these factors, and to draw out specific hypotheses concerning their effects. Although Tajfel made a number of predictions concerning the way in which these factors influence intergroup behaviour, little empirical work has pursued these issues, particularly with respect to non-experimental groups.

In the second part of the thesis, the aim is to determine whether attributions are influenced by the intergroup factors in the same way as other intergroup behaviours, such as allocation of resources. If favourable or unfavourable attributions are used to reinforce and rationalize prejudicial

attitudes and behaviour, then it is to be expected that they will be affected by the same factors.

Attributions to individual members of the competing groups, and attributions to the groups as a whole will be considered. The focus of the attributions will vary, encompassing causal attributions for positive and negative actions and outcomes, for social inequality, and attributions of blame for a crime.

1.4 Groups Used in the Thesis

A number of different types of groups are used in the empirical studies of this thesis. One set of studies makes use of 'minimal groups', experimental groups created using the technique developed by Tajfel and his colleagues. The characteristics and validity of this type of group is discussed in detail in Chapter 2. These groups represent a minimal level of intergroup conflict.

The bulk of the studies concern 'real' groups, of which two types are used - race groups (blacks and whites), and gender groups (men and women) in South Africa, or more specifically in the larger Durban region. South Africa is characterized by a multiplicity of group conflicts. All the numerous groupings, whether they are culturally defined or a manufactured product of the *apartheid* system, are or have at some historical period been in conflict; blacks, whites, 'Coloureds', Indians, Afrikaans-speaking whites, English-speaking whites, Jews, Zulu, Xhosa, Pondo, Sotho. For the purpose of this thesis, the only racial categories considered are "whites" and "blacks". No distinctions will be made between these categories.

The black samples, by virtue of the region, will contain predominantly Zulu people, but may contain some Xhosa or Pondo people. Similarly, the white samples consist predominantly of English-speaking people of Protestant, Anglo-Saxon origin, but will contain some Afrikaners, Jews and immigrants from other European countries. This is not considered a problem as the experience of these subgroupings within the race context in South Africa is similar, and since the race issue is made salient, other dissimilarities should not have a confounding effect. However, Coloureds and Indians do have different experiences from blacks and whites under *apartheid*, so were deliberately not included in the studies. Social Identity Theory has tended to focus on two groups in conflict, and little attention has been given to situations in which there exist more than two groups, with various permutations of alignment and antagonism. While this is an area that is in need of research, it is beyond the scope of this thesis.

The various studies in this thesis were conducted over the period from 1984 to 1989. During this time, South Africa was in a considerable state of flux, with varying degrees of repression and political struggle. Unfortunately, no external measure of this was taken, but it is more than likely that some variations between experiments could be ascribed to this situation. This will be discussed within the context of the experiments themselves.

Gender as an intergroup dimension, presents a more complex situation than race. The discrimination against blacks relative to whites is (at present) more severe and more conspicuous than that of women relative to men. The fight against *apartheid* (the epitome of this discrimination) is the dominant issue within South Africa on both the political and social fronts.

While the discrimination against women is very real, it is less acknowledged and is intricately enmeshed with race and class discrimination.

The question of race and class differentials in women's oppression and the problems this poses for the concept of an international or even national women's movement is the subject of an ongoing debate within feminist circles (Bhavnani and Coulson, 1986; Dill, 1983; Hooks, 1981). This issue is of particular relevance in countries such as South Africa, where a national liberation struggle is in progress. Firstly there is considerable resistance (on the part of oppressed groupings) to the idea of women organizing as women, as this is often chastised as "*taking energy away from the real struggle*" or causing divisive conflicts which will adversely affect the struggle against *apartheid*.

In South Africa, the prime issue is apartheid and national liberation. So to argue that African women should concentrate on and form an isolated feminist movement, focusing on issues of women in their narrowest sense, implies African women must fight so that they can be equally oppressed with African men.
(Ginwala, 1986, p. 10)

While various authors have argued that women's struggles do not, in fact, detract from the national struggle, and that women are politicized and drawn into the national struggle through women's issues (Hassim *et al.*, 1987/1989; Jayawardena, 1986), the sentiment persists.

However, there can be no argument to the fact that women's experience of oppression and discrimination varies considerably across race and class boundaries (Cock, 1980; Molyneux, 1985). For white women in South Africa, the concerns are similar to those of Western European feminists - issues of equality in access to work, equal pay, access to childcare,

freedom from violence and control of their own bodies and the means of reproduction. Black women, while suffering the same discriminations, are further burdened by racial oppression which alters the quality of these discriminations as well as adding to them (such as the obvious lack of political expression). In addition, black women suffer oppression directly at the hands of white women, as a large proportion of working black women are in domestic labour.

For these reasons, it was decided that in the studies which consider the gender intergroup situation, race must be included as an independent variable, while with the race intergroup studies, the gender of the subjects need not. It was also decided not to include the class dimension, for a number of reasons. Firstly, to obtain a standardized assessment of class level across the races is very difficult. For instance, being a teacher is a high status job in the black community whereas it is not in the white community. Secondly, the *apartheid* laws apply to all blacks, irrespective of class. So while middle-class blacks could evade some unpleasant experiences, such as avoiding the segregated and inadequate public transport services through owning cars, they still could not live in areas more pleasant or practical for work. Furthermore, to include class would make the studies too unwieldy.

1.5 Structure of the Thesis

The central proposition of this thesis is that bias in intergroup attributions is motivated by and reflects the relations between the groups in

question. To argue this, it is necessary to demonstrate that the factors which determine the nature of intergroup behaviour similarly affect intergroup attributions. Within Social Identity Theory these determining factors are hypothesized to be the relative status of the groups, and the perceptions of the legitimacy and stability of this status hierarchy. The thesis thus begins in Chapter 2 with a discussion of Social Identity Theory. Tajfel's model of how perceptions of status, legitimacy and stability affect intergroup behaviour is described and elaborated, and the relevant literature is reviewed.

In Chapter 3, it is contended that there is intra-group variations in these perceptions, which would lead to different intergroup responses by members of the same group. While this contention is not incongruous with the theory, it has not previously been researched by Social Identity theorists. The proposition is empirically researched in Study 1. A means of measuring the perceptions of the intergroup status, legitimacy and stability is presented, and the role of these factors in explaining the inter-racial behaviour of a sample of black and white students in South Africa is examined. The hypotheses that emerged from the theoretical discussion in Chapter 2, and were tested in Study 1 form the motif which runs through the thesis.

The thesis then turns to the question of intergroup attributions, and their role in intergroup relations. The first part of Chapter 4 discusses theoretically how to integrate a theory of intergroup relations with that of attributions. A review of the existing research on intergroup attributions is then presented. In this chapter it is argued that research on intergroup attributions must take into account the status relations and perceptions of legitimacy and stability.

Chapter 5 reports a set of experiments (Studies 2 and 3) which were performed to investigate whether bias in intergroup attributions was elicited in minimal groups. Minimal groups are laboratory created groups which have no history of intergroup conflict. The studies, reviewed in Chapter 4, which demonstrate intergroup bias in attributions all used 'real' groups with such a history. The use of minimal groups has demonstrated that the cognitive identification with a group is the sufficient and necessary condition for discrimination in intergroup behaviour to be elicited. Studies 2 and 3 attempt to establish whether this holds for motivated biasing in attributions. In these studies, the attribution of causes for individuals' successes and failures were considered.

The thesis then moves on to consider intergroup attribution in the context of real groups. Pilot Study 1, in Chapter 6, was performed to select vignettes and develop explanations that were suitable for both black and white subjects in South Africa. Included were interpersonal vignettes portraying actions performed by, and outcomes pertaining to anonymous individuals; as well as 'social issue' vignettes, in which discriminatory practices which are true for both blacks and women in South Africa, were presented. The explanations provided were categorized and the most suitable vignettes selected. In Pilot Study 2, the explanations were further analysed to select the most appropriate; and to establish the evaluative connotations of the selected explanations for the interpersonal vignettes, and the relative prejudice embodied by the explanations for the social issues.

Chapter 7 presents the studies which test whether perceptions of the legitimacy and stability of the intergroup hierarchy affect the ratings of the

explanations when the group membership of the actors in the vignettes is varied. Study 4 considers this hypothesis with respect to actions and outcomes of black or white actors, while Study 5 used the same vignettes and explanations with female and male actors. Study 4 also tests the effect of these perceptions on explanations for societal discrimination along race lines, and Study 5 considers these practices when pertaining to gender.

Chapter 8 presents the issue of attribution of blame for a crime. The crimes in question are rape and robbery. The intergroup issue is slightly more complex in this instance, as rape is by definition an inter-gender crime. (Sexual assault on a member of the same sex is not legally defined as rape in South Africa). In the first of these experiments, Study 6, the scenario presents a rape or a robbery, in which the victim is female and the assailant male, but the victim and assailant were both members of the same race. The study tested whether the perceptions of the legitimacy and stability of the gender hierarchy affected the attributions made. In study 7, the race of the victim and assailant were varied such that they were not of the same group. In this study the effect of the perceptions of the race hierarchy was considered.

In Chapter 9, the results of all the studies are summarized and a conclusion drawn.

CHAPTER 2

SOCIAL IDENTITY THEORY

2.0 Introduction

The 1960-1970 crisis in social psychology led in part to the development of a new approach to social psychology. This approach is characterized by the conception that social psychology need not be individualistic and reductionist, but must engage with the political, socio-economic realities of society:

The perspective can be simply outlined. It consists of the view that social psychology can and must include in its theoretical and research preoccupations a direct concern with the relationship between human psychological functioning and the large-scale social processes and events which shape this functioning and are shaped by it.

(Tajfel, 1981a, p. 7)

Until his death in 1982, Henri Tajfel led the efforts to develop Social Identity Theory, a theory of intergroup relations which attempted to hold to the above principles. Numerous colleagues, students and subsequent researchers have contributed to and continued Tajfel's work, broadening the theory into what has been termed the social identity approach (Hogg and Abrams, 1988).

The social identity approach begins with the assumption that society consists of social categories, which exist in active relationships to each other.

These relationships range from conflict to tolerance, and generally embody power and status differentials, which in turn carry political and socio-economic ramifications. The nature of these relations, and the implications of group membership to the individual are the central focus of the social identity approach.

Research into social identity has broadened from intergroup behaviour to intra-group behaviour, and to identity issues of individuals. However, the approach retains its claim to be a "social" theory in that it does not reduce social psychological processes to the level of inter- or intra-individualistic functioning. The individual as a group member is seen as distinct from the individual as an individual. Group membership affects not only the individual's sense of identity, but also provides scripts or schemes for behaviour. The representations of the group are internalized into the social identity of the individual, and as such provide a framework for perceiving society and for operating within it (Duveen and Lloyd, 1986; Hogg and Abrams, 1988).

This thesis is concerned with intergroup behaviour, and as such will concentrate entirely on this aspect of the theory. To contextualize this, a brief description of the development and content of the theory will be made.

2.1 The Development of the Theory

Tajfel's Social Identity Theory did not emerge in a static form, but developed and changed. Initially, Tajfel proposed a purely cognitive approach, using categorization as the primary explanatory concept. This

approach derived from his early work on perception and category differentiation (Tajfel, 1959; Tajfel and Wilkes, 1963). The basic insights from these studies and other related research were that while categorization is a necessary function for making sense of the world, it has the consequence of (a) objects of the same category being perceived as more similar to one another than is actually the case; and (b) objects of one category being perceived as more different and distinct from those in another category than is warranted. These effects have been demonstrated to occur in the judgment of attributes of both physical objects (Tajfel, 1959; Tajfel and Wilkes, 1963), political statements (McGarty and Penny, 1988), and of people (Doise *et al.*, 1978; Taylor *et al.*, 1978). Transferred to the realm of human categories, *i.e.* social groups, this social categorization theory was used to explain intergroup prejudice, stereotyping and hostility.

2.1.1 Social Categorization

The subsequent development of this line of research, and in fact, the success of Social Identity Theory in general, may be partly attributed to the fact that a methodology was found, which enabled empirical research to progress (Doise, 1988). This methodology has been termed 'the minimal group paradigm'.

The discovery of this methodology was largely fortuitous. In the process of attempting to find an intergroup situation stripped of all the factors that were thought to contribute to intergroup prejudice and hostility, it was discovered that these "minimal" groups still displayed ingroup

favouritism. Minimal groups are groups created in the laboratory such that (i) the basis on which the group are (allegedly) created is irrelevant; (ii) the subjects are actually randomly assigned to the groups, which ensures there is no instrumental link between the group attributes and subsequent behaviour; (iii) the subjects are informed of their own group membership, but do not know to which group the other subjects belong; (iv) there is no face-to-face interaction between members of the various groups or between members of the same group; and (v) the behavioural responses, usually the allocation of money or points, explicitly does not benefit the subject themselves.

Thus these groups are spurious, have no history of conflict, and engaging in discriminatory behaviour has no utilitarian value to the subject. Yet intergroup discrimination was found. This led to the recognition that categorization was a sufficient and necessary condition for intergroup discrimination. Initially, the proposed explanation for this phenomenon was that there was a "generic norm" for discrimination (Tajfel, 1970). Within this concept is the notion that people are socialized into ethnocentrism, that the normative behaviour towards members of one's ingroup is favouritism, and to the outgroup is discrimination. Thus, the cognitive process of categorization would inevitable intersect with the norm of intergroup bias, irrespective of the nature of the groups. This explanation was later rejected as a tautologous and non-heuristic (Tajfel, 1978; Turner, 1980).

The fundamental finding, that social categorization is a sufficient condition for the arousal of intergroup bias, has been replicated in a number of studies (Billig, 1973; Billig and Tajfel, 1973; Brewer and Silver, 1978; Tajfel and Billig, 1974). However, the claim that ingroup bias was elicited by

the social categorization *per se* has been contested, and a number of alternative explanations postulated.

Similarity

An alternative explanation for the ingroup bias elicited in the minimal group experiments, is that subjects may have assumed that they were more similar to members of their ingroup than to members of the outgroup. A number of studies have considered interpersonal similarity as a variable with or without categorization (Allen and Wilder, 1975; Billig and Tajfel, 1973; Diehl, 1988; Dion, 1973; Sole *et al.*, 1975). The general finding was that categorization alone was sufficient to arouse ingroup bias, and this was enhanced by perceived similarity; but similarity alone was not sufficient to elicit bias. The exceptions to this were the study by Vanbeselaere (1987) who found that similarity did not enhance bias; and the study by Hewstone *et al.* (1981) which found bias in the condition in which subjects thought themselves similar to their colleagues but were not classified into groups. The subjects in this study were required to allocate penalties not rewards, which differs from the other studies. However, it is difficult to see why this should influence the outcome, so it must be concluded that further work is required to replicate this finding.

Competition

A possible alternative explanation for the bias in the minimal group experiments is that there was an implicit assumption of intergroup competition on the part of the subjects. However, the studies which have considered actual or anticipated competition have not, in general, found that competition is a sufficient condition for the arousal of ingroup bias (Doise *et*

al., 1972; Rabbie and Horwitz, 1969). A further contradiction has been the demonstration that intergroup bias also exists, in situations of cooperation or coaction (Finchilescu, 1986; Turner, 1981). The interpretation of this enhancing effect has been that competition (along with cooperation and coaction) makes group differentiation more salient, hence eliciting or magnifying the intergroup effect (Turner, 1981; van Knippenberg, 1978).

Incidental Effects of the Experiment

Numerous authors have commented on the imprudence of taking responses in the psychological experiment as reflective of 'natural' behaviour. These arguments emerge both from metatheoretical criticisms (Bannister and Fransella, 1971; Heather, 1976), and from demonstrations of the demand characteristics of the experiment (Orne, 1970).

One possible source of confounding error that has been examined, is the strangeness of the experimental situation. Tajfel and Billig (1974) refuted this by demonstrating that subjects who were familiarized with the experimental environment discriminated between the ingroup and outgroup more than did the unfamiliar subjects.

Gerard and Hoyt (1974) suggested that the intergroup bias found in the minimal group experiments was a function of 'perceive-demand' characteristics of the methodology. This criticism has been countered in a number of ways. Billig (1973) performed a typical minimal group experiment using one set of subjects, then required that set of subjects to instruct a subsequent set of subjects on the use of the matrix booklet (the experimental task which measured intergroup bias). It was hypothesized that if the first 'generation' of subjects perceived the demand that they should make

intergroup discriminations, this would be communicated to the second generation of subjects, and should thus result in an increased degree of bias. Only one instance of such a communication occurred, and there was an insignificant tendency for the second generation to exhibit less ingroup bias. The experiment by St. Clair and Turner (1982) also failed to support the hypothesis that intergroup bias was a function of demand characteristics.

Tajfel himself argues that if intergroup discrimination is perceived as the 'demand' of the experiment, this in itself is a heuristic finding:

The experimenter effect cannot, by definition, be considered here without its collateral, the 'subject effect'. The former effect could have worked within our experimental procedures only through the salience for the Ss of the relevant normative background and of the expectations consequent to it.

(Tajfel *et al.*, 1971, p. 174)

Cultural Bias

Tajfel *et al.* (1971) acknowledged that the results of the minimal group experiments may be relevant only to the social background of the subjects used. This would imply that they may be generalized only to 14 year old, middle-class, British schoolboys. However, it has subsequently become clear that this was unnecessarily pessimistic.

The results have been replicated with a wide range of age groups, from young children (van Avermaet and McClintock, 1988; Vaughan, 1978a, 1978b; Wetherell, 1982) to adults (Doise *et al.*, 1972; Sachdev and Bourhis, 1985); and across a number of Western societies, for instance Germans (Doise *et al.*, 1972), North American (Brewer and Silver, 1978), Canadian (Sachdev and Bourhis, 1985) and New Zealand (Vaughan, 1978a, 1978b; Wetherell, 1982). The results also hold across cultures (Wetherell, 1982);

and across gender (St. Claire and Turner, 1982; Wetherell and Vaughan, 1979, reported in Wetherell, 1982).

It may be argued that all the groups tested exist within the framework of a Western capitalist structure, and that this may be the crucial factor that accounts for the commonality of results. However, this debate must remain at a theoretical level, as there is as yet no empirical evidence from non-Western, or non-capitalist societies to confirm or refute the issue.

Group Interdependence and Behavioural Interaction

Rabbie and Horwitz (1988) argue that there is a conceptual difference between social categories and social groups. The latter is defined by issues of interdependence and identification, which a social category lacks. Rabbie *et al.* (1989) further contend that the ingroup bias evidenced in the minimal groups results from attributions the subjects make about the expected behaviour of other subjects:

... the allocation behaviour of the subjects in the MGP is a function of the cognitive expectancies and attributions about the behaviour of others in the ingroup and outgroup, the low emotional involvement with the other people in the anonymous, strategic environment of the MGP, the motivational orientations to the allocation task and normative orientations such as reciprocity, fairness and 'generic group' norms. These kinds of psychological orientations are mainly elicited by the nature of the perceived interdependency structure of the MGP.

(Rabbie *et al.*, 1989, p. 177)

However, this argument fails to explain why the subjects should presume that other subjects will use the group categorizations to discriminate in the first place, which the 'generic group norms' notion also failed to do. Thus, Turner's (1975) explanation that because there are no other means by which the subjects can achieve positive distinctiveness in the situation of the

MGP, they use their group membership as a vehicle to achieve this, remains viable.

2.1.2 Social Comparison and Social Identity

Once the "generic norm for discrimination" principle was rejected, attention turned to the motivational components, social comparison and social identity, to explain the intergroup bias in the minimal group experiments (Tajfel, 1974; Turner, 1975). These cognitive and motivational factors were elaborated into what has become Social Identity Theory (Tajfel, 1978; Tajfel and Turner, 1979, 1986).

Within this theory, intergroup relations are viewed as a dynamic process, in which behaviour can vary along a continuum ranging from the purely interindividual to the purely intergroup. At the interindividual pole, people are perceived and interacted with in terms of their personal characteristics. They are seen as individuals, diverse in personality, attributes and motivation. At the intergroup side, people are encountered as members of a group or category, typically perceived as a homogeneous whole, having similar attributes and motivations. Intergroup bias is correlated with this continuum; intergroup discrimination increasing as the intergroup pole is approached.

Through social categorization, the social environment - people - are differentiated into groups on the basis of criteria which have relevance to the classifier. Common criteria in this society are race, sex, class, religion and language. While these are not the only criteria (temperament, body structure

and rugby team allegiances are others), they are characterized by a strong emotive and evaluative component. Thus the 'value' dimension is added to the general categorization process resulting in an enhanced polarizing effect, accentuating perceived similarities within groups and differences between groups.

Social categorization divides the social environment into 'ingroups' and 'outgroups', 'we's' and 'theys', upon which the motivational components act to determine the structure of intergroup relations. But these factors not only determine people's attitude to others, it also provides a means of self-reference and self-definition through which they define their position in the societal network (Tajfel, 1974). Group or category membership also provides "*a shared/collective representation of who one is and how one should behave*" (Hogg and Abrams, 1988, p. 3). The term 'social identity' refers to those aspects of the individual's self-concept which are associated with, and to a certain extent determined by his/her group memberships. Most people belong to a large number of groups - age, sex, race, nationality, religion, peer group, and so forth - but these group memberships differ in their importance and salience to the individual and hence in the degree to which they contribute to her/his social identity. This contribution may be positive or negative, which in turn is determined by the process of social comparison.

The concept of social comparison derives from Festinger (1954). In his theory of social comparison, Festinger sets out a number of hypotheses, the most important of which states:

There exists in the human organism, a drive to evaluate his opinions and his abilities. (Festinger, 1954, p. 117).

Tajfel adapted this theory, which refers primarily to comparisons between individuals, to the intergroup situation, arriving at three basic assumptions with regard to social identity:

1. *Individuals strive to maintain or enhance their self-esteem: they strive for a positive self-concept.*
2. *Social groups or categories and the membership of them are associated with positive or negative value connotations...*
3. *The evaluation of one's own group is determined with reference to specific other groups through social comparisons in terms of value laden attributes and characteristics...*

(Tajfel and Turner, 1979, p. 40)

A prototypical sequence of events may be presented. In accordance with Festinger's (1954) hypothesis, the individual seeks to evaluate his/her group (since group membership contributes to social identity) through comparison with other group(s). If the comparison is favourable, the individual's need for a positive self-concept is gratified. However, if the comparison is not favourable, the individual must attempt to achieve positive social identity, either by leaving her/his group, or by redefining the present group as more positive.

For the social comparison process to take place, certain conditions must be present. Firstly, membership of the group in question must actually contribute to the individual's social identity. Thus there must be some identification with the group and internalization of the membership. Secondly, the group with which the comparison is to be made must be considered relevant and accessible (in a psychological sense), and thirdly, the dimensions or attributes on which the comparison is made must be accepted and have importance for both groups.

The social comparison process establishes a gradation which is termed a status hierarchy (Tajfel, 1978, 1981a). If the group is judged to be superior to another on some relevant dimension, it has high status; if judged inferior, low status. This status determines whether or not the group membership contributes positively to the individual's social identity, and provides positive group distinctiveness. Furthermore, in the "real" world this status hierarchy is usually accompanied by differences in such things as access to power and material resources.

Inextricably linked with the interindividual-intergroup continuum is the social mobility - social change continuum. This latter dimension is important for understanding the consequences of the social comparison process. If the outcome of the comparison confers low status on the ingroup, the individual is faced with a negative social identity infringing on her/his need for a positive self-concept. The individual's response to this predicament will be positioned somewhere along the social mobility - social change continuum. On the social mobility pole, the response would be to attempt to leave the negatively valued group and enter a more positively distinct one. On the social change extreme, attempts will be made to change the intergroup situation which led to the negative evaluation. The social mobility option is an entirely individualistic one which leaves the intergroup situation unaltered, whereas the social change option attempts to remedy this. Thus, it is to be expected that the interindividual mode of behaviour will be associated with the social mobility tendency, and the intergroup mode with the social change side.

A number of factors determine whether a social mobility or social change response will occur. Firstly, the permeability of group boundaries:

The social mobility option is only available where stratification between groups is not rigid and movement between groups is possible. Social mobility may be prevented by both internal and external factors. External factors are such things as authoritative legislation (e.g. the state laws maintaining *apartheid* in South Africa) or religiously based edicts (e.g. the religious stipulations maintaining the caste system among Hindus). Internal factors are such things as emotional commitment and loyalty ties to the group, as well as the degree of subjective identification with the group. In the circumstances where group boundaries are rigid and actual social mobility is not possible, a form of 'psychological' mobility may occur. This involves the psychological dissociation of the individual from his/her group, frequently accompanied by a mental alignment with the outgroup. This constitutes negative ethnocentrism.

Secondly, the individual's perception of whether or not the intergroup situation is changeable: Tajfel referred to this factor as the group member having secure or insecure identity. At this point, it is worth mentioning that the terminology used in connection with insecurity is very loose. Although the meaning remains constant, "secure" or "insecure" is at times paired with "social identity" (Tajfel, 1978, p. 87) and at others with "social comparisons" (Tajfel, 1978, p. 89; Tajfel and Turner, 1986, p. 22). An insecure identity or comparison is the result of the status hierarchy being perceived as changeable; or as he frequently phrased it, as there being "cognitive alternatives" to the situation (Tajfel, 1978, p. 87). Two concepts were distinguished to account for insecurity - the perception of the status hierarchy as being unstable or of being illegitimate. The perception of instability

embodies the notion of the situation being under threat (which may lead to change) from external forces. These external forces may be such things as the changing aspirations of the low status group, economic or political changes, changes in the prevailing *Zeitgeist*. The perception of illegitimacy assumes the presence of moral questions, such as fairness, rights and justice, pertaining to the intergroup situation and its ramifications.

The perceptions of the intergroup status hierarchy relationship, and whether it is seen as legitimate (or illegitimate), stable (or unstable) will be referred to, in this thesis, as the intergroup perception factors (IPF).

Tajfel did not claim that the social categorization and comparison processes alone are sufficient to explain the relations between existing social groups. He accepted that various sociological, economic and historical considerations are necessary for such an understanding (Tajfel, 1978). Billig (1976), further argues that cognizance of the role of ideology is essential for a social psychological analysis of intergroup relations:

The basic point is that social categorizations do not arise in a social vacuum, but are integrated to serve particular ideological ends.

(Billig, 1976: 361)

2.2 The Nature of Intergroup Behaviour

Tajfel proposed that the behaviour of groups could be related to the different conditions of perceived status, stability and legitimacy, and to whether or not the conditions are conducive to leaving the group. He suggested that the form that intergroup behaviour could take are:

social mobility: an essentially individualistic action in which the member of an undesirable group leaves that group to assimilate with another more desirable one.

assimilation or merger: this involves the low status group taking on the positive features of the high status group, becoming more like that group so that the distinction between the groups falls away. However, the circumstances under which such a response can take place (*e.g.* that the high status group 'allows' this assimilation) are so limited that this response will not be discussed further.

social creativity: this involves behaviour intended to throw off the negative image of the undesirable group, reinterpreting the negative characteristics of the group, or creating new dimensions of comparisons. It also includes redirecting comparisons to other groups relative to whom one's group may be superior.

social competition: this involves active attempts to change the material conditions that maintain the status hierarchy, and the creation of new ideologies rejecting the status hierarchy as it stands.

enhanced distinctiveness: this involves attempts to maintain and enhance the status hierarchy, entrenching the superiority of the high status group, through increased discriminatory behaviours and creating new rationalizing ideologies.

Tajfel (1978) presented a 2x2 dichotomous model, outlining the circumstances under which these intergroup behaviours could be expected. However, in various other writings concerning intergroup behaviour, Tajfel rather loosely presented circumstances which were not incorporated into the

model. The model has been reinterpreted and augmented by various researchers. In the following pages, I will discuss some of these, and will present my own version of the model which includes some of the augmentations, but more specifically draws out the role of the perceptions of legitimacy and stability. Some hypotheses will be derived from this model, which will be tested in the various studies of this thesis.

To commence I will first reproduce and discuss the model presented by Tajfel (1978, Table 3, p. 89):

Figure 2.1 Tajfel’s Model of Insecure Intergroup Social Comparisons

	Conditions conducive to leaving one’s group	Conditions conducive to staying in one’s group
Consensually superior groups	A	B
Consensually inferior groups	C	D

When the high status group’s status is threatened (seen as unstable) a number of responses may occur. In Box A, if the threat is sufficient, the members will opt to leave the group. In Box B, there is likely to be enhanced distinctiveness, with responses designed to reiterate and underline the group’s superior status. If the insecurity arises from perceptions of illegitimacy, members of the Box A are again likely to exit from the group, since the group no longer provides positive distinctiveness. For groups in Box B, Tajfel (1978) suggests that they will resolve the conflict of values

through creating new justifications for maintaining the status quo (*i.e.* a form of social creativity).

In the case of the low status groups, Tajfel (1978) suggests that when conditions are conducive to leaving (Box C), the dominant response will be social mobility since there are no reasons to stay in a group that provides negative distinctiveness, whereas in Box D, the dominant responses are predicted to be social creativity or social competition. He does not distinguish between the effects of illegitimacy or instability, but seems to imply that the '*prise de conscience*' of illegitimacy is essential for insecure comparisons on the part of the low status groups.

The first thing to note about this model is that it deals only with insecure social comparisons. Tajfel explicitly argues that in the modern world there can be no secure comparisons since:

A completely secure social identity would imply a relationship between two (or more) groups in which a change in the texture of psychological distinctiveness between them is not conceivable....

... for an "inferior" group this would imply the existence of a total consensus about the nature and future of their inferiority; in other words there would have to exist a complete psychological "objectification" of a social status quo with no cognitive alternatives of any kind available to challenge the existing social reality.

... for a group consensually "superior".... the kind of psychological distinctiveness that would insure their unchallenged superiority must not only be gained; it must also be preserved, and it can only be preserved if social conditions of distinctiveness are carefully perpetuated, together with the signs and symbols of distinctive status without which the attitudes of complete consensus about the "superior" distinctiveness are in danger of disintegrating.

(Tajfel, 1978, p. 87-89)

However Turner and Brown (1978), while not disagreeing directly with the notion that a secure social comparison is rare, began to talk about

"*relatively secure relations between groups*" (p. 207). Moscovici and Paicheler (1978) also argue that nomic groups (groups which are sure of their position and opinions and accustomed to success) fit into this category. They argue that such groups would be able to tolerate the existence of a different group without the need to assert the primacy of its own identification.

Hogg and Abrams (1988, p. 55) present a model for the intergroup behaviour of subordinate groups only. However, in it their interpretation of social creativity differs. They argue that one of the predominant responses of groups which do not perceive cognitive alternatives to their inferiority will be social creativity:

Social creativity strategies occur when intergroup relations are subjectively perceived to be secure (legitimate and stable, if not necessarily desirable).

(Hogg and Abrams, 1988, p.56)

This directly contradicts Tajfel's argument that the perception of illegitimacy is a precondition for this response:

[The social creativity strategy] implies that, with the prise de conscience of the illegitimacy of an inferiority, a new kind of distinctiveness must be created on the basis of some existing group characteristics.

(Tajfel, 1978, p. 94)

Furthermore, the "*if not desirable*" part of the Hogg and Abram (1988) quote evades the issue of how and why an intergroup situation comes to be perceived as undesirable. This author would argue that for the situation to be seen as undesirable, cognitive alternatives must exist. Thus, this reinterpretation is rejected.

As mentioned previously, the prediction of intergroup behaviour is further complicated by the *ad hoc* manner in which Tajfel discussed the behaviour of various 'real groups', which was not integrated into the above model. For instance, in discussing the experiment by Branthwaite and Jones (1975), in which outgroup favouritism towards the Welsh was evidenced by the English subjects, Tajfel (1978) suggests that a measure of illegitimacy was experienced by the English - "*a mixture of guilty sympathy*" (p.91). This example suggests that a superior group (of the type in Box B) who perceives their superiority to be illegitimate may respond with outgroup favouritism, aligning themselves with the outgroup. Further, when talking of Jews in the ghettos of Eastern Europe, and some Asian and West African groupings in Britain, Tajfel (1981a) argues that these groups accepted their inferiority as a secure comparison, yet responded by either psychologically withdrawing from the comparison, either achieving positive self-esteem through comparisons within the group, or by refusing to accept that the group evaluation applies to themselves, thereby psychologically exiting from the group.

Influenced by the above considerations, the following model has been developed. The model is essentially a rearrangement of Tajfel's with some adjustments. Firstly, this author argues that relative secure comparisons are possible, in that there are instances in which the status hierarchy is perceived as legitimate and stable. Secondly, the effects of legitimacy and stability are more explicitly elucidated.

Figure 2.2 Model Depicting the Status and Comparison Security Dichotomies

	High Status	Low Status
Secure Intergroup Comparison	A	B
Insecure Intergroup Comparison	C	D

- A: Groups in this cell are deemed 'superior', and this status is viewed as unalterable (*i.e.* stable and legitimate). As no threats or value conflicts are recognized, membership of such groups provides untroubled positive distinctiveness. In agreement with Moscovici and Paicheler (1978) and Van Knippenberg (1984) it is suggested that such groups would have little need to compare themselves with the lower status group. Thus, little outgroup discrimination is anticipated.
- B: Low status groups, in circumstances where no cognitive alternatives are perceived, are considered in this section. Two contingencies are distinguished, depending on whether or not conditions are conducive to individuals leaving the group.
- (i) Conditions conducive to leaving: Typically, the social mobility response will occur, with members attempting to leave the group and enter the more highly valued one. These members tend to direct their 'positive relations' (*i.e.* expressions of admiration and approval) to the higher status group and their 'negative relations' to their own lower status group.

(ii) Conditions not conducive to leaving: Under these conditions the group members will seek to enhance their self-image through individual means. This may be achieved through comparing their individual positions with other members of the group, or through psychologically dissociating themselves from the group.

Under both these conditions there is likely to be a denigration of the ingroup and esteem of the outgroup (*i.e.* negative ethnocentrism). Thus, little ingroup favouritism is expected, and there is the possibility of outgroup favouritism.

C: This cell refers to high status groups with insecure status relations. Different predictions are made, depending on whether the insecurity results from threats to the group's status (perceived instability) or from conflicts of value (perceived illegitimacy).

(i) Perceived illegitimacy: In this case, exit from the group, either physically (if conditions are conducive to leaving) or psychologically (if conditions are conducive to staying) may occur. Examples are the 'hippy' movement (dropping out of the middle class life style); and the psychological dissociation of dissident Afrikaners (Louw-Potgieter, 1986). In such cases, little ingroup favouritism is anticipated, and there may be outgroup favouritism as found in the Branthwaite and Jones (1975) study.

(ii) Perceived instability: Here, the more characteristic response would be the defensive response of enhanced distinctiveness. The group would strive to maintain and enhance its superior status, with the resultant increase of intergroup discrimination.

Tajfel (1978) argues that in some circumstances, the perception of illegitimacy would also lead to this response, particularly when the bonds to the group may be too strong to allow for dissociation. In this case, he predicts that the group would attempt to justify their superiority, and would attempt to create further dimensions of comparison to support this. Hence, there would be heightened intergroup bias. However, it is questionable whether these group members would acknowledge perceptions of illegitimacy. Thus, it appears a distinction must be made between the responses of groups whose advantages are judged illegitimate by some external criterion, and those who acknowledge the illegitimacy themselves. In the former case, Tajfel's predictions of enhanced distinctiveness and strong ingroup favouritism may be expected, whereas in the latter case little ingroup favouritism is expected.

D: This pertains to low status groups where the status hierarchy is perceived as mutable.

(i) Perceived illegitimacy: Tajfel implied that insecure comparisons on the part of low status groups inevitably encompassed the perception that the status hierarchy is illegitimate. Then, members of such groups will tend to enhance their social identity through social creativity or social action. These groups characteristically exhibit strong ingroup favouritism, emerging from assertive distinctiveness. However, it is conceivable that there are low status groups who perceive the hierarchy as legitimate but unstable.

(ii) Perceived instability: This type of situation may occur when outside forces (e.g. economic crises) lead to an unstable intergroup situation.

In such instances, it is unlikely that social creativity or social action would ensue. The group would still 'believe in' their inferiority, hence physical or psychological exit would be a more typical response. However, the instability of the situation would also tend to undermine their 'faith' in the superior group. Hence, little ingroup favouritism would be manifest, but there would also be little outgroup favouritism.

Although the effects of perceived illegitimacy and instability are presented independently, they will inevitably exist in combination. Thus, a number of permutations are possible - legitimate/stable, legitimate/unstable, illegitimate/stable and illegitimate/unstable. In the permutations, it is anticipated that the effect of illegitimacy will over-ride that of instability. Thus if the combination is high status/legitimate/ unstable, enhanced distinctiveness is expected, whereas with the combination of high status/illegitimate/stable, little discrimination is expected.

2.3 Hypotheses emerging from this Model

A number of hypotheses may be drawn from the above model. As this thesis will concentrate on groups which have impermeable boundaries, only the relevant predictions will be considered. Further, the perception of legitimacy considered will be the self-acknowledged perception, not the externally determined one.

It is clear that the perception of legitimacy is the most definitive factor in determining intergroup behaviour. Both high and low status groups who

perceive the hierarchy to be legitimate will tend to favour the 'superior' group. When the hierarchy is seen as illegitimate, both groups will tend to favour the 'inferior' group - the high status group will either not discriminate, or will be biased in favour of the 'inferior' group, whereas the low status groups will tend to display assertive ingroup distinctiveness.

Two further hypotheses are suggested. Firstly, the high status groups which perceive the hierarchy to be legitimate but unstable are expected to strive to maintain their superiority, hence will evidence strong discriminatory behaviour towards the low status group. Secondly, it is expected that low status groups will evidence less ingroup favouritism when with hierarchy is seen as secure than when it is seen as insecure.

In summary:

H1: High status groups who perceive the status hierarchy as legitimate will display significantly more ingroup favouritism than high status groups who believe it is illegitimate.

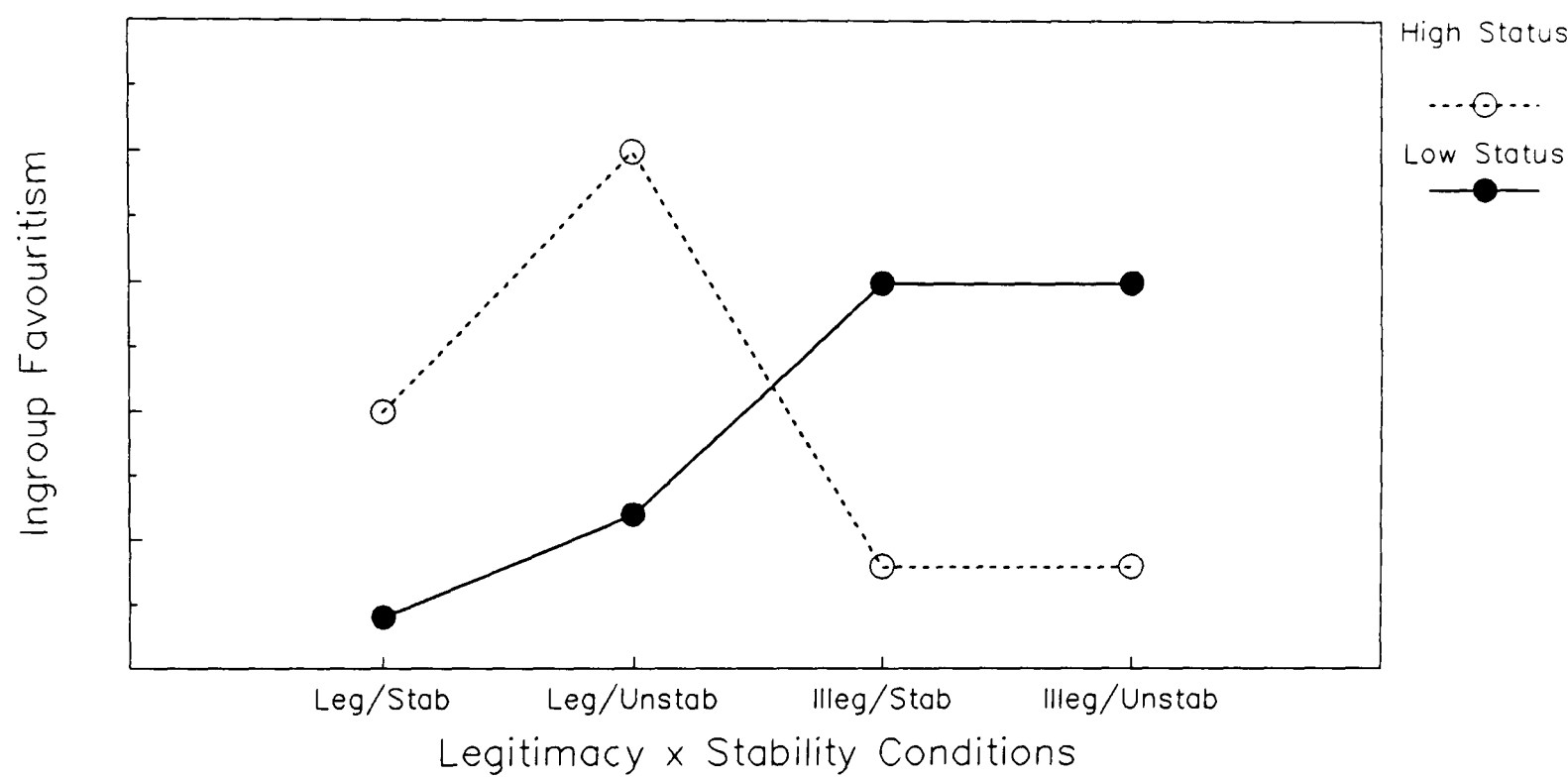
H2: Low status groups who perceive the status hierarchy as illegitimate will display significantly more ingroup favouritism than low status groups who believe it is legitimate.

H3: High status groups who perceive the status hierarchy to be legitimate but unstable will display the most ingroup favouritism and outgroup discrimination.

H4: Low status groups who perceive the status hierarchy to be stable and legitimate will evidence the least ingroup favouritism and the most outgroup favouritism.

The following hypothetical graph is presented to illustrate these predictions:

Figure 2.3 **Graph Depicting Group Bias Anticipated under the various condition of the Intergroup Perception Factors.**



2.4 Empirical Work on the Intergroup Perception Factors

The predictions for the ways in which the intergroup perception factors affect intergroup behaviour, as presented by the model described earlier, derive largely from theoretical argument, supported by examples emerging from historical and political analysis. However, despite their wide implications, few social psychological studies have attempted to test the predictions empirically. The effect of status differentials alone has received

considerable attention, but few have directly included perceptions of stability or legitimacy.

2.4.1 The Effect of Status Differentials

Forming predictions for the outcome of studies that investigate the effect of status, without monitoring perceptions of security, are somewhat problematic. If it is assumed that the subjects in question view the status hierarchy as secure, the expectation should be that subjects in the high status group should display more ingroup favouritism than subjects in the low status group. Membership of the high status group should satisfy the need for positive distinctiveness, whereas membership of the low status group provides a negative input for the self-concept. This may lead the subjects to hold their ingroup in low esteem, and possibly to 'reject' it and favour the outgroup. However, if the comparison is insecure, then it may be expected that the low status group would demonstrate strong ingroup favouritism.

It is thus unsurprising that a review of such studies, particularly those within the minimal group paradigm, does discover discrepant findings. Yet, there are some consistencies depending on the nature of the groups used and the means of establishing the status hierarchy.

(i) Experimental groups. In this section is included both minimal groups and existing groups which are manipulated within the experiment to assume valence. Such studies tend to establish the status hierarchy through manipulating the groups' apparent ability or competence (on some relevant task). The original experiment of this kind was that of Tajfel *et al.* (1971).

Subjects were allocated into two groups, allegedly on the basis of their over- or under-estimating the number of dots on a screen. In the status or value condition of this study, the subjects were told that one group was more accurate than the other. Thus the more accurate group was assumed to have high status relative to the less accurate group. No difference was found in the amount of ingroup favouritism displayed by subjects in the high and low status groups.

However, Commins and Lockwood (1979) performed a study replicating this experiment's method of creating status groups, and found that the high status group was more discriminatory than the low status group. However, in their study they included another condition - favoured versus non-favoured treatment, which though it did not interact with status, may have had the side effect of making the status condition more salient.

The same argument could be made of the study by Sachdev and Bourhis (1987), which manipulated status differentials together with salience of categorization. Three status conditions were devised - high status, low status and equal status on the (alleged) basis of a creativity test. They found that the high status group discriminated most, followed by the equal status group, and that the low status group tended to exhibit outgroup favouritism.

Brown and Abrams (1986) created three status conditions (high, equal, low) which they manipulated together with task orientation (cooperative versus competitive) and attitude similarity (similar, dissimilar). While there was an interaction between status and attitude similarity, the general finding was that there was much more bias against the low status group than against the high status group.

Brown and Wade (1987) manipulated the status of the ingroup and outgroup together with roles in a cooperative task. The findings showed that when the status of the ingroup was high and the outgroup low, there was ingroup favouritism, but when the ingroup was low status and the outgroup high, there tended to be outgroup favouritism. Ellemers *et al.* (1988) found that ingroup identification was higher amongst high status group members than low status group members.

(ii) Experimental groups in which the status relation is manipulated through relative group size. The basic assumption in these studies is that being a member of a majority is desirable, and that being part of a minority implies a negative social identity (Abrams and Hogg, 1988; Sachdev and Bourhis, 1984). This is open to question, as there are numerous examples of the elite minorities, for example the whites in South Africa, and the upper socio-economic classes in Europe. The findings of these studies are contradictory. Some have found that the majority group members are more discriminatory than the minority group members (Moscovici and Paicheler, 1978), while others have found that the minority group members are more discriminatory (Sachdev and Bourhis, 1984).

(iii) Experimental groups in which status is manipulated through discrepant possession of power or resources. In general it has been found that the more power a group has, the more ingroup favouritism (Ng, 1982a, 1982b; Sachdev and Bourhis, 1985), particularly when the power relation is perceived to be secure.

(iv) Real groups. Numerous studies have considered the effect of differences in status on the intergroup behaviour of various real groups,

focusing on groups defined by institutions (Bourhis and Hill, 1982; Brown and Williams, 1984; Doise and Sinclair, 1973; Oaker and Brown, 1986; Spears and Manstead, 1989; van Knippenberg and van Oers, 1984), or on groups defined by national, ethnic or linguistic differences (Branthwaite and Jones, 1975; Cairns, 1982). Some of these studies found that the high status groups discriminated more than the low. For example, Doise and Sinclair (1973) found that the "*collegiens*" (students from the higher status university) tended to favour their own group, whereas the lower status "*apprentis*" (students from a technical college) did not; Spears and Manstead (1989) comparing university students at institutions of different status found that those at the high status university displayed more ingroup bias than those at the low status university. However, in some studies, the low status group members were found to be more discriminatory. For instance, Branthwaite and Jones (1975) found that their Welsh subjects (the low status group) displayed more ingroup favouritism than the English subjects (the high status group); while Oaker and Brown (1986), working with specialist nurses (high status) and general nurses (low status) found they both exhibited ingroup favouritism.

These findings are further complicated by the evidence that groups manipulate their responses in a tactical fashion, so that they make certain concessions to outgroup, but maintain their own advantages in other ways. This tactic is characteristic of high status groups with insecure identity. In general, it has been found that groups will display ingroup favouritism on dimensions of value to ingroup, and outgroup favouritism on dimensions not of value to ingroup, which may be of more value to ^{the} outgroup (Amancio,

1989; Mummendey and Shreiber, 1983; Mummendey and Simon, 1989; Spears and Manstead, 1989; van Knippenberg *et al.*, 1982).

In summary, it appears that when status differentials have been established in a direct experimental manipulation, including the assignment of discrepant amounts of power or resources, the general finding is that high status groups tend to evince more ingroup favouritism than low status groups. This is particularly so when the intergroup situation is made salient through various means. However, when the manipulation is through varying group size there are no consistent trends. It is suggested, here, that the reason for this is this form of manipulation does not explicitly define the majority group as high status relative to the minority group in the unequivocal manner that experimental manipulation does. It is further argued that the discrepant findings evidenced in the studies with real groups may be attributed to unmonitored variations in perceptions of stability and legitimacy.

2.4.2 Legitimacy and Stability

(i) Experimental studies. The work which has attempted to directly manipulate perceptions of stability and/or legitimacy in an experimental setting is limited. The most frequent means of manipulating these perceptions are as follows: for stability, subjects are led to question the reliability of the status hierarchy; and for legitimacy, to present information designed to cause the subjects to question the fairness of the purported events that led to the status hierarchy. This immediately causes a problem in that this legitimacy is of the externally established variety. Hence, the

predictions for the high status/illegitimate group would be Tajfel's, not as presented in the hypotheses.

Turner and Brown (1978) manipulated status, stability and legitimacy in a 2x2x2 design, testing their effects on a number of variables, of which only ingroup bias in performance will be considered here. It was found that the high status group, in general, displayed greater ingroup bias than did the low status group, and that groups in the illegitimate conditions displayed more ingroup favouritism than those in the legitimate conditions. However, there was a significant interaction effect, which on inspection indicated that both the high status/unstable/legitimate and high status/stable/illegitimate groups evidenced strong ingroup favouritism. The first finding is predicted by hypothesis H3, whereas the latter finding would be anticipated when illegitimacy is externally defined and not acknowledged. The high status/illegitimate/unstable group did, as anticipated, show little ingroup favouritism. Although the low status groups in the illegitimate (stable and unstable) conditions displayed more ingroup favouritism than the groups in the legitimate conditions, the mean of the low status/illegitimate/stable group still evidenced outgroup favouritism.

Turner (1978) did a similar experiment to the one above, in which only stability was considered with status, though the additional factor of similarity or dissimilarity of the outgroup was included. This factor makes the evaluation of the effect of stability particularly potent. The study again manipulated the status through the faculty membership of the subjects (Arts and Science) in which Arts students were presented as having higher verbal abilities. However, in the similarity condition, the ingroup and outgroup

consisted of students from the same faculty, so there was no status discrepancy between the two groups. Stability was manipulated through either making the superiority of the Arts students verbal ability over the science students explicit (stable), whereas in the unstable condition this difference was not mentioned. The results indicated that the Art students (high status group) were in general more biased than the Science students (low status group) in their assessment of the relevant merits of the groups. Similarity was found to interact with stability, irrespective of status. More ingroup bias was displayed by subjects in the stable condition when the outgroup was similar than in the unstable condition, and when the outgroup was dissimilar, more bias was displayed in the unstable condition than in the stable condition. Thus, when the group's superior ability was perceived as stable, the 'competition' of a similarly able group led to the striving to maintain superiority, whereas when the group's superiority was perceived as unstable (in question), the 'threat' of the inferior group resulted in the attempt to maintain superiority through discriminatory bias.

Mummendey and Shreiber (1984) replicated the above study of Turner (1978), removing the "*confoundings between similarity of status, value and faculty membership, and complications involving the stability variable*" (p. 231). These authors added two conditions, a control group in which no information about abilities was given, and a condition in which the instability of the status hierarchy was made more explicit. This study failed to replicate Turner's finding. The authors did not report any differences as a result of the status of the group, but the effect of instability (using both Turner's method and their operationalization) appears to result in less ingroup favouritism

when the outgroup is dissimilar.

Caddick (1982) manipulated only status and legitimacy. He found that the groups in the illegitimate conditions displayed higher ingroup bias than those in the legitimate condition. No comparison between the scores of the inferior and superior groups were carried out in this study, either separately or together with the legitimacy factor. The finding that the superior group in the illegitimate condition displayed higher ingroup favouritism confirms Tajfel's enhanced distinctiveness prediction (when illegitimacy is externally defined), whereas the inferior-illegitimate group displayed the anticipated assertive distinctiveness.

Brown and Ross (1982) created two minimal groups of different status by a procedure designed to establish the perception that the status hierarchy was illegitimate. They then varied a condition of threat (high, moderate and low). These manipulations with respect to the high status group involved leading them to believe that the low status group rejected their superiority (high threat); whereas in the low threat condition, they were led to believe that the low status group accepted their inferiority. In the case of the low status group, the high threat condition involved the perception that the high status group were reinforcing their superiority, whereas in the low threat condition, they were told that the high status group accepted the equality of their group. In the case of the high status group, this high threat implied the situation was unstable, whereas to the low status group the low threat implied the instability of their inferiority. The moderate threat conditions fell in between these states. Prior to receiving the threat communication, the high status group displayed greater ingroup favouritism than the low status group,

which evidenced outgroup favouritism. After the receipt of the high, moderate or low threat, no significant difference was found in the ingroup favouritism of the high status group. In the case of the low status group, however, high and moderate threat led to a significant increase in the degree of ingroup favouritism, while there was no significant change when the threat was low. These results do not support Tajfel's model, as it would be expected that the high status group would have increased their ingroup favouritism under conditions of high threat (defensive discrimination). The low status group, under conditions which most reinforced their inferiority, showed the most ingroup favouritism (assertive discrimination). Contrary to expectation, the low status group, in conditions where the superior group conceded that its superiority was unfounded, showed the least change in the direction of ingroup favouritism.

On the whole these results, while not consistent do provide some support for the hypotheses. H1 was supported to a certain extent by the Turner and Brown (1978) study, but was not supported by the Caddick (1982) and Brown and Ross (1982) findings. H2 is supported by the Turner and Brown (1978) and the Caddick (1982) studies, but not by the Brown and Ross (1982) study. H3 and H4 received some support from the Turner and Brown (1978) study, which was the only one which could be considered as none of the others manipulated both stability and legitimacy in an orthogonal fashion.

The discrepant findings may be attributable to some problematic features of the studies. Firstly, as mentioned previously the perception of legitimacy was externally determined, and the subjects' actual perceptions

were not monitored. Thus, it is not clear whether or not the perception of illegitimacy was acknowledged. Secondly, the manner in which legitimacy was manipulated varied. In the Caddick study the condition of illegitimacy was constructed to be a direct function of the high status group's superiority, whereas in the Turner and Brown study, the condition of illegitimacy issued from the actions of outside forces - the experimenters (Caddick, 1982). Furthermore, while the use of minimal groups is a particularly powerful methodological tool, it is extremely difficult to institute such complex perceptions as that of legitimacy and stability in laboratory groups (*cf.* Finchilescu, 1981). The measures checking these manipulations in the Turner and Brown (1978) study are not particularly compelling as they appear prone to demand effects, and Caddick (1982) does not report whether any were used in his study.

(ii) Non-experimental studies. Very few studies on 'real' groups have explicitly manipulated the effect of stability and legitimacy in conjunction with the status hierarchy. Part of the reason for this is that such research would have to capitalize on a current event which results in perceived insecurity of social identity. For example, Skevington (1980, 1981) investigated the effect of proposed changes in the structuring of nurses training on the two groups of nurses of different status (State Registered Nurses and State Enrolled Nurses). The effect of these proposed changes would be to effectively curtail the privileges and advantages enjoyed by the high status group (SRN). This source of instability (emerging from the findings of a government-sponsored commission) was manipulated in the study, through half the subjects being told that the change was imminent and

the other half, that it was not. The results of these studies were that in the unstable condition, the low status group displayed more ingroup favouritism than existed in the stable condition (in contrast to the outgroup favouritism when the situation was portrayed as stable). There was also an increase in the ingroup favouritism displayed by the high status group in the unstable condition. These results cannot be used to assess the hypotheses as the perception of legitimacy was not manipulated or monitored.

Numerous authors, however, have used the concepts of legitimacy and stability in describing such things as social assimilation, social mobility, and intergroup behaviour of real social groups (e.g. Bourhis and Hill, 1982; Branthwaite and Jones, 1975; Brown and Williams, 1984; Cairns, 1982; Hewstone *et al.*, 1982; Hewstone *et al.*, 1983; Liebkind, 1982; Moghaddam *et al.*, 1987; Vaughan, 1978b). These *post hoc* explanations are sometimes made through arguments about the groups socio-economic and political relations in the case of real groups, or, subsidiary analyses have been performed on the basis of indicators of stability or legitimacy. For example, Spears and Manstead (1989) ascertained whether the members of the low status university believed their low status was fair or not and found that those who viewed it as illegitimate displayed stronger ingroup favouritism than those who did not. A similar analysis with members of the high status university sample was not possible as there were too few who thought their status illegitimate. However, most of the quoted studies did not make systematic attempts to gauge their subjects perceptions of stability or legitimacy, but hypothesized these from their behaviour. for instance, the finding of strong ingroup favouritism on the part of low status groups is

explained by their perception of the illegitimacy or instability of their subordinate position. Therefore, such studies cannot stand as support for the theoretical predictions.

Another issue concerning the nonexperimental studies is the factor of the permeability or otherwise of the group boundaries. With experimental studies this issue does not arise, as the manipulations inevitably establish the impermeability of the group boundaries. However, in real groups this factor needs to be explicitly considered.

2.5 Critiques of Social Identity Theory

A number of the critiques of Social Identity Theory have focused on Tajfel's conceptualization of the role of social categorization, the cognitive component, with little focus on the motivational ingredients.

One such critique is that Tajfel's assertion that categorization is a basic aspect of human existence, coupled with the linkage of categorization to intergroup prejudice and discriminations has the result of making prejudice appear 'normal' and 'inevitable' (Billig, 1985; Hendriques, 1984). While this argument may be true of social categorization per se, it would not be an accurate commentary on Social Identity Theory as a whole. Further, it is argued here that the concern about the interface between the theory of social categorizations and 'real' group prejudice lies not in the ills of cognitivism, but in the failure to broach the question of why groups have become the chief means of gaining positive distinctiveness in modern society, and to investigate how this is ideologically and politically manipulated.

While the place of social categorization is important in providing the substrate on which social groups are based, Tajfel does not claim that the label of the category is the only definition of the group 'in real life'. Research with children has demonstrated that children frequently do learn the social category labels and the evaluation of these categories before they understand the content of these categories (e.g. Finchilescu, 1975; Kohlberg, 1966). However, most social groups are invested with many features that strengthen identification to the group, and locate the group in the social context. It would thus be inaccurate to claim that Tajfel saw prejudice as emerging mechanistically from a purely cognitive source, as is demonstrated in the following quote:

the fabric of intergroup relations in society at large, i.e. their social, historical, economic and cultural determinants and constraints, create the diversity of widely diffused social myths about people's own and other social groups. These myths, be they called representations collectives, social representations or social (as distinct from individual) stereotypes, constitute in turn a crucial part of the background affecting the collective aspects of social behaviour of masses of individuals.... The nature and contents of the myths accepted as 'true' or 'valid' by people belonging, or seeing themselves as belonging, to different social categories are strongly affected by the individuals's location ('objective' and 'perceived') within the wider social system.

(Tajfel, 1984, p. 696)

Billig (1985) argues that particularization is as important a process within intergroup relations as categorization. He illustrates this with the analogy of the bureaucrat who can choose to enforce the letter of the law to a particular individual or make a special case, contending that people choose to incorporate an individual into a category or to individualize him/her. This argument does not appear to be at variance with Social Identity Theory, in

that the intergroup relations is considered dynamic. In his discussions on the interpersonal-intergroup continuum, Tajfel stressed that ingroup members can encounter outgroup members as individuals, or as group members. Thus, for instance, during the flare-up of hostilities in the black townships in South Africa, there were numerous examples of white employers who took personal measures to protect their individual black servants or colleagues, fetching them and their families at personal risk from the battle-torn townships and giving them shelter. While this is clearly an example of particularization (or interindividual behaviour), the issue is that when it comes to a group action, such as voting in the subsequent election, these same people did not hesitate to vote to retain *apartheid*.

This critical focus on the cognitive aspect of the theory stems partly from the uneasy transition Tajfel made from his first social categorization stance ("the generic norm for discrimination") to the full Social Identity Theory in which motivational components came to the fore, and partly to the heavy dependence on the Minimal Group Paradigm in research. Tajfel (1972) stated that he viewed research as a means of demonstrating theoretical propositions, not a means of providing the proof. The minimal group studies have allowed for certain relationships to be tested, but they were not viewed as a microcosm of reality. However, the Minimal Groups Methodology and experimental groups by their very nature, put an excessive emphasis on cognitive issues as it would be very difficult to draw out motivational components in such transient situations. Hence, the multitude of studies on Social Identity Theory using such methodologies does provide the impression that social categorization is the dominant process.

Social identity researchers have, in general been criticized for its rigid adherence to orthodox, idiographic, experimental procedures (Condor, 1989; Marshall and Wetherell, 1989; Skevington and Baker, 1989). These authors argue that the scope of the theory is severely curtailed by the lack of diversification in methodologies. The dynamic processes involved in social comparisons and the content and meaning of social identities can only be explored using more qualitative and subjective means. These authors also argue that analyses of the social context, and of the historical background need to be incorporated into the study of any social groups for such a study to be of real use in understanding social reality. Further, Condor (1989) points out that Tajfel's analysis of social change is limited to the "intentions of social activists", and does not take into account the complexity and diversity of actual social change.

This culminates in perhaps the most cogent criticism of Social Identity Theory - that it has concentrated on the processes involved in intergroup behaviour to the exclusion of content. The validity of this assessment is undeniable. Social Identity Theory has provided some principles and schematic tools by which to approach the analysis of intergroup behaviour. But, it has yet to provide an understanding of the meaning, development and structure of social identities, or an examination of how these dynamically interface with social activity. Yet, so long as Social Identity researchers do not treat the process analysis as the only elements required in social inquiry, this criticism is not a rebuttal of the theory but a directive for future research.

In conclusion, the main criticisms of Social Identity Theory that have been discussed are the over-emphasis on cognitive processes, the lack of

contextual analysis, the predominance of experimental methodologies and the "*reification of process over content*" (Skevington and Baker, 1989, p. 8). A further criticism that has been raised by a number of researchers is that Social Identity Theory tends to assume that all members of a group identify with the group in a similar manner, and have similar perceptions and responses. This issue is the subject of the next chapter, and will be elaborated there.

CHAPTER 3

INTRA-GROUP VARIATIONS IN PERCEPTIONS OF THE STATUS HIERARCHY

3.0 Introduction

In the previous chapter, a model for predicting the nature of intergroup behaviour from perceptions of status, stability and legitimacy was elucidated. Four hypotheses emerged which, it was argued, encapsulate the intergroup predictions of Social Identity Theory in instances of impermeable group boundaries. In this chapter it will be argued that in real social groups, it is likely that the full range of the intergroup perception factors (*i.e.* that the status hierarchy is stable/unstable, legitimate/illegitimate) will be held by different members of the group. Variations in ideological beliefs, in value systems and in experiences will lead to members of the same group viewing the intergroup situation differently. The chapter will first discuss some issues relevant to the notion of intra-group variability. Then an empirical study which tests whether intergroup behaviour varies as a function of differences in the intergroup perception factors within groups, will be reported.

3.1 Intra-Group Variability

The form intergroup behaviour takes, whether there is paternalism or dissidence, social mobility or social action, is determined in part by the status

hierarchy of the groups, and the perceptions of the legitimacy and stability of this hierarchy. In his outline of this process, Tajfel (1978) treats the perceptions of stability and legitimacy as if these are uniform throughout a group at a particular point in time. Similarly, the empirical studies on the issue, reviewed in Chapter 2, tend to operationalize these factors as homogeneous characteristics of whole groups, without variations in individuals' perceptions of these factors. However, while this tendency is inevitable when elaborating a model, or in instituting manipulations within an experiment, it does not follow that these perceptions are, in reality, static or consistent within a group.

The notion that there are variations in the behaviour and perceptions of ingroup members has been recognized by Social Identity Theory researchers. But this variation has been considered mainly as a function of identification. For instance, in his discussion of individuals' identification with a group, Tajfel acknowledged that this was mediated by numerous emotional as well as cognitive factors (Tajfel, 1978; Tajfel and Turner, 1979, 1986).

Identification with a social group involves a number of factors: one's cognitive self-definition as a member of a certain group, awareness of similarity to other members of the group, and of differences to persons not in that group, feelings of attraction to, bonding and perceived interdependence with other members of the group. However, Turner's self-categorization theory (which derives from Social Identity Theory) argues that the emotive components of feelings of similarity, cohesion, attraction, *etc.* are consequent upon the cognitive self-definition and categorization, rather than these

factors leading to group formation or identification. While it is accepted that the cognitive self-definition process may be the necessary condition for group membership, it is argued here that numerous other factors will influence the depth and extent of identification, the salience of the identification for the individual and the commitment to that group.

Self-definition as a member of a group has been demonstrated to affect intergroup behaviour (Finchilescu, 1986; Ullah, 1987; Widdicombe, 1988). Finchilescu (1986), in an experimental study, investigated the effect of the status of groups and the congruence of subject's group membership on ingroup favouritism. Subjects were told that there were two types of artistic potential, which were associated with certain personality traits. They were told the traits involved and, on the basis of these, asked to determine to which of the two groups they belonged. They were then subjected to an artistic aptitude test, which allocated them to one of the two groups. The allocation was manipulated such that in some cases there was congruence between the subjects' self-definition of group membership and the allotted group and sometimes these were at variance. It was found that ingroup favouritism was affected by the status of the group and the congruence of self-definition with allocated group membership. In particular, when there was incompatibility, those allocated to the low status group exhibited outgroup favouritism and those allocated to the high status group showed high ingroup favouritism. There was no significant difference in the amount of ingroup favouritism evidenced as a function of status of the group when subjects were allocated to the group to which they thought they belonged. Ullah (1987) investigated the attitudes to the Irish of adolescents who had at

least one Irish parent, as a function of whether they defined themselves as English, Irish, or half Irish/English. It was found that subjects who defined themselves as Irish had a significantly stronger positive orientation to the Irish group than the other subjects. Widdicombe (1988) in a multi-dimensional study of adolescents' identity discovered that their achieved peer group identities were more important than ascribed group memberships.

The degree of identification with a group has also been considered by a number of researchers (Brown and Williams, 1984; Brown *et al.*, 1986). In studies with different types of workers in a bakery (Brown and Williams, 1984) and in a factory (Brown *et al.*, 1986) it was found that the degree of identification with their group did not emerge as a consistent or strong predictor of intergroup behaviour. However, the lack of comparability between some of these groups and the context of the study may account for these lack of results. It is clear that further research is required to clarify the effect of degree of identification.

Further, there is growing evidence that members of a group may identify with different images or representations of that group (Condor, 1984; Condor, 1989; Condor and Abrams, 1984; Louw-Potgieter, 1986, 1988). Condor demonstrated that the group 'women' to which members identified could be represented in a number of ways, ranging from the traditional 'feminine' definition to that of a socio-political group as conceived by feminists. Louw-Potgieter found that (South African) Afrikaners represented their group in a variety of ways, ranging from a 'racial', (*i.e.* white), culturally specific elite to a group defined in terms of language use alone.

Thus, there is some evidence of intra-group variability in the form and degree of identification with a group, and identification appears to have some influence on social identities and to a certain extent intergroup behaviour. However, it is difficult to relate this to the intergroup perception factors. Clearly, a strong identification with a group would lead to a low likelihood of leaving the group, even if material conditions allowed this. Thus, the social mobility-social change dimensions should be correlated with weak-strong identification dimensions. It may also be argued that strong identification would also be associated with a strong perception of legitimacy in the case of high status group members and of illegitimacy in the case of low status group members. However, while an investigation into the nature of this association is likely to be revealing, it is beyond the scope of this thesis.

3.1.1 Variability in Perceptions of Legitimacy and Stability

It is argued here that within any large scale social group, there will be members who perceive the stability and legitimacy of the intergroup status hierarchy differently. Perceptions of stability and legitimacy emerge through an interaction between factors internal to the groups and external events. Internal factors are elements such as the degree of identification felt by group members and the perceived level of comparability between the groups in question. External factors may be events such as political and economic changes affecting the social groups directly, news of circumstances in other countries which may present examples of alternatives to the current intergroup situation, or the failure of the dominant group to fulfil its

functions.

Hence, variations in the manifestations of the internal factors, and in the cognizance of and beliefs about the external factors are likely to exist within social groups. In the case of South Africa, for instance, blacks who live in the remote rural areas, who have little or no contact with whites, and who have little access to media information, are likely to have a very different understanding of the intergroup situation, specifically the *apartheid* system, to blacks who are urban dwellers, have been educated and are more versed in political events. The former are more likely to perceive the intergroup situation as stable and legitimate than the latter.

Some support for the concept of diversity is contained in Taylor and McKirnan's (1984) model of social change. They suggest that there are five stages in intergroup relations, which describe the development (from stage 1) of a situation in which the inferiority of the subordinate group and superiority of the dominant group exists without question, through to stage 5, in which the inferiority of the subordinate group is rejected and the groups compete on a more-or-less equal basis. The five stages are characterized by different social comparisons (as secure or insecure) and by distinct attributions made for the inferiority or superiority of the groups in question. Implicit in the explanation of the development from one stage to another is the notion that certain members of the lower status group are subjected to experiences which alert them to the illegitimacy of the intergroup situation, and they in turn act to raise the consciousness of the whole group.

To date, there is little empirical work investigating the effect of variability in intergroup comparisons. However, one study that has

incorporated this, was that of Brown and Williams (1984). These authors monitored the degree of stability, defined as the likelihood of the relative status of the groups changing, and illegitimacy (or relative deprivation), defined as the difference between the actual and desired ingroup rank, of workers in various sections of a bakery. These perceptions (treated as continuous variables) failed to emerge as significant predictors of a number of measures of intergroup differentiation. However, it could be argued that the groups used (defined by the type of work done) were not particularly salient or important to the subjects.

3.2 Study 1: The Effect of Intra-group Variability in the Intergroup Perception Factors on Intergroup Behaviour

The aim of this study, was firstly to ascertain whether there are variations in perceptions of stability and legitimacy within the context of real groups in conflict, and to test the effect of these, as orthogonal constructs, on intergroup relations. Intergroup relations will be operationalized as measures of intergroup attitudes, and of ingroup favouritism in trait ascription and allocation of resources. The groups in question were blacks and whites in South Africa. At the time this study was performed (1985), the social turmoil which has been increasingly escalating, was clearly evident, with feelings of optimism and pessimism on both sides.

To examine the intergroup perception factors, it was necessary to construct a measure that could discern the individuals' perception of the intergroup situation in a manner that was not bound up with the intricacies of

the political situation. An adaption of Cantril's (1965) Self-Anchoring Striving Scale was used, which was termed the Intergroup Perception Ladder. As this scale is used in many of the studies of this thesis, it will be described in detail.

3.2.1 The Intergroup Perception Ladder

Cantril's Self-Anchoring Striving Scale was originally devised as a means of determining an individual's aspirations, frustrations and feelings of satisfaction with respect to themselves and their countries. The Intergroup Perception Ladder devised for this thesis adopts the principle of allowing respondents to anchor the scale at either end for themselves, using unarticulated criteria that have personal relevance; and then asks for intergroup comparisons within these boundaries. Cantril (1965) found that five years was the maximum time interval that people could comfortably project backward or forward. This time interval was thus specified in the present use of the Ladder.

With the Intergroup Perception Ladder, respondents are provided with a drawing of a ladder with 11 rungs (labelled from 0 to 10). The instructions specify that the ladder should be taken to represent "life circumstances" in South Africa, and to imagine that the top step represents the best one could hope for in this country, and the bottom represents the worst. Respondents are then asked to indicate on which step they think blacks and whites (as social groups) stand on this ladder (a) at the present time; (b) stood 5 years ago; (c) will stand in 5 years time; and (d) where they

should, ideally, stand.

Perceived Status

The relative position of the groups on the ladder "at the present time" acts as a check on the perceived status of the groups. It must be noted that the race intergroup situation, in South Africa, inevitably refers to the *apartheid* system which determines that whites are accorded high status and ensures they enjoy the best resources of the country, while the blacks are accorded low status and are deprived of both power and economic resources. Hence, if the respondent places blacks on a higher level than or on the same step as whites, their responses are excluded from the analysis, since it is clear that they either misunderstand the task or are using a dimension of comparison that differs from the socio-structural reality indicated.

Perceived Stability

Perception of the stability of the situation is calculated as a function of the relative position of the groups in the future as compared to the present; that is, the difference in levels of blacks and whites specified for "5 years in the future" minus the difference specified for "the present time". This continuous measure is dichotomized using a median-split.

Perceived Legitimacy

Perception of the legitimacy of the intergroup situation is determined from responses on the question of where the groups "should" stand. If the subjects place whites higher than blacks, they clearly see the present intergroup situation as legitimate, whereas if they place blacks on the same level or higher than whites, this is taken as an indication that they view the situation as illegitimate. Thus, the scores were dichotomized such that those

who put the groups at the same level or blacks higher than whites, are considered to perceive the present intergroup hierarchy as illegitimate, whereas those who put whites on a higher level than blacks, were placed in the legitimate category. There is, however, a strong 'social desirability' bias implicit in this question, and it was accepted that some of the respondents who do view the situation as legitimate would be unwilling to state this openly.

3.2.2 Predictions

As specified in Chapter 2, the predictions for this study are:

- H1. For the white (high status) groups, it is predicted that those who perceive the intergroup status hierarchy as illegitimate will evidence less ingroup favouritism than those who perceive the situation as legitimate.
- H2. For the black (low status) groups, it is predicted that the effect of perceived illegitimacy will be to increase ingroup favouritism.
- H3. Whites in the group who perceive the situation as legitimate and unstable will exhibit the highest ingroup bias, as these subjects feel their superiority under threat from external forces and respond with defensive discrimination against the blacks.
- H4. It is expected that of all the black groups, the subjects in the group with secure social identity (*i.e.* who perceive the situation as stable and legitimate) will evidence the least ingroup favouritism.

3.2.3 Pilot Studies

Two pilot studies were conducted to construct and test some of the materials used in the main study. These are briefly reported below:

Construction of the Race Attitude Scale

A pool of 30 items were selected from a number of questionnaires that have been used by the Centre for Applied Social Sciences, a research institute located at the University of Natal, Durban. The items selected referred to a range of aspects of black-white relations in South Africa. These items comprised a preliminary attitude scale, on which respondents were asked to indicate their agreement or disagreement on a 7-point Likert-type scale. A number of the items had their meaning reversed, to ensure against the use of a response set.

The attitude scale was administered to 124 first year psychology students at the University of Natal, Durban. These students consisted of black and white students, of both sexes. The responses to the questionnaire were factor analysed, and on the basis of this analysis, 15 items were selected for use in the main study.

Construction of the Trait Evaluation Scale

Nine pairs of bipolar, evaluative trait adjectives were selected from a number of sources, including the study by Turner and Brown (1978). To ensure that the one of each bipolar pair was invariably considered more positive than the other, a short questionnaire was constructed, in which respondents were asked to rate the favourableness of the 18 adjectives, using a 5-point Likert-type scale. The adjectives were not paired with their bipolar opposite.

The questionnaire was administered to a further 84 (black and white, male and female) students. The ratings of each bipolar adjective pair were compared using a one-tailed t-test. In each case, the ratings of the more positive adjective was found to be significantly more favourable than the less positive of the pair ($p < 0.01$).

On the basis of these results, it was decided to use all nine pairs in a semantic differential scale format.

3.2.4 Method

Subjects

One hundred and sixty-one male and female students (who had not participated in the pilot studies) were recruited on a voluntary paid basis. All volunteers, irrespective of race, were tested and paid the 2 Rand fee, but the data of the Asian and coloured students were not analysed. The final sample consisted of 70 black and 70 white subjects.

Materials

The stimulus material for this study consisted of 4 different tasks which were combined into a booklet. The order of tasks was randomized using a Latin-Square plan.

Task 1: Race Attitude Scale

As described previously, this contained 15 items, each consisting of a statement to which the respondents indicated their opinion on a 7-point Likert-type scale, the poles of which were marked "completely agree" and

"completely disagree".

Task 2: Intergroup Perception Ladder

This was described above.

Task 3: Student Faculty Election Task

For this task, subjects were told to assume that Student Faculty Council elections were about to take place. Four male candidates were described by name, year of study (all were in their third year) and a brief manifesto for their candidature presented. Two of the candidates were black and two white, their race being identified by their names. The subjects were asked, firstly, to vote for the candidates in order of preference, and to give their impression of the candidates (on the basis of their manifesto) using the Trait Evaluation Scale. The names of the candidates were counter-balanced with the manifestos to ensure that the content of the manifestos did not account for any bias in the assessments.

Task 4: Room Allocation Task

Subjects were told to imagine that a mixed-race student residence was to be built. (This was actually a topical issue, as talk of such a residence was prevalent at the time of the study and had actually been built by 1989). They were provided with the floor-plan of two identical levels of one of the wings of residence, consisting of 12 rooms. The 12 rooms were varied in desirability ranging from 1 (least desirable) to 3 (most desirable). Subjects were told that there would be more applications for these rooms from both black and white students than could be accommodated, and that an equal number of white and black students had applied. They were then asked to allocate each room on the floor-plan to a white or black student.

A copy of the stimulus material is included in Appendix A.

Independent Variables

The variables in this study were the race of the group, which implicitly embodies a status hierarchy, and perceptions of the stability and legitimacy of the intergroup situation. These perceptions were determined from the Intergroup Perception Ladder, as described previously.

Perceived Status

Five subjects (4 black and 1 white) were excluded from the study because they had placed blacks at a higher level than whites. A further two were dropped because they failed to complete the Intergroup perception Ladder correctly. Hence, only 133 subjects were used in the final analysis.

The relative differences between the positions of the race groups (level of whites minus level of blacks), as perceived by the subjects is presented in the table below:

Table 3.2.1 Perceived Present Intergroup Differences

	Blacks	Whites	Overall
Mean	6.47	4.49	5.46
St. Dev.	2.57	2.06	2.52
Number	65	68	133

The black subjects perceived the differences in the positions of whites and blacks as significantly greater than the white subjects ($t=4.950$, $df=133$,

$p < 0.000$). Thus, the black subjects considered themselves as significantly more deprived than did the whites.

Perceived Stability

Perception of the stability of the situation was calculated as described.

Table 3.2.2 Stability Scores

	Blacks	Whites	Overall
Mean	-5.00	-3.56	-4.18
St. Dev.	3.93	2.88	3.48
Median	-4.00	-3.00	-3.00
Number	65	68	133

The black subjects also perceived the relative position of the race groups in South Africa as significantly more unstable than did the white subjects ($t = 2.418, df = 131, p = 0.017$).

This continuous measure was dichotomized at the overall median. Scores of -4 or less were defined as unstable, and those of -3 or above, as stable.

Perceived Legitimacy

Sixteen whites and 6 blacks perceived the intergroup situation as legitimate. The proportion of whites who perceived the intergroup hierarchy as legitimate was significantly greater than the proportion of black subjects ($Chi-square = 3.95; df = 1; p = 0.047$). The number of subjects in the different status x legitimacy conditions varied considerably. The table below presents the distribution of subjects across the 8 conditions.

Table 3.2.3 Sample Distribution within the Race x Stability x Legitimacy Conditions

	Legitimate		Illegitimate		
	Stable	Unstable	Stable	Unstable	
Whites	10 7.5 14.7	6 4.5 8.8	33 24.8 48.5	19 14.3 27.9	1 2
Blacks	4 3.0 6.2	2 1.5 3.1	23 17.3 35.4	36 27.1 58.4	1 2

1 Percentage of whole sample
2 Percentage of race group

This discrepancy in numbers was not unexpected. In view of the political situation at the time, it was anticipated that a relatively small proportion of the subjects, particularly of the blacks, would see the situation as either legitimate or stable. In the country as a whole, whites tend to be relatively uninformed of the true situation, as they live in areas removed from evidence of political strife, and media coverage is controlled. Hence a larger proportion of these are likely to view the intergroup situation as secure. Amongst the blacks, however, it was anticipated that only people living in the rural areas, divorced from the obvious violence and being removed from sources of information about the current events, would still perceive the situation as stable or legitimate. In addition, these perceptions are likely to be shared by the few blacks who enjoy the prestigious positions that issue from the *apartheid* system, as for example in the KwaZulu civil service.

Dependent Variables

Five dependent variables were calculated from the responses on the four tasks:

1. **Race attitude score.** This score, calculated from the attitude questionnaire, was devised such that a high score represented a negative attitude towards blacks and the notion of their social equality. The score was calculated by finding the mean of the scale points marked for the 15 items, inverting the items that implied opposite meanings.
2. **Vote bias.** This was calculated from the election task. The mean rank voting preference for the two candidates of each race group was calculated and the mean of the outgroup subtracted from the mean of the ingroup. (*E.g.* if the subject was black, the mean ranking for the white candidates would be subtracted from the mean for the black candidates). Thus, a high positive score infers strong ingroup favouritism, whereas a negative score infers outgroup favouritism.
3. **Trait evaluation bias.** This was also derived from the election task. The overall evaluation of the candidates was calculated by averaging the scores on the trait items (where a high score was associated with proximity to the positive trait and low score with proximity to the negative trait), and subtracting the mean of the outgroup from the mean of the ingroup. As with vote bias, positive totals connote ingroup favouritism, and negative totals connote outgroup favouritism.
4. **Weighted room bias.** This was deduced from the room allocation task. The number of rooms allocated to each race group, weighted by the

desirability of the rooms selected, was calculated and the ingroup to outgroup difference calculated. Again, high (positive) scores imply ingroup favouritism, low (negative) scores, outgroup favouritism.

5. Integration score. The desired level of integration in the student residence was calculated by counting the number of adjacent rooms that were allocated to students of different race groups. This gave a score which ranged from 0 to 12, where higher scores imply a greater desire for mixing of the races.

Procedure

Subjects were recruited by placing advertisements around the university campus and in the student residences. Volunteers were asked to meet at a specified location on designated days for a study investigating "attitudes toward social issues and practices". Each subject was provided with the materials in the form of a questionnaire. The tasks took approximately half an hour to complete.

Analyses

A 2x2x2 (Race x Stability x Legitimacy) MANOVA was used to analyse the data, followed by univariate ANOVAs on each of the 5 dependent variables. The SAS (1988) statistical programmes GLM MANOVA and GLM ANOVA (Type III) were used for these analyses. The discrepancy in cell numbers which emerged in the study results in an unbalanced design, which introduces interdependence among the

independent variables (Harris, 1975). Thus, the conventional MANOVA and ANOVA procedures are inappropriate. The problem of interdependence is solved by using a regression analysis, which is the basis of the GLM procedure.

The MANOVA provides an overall picture of how the intergroup perception factors affected the variables as a whole. The subsequent ANOVAs were performed to explore the effects for each dependent variable individually. The problem with performing consecutive ANOVAs on individual variables from the same subject, is that the Type I error is exponentially rising beyond the stated level. However, if the findings of the MANOVA confirm the general expectations, this problem does not arise. To explore hypotheses, H3 and H4 pairwise comparisons between individual condition means will be considered, even if there are no 3-way interactions.

Testing the Predictions

For the hypotheses to be supported, the following results should occur:

H1 - For white subjects:

Bias scores (high scores imply high ingroup favouritism) The mean for the Legitimate conditions should be higher than the mean for the Illegitimate condition.

Race attitude scores (high scores imply anti-black attitudes)

The mean for the Legitimate conditions should be higher than the mean for the Illegitimate condition.

Integration scores (high scores imply a pro-integration stance)

The mean for the Illegitimate conditions should be higher than the mean for the Legitimate condition.

H2 - For black subjects:

Bias scores

The mean for the Legitimate conditions should be lower than the mean for the illegitimate condition.

Race attitude scores

The mean for the Legitimate conditions should be higher than the mean for the illegitimate condition.

Integration scores

The mean for the Illegitimate conditions should be higher than the mean for the Legitimate condition.

H3 - For the white subjects:

Bias scores

The highest mean should be that of the Legitimate/Unstable condition.

Race attitude scores

The highest mean should be that of the Legitimate/Unstable condition.

Integration scores

The lowest mean should be that of the Legitimate/Unstable condition.

H4 - For the black subjects:

Bias scores

The lowest mean should be that of the Legitimate/Stable condition.

Race attitude scores

The highest mean should be that of the Legitimate/Stable condition.

Integration scores

The lowest mean should be that of the Legitimate/Stable condition.

3.2.5 Results

The results of the MANOVA are presented in Table 3.2.4, and Table 3.2.5 displays a summary of the analyses of variances of each dependent variable. The full ANOVA tables may be found in Appendix A. Table 3.4.6 presents the means for each Race x Legitimacy x Stability condition of all the dependent variables.

Table 3.2.4 Study 1: MANOVA Results

	Wilks' Lambda	F	df	Prob
Race	0.670	11.038	5, 112	0.0001
Stability	0.960	0.925	5, 112	0.4675
Race x Stab	0.985	0.340	5, 112	0.8880
Legitimacy	0.875	3.198	5, 112	0.0098
Race x Leg	0.933	1.618	5, 112	0.1611
Stab x Leg	0.954	1.074	5, 112	0.3786
Race x Stab x Leg	0.990	0.230	5, 112	0.9489

Tables 3.2.5 and 3.2.6 are presented overleaf.

Dependent Variables					
	Attitude Scale	Vote Bias	Trait Bias	Weighted Rooms	Integ- ration
<u>Full Model</u>					
F Ratio	16.86a	1.88c	3.49a	0.92	4.01a
Mean Square Error	0.685	1.223	0.994	29.750	8.063
R-square	48.6%	9.5%	16.5%	5.2%	19.3%
df	7, 125	7, 125	7, 124	7, 117	7, 117
<u>F Statistics for Effects</u>					
Race	43.72a	0.01	4.67b	0.42	9.43a
Stability	1.43	0.41	0.39	1.02	0.58
Race x Stab	0.40	2.20	0.44	0.22	0.05
Legitimacy	10.34a	0.04	1.04	0.16	4.24b
Race x Leg	8.22a	3.14c	0.74	0.07	2.80c
Stab x Leg	0.94	0.03	0.18	1.46	2.55
Race x Stab x Leg	0.17	0.03	0.48	0.42	0.07

^a p < 0.01
^b p < 0.05
^c p < 0.10

The full ANOVA tables may be found in Appendix A.

Table 3.2.6 **Dependent Variable Means**

Race	Legitimate		Illegitimate		
	Stable	Unstable	Stable	Unstable	
White	4.340	4.056	3.103	2.568	1
	0.700	0.167	0.212	-0.526	2
	-0.289	-0.565	-0.175	-0.594	3
	2.800	-0.333	0.936	-0.474	4
	5.600	3.333	7.097	7.790	5
	10	6	31	19	6
Black	1.983	2.167	2.215	1.780	1
	-0.250	0.000	0.217	0.472	2
	0.069	-0.222	0.276	0.587	3
	3.667	0.000	0.619	2.636	4
	9.000	7.500	7.500	8.879	5
	3	2	21	33	6

- 1 Race Attitude Score. (Higher scores reflect negative attitudes to blacks).
- 2 Vote Bias Score. (Represents ingroup favouritism in voting).
- 3 Trait Evaluation Bias. (Reflects ingroup favouritism in personality assessment).
- 4 Weighted Room Bias. (Represents ingroup favouritism in room allocation, weighted by the room desirability).
- 5 Integration Score. (High scores represent a greater desire for mixing of races).
- 6 The numbers in the cell on which the MANOVA was based.

The MANOVA indicates that the main effects for Race and Legitimacy are both significant. Stability is not significant, nor are any of the interaction effects significant. The univariate analyses will be considered to interpret the results more fully.

The MANOVA used 125 of the 133 subjects, as 8 subjects had failed to fill in the Room Allocation Task correctly. However, for the univariate ANOVAs, the full number of subjects who had valid scores for each dependent variable was used, hence the different degrees of freedom for the various models. The GLM ANOVA programme also provided analyses of the differences between the means calculated by least squares analysis. The least squares analysis makes adjustments for the unbalanced cell numbers.

The full models for the dependent variables; Race Attitude Scores, Trait Bias and Integration Scores were significant. The model for Vote Bias tended towards significance, so will be interpreted. The probability level of the F ratio for the model for Weighted Room Bias was too low to warrant interpretation.

Race Attitude Scores

As a check on the consistency of the scale, an item analysis and factor analysis were performed. The Cronbach Alpha was found to be 0.88, and the items all loaded strongly (*i.e.* with loadings greater than 0.28) on the first factor which accounted for 40% of the total variance.

The general linear model was significant, indicating that the independent variables (Race, Stability and Legitimacy) and their interactions explained 48.6% of the variability of the Attitude Scores. The F ratios for Race; Legitimacy; and the Race x Legitimacy interaction were statistically

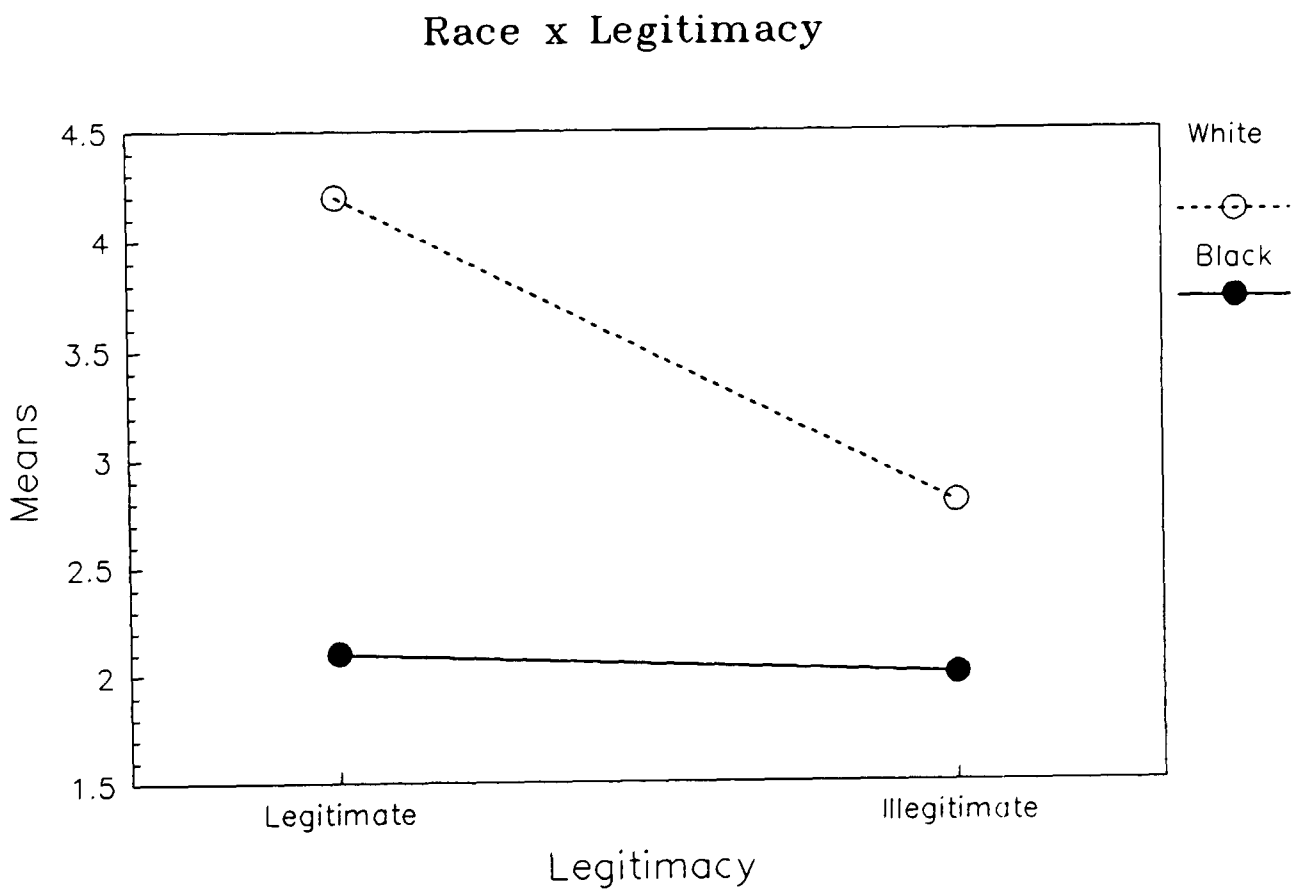
significant. The scores of the white subjects were, under all conditions, significantly higher (*i.e.* displayed more 'racist' attitudes) than those of the black subjects. This was fairly inevitable since the scale measured anti-black attitudes rather than intergroup attitudes.

The main effect for Legitimacy was significant, indicating that subjects who viewed the situation as illegitimate had significantly lower anti-black attitudes than those in the legitimacy conditions (Illegitimate: $M=2.40$; Legitimate: $M=3.64$). However, this effect is confounded by the two-way interaction between Race and Legitimacy. This interaction indicates that the white subjects who perceived the intergroup situation as illegitimate evidenced significantly lower scores than whites who perceived the situation as legitimate (White/Legitimate: $M=4.198$, White/Illegitimate: $M=2.836$; $p<0.000$). Perceptions of legitimacy did not appear to affect the scores of the black subjects (Black/Legitimate: $M=2.075$, Black/Illegitimate: $M=1.997$; $p=0.836$). This interaction is illustrated in Figure 3.2.1. Thus, the prediction H1 was supported, but not H2.

Further analysis indicates that of the black subjects who perceived the situation as illegitimate, those who also perceived the situation as unstable had significantly lower scores than those who perceived the situation as stable (Black/Illegitimate/Stable: $M=2.214$, Black/Illegitimate/Unstable: $M=1.780$; $p=0.051$). Similarly, of the white subjects who perceived the situation to be illegitimate, those in the unstable condition displayed significantly lower scores than those in the stable condition (White/Illegitimate/Stable: $M=3.103$, White/Illegitimate/Unstable: $M=2.568$; $p=0.027$). However, contrary to predictions H3 and H4, whites in

the legitimate but unstable condition were not most discriminatory against blacks, and blacks in the legitimate-stable group did not display the most negative self-image.

Figure 3.2.1 Graph of Race Attitudes Scores



Vote Bias

The model tends towards significance ($p < .10$) and explains 9.5% of the variability in voting bias. In this analysis, only the F ratio for the Race x Legitimacy interaction tended towards standard levels of significance ($F(1,125) = 3.14, p = 0.079$). This indicated that amongst the whites, those who perceive the situation as legitimate had higher ingroup bias than those in the Illegitimate conditions (White/Legitimate: $M = 0.433$,

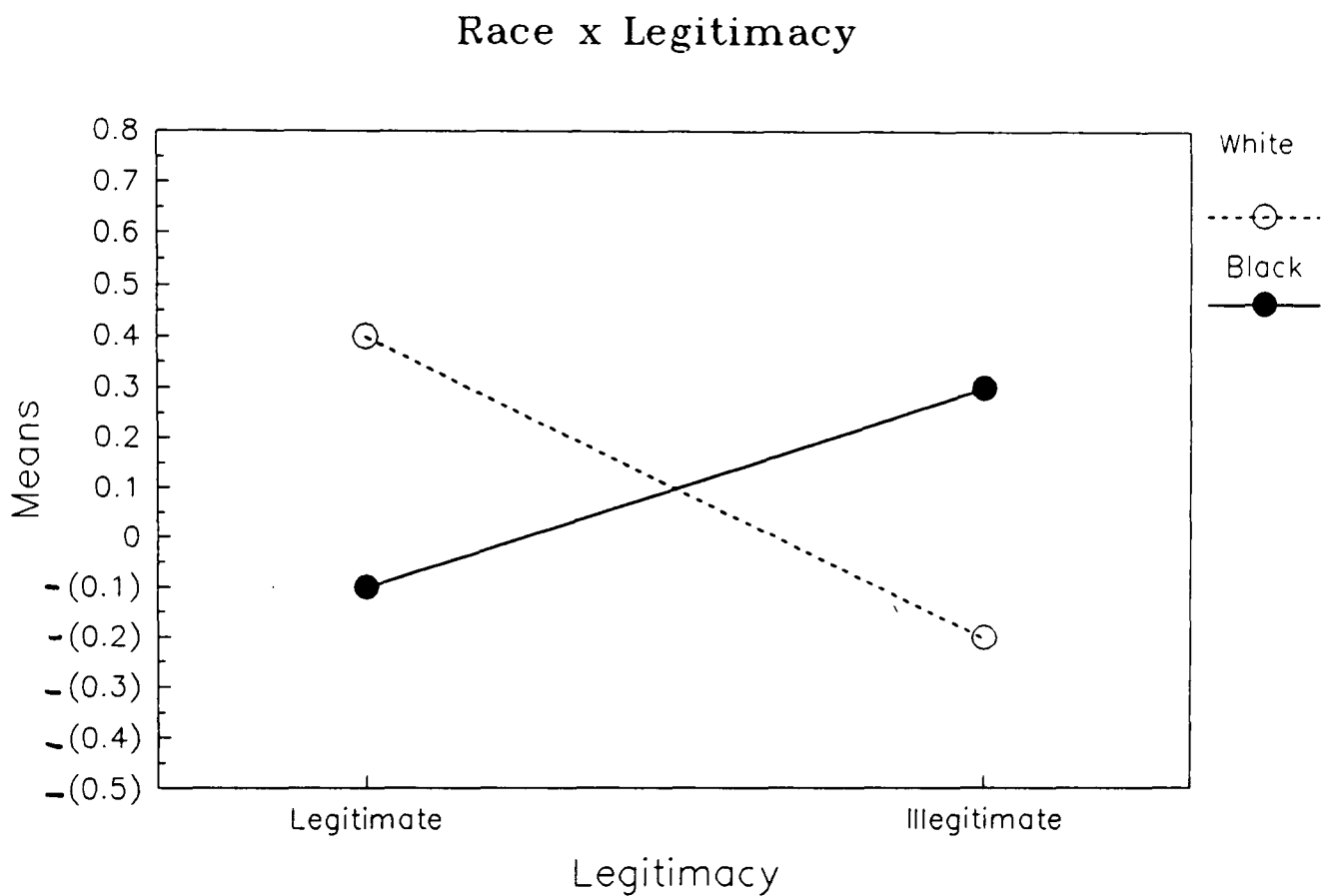
(White/Illegitimate: $M = -0.157$; $p = 0.073$). Although blacks who perceived the situation as legitimate evidenced outgroup favouritism (Black/Legitimate: $M = -0.125$) in contrast to the ingroup favouritism of those in the Illegitimacy conditions (Black/Illegitimate: $M = 0.345$), this did not reach significance ($p = 0.350$). Thus prediction H1 is supported, but H2 cannot really be said to be verified. Figure 3.2.2 demonstrates this interaction.

H3 predicted that whites in the Legitimate-Unstable condition would evidence the highest ingroup favouritism. This was not supported by the results. The pattern of means appear support H4, as blacks in the Legitimate-Stable condition displayed the most outgroup favouritism. However, this did not reach statistical significance.

There was a significant difference in the vote bias between the white and black subjects who perceived the situation as illegitimate (White/Illegitimate: $M = -0.157$, Black/Illegitimate: $M = 0.345$; $p = 0.022$); the whites gave a low ingroup favouritism score (in fact, outgroup favouritism) while the blacks had a strong ingroup favouritism score.

However, more detailed analysis indicated that it was the white subjects in the Illegitimate-Unstable condition who also evidenced stronger outgroup bias than that of the whites of the illegitimate-stable condition (White/Illegitimate/Stable: $M = 0.212$, White/Illegitimate/Unstable: $M = -0.526$; $p = 0.022$); and also differed significantly from the strong ingroup bias of the blacks in the Illegitimate-Unstable condition (White: $M = -0.526$, Black: $M = 0.472$; $p = 0.002$). Although the black subjects in the Illegitimate conditions displayed positive ingroup bias, while those in the Legitimate conditions tend towards outgroup favouritism, this does not reach significance, possibly because of the small numbers in the latter conditions.

Figure 3.2.2 Graph of Vote Bias



Trait Evaluation Bias

The general linear model was significant, explaining 15.5% of the variability in trait evaluation bias.

The F ratio for Race, alone, was significant in this analysis ($F(1,124)=4.67, p=0.033$). The main effect for Legitimacy and the Race x Legitimacy interaction did not reach significance. Thus, none of the hypotheses were supported.

The white subjects, in general, gave higher trait evaluations to the black election candidates than they did to the white (hence the negative ingroup bias) ($M=-0.406$). The black subjects gave more positive evaluations of the black candidates than they did to the whites ($M=0.178$).

Weighted Room Bias

The model was not significant, explaining only 5.2% of the variability of room allocation bias. There were no significant F ratios.

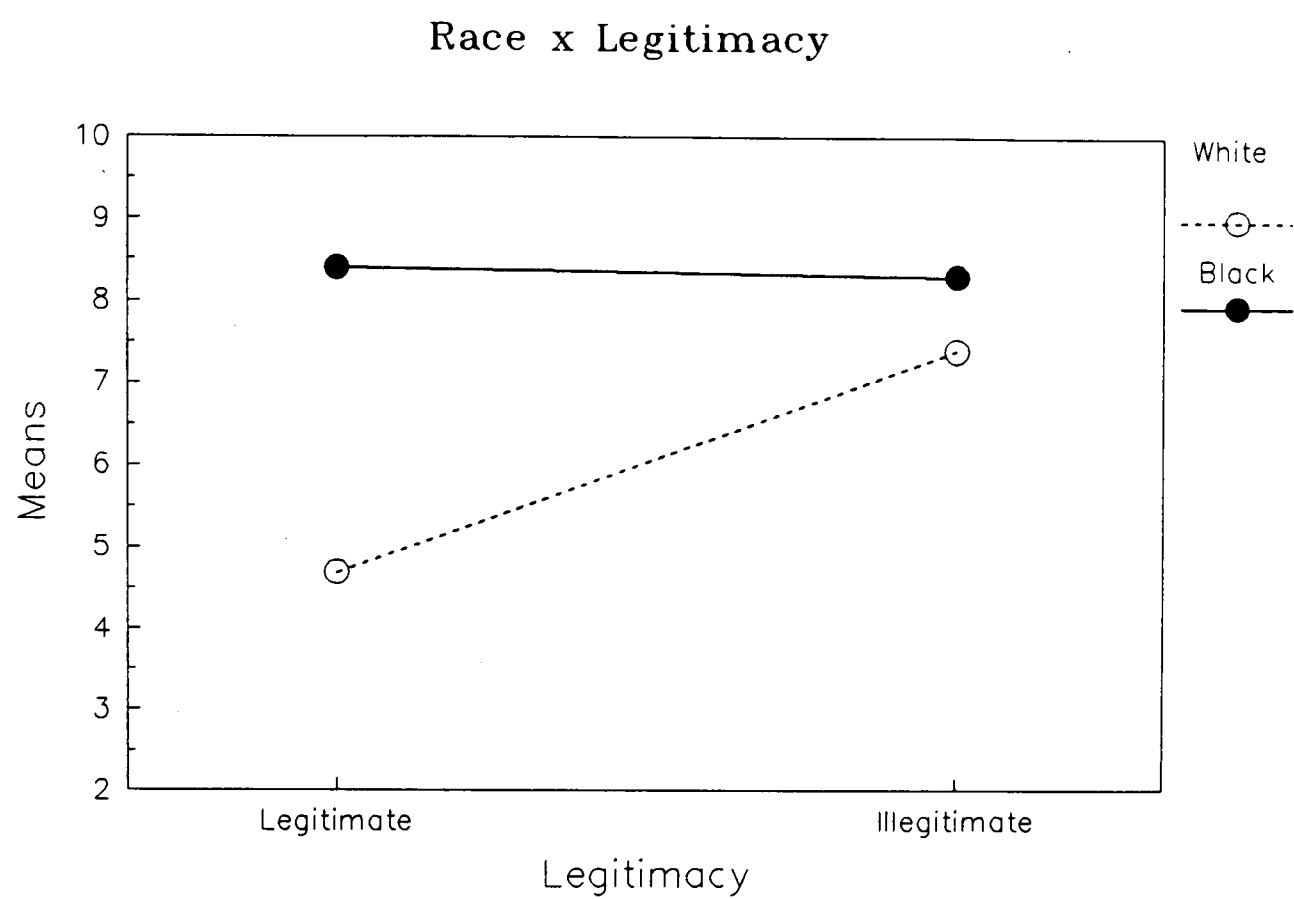
Integration Score

The general model was significant, explaining 19.3% of the variability in integration scores. The F ratios for Race and Legitimacy were significant, while the Race x Legitimacy interaction tended towards significance ($p < 0.1$).

The black subjects, in general, desired a greater degree of integration than did the white subjects (White: $M = 5.955$, Black: $M = 8.404$; $p = 0.003$). Overall, subjects in the Illegitimacy conditions desired more integration than those in the Legitimate conditions (Legitimate: $M = 6.358$, Illegitimate: $M = 8.001$; $p = 0.042$). The interaction between Race and Legitimacy (graphed in Figure 3.2.3) indicated that the difference in the Legitimacy conditions occurred mainly amongst the whites. Those in the Illegitimate conditions evidenced significantly higher integration scores than whites in the Legitimate conditions (White/Legitimate: $M = 4.467$, White/Illegitimate: $M = 7.443$; $p < 0.001$). This result supported H1, but not H2.

Whites in the Legitimate-Unstable condition evidenced the lowest desire for integration, but the difference between this mean ($M = 3.33$) and that of the whites in the Legitimate-Stable group ($M = 5.60$) did not reach significance ($p = 0.125$). But this does provide marginal support for H3. The prediction of H4 was not supported.

Figure 3.2.3 Graph of Integration Scores



Relationship between the Dependent Variables

Pearson product-moment correlations were performed on the dependent variables. The correlation between Race Attitude Scores and Integration Scores was significant ($r = -0.473; p < 0.000$); as was the correlation between Vote Bias and Trait Evaluation Bias ($r = 0.495; p < 0.000$).

A Principal Components Analysis was performed, which produced 2 factors with eigenvalues over 1.00. These factors explain 15.4% and 15.2% of the variance:

Table 3.2.7 Rotated Factor Loadings

	Factor I	Factor II	
Communality			
Race Attitudes Score	<u>0.846</u>	-0.043	0.7179
Integration Score	<u>-0.840</u>	0.052	0.7076
Trait Evaluation Bias	-0.099	<u>0.858</u>	0.7466
Vote Bias	0.099	<u>0.851</u>	0.7343
Weighted Room Bias	0.308	0.230	0.1475
%Variance explained	15.4%	15.2%	

Race Attitude Scores and Integration Scores load strongly onto the first factor; and Vote Bias and Trait Evaluation Bias load strongly onto the second factor. Weighted Room Bias has a slight loading on the first factor and even weaker loading on the second.

This may be explained as a function of the domain or recipient of the intergroup behaviour. Trait Evaluation Bias and Vote Bias refer to evaluations of fictional members of the different race groups, whereas Race Attitude and the Integration Scores are both measures of a more general feeling about the position of blacks *vis-a-vis* whites, and as such may feed into general stereotypes and social representations. The fact that Weighted Room Bias loads weakly onto both factors may reinforce this explanation, as in this task the subjects were acting towards unknown members of the outgroup, yet these members were unidentified and presented as a mass.

3.2.6 Discussion

The overall MANOVA results confirm that the perception of the legitimacy/illegitimacy of the intergroup relationship is a crucial factor in

determining the responses of the subjects. However, the analyses of the individual dependent variables indicate that white subjects who held that the superiority of whites in South Africa is illegitimate, tended to give responses that indicate a more progressive, positive view of blacks than whites who viewed the situation as legitimate. This trend was apparent in three of the five measures; on the race attitude scale, in the desire for integration between the races in residence accommodation, and in the bias in favour of black candidates in a student faculty election. This result supports the first hypothesis, which, interestingly was not supported by the studies of Turner and Brown (1978) and Caddick (1982). This discrepancy may be due to the fact that in this study the perception of illegitimacy was acknowledged by the subjects, whereas in the laboratory studies, this was externally determined since groups as a whole were subjected to the manipulations intended to produce the various perceptions. Or, it may be indicative of a difference in the responses of experimental groups and 'real' groups. There must be qualitative differences in the perceptions of stability and legitimacy when they reflect continuous life experiences, in contrast to a state induced for an experimental session.

The expected concomitant effect in black subjects (Hypothesis 2) was that those who perceived the intergroup hierarchy as illegitimate, particularly those who also perceived it as unstable, would give responses that display a rejection of inferiority and striving for positively valued distinctiveness. Although the results indicated a tendency in this direction in the Vote Bias Task, they did not reach statistical significance. A likely reason for this is that so few of the black subjects did view the intergroup situation as legitimate (6 in total), that there was not a reasonable basis for comparison.

The effect of stability was not significant, as a main effect or within any interaction, either in the MANOVA results or the univariate ANOVAs. However, when explored in planned comparisons, it emerged that the effect of illegitimacy among the white subjects tended to be further enhanced if combined with the perception that the intergroup situation was unstable. Although no direct prediction has been made, either here or by Tajfel and his associates, as to the consequence of combining perceived instability with the different levels of legitimacy, it was argued that the effect of illegitimacy would predominate.

Theoretically, it would seem logical to expect instability to have the reverse effect to illegitimacy. According to Social Identity Theory, the perception of illegitimacy implies that membership of the high status group cannot fulfill the need for positive distinctiveness, which may lead to a psychological dissociation from that group. In contrast, the hypothesized effect of instability is to create an enhanced need for further distinctiveness through that group membership, leading to increased outgroup discrimination. Our results would appear to confirm the expectation that the effect of perceived illegitimacy supersedes that of perceived instability. A possible explanation for this is that the perception of illegitimacy does lead to a psychological dissociation from the group, rendering the role of the group membership irrelevant, and hence removing the susceptibility of social identity to the effect of instability. For example, in the context of the South African situation, it seems likely that the white students in question do not see themselves as part of the general white group, that is the people who vote in the government and maintain the *apartheid* system, hence would not view

the downfall of this system as problematic. Further, being students, they are not yet faced with the reality of having their economic privilege threatened by the currents of change. So instability would not have the predicted effect since they lack the feeling of common fate with the white group in general. It is also questionable whether individuals who did share such feelings of common fate, could maintain their perception of the illegitimacy of the situation.

Hypothesis 3 was not supported on any of the variables. Whites who thought the intergroup situation as legitimate but unstable were expected to display the highest levels of intergroup discrimination. Yet, only with Integration Scores was the mean of this group more discriminatory than that of the whites in the secure (Stable-Legitimate) condition, and this did not reach significance. This finding could be attributed to the method of assessing perceptions of stability, which distinguished levels of perceived instability as opposed to identifying people who (absolutely) thought the situation immutable. This could also explain the failure of the results to support Hypothesis 4, which predicted that the blacks in the Stable-Legitimate condition would evidence the least ingroup favouritism. However, the small cell size makes speculation difficult.

The results of the trait evaluation bias presented a different pattern from the other variables. The means of all the conditions for the white subjects were negative, indicating the higher trait evaluations of the black election candidates than of the white. One possible reason for this, is that in reality it would be somewhat rare for a black student (of which there is a small proportion at this "white" university) to aspire to such a position, and

thus such students would be considered somewhat exceptional characters. Alternatively, it has been noted elsewhere, that groups frequently use strategic responses, and high status groups will "concede" dimensions of comparison to the low status group (Mummendey and Simon, 1989; van Knippenberg, 1984; van Knippenberg and van Oers, 1984). Supporting this argument is the fact that this finding occurs on the one measure that is not essentially tapping allocation of resources. To concede that members of the outgroup are "nice people" represents considerably less threat to one's own position than being prepared to vote them to a position of power, or to giving them a greater share of the resources.

While the predictions emerging from Social Identity Theory, were not fully supported by this study, some significant findings did emerge. The consistent indication that the *prise de conscience* of illegitimacy is associated with low levels of intergroup discrimination on the part of the whites, is particularly exciting in view of the fact that the study involved members of real social groups in a context of social conflict. The optimistic implication of this is that this perception of illegitimacy is

*.... socially and psychologically the accepted and acceptable lever
for social change and social action in intergroup behaviour ...*
(Tajfel, 1978; p. 76).

It is clear that further work on the effects of stability and legitimacy is required. The seemingly antagonistic predictions (under Social Identity Theory) for the psychological effects instability and illegitimacy, point to the necessity of exploring these in combination.

CHAPTER 4

SOCIAL ATTRIBUTIONS

4.0 Introduction

Attribution theory refers to the investigation into the way in which ordinary or "lay" people causally explain interpersonal behaviour and occurrences. This field of endeavour originated from the seminal work of Heider (1958) and has come to be "*what is probably the most influential framework in today's social psychology*" (Semin, 1980, p. 291).

Traditional attribution research has followed two trends. The first, and dominant trend is the cognitive perspective and the other is the motivational or, as it has been termed by Tetlock and Levi (1982), the functional approach. This polarization of cognitive and motivational explanations of attributions is surprising, as Heider (1958) himself noted the interdependence of motivational and cognitive factors (Weary and Arkin, 1981).

The cognitive approach is characterized by the belief that laypersons' attributions can be understood in terms of cognitive rules and information processing principles. The classic attribution theories; Correspondent Inference Theory (Jones, 1979; Jones, Davis and Gergen, 1961; Jones and de Charms, 1957; Jones and Harris, 1976; Jones and McGillis, 1976); and the Covariation and Configuration Models of Kelley (1967, 1973) exemplify this

perspective. The motivational perspective, on the other hand, suggests that *"attributions serve important psychological and social functions in addition to establishing cognitive mastery of the environment"* (Tetlock and Levi, 1982, p. 69), and as such reflect the needs, desires and biases of the attributor. Work on the role of attributions in impression management, in enhancing self-esteem, and in beliefs in a 'just world' belong to this category (e.g. Bradley, 1978; Miller, 1976; Lerner, 1970).

The cognitive and motivational approaches have been seen as competing paradigms, with considerable debate and research undertaken to establish which interpretation is 'correct'. However, it has been increasingly recognized that it is almost impossible to separate the two approaches and that to attempt to do so would ignore the complexity of human judgement (Greenwald, 1975; Lalljee, 1981; Pyszczynski and Greenberg, 1987; Tetlock and Levi, 1982).

This thesis will not present an in depth exposition of attribution theory, as discussions of the subject and reviews of the relevant empirical work have been published elsewhere (cf. Antaki, 1982; Brown, 1986; Eiser, 1986; Frieze and Bar-Tal, 1979; Harvey and Weary, 1981, 1984; Hewstone, 1989; Jaspars, Hewstone and Fincham, 1983; Kelley and Michela, 1980). However, as the main focus of this chapter is social attributions, it is necessary to briefly present some of the models and concepts from general attribution theory which have been extended into the social terrain. The chapter begins with a brief account of the classical attribution theories and of the motivational attribution biases. This is followed by a criticism of traditional attribution theory. The chapter then concentrates on intergroup

attributions. First, the implications of extending traditional attribution concepts to include the intergroup dimension are discussed, followed by the alternative conception of extending Social Identity theory to encompass attributions. Thereafter, a review of the research that has investigated intergroup attributions is presented, bracketing the different foci of the attributions: actions, outcomes, social circumstances and blame for accidents or crime.

4.1 Attribution Theories

Attribution theory is not a coherent theory as such, but a set of models whose unifying feature is that they seek to account for laypeople's causal explanations. The primary insight of Heider, which has been adopted by most of these models, is the proposition that people will attribute the cause of an action or event to internal factors (based on the dispositional qualities of the actor) or to external factors (referring to aspects of the situation or context surrounding the action or event). Most of the classical attribution theories adopt this dichotomy as their central distinction, and focus much of their attention on the processes and distortions which explain the nature of people's explanations. The two major cognitive theories, the Correspondent Inference Theory of Jones and Davis, and the Covariation and Configuration Model of Kelley, are presented below.

4.1.1 The Correspondent Inference Theory

The central proposition of this theory is that in explaining an observed

behaviour, people tend to infer that the action, and the intention leading to the action, correspond to a stable dispositional quality in the actor.

Jones and a number of his colleagues (Jones and Davis, 1965; Jones and de Charms, 1957; Jones and Nisbett, 1972) subsequently noted that whether or not a correspondent inference is made, and the strength of this inference, is affected by how typical or normal the observed action is considered. A number of factors contribute to this process. The principle of non-common effects refers to the observation that the perceiver is more likely to make a correspondent inference if the observed action itself or its consequences are seen to be relatively unique or uncommon. Social desirability acts in a similar way. If a behaviour is considered to be 'typical' or normative in a society, then it provides little information about the actor, hence a dispositional attribution would not be likely.

Behaviour that meets the observer's expectations, through being anticipated from previous knowledge of the particular actor (target based expectancy), through being seen as typical of the class or social group to which the actor belongs (category based expectancy) or through conforming to the conventions surrounding a particular role that the actor plays (role based expectancy) would, likewise, not lead to a dispositional attribution.

There are also a number of factors concerning the observer that affect the attribution of corresponding dispositions. If the actor's behaviour has hedonic relevance, that is positive (or negative) implications for the observer, correspondent inferences are more likely to be made. When an action is perceived to be directed at the observer (referred to as the factor of personalism), a stronger correspondent inference is likely to be made.

This theory has received support from a number of studies (*cf.* Jones, 1979; Jones, Davis and Gergen, 1961; Jones and de Charms, 1957; Jones and Harris, 1976; Jones and McGillis, 1976). However, as Hewstone (1989) points out, there are several limitations to the theory. Among these is that fact that the theory places emphasis on the role of intention. This means that the theory is only applicable to actions and not to occurrences which may not be in the actor's control. Yet an occurrence such as a person accidentally dropping a cup is frequently explained in terms of dispositions such as clumsiness or carelessness.

4.1.2 The Covariation and Configuration Model

Kelley (1967, 1973) presents a model of causal attributions which rests heavily on Heider's notion that the lay person is a 'naive scientist'. The lay person is believed to search for and use information in the logical and systematic manner typified by the scientific method. Kelley argues that observers decide on the cause of a particular effect using one of two methods: the covariation method or the configuration method. The method used depends on the amount of information to which the observer has access.

The covariation method is used when observers have access to a number of sources of information which allow them to deduce the covariation between an observed effect and its possible causes. Kelley argued that people manipulate the variables involved as if they are performing an analysis of variance (ANOVA) statistical technique. The independent variables, here, are information concerning consensus,

distinctiveness and consistency, which result in the observer attributing the cause of the behaviour to the entity, the person or the circumstances.

The configuration method is used when the attributor does not have the multiple observations or information required for the covariation model to operate. In such circumstances, Kelley proposes that attributions are made using causal schemata. These schemata are existing beliefs or theories of how certain causes result in particular effects. For example, the multiple sufficient cause schemata holds that numerous causes may result in the same effect. In view of this, the role of a given cause would be discounted if other plausible causes are available. This is termed the discounting principle. Similarly, if an effect occurs in the presence of (or despite) an inhibitory factor, the augmentation principle holds that the influence of a given cause is increased.

The Covariation model is an improvement on Correspondent Inference theory, since it may be applied to outcomes as well as actions (*cf.* Hewstone and Antaki, 1988). While it has received some empirical support (Hansen, 1980; McArthur, 1972; Pruitt and Insko, 1980; Ruble and Feldman, 1976), there has been controversy about the workings of the model. For instance, Hewstone and Jaspars (1987) argue that Kelley's claim that the low consensus - high distinctiveness - low consistency (LHL) pattern leads to a circumstance attribution is incorrect, and that an attribution to a combination of person, entity and circumstance would be made. The theory, as a whole, has been criticized on a number of counts. The experiments supporting the model have provided the subjects with the covariation information, but there is little evidence that people seek out such

information or use it in making 'natural' explanations (Stevens and Jones, 1976; Tillman and Carver, 1980). Furthermore, it seems unlikely that people would work out an ANOVA in their heads or be adept at assessing covariations between events.

4.1.3 Influences in the Attribution Process

The model of the 'naive scientist' holds that the lay person would reach the 'correct' interpretation for an event, if it were not for certain biases and errors.

The Fundamental Attribution Error. This bias has received much attention within attribution research. It refers to the tendency of people to underestimate the role of situational variables in causing an action or outcome, and to overestimate the role of dispositional or internal factors. The seminal study demonstrating this was an experiment performed by Jones and Harris (1967), in which subjects were presented with short essays which were either for or against the Castro government in Cuba. (The 'anti' position was the expected position, the 'pro' position unexpected). In one condition it was reported that the authors had chosen their position, and in the second condition that the authors had been required to take the position presented. The subjects were asked to assess the authors' true attitude to Castro. The results indicated that even in the no choice condition, subjects tended to attribute attitudes consistent with the attitude presented in the speech. This illustrated how the external factor - the essay requirement - had been underestimated as the cause of the opinion presented in the speech, and the internal favoured.

The nature of the fundamental attribution error has increasingly come under question. It has been argued that the tendency may be an experimental artifact (Funder, 1982, 1987). In the early studies researchers frequently required subjects to rate the cause of the behaviour on a single dimension with internal and external at opposite poles. This constituted a forced choice situation. In later research, the scales have been split, so subjects rated the dimensions independently. Although the tendency to internal attributions was still evident, it was not as strong as initially argued (Furnham, Jaspars and Fincham, 1983; Lalljee *et al.*, 1982; Taylor and Koivumaki, 1976). Furthermore, if more than one causal attribution is allowed to the subject, they will tend to give both internal and external attributions (Lalljee *et al.*, 1982). Funder (1982) has also argued that to label the tendency as an error is fallacious, as this implies that the true cause of the behaviour is known.

Actor-Observer Differences. According to Heider (1958), there is a tendency for people to attribute their own actions to situational influences, and the behaviour of others to dispositional causes:

The person tends to attribute his own reaction to the object world, and those of another, when they differ from his own, to personal characteristics in o [the actor].

(Heider, 1958, p. 157)

Two explanations for this actor-observer difference have been proposed. Firstly, it has been suggested that when actors assess their own behaviour, they have considerably more information than observers have. Hence, actors are able to determine how general their behaviour is, and are

more aware of the factors to which they responded (Lay *et al.*, 1974; Nisbett *et al.*, 1973).

The second suggested explanation is that there is a difference in perceptual focus. When actors consider their own behaviour, their perspective is directed outward, with the context of the action being in centre field. When an observer is viewing the same scene, the main focus is on the actor, with the context in periphery. This theory received some confirmation from an experiment by Storms (1973), in which he varied the perspective the respondent had of the situation, using video cameras. When required to assess their own behaviour after seeing a video, filmed such that the focus was on them, respondents tended to give situational explanations less emphasis than the video presented the scene focusing outward from the actor. However, the amount of emphasis placed on internal factors remained largely constant. McArthur and Post (1977) similarly found that when an actor is spot-lighted, hence more focused on, more dispositional attributions and less situational attributions are made for his/her behaviour.

4.1.4 Attributional Theories

One of the classical attributional theories that includes both cognitive and motivational factors is Weiner's theory of the role of attributions in motivation (Weiner *et al.*, 1972). This theory is concerned with the explanation of outcomes - successes and failures. According to this theory, the explanation for an outcome will be characterized by three dimensions: locus (internal or external), stability (how transient or long lasting the cause

is) and controllability (degree to which the cause is under the actor's control). A considerable amount of work has been done using the first two dimensions, particularly with respect to academic achievement. However, the inclusion of the controllability dimension with the locus and stability dimensions, resulting in a 2x2x2 category system, made the classification of attributions considerably more difficult, so few studies have included all three dimensions (Hewstone and Antaki, 1988).

Although Weiner later added a further dimension, intentionality, and certain causal effects (such as expectancy shifts, affective reactions and behavioural consequences) to produce an extended model of achievement motivation (*cf.* Weiner, Russell and Lerman, 1978), this model has not achieved the popularity evidenced by the simpler (locus x stability) model.

Considering only the locus and stability dimensions, it is clear the various attributions have very different implications, both for the esteem of the actor and for subsequent behaviour. If the successful outcome of a performance is attributed to external forces (task easiness or luck) this belittles the value of the success. Similarly, if the negative outcome is attributed to lack of ability, which is internal-stable, the implication is that the actor can do little to improve his or her performance, whereas an attribution to lack of effort is more optimistic and may stimulate future efforts. The causes to which success or failure are attributed have been found to influence both the affective responses to the outcome and expectations of future success (Frieze and Bar-Tal, 1979; Russel and McAuley, 1988; Weiner *et al.*, 1978, 1979). In general, attributing ability or effort as the cause of a successful outcome leads to positive affect such as

confidence, pride and contentment, whereas these attributions for an unsuccessful outcome results in negative affects, such as depression, guilt and shame. Attributing the cause of success to external factors (*e.g.* the actions of others) leads to feeling of gratitude whereas attributing this cause for failure results in anger. The attribution of luck leads to surprise, though when the outcome is success this is often accompanied by guilt. There is some evidence that training people to view their successes and failures in more optimistic ways does affect their subsequent behaviour, such as training children to interpret failure as lack of effort results in subsequent improvement in performance (Dweck, 1975, Harvey and Weary, 1981). However, Harvey and Weary (1981) do point out that the contribution of the work of Weiner and his associates is limited by the fact that most of the supporting research has been performed in hypothetical or simulated situations. This was demonstrated by Russell and McAuley (1986) who investigated the link between affect and causal attributions for success and failure in two studies, one using simulated situations and the other using real outcomes. They found the simulated study supported the relationship outlined by Weiner *et al.* (1978, 1979) but the study with real outcomes did not. More research is required to establish whether or not this is a general finding.

The learned helplessness model of depression, formulated by Seligman and his associates, is a further instance of the affective and behavioural consequences of causal attributions. This model hypothesizes that (unipolar) depressives have an attributional style which is damaging to self-esteem and reinforces feelings of helplessness (*cf.* Abramson *et al.*, 1978;

Seligman *et al.*, 1979). They tend to make internal stable attributions for negative outcomes and external unstable ones for positive outcomes. Several reviews of the vast number of studies in this field have concluded that attributions of internal and stable dimensions for negative outcomes are positively associated with depression (Robins, 1988; Sweeney *et al.*, 1986).

4.1.5 Self-Serving Attributions

The major motivational theory of attributions is that of self-serving attributions. According to this formulation, people select causes which enhance or protect their self-esteem. Hence, a positive act or outcome will be attributed to internal causes, while a negative act or outcome will be attributed to external causes. It has been argued that this self-serving bias is not solely motivated by the desire of the subject to promote his or her self-esteem, and to present a favourable image to others, but that it also enables the subject to feel in control of the environment (Miller and Ross, 1975; Weary and Arkin, 1981; Weary Bradley, 1978; Zuckerman, 1979).

In recent times, attention has turned towards understanding attributions as a complex interplay of cognitive and motivational factors embedded within the social context (Lalljee, 1981; Lalljee and Abelson, 1983; Pyszczynski and Greenberg, 1987). Pyszczynski and Greenberg (1987) have suggested a biased hypothesis-testing model which integrates the cognitive with the motivational perspectives on attribution. This model proposes that motivational needs will determine the cognitive mechanisms that are used to make a attributional inference.

4.1.6 Criticisms of Attribution Theory

Attribution theory has increasingly been subjected to criticisms on a number of issues:

(i) Theoretical confusion. This alleged confusion centres around the definition and classification of explanations. The numerous studies researching the alleged attribution to internal/dispositional and external/situational causes evidence little consistency in the use of these terms. For example, in some instances dispositions have been construed as fixed structural characteristics of the individual, at others as a broader term encompassing both 'personality' variables and responses to the context. Further, the classification of explanations into internal and external categories has frequently lacked a coherent logic, and has rested heavily on syntactic rather than semantic criteria (Billig, 1982; Kruglanski, 1975). There is also little agreement as to the definition of a causal explanation, as is exemplified by the debates on the distinction between a cause and a reason, and on the status of teleological explanations, justifications and excuses (*cf.* Buss, 1978, 1979; Kruglanski, 1975, 1979; Locke and Pennington, 1982; McClure, 1984; Tedeshi and Reiss, 1981).

(ii) The centrality of causal explanations. It has been argued that although everyone is able to produce causal explanations when so required, this is not the primary mode of explanation. Explanations in response to the question "why?" may present accounts, reasons, justifications or descriptions which are not causal (Antaki and Fielding, 1981; Draper, 1988; Lalljee, 1981).

(iii) The lack of a social context. The a-social nature of attribution theory has been criticized from a number of directions. Firstly, it has been censured for failing to take into account the cultural norms implicit in any explanation (Semin, 1980; Bond, 1983). Secondly, it has been criticized for the lack of an intergroup perspective and for its individualistic bias. This critique has led to the field termed social attribution theory, and will be dealt with in more detail in the next section.

(iv) The ideological-prescriptive content. The model of man the scientist (or statistician) implicit or explicit in attribution theory has been criticized on the grounds that it assumes that the explanations construed (by the attributional theorists) as scientific are the rational ones, which has both evaluative and prescriptive consequences (Semin, 1980). This, together with the strong cognitivism running through attribution theory, has the ideological implication of claiming that the perspective of the theorist (invariably white, male, western, middle-class) represents undistorted reality.

4.2 Social Attribution Theory

The first critiques of attribution theory for its a-social nature have been accorded to Apfelbaum and Herzlich (1970-1); and to Deschamps (1973-4, 1983) (*cf.* Hewstone, 1981; Hewstone and Jaspars, 1982a, 1984). These authors have directed their criticisms at the more recent attribution theories of Jones *et al.* (Jones, 1979; Jones and McGillis, 1976; Jones and Nisbett, 1972), and Kelley (1967, 1973), not at the fundamental work of Heider (1958). Apfelbaum and Herzlich (1970-1) focus their criticisms on

these theories' failure to acknowledge that the attribution process occurs in a social context, within which the attributors or perceivers have characteristics, beliefs and prejudices, and have a relationship and stake in the situation they are explaining or interpreting. Deschamps (1983), on the other hand has stressed the lack of an intergroup perspective in attributions. More detailed discussion of these critiques may be found elsewhere (Hewstone, 1981; Hewstone and Jaspars, 1982a).

The work of Hewstone and Jaspars extends that of Deschamps, attempting to formulate a theory of social attributions. They suggest that a theory of social attribution should incorporate the effect of social influence, social representations and social categorization, and should take particular note of explanations of issues that have social relevance to the attributor. However, social categorization has received the most attention, both theoretically and empirically. The effect of group membership on the nature of attributions is the focus of this thesis.

4.2.1 Intergroup Attributions

The integration of an intergroup dimension with attribution theory may be approached in two ways, through augmenting an attribution theory or through extending a theory of intergroup relations. In the first, the implications of varying the group membership of actors and observers within the various attribution models are examined. In the second, attribution concepts are included within a theory of intergroup relations. A brief survey of how the extension of attribution models may be achieved is presented

below.

Kelley's Covariation Model: The addition of the intergroup dimension to Kelley's covariation model (see section 4.1.2) would affect the judgement of consensus, in particular. The evaluation of consensus is essentially the prediction of how most people would respond under a set of given circumstances. However, with an intergroup perspective this judgement becomes confounded by the group membership of the actor and observer, and hence the inferred comparison population. A variety of situations may occur, if the behaviour to be explained has different normative values for the actor and observer. The observer will usually use her/his own group norms as the consensus criteria. The example provided by Jaspars and Hewstone (1982), is that of an actor failing to shake the hand of the observer. If the observer comes from a culture in which hand-shaking (in such circumstances) is the normative practice whereas this is not the case in the actor's culture, a person attribution such as "the actor is unfriendly" would result. An observer from the same culture as the actor, on the other hand, would judge the behaviour as high in consensus, and would thus not make a person attribution.

It is also feasible that the observer will use stereotypic beliefs in judging consensus, consistency and distinctiveness in the covariation model; and in selecting causal schemata in the configuration model. However, stereotypes are not solely cognitive in nature, but are evaluative and are selectively used for particular purposes (*cf.* Tajfel, 1981a, 1981b). This is illustrated by a study by Louw-Potgieter and co-workers (1988), using a method developed by Essed (1988). This study demonstrated that black

students at the University of Natal assessed whether or not negative acts directed at them were racist, in ways that conform with Kelley's covariation principles. The students queried the following aspects of the action in deciding whether or not to interpret it as racist: the distinctiveness ("Would this have happened to a white student?"), consistency ("Have other black students had similar experiences with this actor?" "Have other white actors behaved similarly to me?") and consensus ("Would other black students consider this as racism?"). These decisions were undoubtedly influenced by stereotyped and emotive views of the behaviour of white and black students in particular contexts. This is difficult to reconcile with Kelley's theories which profess to rest entirely on cognitive operations.

Correspondent Inference Theory: It has been suggested that the actor-observer distinction noted by Jones and Nisbett (1972) would provide the basis for intergroup distinctions. This argument proposes that observers have a better, or more empathetic, understanding of the circumstances and behaviour of a member of their own group, and hence would be more likely to make an external attribution than an internal one (see section 4.1.1). When the actor is a member of a group different from that of the attributer, he or she will respond more like the putative observer and provide an internal attribution rather than an external one (*cf.* Jaspars and Hewstone, 1982; Kelley and Michela, 1980;).

Further, the observation by Jones and Davis (1965) and Jones (1979) that a disposition attribution is more likely to be made for a behaviour that is perceived as out of role, may be extended to the intergroup context. It is argued that:

of
*Behaviour, members of other groups perceived as out-of-role and
 unexpected from the perspective of one's own group is more likely
 to lead to person attribution*

(Jaspars and Hewstone, 1982, p. 139)

However, while this circumstance is easily imagined in a cross-cultural situation, with groups that are members of the same society and do not differ widely, this is not the case. Here, the perception of what is 'out-of-role' or 'unexpected' becomes intricately bound up with stereotypes and other intergroup factors.

The social desirability of the actions and outcomes.

Further, these models do not address the social desirability of the behaviours to be explained. Being cognitive theories, they do not predict that variations in explanation will ensue if the behaviour is positive or negative.

Motivational Attribution Theories.

These theories are generally extended into the intergroup domain by transforming the individualistic self-serving components into group-serving motivations. The propositions of egocentric attribution (Snyder, Stephan and Rosenfield, 1976) and hedonic relevance (Jones and Davis, 1965) lead to different predictions for positive and negative behaviours. Jaspars and Hewstone (1982) present a table of the competing predictions for actors and observers, comparing the purely cognitive theory (C), the egotism model (E) and that emerging from the hedonic relevance hypothesis (H). The correspondence of actor-observer with ingroup-outgroup leads to the following adaptation:

Table 4.2.1 Predictions for Intergroup Attributions under Three Different Attribution Theories

		Outcome	
		Positive	Negative
Ingroup	(C)	Situational	Situational
	(E)	Dispositional	Situational
	(H)	Dispositional	Situational
Outgroup	(C)	Dispositional	Dispositional
	(E)	Dispositional	Situational
	(H)	Situational	Dispositional

(Jaspars and Hewstone, 1982, Table 7, p.141)

Incorporating attribution concepts into an intergroup theory, namely Social Identity Theory, leads to predictions that attributions will be biased depending on the group membership of the observer and actor. As detailed previously, a primary assumption of Social Identity Theory is that people are striving for positive distinctiveness, and one of the ways of achieving this is through intergroup comparisons. The existence of self-serving biases in the attribution process, whereby people bias their explanations to enhance their self-esteem, for example, taking responsibility for their positive actions and outcomes through making internal attributions, and denying responsibility for negative actions and outcomes through the use of external attributions was noted by Heider (1958) and has been discussed elsewhere (*cf.* Kelley and Michela, 1980; Ross and Fletcher, 1985). Extending the concept of self-serving to that of group-serving allows for an easy interface with Social Identity Theory, since it is clear that such attributions would represent another means of achieving positive distinctiveness.

The predictions that have been presented in the extension to the group-serving hypothesis, have focused on the simple ingroup-outgroup level and the evaluation of the behaviour. It is hypothesized that the intergroup attributions that would protect and enhance the group's esteem, would follow the pattern depicted below (Jaspars and Hewstone, 1982; Hewstone and Jaspars, 1984; Pettigrew, 1979; Taylor and Jaggi, 1974):

Table 4.2.2 Intergroup Attributions Reflecting Ingroup Favouritism

	Action or Outcome	
	Positive	Negative
Outgroup	External	Internal
Ingroup	Internal	External

The role of the dimension perceived stability, in conjunction with locus of control as proposed by Weiner and his colleagues (*e.g.* Weiner *et al.*, 1972), has frequently been considered in intergroup attributions to behaviour outcome (Deux and Emswiller, 1974; Feather and Simon, 1975; Hewstone, Jaspars and Lalljee, 1982). In this case, the predictions in Table 4.2.2 are amended as follows:

Table 4.2.3 Intergroup Attributions Reflecting Ingroup Favouritism for Outcomes

Group of Actor	Outcome	
	Success	Failure
Outgroup	External stable/unstable (Task easiness or good luck) or Internal unstable (Effort)	Internal stable (Lack of ability)
Ingroup	Internal stable (Ability)	External stable/unstable (Task difficulty or bad luck) or Internal unstable (Lack of effort)

Pettigrew (1979) suggested a further classification scheme, in which he described a number of ways in which positive behaviour of a member of a disliked outgroup would be "explained away". This scheme, defined by the dimensions, locus of control and degree of perceived controllability, makes the following predictions:

Table 4.2.4 Attributions for "Explaining Away" Positive Behaviour of a Disliked Outgroup

Perceived Degree of Controllability of Act	Perceived Locus of Control of Act	
	Internal	External
Low	A. The Exceptional Case	B. Luck or Special Advantage
High	C. High Motivation and Effort	D. Manipulable Situational Context

(Pettigrew, 1979, Table 1, p. 466)

This classification scheme has received little empirical attention.

In general, empirical research on intergroup attributions for actions has tested the bias towards internal or external attributions, as described in Table 4.2.2, with some outcome studies including the stability dimension as in Table 4.2.3. The groups that have been tested have been defined in terms of race, religion, linguistic orientation, class and gender. Most frequently, the groups have been approached at the categorization level, simply in terms of ingroup and outgroup. This author argues that this view of intergroup relations does not do justice to Social Identity Theory. While it is compatible with the social categorization theory of intergroup behaviour (cf. Doise, 1978; Hamilton, 1979; Stephan, 1985; Wilder, 1981; Wilder and Cooper, 1981), it neglects the comparison features of the intergroup situation. Social Identity Theory places considerable importance on the status groups have relative to each other, and the security of this comparison. Yet few studies have considered these issues directly. Those that do, tend to include these variables in a *post hoc* manner, or in descriptions of the context of the study.

This will be discussed in greater detail in the following section which reviews the research on intergroup attributions.

4.3 Empirical Research on Intergroup Attributions

Jaspars and Hewstone (1982, p. 149) stated that they had discovered only three studies which considered (cross-cultural) intergroup attributions, specifying Mann and Taylor (1974), Stephan (1977) and Taylor and Jaggi (1974). These studies were the first to explicitly investigate the effect of group categorization on attributions for actions. The list of such studies has expanded, and their range has been enlarged to consider explanations for outcomes and for social "facts", and to include attributions which do not demand internal or external causes, such as blame and responsibility (*cf.* Hewstone, 1989, 1990).

In this section, the empirical research that has involved intergroup attributions is reviewed. The work on intergroup attributions for actions, outcomes and for social circumstances will be thoroughly reviewed. However, the work on attribution of blame for accidents and crimes encompasses theories that have not yet been discussed. For this reason, a very brief review will be made in this chapter, but the bulk will be left for Chapter 8.

At the end of the sub-sections reviewing intergroup attributions for actions, for outcomes and for social circumstances, tables summarizing the results will be presented. These tables simply give a picture of whether or not intergroup biases were present or not. Information about the designs of

the studies, and the intricacies of the results are not reported. Also, marginal and full statistical significances are not distinguished. This information can be found in the tables by Hewstone (1990).

4.3.1 Intergroup Attributions for Actions

Studies investigating intergroup attributions for actions have tended to use the following design: subjects are presented with vignettes describing positive or negative actions performed by actors belonging to one or other social group. They are then required to choose an explanation that reflects either an internal or external locus of causality. Taylor and Jaggi (1974) used this design with Hindu subjects in India. The actors in the vignettes were either Hindu or Muslim, who were reported as performing either pro-social or anti-social acts. The findings supported the predictions: more internal attributions were made for the positive behaviours of the Hindu actors (ingroup) than for their negative actions, and more internal attributions made for the negative behaviours of Muslim actors (outgroup) than for the positive. This study was subsequently criticized on a number of counts: for its asymmetry in not providing data from Muslim subjects as well as Hindu subjects; for possibly prompting the type of response by having the subjects perform a stereotyping task prior to the attribution task; for providing only one internal but several external causes as options; and for the forced-choice nature of the decisions and the limited statistical analysis this allowed (Hewstone and Ward, 1985; Jaspars and Hewstone, 1982; Pettigrew, 1979).

The Mann and Taylor (1974) study, which was set in Canada and used English-speaking and French-speaking students as subjects, provided less

clear-cut support for the predictions. In the study the linguistic groups, French-Canadians and English-Canadians, were crossed with social class (lower and middle class). The results were complex, but did indicate that both French- and English-Canadian subjects tended to make more internal attributions for positive actions performed by the French-Canadian actor than for the English-Canadian actor, and less internal attributions for negative acts of the French-Canadian actor than for the English-Canadian. The group membership of the subjects did affect attributions on the basis of social class: English-Canadian subjects tended to give more positive attributions to lower-class actors, whereas the French-Canadian subjects gave more positive responses to the middle-class actors. The lack of an ethnocentric response on the part of the English-Canadian subjects was interpreted as the subjects reflecting generally held stereotypes. However, it is equally feasible that their response reflected the status conditions of the two groups, as the English-Canadians have more political and economic power than French-Canadians. Outgroup bias on the part of a 'superior' group (particularly when that group is under no threat), as exhibited in this study by the English-Canadians has been noted elsewhere (cf. Branthwaite and Jones, 1975; Mummendey and Simon, 1989; van Klippenberg, 1984).

Stephan (1977) presented vignettes describing positive and negative behaviours of Anglo, Chicano and Black actors to schoolchildren belonging to these three groups in the United States. The attributions were scored such that the more the emphasis on dispositional attributions, the higher the score. These results were analysed to compare the ethnic groups' attributions for each ethnic group actor separately. Thus, no within group

comparison of attributions to the different ethnic group actors was available, hence ingroup bias could not be measured directly. However, within this limitation, the results did evidence some group differences in the attributions. Chicano and Black subjects gave more internal attributions for their own group members' positive actions, and more situational attributions for their negative actions, than they did for actors of the other groups. The Anglos did not evidence such biases. This latter finding was explained by the author as a function of Anglos in general perceiving people as being more responsible for positive action and being more reluctant to attribute undesirable motives to actors. However, Jaspars and Hewstone (1982) suggested that these subjects made use of a discounting principle, making allowances for the relative social conditions of the three social groups. Again, the results could also be explained as the response of an unthreatened superior group.

Hewstone and Ward (1985) performed two studies, using Malaysian and Chinese subjects and actors in the vignettes. The one study was conducted in Malaysia and the other in Singapore. In both studies the Malaysian subjects exhibited the ethnocentric response, providing more internal attributions for the ingroup actors' positive behaviour than for the outgroups actors', and less internal attributions for the ingroup actors' negative behaviour than for the outgroup. However, the Chinese subjects did not provide the hypothesized responses - in the Malaysian study they tended to favour the Malaysian actors (the outgroup), while in the Singapore study they did not differ in their attributions to the two categories of actors. Hewstone and Ward (1985) explained this in terms of the relative social

status of the two groups and the general political situation in the two countries. In Malaysia, where the Malaysians are the political and demographic majority and the Chinese an economically successful minority, there has been intergroup conflict and there is evidence of social discrimination against the Chinese. Thus, the denigration of the Chinese by the Malaysians was considered to reflect this antagonism while the pro-Malay attributions of the Chinese was suggested to be the self-effacing response of a fearful minority. In Singapore, on the other hand, the Chinese are the majority and the Malays the minority. Hewstone and Ward (1985) suggest that the ingroup favouring attributions of the Malays in this study reflects the response of a minority group striving for social recognition, whereas the Chinese group possesses this recognition so does not need to assert their distinctiveness.

The studies by Duncan (1976, 1979) did not use the vignette methodology. A video-tape of an ambiguous incident, which could be interpreted as one of violence or of high spirits, was presented to subjects. The incident revolved around two actors, allegedly in a heated debate in which the one "shoves" the other. The race of the actors (black and white) was varied. The 1976 study used only white subjects, but this was repeated in 1979 with black subjects. In both studies, when the perpetrator of the act was black, the incident was judged to be more violent, even by the black subjects. It is suggested that this mirrors prevalent social representations that blacks are in general more violent. However, there was also a tendency to give ethnocentric attributions for the act. The white subjects gave more internal attributions to the black perpetrator than the white, and the black subjects gave more internal attributions to the white perpetrator.

A summary of these reviewed studies are presented in Table 4.3.1, overleaf.

From this review, there seems to be some support for the group-serving or ethnocentric bias in attributions. It must be noted, however, that in the above studies, all subjects gave higher internal attribution to positive behaviours and less to negative. It is the degree of this that was affected by the group membership of the actor. Outgroup favouritism was found in a number of the studies. This indicates the need to include the concept of perceived security to explain the results.

All the studies used groups that exist in a real social context, within a status relationship, and bear a history of conflict and coaction with each other. Yet, it is only the Hewstone and Ward (1985) studies that acknowledge this, albeit in a rather *post hoc* fashion. It could be argued that in the studies which had a group that was in a relatively superior and unthreatened position, there was a tendency to either not discriminate or provide attributions that favoured the outgroup (Mann and Taylor, 1974; Stephan, 1977). However, this could be counteracted by the example of Duncan (1976), who also used whites and blacks in the U.S.A. It is thus clear that an argument about the effect of status and security of status cannot be made in general terms - specific data about the perceptions of the subjects in the study at the particular time it was conducted must be collected.

Table 4.3.1 Intergroup Bias in Attributions for Actions: Summary of Results

Study	Groups	Subjects	Internal Attributions				External Attributions			
			Positive Action		Negative Actions		Positive Action		Negative Action	
			IF	OF	IF	OF	IF	OF	IF	OF
Taylor & Jaggi (1974)	Hindu/Muslim in India	Hindu	Yes	No	Yes	No	-	-	-	-
Mann & Taylor (1974)	French/English in Canada	French English	Yes No	No Yes	Yes No	No Yes	-	-	-	-
Stephan (1977)	Anglo/Chicano/Blacks in U.S.	Anglo Chicanos Blacks	No Yes Yes	No No No	No Yes Yes	No No No	-	-	-	-
Hewstone & Ward (1985) Expt. 1	Malay/Chinese in Malaysia	Malay Chinese	Yes No	No Yes	Yes No	No Yes	-	-	-	-
Hewstone & Ward (1985) Expt. 2	Malay/Chinese in Singapore	Malay Chinese	Yes No	No No	Yes No	No No	-	-	-	-
Duncan (1976)	White/Black in U.S.	Whites	-	-	Yes	No	-	-	-	-
Duncan (1979)	White/Black in U.S.	Blacks	-	-	Yes	No	-	-	-	-
Total Number			6	2	6	2	-	-	-	-
Percentage of Possible Instances			60%	20%	67%	22%	-	-	-	-

IF Ingroup Favouritism/Outgroup Derogation
OF Outgroup Favouritism/Ingroup Derogation
- Indicates that this measure was not taken in the study.
IF=No, OF=NoIndicates that there were no differences in the ratings for the ingroup and outgroup.

4.3.2 Intergroup Attribution for Outcomes

The list of studies which have investigated this is more extensive than for actions, since attribution for outcomes, particularly when related to the educational field, has been of interest for a wide range of reasons (*e.g.* understanding the academic underachievement of women, of lower classes or of particular race groups). It is thus possible to find a number of studies which were not designed with reference to social attribution theory. The predictions that are made for outcomes are not as clear-cut as for actions, as the influence of the stability dimension (Weiner *et al.*, 1972) is rather pervasive. In the predictions concerning attributions for actions, the ingroup favouring response would be to accentuate dispositional attributions for positive actions and situational attribution for negative actions of the ingroup relative to the outgroup. However, with both the locus and stability dimensions to consider, the predictions are not so clear cut. At the extremes, it is easy to see that an attribution to skill (for a success) connotes a more favourable perception than an attribution to luck or ease of the task. However, is an attribution to skill really more positive than an attribution to effort?

The design of these studies has tended to follow the same pattern as in studies concerning actions. Vignettes describing an actor's success or failure (positive or negative outcome) are presented, and the possible causes for this provided. The causes usually reflect the locus and stability combinations: internal-stable (skill), internal-unstable (effort), external-stable (task difficulty) and external-unstable (luck). Subjects are usually

asked to rate the importance of each of these factors in explaining the outcome. However, some studies used the internal-external causal dichotomy, as was common with attributions for actions, and presented subjects with a single scale with skill or ability at the one pole and luck at the other (*e.g.* Deux and Emswiller, 1974).

Among studies of bias in the attributions for outcome, gender is the group categorization that has been most commonly considered. In their review of sex differences in achievement attributions, Ross and Fletcher (1985) state that three general conclusions could be drawn from the somewhat inconsistent findings. These are that (i) male and female observers tend to agree on the attribution made for male and female actors' performance (Bird and Williams, 1980; Etaugh and Brown, 1975; Feldman-Summers and Kiesler, 1974; Yarkin, Town and Wallston, 1982); (ii) when gender of the performer does affect attributions, the pattern is for males' success to be attributed more to ability and less to luck or effort than females' success (Deux and Emswiller, 1974; Etaugh and Brown, 1975; Feather and Simon, 1975). Concomitantly, females' failure is more likely to be attributed to lack of ability while males' failure is attributed more to bad luck or lack of effort (Deux and Emswiller, 1974; Dweck and Reppucci, 1973; Etaugh and Brown, 1975; Feather, 1969; Feather and Simon, 1975; Nicholls, 1975); (iii) the most common explanation for differential performance for the gender groups is that they have different expectations, males typically having higher expectations of success than females. However, this point will not be pursued as it refers to self-attribution and does not directly come under the rubric of intergroup attribution.

Race, class and status have also been used as group categories in outcome attribution studies. Greenberg and Rosenfield (1979) asked white subjects to make attributions for the success and failure of black and white actors on a ESP task. The performance of the actors was presented on a video-tape. They had previously measured the level of ethnocentrism of their subjects, and entered this as a dichotomous variable into the analysis. It was found that high ethnocentric subjects attributed black success more to luck and less to ability than white success, while low ethnocentric subjects attributed black success more to ability and less to luck than white success. Black failure was attributed more to lack of ability than white failure by the high ethnocentric subjects, while the low ethnocentric subjects tended to attribute failure of the black actor more to bad luck than white failure. This study was a clear illustration of the use of attributions to derogate or enhance the performance of an actor on the basis of group membership, and remarkable in that it took account of intergroup attitudes. It is unfortunate that black subjects were not used, which would have provided a clearer intergroup perspective.

Yarkin, Town and Wallston (1982) considered the effect of both gender and race on attributions for the success of a banking officer. The subjects consisted of female and male students, but their race was unspecified leading to the presumption that they were all white. It was found that a white male actor's success was attributed more to ability and less to motivation and luck than that of a black male, or that of white or black female actor. Attributions to these latter three groups did not differ. This favouring of white male actors' success relative to the other categories of

actors by the (presumed white) male and female subjects represents ingroup favouritism on the part of the men (high status gender group) and outgroup favouritism on the part of the women (low status gender group). However, the implications of race and of the race by gender interaction could not really be discerned without the inclusion of black subjects.

Whitehead, Smith and Eichhorn (1982) considered attributions for success and failure of black and white actors on an intellectual task and an athletic task. According to prevalent stereotypes, blacks are more gifted at athletics than whites and less intelligent than whites. Ingroup favouring attributions were made for failure in both tasks. On the academic task, blacks attributed the failure more to lack of ability when the actor was white than black, while the whites attributed it more to lack of ability when the actor was black than when white. This pattern of results was also found with the athletic task, though more strongly. An ambiguous result occurred with the black subjects attributions of task easiness/difficulty for the white actor on the athletic task. The white actor's success was attributed less to task easiness than the black actor's and the white actor's failure was attributed more to task difficulty than was the black actor's. This would appear to be an outgroup-favouring response, but the authors argue that these attributions imply that athletics is in general easier for blacks than whites, hence is actually an ingroup-serving response.

Attributions for hypothetical success and failure on a school exam for the self, ingroup and outgroup actors was investigated by Hewstone, Wagner and Machleit (1989) using West German and Turkish adolescents. Group bias was found only in the attribution of luck. German subjects displayed

ingroup favouritism in attributing the failure of the ingroup more to bad luck than that of the outgroup. Turkish subjects evidenced outgroup favouritism in attributing ingroup success more to good luck than outgroup success.

Hewstone, Jaspars and Lalljee (1982) used English public and comprehensive schoolboys as the subjects and actors (in the vignettes) of their study. These types of schools are considered to be of different status and tend to be attended by children from different social classes. The subjects were asked to make attributions to ability, effort, task difficulty and luck. The results indicate that the public schoolboys (high status group) tended to attribute the failure of the comprehensive school actor (CS) more to lack of ability than they did the public school actor (PS), whereas the failure of the public school actor was attributed more to lack of effort than was the comprehensive school actor. The comprehensive school subjects did not evidence much group-serving attributions, though there was a tendency attributed PS success more to luck than for CS success, which may be an instance of ingroup-serving attribution. However, it could be argued that this use of luck could reflect a feeling that the public schoolboys were lucky to belong to that school (and socio-economic class).

Ho and Lloyd (1983), working in Australia, set up three groups of actors; university lecturers, university students and vocational school students, as groups of different (descending) status. The subjects, university students, were asked to make attributions for the success and failure of members of these groups using the Weiner dimensions. The university lecturers represented a high esteem outgroup and the vocational school students, a low esteem outgroup. The subjects were dichotomized into

internals or externals on the basis of their scores on Rotter's (1966) I-E Scale. Bias in the attributions on the basis of group membership was found for the internal subjects only. These subjects gave higher ratings for ability to the ingroup and the high-esteem outgroup for success than they gave for the low-esteem outgroup. Surprisingly, they also rated lack of ability more important for failure in these groups than they did the low-esteem outgroup. Success of the low-esteem outgroup was attributed more to effort than was the success of the other groups. However, the lecturer-outgroup's success was attributed more to task easiness than either the ingroup or vocational student outgroup. Thus, it could be argued that a group-serving response was manifest by the "internal" subjects making attributions for success with reference to the low-esteem outgroup, and by derogating the high-esteem outgroup's success with the strong rating of task easiness. However, a criticism of the study is that the nature of the task on which performance was judged, an anagram exercise, would lead one to anticipate differences in the performance of the groups. This study also presents certain problems as regards the comparability of the three groups. The two outgroup, lecturers and vocational school students differ from the ingroup, university students in unrelated ways. Lecturers most likely differ in age and education, whereas the vocational school students probably differ in intelligence and socio-economic class. These groups were depicted as high-esteem and low-esteem outgroups respectively, but the actual differences and their possible effects were not considered.

These results are summarized in Table 4.3.2, overleaf.

Table 4.3.2 Intergroup Bias in Attributions for Outcomes: Summary of Results

Study	Groups	Subjects	Success										Failure					
			IF	Ab OF	IF	Eff OF	Tsk IF	OF	Lk IF	OF	Ab IF	OF	Eff IF	OF	Tsk IF	OF	Lk IF	OF
Deux & Emswiler (1974)	Gender	Male Female	Y Y	N N	- -	- -	- -	- -	Y Y	N N	- -	- -	- -	- -	- -	- -	- -	- -
Etaugh & Brown (1975)	Gender	Male Female	Y N	N Y	Y N	N* Y*	N N	N N	N N	N N	Y N	N N	N Y	N N	N N	N N	N N	N N
Feather & Simon (1975)	Gender	Female	N	Y	N	N	N	N	Y	N	N	N	N	N	N	Y	N	N
Greenberg & Rosenfield (1979)	Race	Whites High Ethnocentric Low Ethnocentric	Y N	N Y	N N	N N	N N	N N	Y N	N Y	Y N	N Y	N Y	N N	N N	N N	N N	N N
Hewstone, Jaspars & Laljee (1982)	Class	Public Schoolboys Comprehensive "	N N	N N	N N	N N	N N	N N	N N	N N	Y N	N N	N N	N* N	N N	N N	Y Y	N N
Hewstone, Wagner & Machiet (1989)	Ethnic	Germans Turks	N N	N N	N N	N N	N N	N N	N N	N Y	N N	N N	N N	N N	N N	N N	Y N	N N
Ho & Lloyd (1983)	Lecturer/ Student University/ Vocational School	Student Internals Student Internals	N N	N N	N Y	N N*	Y N	N N	N N	N N	N N	N N	N Y	N N	N N	N N	N N	N N
Yarkin, Town & Walston (1982)	Gender	Males	Y	N	Y	N*	N	N	Y	N	-	-	-	-	-	-	-	-
Whitehead, Smith & Eichhorn (1982)	Race	Academic Task White Black Athletic Task White Black	N N N N	N N N N	N N N N	N N N N	N N Y Y	N N N N	N N N N	N N N N	Y Y Y Y	N N N N	N N N N	N N N N	N N Y Y	N N N# N	N N N N	N N N N
Total Number			6	3	3	1	2	1	4	2	7	4	1	0	1	0	2	0
Percentage of Possible Instances			33	17	19	5	13	5	22	11	47	27	7	0	7	0	13	0

IF Ingroup Favouritism/Outgroup Derogation
OF Outgroup Favouritism/Ingroup Derogation
* Signifies that attributing high effort to outgroup's success and low effort for ingroup's failure constitutes ingroup-serving response.
The authors' argument that attributing task difficulty for failure by whites in this instance constitutes an ingroup-serving response on the part of the black subject.

Ab Ability
Eff Effort or Motivation
Lk Luck

Y Yes
N No

As with attributions for actions, there are some overall effects that emerge, irrespective of the group membership of the actors. Internal attributions (both stable and unstable) are more important in explaining success than failure, and external attributions are used more to explain failure. While there is some evidence of group-serving attributions emerging from this review, the number of studies which provide a clear intergroup perspective are limited. Inspection of the summary table indicates that the majority of the instances of ingroup favouritism occurs in the attribution of lack of ability for failure, followed by the attribution of ability for success. Attributions to effort and task proved the most difficult to interpret as intergroup bias. Attributions of good luck for success and bad luck for failure were easier to interpret, but were not as evident as bias in attributions of ability.

The majority of the instances of outgroup favouritism/ingroup derogation in attributions were made by female subjects in gender comparisons. This response is characteristic of a low-status group with secure social comparison. It is, perhaps, significant that the studies in which this occurred were performed in the early 1970s, when the belief in women's equality was not as pervasive as at present. The outgroup favouritism of the low ethnocentric white subjects in the Greenberg and Rosenfield (1979) study is congruent with the response of a high status group who perceive their superiority as illegitimate.

Thus, it appears that the intergroup perception factors are required to provide a full explanation of the results.

4.3.3 Intergroup Attributions for Social Circumstances

Hewstone (1989) coined the phrase "societal attributions", which concerns attributions as applied to social issues, and the general common sense knowledge held by members of a society. It is worth noting that social representations and group beliefs are closely allied to social explanations.

Social representations ... concern the contents of everyday thinking and the stock of ideas that gives coherence to our religious beliefs, political ideas and the connections we create as spontaneously as we breathe. They make it possible for us to classify persons and objects, to compare and explain behaviours and to objectify them as parts of our social setting.

(Moscovici, 1988, p. 214)

An increasing number of studies have addressed the question of how the "lay-person" explains or understands certain social phenomena, such as unemployment (Feather, 1983; Furnham, 1982b, 1988), poverty and wealth (Feagin, 1972; Forgas, Morris and Furnham, 1982; Furnham, 1982a, 1982b, 1988; Karniol, 1985), the EEC (Hewstone, 1986) and intergroup inequality (Appelgryn and Nieuwoudt, 1988; Hewstone, 1989; Hewstone and Jaspars, 1982b). However, only those considering intergroup differences in explanations will be reviewed here.

Attributions for societal events bear certain similarities to attributions for behaviour. The categories of explanation commonly used are internal (to the people or group involved in the circumstance), and external (which implies socio-political or economic factors). These, in turn, tend to be directly group-serving. In general, the vignettes describe a 'known' social circumstance and the explanations provided present attributions which lodge

the cause of the circumstance in one or other of the groups involved, or in certain aspects of the government or 'system'.

Hewstone and Jaspars (1982b) considered various discriminatory practices that characterize the existence of blacks in modern day Britain. Two explanations were provided for each issue used, one which lodged the cause in the behaviour of the blacks themselves, and one which blamed the system. Black and white working class adolescents rated the two explanations. It was found that blacks gave higher ratings to the system blaming explanations, while the whites gave equal ratings to both explanations. However, the white subjects who were involved in a discussion about the issues, rated the system explanation as more important for some of the issues.

Hewstone, Bond and Wan (1983) considered the situation of two universities in Hong Kong. The Hong Kong University (HKU) has higher status than the Chinese University (CU), resulting in occurrences such as the HKU students getting better jobs. A number of differences between the universities or their students were presented, half of which favoured the one group and half the other. Each was followed by two explanations, one of which enhanced the esteem of each group. A clear ingroup-serving bias was found; each group gave higher ratings for the explanations that were enhanced the ingroup than those that enhanced the outgroup. This study also measured perceptions of likelihood of change (stability) and of fairness of the intergroup situation (legitimacy). Members of the low status university (CU) rated the situation as being less fair and more likely to change than the HKU students, but these perceptions were not incorporated into the analysis of the attributions.

Bond *et al.* (1985) performed two similar studies, one in Hong Kong and one in the U.S.A., investigating explanations for sex-typed behaviours. In the Hong Kong study, it was found that both male and female subjects rated the male-favouring explanation more highly than the female-favouring response. However, when this was repeated in the U.S.A., female subjects gave higher ratings to the female-favouring explanations than to the male-favouring. While these studies can be criticized for the inadequate statistical support provided for the findings, they are particularly interesting for their insights into the effect of status and intergroup comparisons. In Hong Kong, women have lower status than men, and some measures provided in the study would appear to indicate that this is not contested. However, in the U.S.A., where the women's movement has been a strong influence on society, the inequality of the sexes is disputed. It could thus be argued that the ingroup-serving bias of the women in the second study is the response of an assertive low-status group.

Rosenberg and Wolfsfeld (1977) found that degree of affiliation with a group was also important in intergroup attributions. They monitored the affiliation of a group of international students to the Israeli or Arab cause. Then examples of (actual) successes, failures, moral acts, immoral acts and neutral acts of Israel and the Arab states in the Middle East conflict were provided, and the students asked to make attributions for these acts. It was found that the nature of the act and the affiliation with the Israeli or Arab cause affected whether dispositional or situational attributions were made, and the pattern of these attributions supported the group-serving hypothesis.

The summary of these studies are presented in Table 4.3.3, overleaf.

Table 4.3.3 Intergroup Bias in Attributions for Social Circumstances: Summary of Results

Study	Circumstance	Type of Attributions	Subjects	IF
Bond <i>et al.</i> (1985)	Sex-typed behaviours in Hong Kong	Male-favouring or female-favouring explanations	Male Female	Yes No
	Sex-Types behaviours in the U.S.	Male-favouring or female-favouring explanations	Male Female	No Yes
Hewstone, Bond & Wan (1983)	Prestige of two universities, HKU and CU	Explanations enhancing the respective universities	HKU students CU students	Yes Yes
Hewstone & Jaspars (1982b)	Discriminatory practices against blacks in Britain	To blacks themselves <i>vs.</i> to the 'system'	Whites Blacks	No Yes
Rosenberg & Wolfstied (1977)	Positive and negative acts by Israel and the Arab states in the Middle East conflict	Dispositional <i>vs.</i> situational explanations	Arab-affiliated Israeli-affiliated	Yes Yes
Total Number Percentage of Possible Instances		70%	7 10%	1

IF Ingroup Favourism/Outgroup Derogation
OF Outgroup Favourism/Ingroup Derogation
* In this study, ingroup refers to the group to which the subjects feels affiliated.

Although few in number, these studies provide strong support for the hypothesis that explanations are used in a group-serving manner. The one instance of an outgroup-favouring bias occurred on the part of women subjects in Hong Kong. This was interpreted by the authors as the response of a low status group which does not perceive alternatives to their situation.

There is, however, a danger that must be negotiated when considering explanations of social circumstances. It is easy to slip into the trap of viewing the issues as a fictional vignette developed for the purpose of the study (as with those used for actions and outcomes), and to neglect the fact that there is a political, economic and social reality underlying the issue. The rival explanations are not merely a means of preserving the groups' esteem, but have different political purposes and present different approximations to the truth.

Intergroup Attributions in Social Beliefs

Numerous studies in South Africa have shown that the values, attitudes and aspirations of black students differed from their white counterparts. Although these results were not intergroup attribution studies as such, the findings are worth mentioning. Blacks evidenced a greater commitment to community service and political activity, and aligned their aspirations with the needs of the community, whereas the whites reported predominantly hedonistic and personal values (Appelgryn and Nieuwoudt, 1988; Bloom, 1960; Botha, 1964; Danziger, 1958, 1963; Gillespie and Allport, 1955; Mann, 1962). The attributions for blacks' social, and to an extent, their personal conditions tended to be attributed to government actions (Geber

and Newman, 1980; Lobban, 1975). Lobban (1975) further suggested that the high self-esteem found in his study could be explained by the fact that the blacks attributed their failures to external factors.

However, a recent study by Seedat and Cloete (1989) presents a slightly different picture. They questioned people from Eldorado Park, a "coloured, unenfranchised community" on their perceptions of problems in the community. It was found that the majority of respondents attributed the cause of these problems to factors internal to the community (65.1%), while a further 20.6% gave attributions that combined both internal and external factors. Only 3.2% saw external factors as solely responsible for the problems, while a further 11.2% gave predominantly external attributions with some internal factors included. When asked a forced-choice question, to select between a socio-political model of the problems versus a psychodynamic, mental health model for social problems in general, the majority of the respondents selected the socio-political model. However, 28.6% *"insist on a combination of theories. One scholar explained that while the first theory is applicable to blacks and the poor, the second theory applies to whites and the affluent"* (p. 11). The contrary finding of 'self-blame' in this community, may be accounted for by the time period during which this study took place; by the fact that the respondents were not university students, or by the fact that this was a "coloured" community which has a particular marginal status in South Africa (Mann, 1974).

The role of societal attributions is also demonstrated in the analysis of conspiracy theory.

The term "conspiracy theory" is usually considered to denote a more-or-less elaborate schema whereby a given group of people

sharing a common ethnic, political, national, or religious origin is said to plot against another group.

(Kruglanski, 1987, p. 219)

Conspiracy theory is of interest here for two reasons. Firstly, the role of attributions, particularly the attribution of blame, in the cognitions of people who hold such beliefs is clear. And secondly, Fascist groupings, such as the AWB (Afrikaner Weerstandbeweging) in South Africa present active and potentially dangerous examples of conspiracy theorists.

The conspiracy schema involves explaining all events, particularly negative social events, in terms of the deeds and machinations of the targeted group. In some cases, the form of explanation is extremely elaborate and supported with pseudo-scientific ideas, as is found in the writings of Nazi and neo-Nazi groupings such as the British National Party and the John Birch Society. This is evident in the statements made by Barend Strydom, a member of the AWB, during his trial for the mass murder of blacks in Pretoria:

In our complicated society, each black species threatens the continued existence of the Boer Volk because they (the blacks) multiply so quickly.

There has been a decrease in the oxygen level in central Africa because the blacks removed the trees there.

(Reported in The Natal Witness, 18/5/89)

In essence, the conspiracy theorist is making an internal or personal attribution, and ignoring any external factors. This has the advantage of simplifying the complexity of modern life, and provides the illusion of control over the events. If the cause of the negative events is the target group, the potential for its solution is clear.

Bar-Tal (1990) emphasizes the functional nature of group beliefs and attributions. He discusses how the use of delegitimizing beliefs about outgroups serve an ingroup homogenizing function, promote group esteem and justifies hostile or inhuman behaviour against those outgroups. He also stresses the role of leaders in manipulating these group beliefs:

Political, intellectual, religious, social, and cultural leaders determine to a considerable extent which beliefs become group beliefs and influence group members to accept them as such. They frequently select the group's goals which may serve as group beliefs, formulate ideologies or religious doctrines, decide which events in the past should be remembered as group beliefs for the future, often select the symbols for the group, and decide on the attributes that characterize group members.

(Bar-Tal, 1990, p. 71)

4.3.4 Intergroup Attribution of Blame for Accidents and Crimes

Heider's (1958) approach to the attribution of responsibility, which suggests that there are five levels of moral evaluation, has elicited considerable research (cf. Fincham and Jaspars, 1980; Ross and Fletcher, 1985). Some research has compared these levels across various groups (e.g. Lipton and Garza, 1977; Shaw and Schneider, 1969), but none have considered the discrepant use of the levels as a function of the group membership of the actor. However, a considerable body of research does exist which focuses on intergroup bias in the attribution of blame for crime. The prevalent theories surrounding attribution of blame, and the empirical work in the area will be discussed in Chapter 8. However, a brief review of the relevant issues is presented below.

The hypothesis that the attribution of blame may be used in a group-serving fashion does not lead to the same form of predictions as attributions to actions or outcomes. Here, one would be more interested in the degree of blame that is assigned in a particular instance, the manner in which an incident is interpreted or the level of seriousness assigned to it.

Gender has been treated as a social categorization in the intergroup studies discussed previously. However, in this section, particularly with reference to attributions for crime, it presents a problem. Within inter-sex crimes, women are almost invariably the victims, and men the assailants, and, in general, women are responsible for markedly fewer crimes than men. This means that it is difficult to construct a symmetrical situation with which to investigate the use of group-serving attribution of blame for both sexes. It also implies that the extensive work that has been done on attributions of blame to the assailant and victim, particularly with reference to rape and sexual assault, does not fit easily into the intergroup perspective. The one exception, perhaps, is the study by Howard (1984).

This study consisted of two experiments. In the first, male and female subjects were presented with a written transcript describing a rape or robbery incident, in which the sex of the victim was varied. Both male and female respondents attributed more blame to female than to male victims, and more blame was attributed to attackers of male victims than of females. The only respondent sex effect was that male subjects attributed more blame to the attacker than women subjects. In the second study, the same crimes were described with the sex of the victim and attacker varied, but instead of written transcripts the subjects were shown a video-tape of the victims. Also,

the male and female subjects participating in this study had completed the Spence, Helmreich and Stapp (1973) Attitudes towards Women Scale (AWS) and an Attitudes toward Heterosexual Behaviour Scale (ATHB). Again, it was found that more global blame was attributed to the female than to male victims. However, when broken down into behavioural and characterological blame, it emerged that more characterological blame was attributed to female victims while more behavioural blame was attributed to male victims. In general, male respondents attributed more behavioural blame than women, blaming male victims more than female victims, while women attributed more global and characterological blame than men. The findings of the first experiment would seem to indicate that a group-serving response on the part of the male respondents was in operation, and, perhaps, an outgroup-serving response on the part of the female subjects. The results of the second experiment are somewhat equivocal. The greater blame attributed to the female victim appears to be largely due to the response of the women subjects, which implies an ingroup derogating response. It may also be argued that blaming victims' behaviour (an unstable attribute) is less damning than blaming their character (a stable attribute). Hence, the male subjects' emphasizing behavioural blame with the male victims could be argued to be a group-esteem protection measure. However, a major criticism of the study lies in the counter-intuitiveness of the scenarios with a male victim, particularly in the case of sexual assault. While the situations described are feasible and undoubtedly do happen, the infrequency of such incidents relative to the common-place occurrence of female victim incidents, must surely have a confounding effect on the subjects' responses.

There is extensive evidence in the legal field, that jurors' responses and the severity of sentences recommended are affected by the group membership of the defendant. A number of surveys have shown that in a number of countries black defendants are more likely to be found guilty and are given higher sentences (Box, 1981; Reiman, 1984; Salmon, 1983), as are members of lower socioeconomic classes (Reiman, 1984). Research in social psychology has similarly indicated that group membership of the victim and perpetrator of crimes and accidents does affect attributions of blame. McGlynn, Megas and Benson (1976) found that student subjects judged a black defendant in a spouse murder to be guilty, as opposed to guilty by reason of insanity, more frequently than they did white male, and white and black female defendants. However, of the defendants judged guilty, white males were given higher sentences than members of the other groups.

Intergroup attributions of blame for accidents are less prevalent. One worth mentioning is that of Wang and McKillip (1978). These authors presented a vignette describing a car accident involving two cars, referred to as the driver and victim. The description made the assignation of fault ambiguous. The vignette, in which the driver was Chinese and the victim American or the driver American and the victim Chinese, was presented to Chinese students, American students and American non-students. The Chinese^{students} and the American non-student subjects gave ethnocentric responses - penalizing the actor of the outgroup, whether they were the driver or the victim. The American students' responses were not affected by the group membership of the actors.

These examples, and those which will be reviewed in Chapter 8, provide support for the hypothesized motivated misuse of attributions.

4.4 Conclusion

Considering all the findings presented in this review, it would appear that there is some support for the hypothesis that intergroup attributions of causality and explanations may be biased, and hence follow the same pattern as discriminatory behaviour and attitudes. A number of the studies have verified the predictions that attributions which enhance the ingroup and derogate the outgroup will be made in an intergroup context. The non-random nature of this bias has been reinforced in some studies by the correlation of the bias with various measures of ethnocentric (*i.e.* pro-ingroup and/or anti-outgroup) attitudes (Garland and Price, 1977; Greenberg and Rosenfield, 1979; Howard, 1984; Wang and McKillip, 1978). Some studies have also required subjects to perform tasks such as evaluation of group members' personalities, ascriptions of stereotypes which have been found to follow the pattern of the attribution bias (Hewstone, Jaspars and Lalljee, 1982; Hewstone and Ward, 1985; Taylor and Jaggi, 1974). However, other studies have also demonstrated that some groups do not evidence this group-serving bias and may bias their attributions in favour of the outgroup. This has been explained as the possible influence of intergroup comparison factors, namely unquestioned superiority or inferiority. These explanations have been made in a somewhat *post hoc* manner, and as such have little verification value. It is clear that these intergroup comparison factors, which are an important feature of Social Identity Theory, must be explicitly examined in research on intergroup attributions.

CHAPTER 5

INTERGROUP ATTRIBUTIONS IN MINIMAL GROUPS

5.0 Introduction

The major aim of this thesis is to investigate whether intergroup explanations and attributions are biased in the same manner as are intergroup behaviours, such as the allocation of resources, trait attributions, evaluations of group products and performance. The studies, reviewed in Chapter 4, which demonstrated intergroup bias in attributions, involved established social groups. Such social groups, whether based on cultural, religious, linguistic, race or class differences, inevitably have a history to their intergroup relationships. This embodies a complicated network of competition, conflict and interdependency, which in turn stimulates various social representations and stereotypes. Intergroup attributions are inevitably imbued with these influences.

In attempting to ascertain the nature of the bias in intergroup attributions, it would be useful to be able to strip the intergroup situation of such historic and functional overlays. The Minimal Group Methodology, discussed in Chapter 2, was developed to create such an opportunity. This methodology was successful in enabling intergroup discrimination to be analysed in terms of its psychological underpinnings. The importance of this for the development of Social Identity Theory has been discussed elsewhere.

A brief description of the seminal experiment by Tajfel (1970) will illustrate the procedure of the Minimal Group Methodology: The subjects, in this case Bristol schoolboys, were shown a number of slides which contained pairs of abstract paintings. The subjects were asked to decide which one of each pair they preferred. At the completion of this task, their written preferences were taken away, allegedly to be marked. The experimenter then told the subjects that in each pair, the one painting was by Klee and the other by Kandinsky, and that people invariably prefer either Klee or Kandinsky paintings. They were then told that their choices were being assessed, to determine the group to which they belonged. They were then thanked and told they would be paid for their participation. However, as a further task, they were asked to allocate points (which were worth a certain amount of money) to other members of the group.

They were then installed in individual cubicles, where they were first told the group - Klee or Kandinsky - to which they belonged and were given a matrix booklet, the means by which they would allocate the points. Their group membership was emphasized by a label on the booklet. The matrix booklet consisted of sets of vertical pairs of numbers, the top of the pairs to be allocated to one fellow subject and the bottom of the pairs to another. These recipients were identified only by their group membership and a number, so the subjects did not know to whom they were giving points. It was emphasized that they would never be allocating points to themselves. The pairs of numbers varied the amount the recipients would receive in specified patterns. The subject's task was to determine which pair of numbers should be allocated. As discussed previously, the subjects tended to

favour members of their own group at the expense of members of the other group, despite the fact that they personally would not gain from the favouritism.

The art preference (Klee - Kandinsky) method of creating minimal groups has been used by other researchers (*e.g.* Billig and Tajfel, 1973; Hong and Harrod, 1988; Tajfel and Billig, 1974). However, other methods have also been used with equal success. Some of these methods are: requiring subjects to estimate the number of dots in presented clusters, and specifying the groups as over- or under-estimators (Commins and Lockwood, 1979; Tajfel *et al.*, 1971); giving subjects creativity tests, and forming groups consisting of 'types' of creativity (Finchilescu, 1986; Moscovici and Paicheler, 1978). Open random allocation of subjects into groups has also been used, and intergroup discrimination still emerged (Billig, 1973; Billig and Tajfel, 1973). Moreover, while most the Minimal Group experiments placed a monetary value on the points allocated by the subjects, it has been demonstrated that discrimination occurs when the points have no real value whatsoever (Turner, 1975).

In this chapter, two studies which attempt to apply the Minimal Group Methodology to intergroup attributions are reported. The introduction of attributions necessitates some changes to the format of the experiment. In the classic experiment, subjects are not provided with an explicit basis for the allocation of points or money. However, in order to elicit attributions, there has to be a reported action or outcome to explain. Hence, the allocation of points and the attributions had to be based on alleged products or performances of the anonymous group members. This use of the Minimal

Group Methodology is new. Most of the studies on bias in the evaluation of group products which use laboratory groups, have required the subjects to generate the product to be evaluated themselves (Bass and Duntzman, 1963; Blake and Mouton, 1962; Rabbie and Wilkens, 1971). For example, the groups would each construct a piece of work or product which would then be compared or evaluated. However, with such designs there is a strong element of self-interest, since the subjects are in essence evaluating themselves, and any bias in the evaluations could not be said to emerge from intergroup bias alone.

5.1 Study 2: Bias in Intergroup Product Evaluation and Causal Attributions in Minimal Groups - Trial 1

The aim of this study was to investigate whether bias in intergroup attributions, and bias in group product evaluation, occur in groups created using the minimal group methodology. The method of creating groups was the dot estimation task, as used by Tajfel *et al.* (1971). Causal attributions for successful or unsuccessful performance on a task, based on the dimensions of locus and stability (Heider, 1958; Weiner *et al.*, 1972) were used.

5.1.1 Predictions

The predictions for the evaluation of intergroup products derive from the simple ingroup favouritism - outgroup discrimination pattern typical of

intergroup relations when no status dimension is involved. The predictions for the attributions mirror those made by Hewstone *et al.* (1982):

- H1. Higher marks will be allocated for the performance of the ingroup member than for the performance of the outgroup member, for both successful and unsuccessful outcomes.
- H2a. When the outcome is success, more emphasis will be placed on ability and effort when the actor is an ingroup member than when an outgroup member.
- H2b. Success of the outgroup actor will be explained more in terms of task easiness and good luck than that of the ingroup actor.
- H3a. When the outcome is failure, less emphasis will be placed on lack of ability and lack of effort when the actor is an ingroup member than when an outgroup member.
- H3b. Failure of the ingroup actor will be explained more in terms of task difficulty and bad luck, than that of the outgroup actor.
- H4. The above pattern of bias in attributions will be related to bias in intergroup product evaluation.

5.1.2 Method

Subjects

Fifty-six schoolchildren (33 girls and 23 boys) aged between 13 and 14 years were the subjects of this study. The children were members of two classes from a North Oxford school.

Material

In the course of the study, the subjects completed a number of tasks and questionnaires. These consisted of:

Dot-estimation task: Six different patterns of dots were prepared on overhead projector sheets. These patterns varied in the number of dots they contained, and the shape and cohesiveness of the cluster.

Word-search task: This consists of a grid of 10 x 10 letters. The task requires respondents to find words that are embedded in these letters such that the letters follow consecutively, either in a backward or forward direction. The position of the word could be horizontal, vertical or diagonal.

Judgement task: This consisted of a booklet containing 4 completed word-search grids (different from the one above), two of which were marked as being of above average in quality and two of which were below average. These had allegedly been completed by anonymous schoolchildren who were identified by a code number and membership of the groups, OVER-estimator or UNDER-estimator. One of the successful and one of the failed word-search performances were attributed to members of each group. Following the picture of the word-search grid were 5 questions. One asked the subject to allocate a mark, as a percentage to the performance, and the others asked the subject to rate, on an 11-point scale, the "correctness" of the four attributions (ability, effort, task difficulty and luck) in explaining the success or failure of the performance on the presented word-search grid.

The completed word-search grids had been tested previously to ensure that there was a definite difference between the standards of the

successful and unsuccessful performances, and that there was none between the two success examples, and between the two failure examples.

The order of the 4 word-search tasks was randomized, as was the association between OVER-estimator and UNDER-estimator actor with the particular word-search grids.

Questionnaires: Two single page questionnaires were distributed at different times in the experiment. The first asked a number of questions intended to reinforce the subjects group membership and to make competition between the groups salient. It also asked subjects to indicate how hard they found the word-search task, and how well they thought they had performed. The second questionnaire asked the subjects to rank the four attributions in terms of how they would prefer others to explain their success and failure at a test or exam. There was also a question aimed at discerning whether the subject realized the group discrimination aspect of the experiment.

Examples of these materials are presented in Appendix B.

Procedure

Subjects were tested as a class during a school period. The dot clusters were projected onto a screen for approximately 10 seconds each, after which the subjects were asked to record their estimation of the number of dots contained in the pattern. After the 6 patterns had been completed, the responses were removed 'for marking'. They were told that people consistently under or over estimated the number of dots. On the basis of

their responses, they were given a code number and the group to which they belonged. In actual fact they were allocated to groups randomly.

While the 'marking' was in process, the subjects filled in an empty word-search. After 5 minutes this was removed and the first questionnaire distributed. The subjects were required to use their group membership code to identify their work throughout the stages of the study. This was intended as a means of reinforcing their group membership. After completion of the first questionnaire, the subjects were given the judgement task booklet. The use of this was carefully explained, and the use of the scales demonstrated. When this had been completed, the second questionnaire was distributed.

The study took approximately forty minutes.

Analyses

A Principal Components analysis was performed on all the attribution ratings. The factors which emerged from this analysis, and the marks allocated for the word-search performances were analysed using a split-plot 2 (Group membership of subject) x 2 (Ingroup or outgroup membership of author of evaluated product) ANOVA. The second factor is the repeated measure. The scores and attributions for the successful and unsuccessful performances were analysed separately.

5.1.3 Results

The ratings of the four explanations were subjected to a Principal Components Analysis. Two factors with eigenvalues greater than one emerged:

Table 5.1.1 Study 2: Principal Component Factors of the Attributions

	Factor I	Factor II	Communalities
Ability	-	0.623	0.446
Effort	-	0.803	0.697
Task	0.741	-	0.583
Luck	0.824	-	0.705
Eigenvalue	1.339	1.091	
% variance explained	33.5%	27.3%	

(Loadings of less than 0.25 have been replaced by '-')

The total percentage of the variance explained by the two factors was 60.8%, 33.5% explained by the external attribution factor and 27.3% by the internal attribution factor.

Locus and stability as orthogonal dimensions, as characterized Weiner *et al.*'s (1972) work, did not emerge. This analysis indicates that the internal causes (ability and effort) were used as a separate dimension from the external causes (task difficulty and luck). Thus the locus factors were clearly evident though not as a dimension. The stability dimension was not apparent.

The factor scores for these two factors, which will be termed external and internal respectively, were used in the subsequent analyses.

Intergroup Analyses

The distribution of the evaluation marks was strongly bimodal, indicating that the marks given for success and failure represented different

distributions. This necessitated separate analysis for positive and negative outcomes. For comparability, the analyses of the attribution factor scores were dealt with similarly. The means of all the dependent variables for both successful and unsuccessful performances are presented together in Table 5.1.3 overleaf. Table 5.1.2 presents a summary of the results of the ANOVAs. The full results of each variable are recorded in Appendix B.

Table 5.1.2 Study 2: Summary of the ANOVA Analyses

	Dependent Variables		
	Mark	Internal	External
<u>F Statistics for Effects: Success</u>			
Groups (A)	0.08	0.12	0.21
Judged Group (B)	3.76 ^b	0.63	0.56
AxB	0.71	1.54	0.17
<u>F Statistics for Effects: Failure</u>			
Groups (A)	0.12	0.23	0.01
Judged Group (B)	1.45	0.12	2.24
AxB	0.18	4.20 ^a	0.47

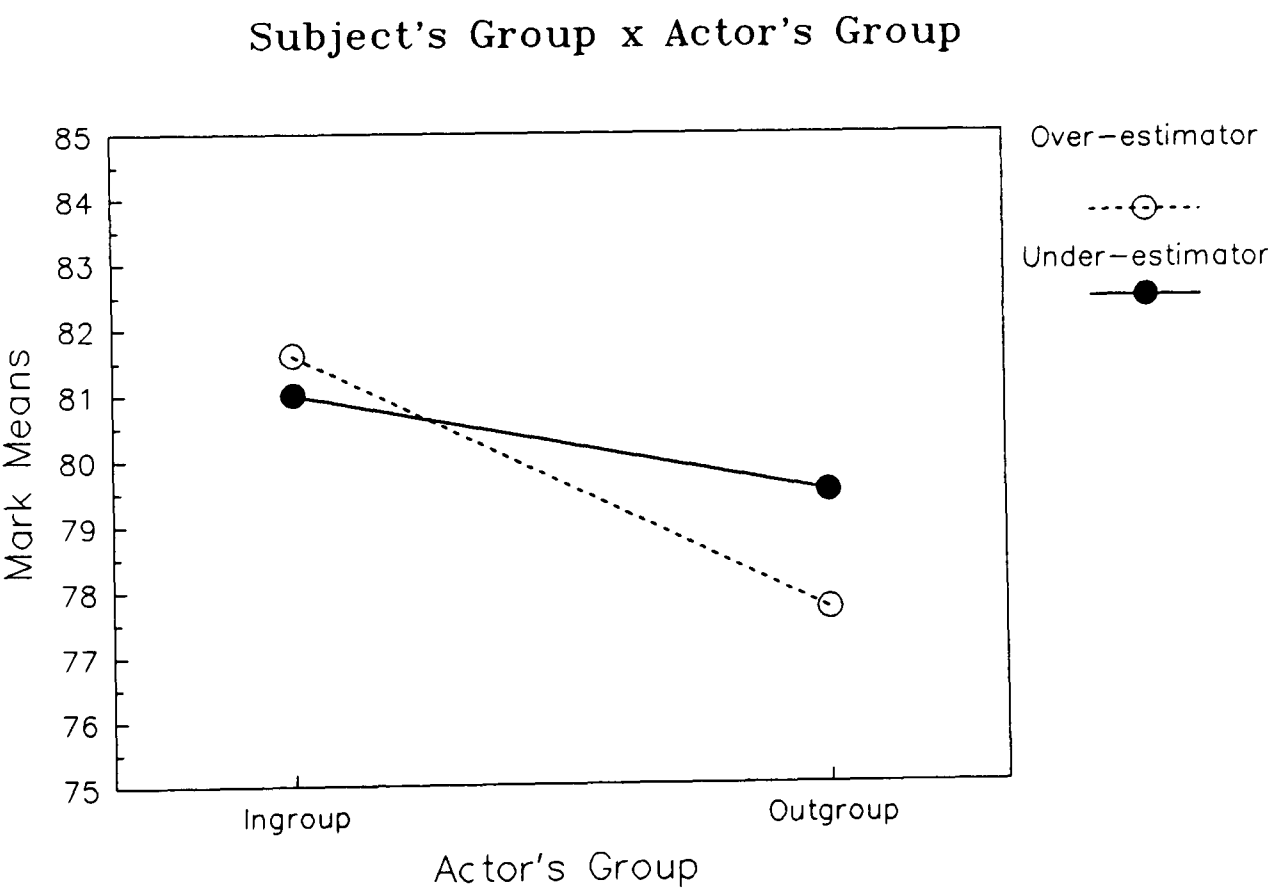
^a p<0.05
^b p<0.10

The full ANOVA tables may be found in Appendix B.

Marks Allocated for Successful Performance

The main effect for the judged group was almost significant ($F(1, 52)=3.76, p=0.058$), indicating that the marks given to the Ingroup members ($M=81.29$) were greater than those given to the Outgroup members ($M=78.61$). There was no difference between the responses of the Over-estimators and the Under-estimators, and there were no interaction effects.

Figure 5.1.1 Study 2: Marks for Successful Performance



Marks Allocated for Failed Performance

Although the means indicated a slight tendency to outgroup favouritism in the mark allocation for unsuccessful performances, this was far

from significant ($F(1, 51) = 1.45, p = 0.235$). No other effects were significant.

Internal Attributions for Success

The internal attributions for success were not affected by group membership, or the membership of the actor being judged.

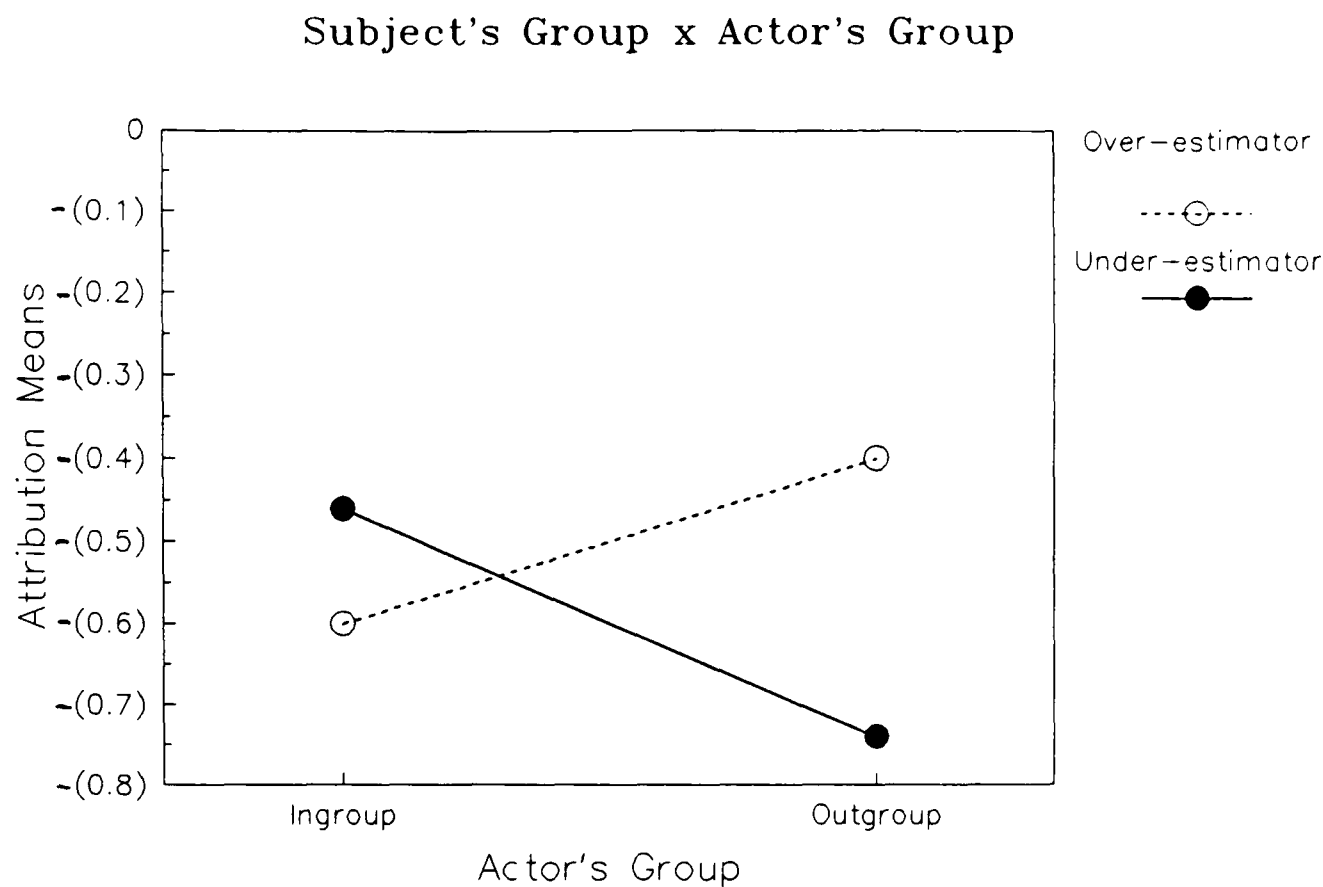
Internal Attributions for Failure

There was a significant interaction effect between the group membership of the subject and the group membership of the actor being judged ($F(1, 54) = 4.20, p = 0.045$). An analysis of simple effects was performed to locate the source of the effect.

Table 5.1.4 Study 2: Internal Attribution for Failure Analysis of Simple Main Effect

Source	SS	df	MS	F ratio	p
Groups at Ingroup	0.294	1	0.294	0.27	
Groups at Outgroup	1.616	1	1.616	1.49	
Error	117.085	108	1.084		
Bias at Over group	0.551	1	0.551	1.41	
Bias at Under group	1.161	1	1.161	2.97	0.091
Error	21.114	54	0.391		

Figure 5.1.2 Study 2: Internal Attribution for Failure



Despite the reasonably strong interaction effect ($p < 0.05$), the simple effects were rather weak. The subjects in the Under-estimator group tended to give stronger internal attributions (*i.e.* lack of ability and lack of effort) ($M = -0.46$) when explaining the ingroup actor's failure, than they did in explaining the outgroup actor's ($M = -0.74$) ($F(1, 54) = 2.97, p = 0.091$). This is in effect an outgroup favouritism response, contradicting the expectations of H3a. The Over-estimators do not differ in the internal attributions for ingroup and outgroup ($F(1, 54) = 1.41, p = 0.24$), though the means show a very slight tendency to ingroup favouritism.

External Attributions for Success

Neither the group membership of the subject, nor the membership of the judged actor affected the external attributions for the positive outcome. Interaction effects were also not present.

External Attributions for Failure

There was a tendency for subjects (of both groups) to give stronger external attributions in explaining their own group's failure ($M=0.085$) than the outgroup's ($M=-0.095$) ($F(1, 54)=2.24, p=0.140$).

Relationship between Discrimination and Attributions

The above analyses demonstrated that ingroup bias was found when allocating marks to successful word-search tasks, but not to unsuccessful performances. Bias in the attributions did not mirror the same pattern. No bias in internal attributions for success was found, and there was a slight tendency for outgroup favouritism in internal attributions for failure on the part of subjects in the Under-estimator group. The use of external attribution for failure followed the predicted pattern for ingroup bias - the failure of the ingroup actor was attributed more to external attributions (difficult task and bad luck) than the outgroup actor.

However, a more direct link between bias in marks and in attributions is required. To this end Pearson Product Moment correlations were performed.

Bias in marks were calculated by subtracting the marks allocated for the outgroup member from those allocated to the ingroup member. Similarly, the bias in attributions were found by subtracting the factor score applicable to the outgroup member from that for the ingroup member. The marks bias was correlated with the bias in the internal and external attributions for success and failure respectively.

Table 5.1.5 Study 2: Correlations between bias in Mark Allocation and Bias in Attributions

	Success		Failure	
	Internal	External	Internal	External
Marks for Success	0.540 54 p = 0.000	-0.044 54 p = 0.751	-	-
Marks for Failure	-	-	-0.262 53 p = 0.058	0.301 53 p = 0.028

(2-tailed tests of significance)

Bias in marks and bias in internal attributions for the positive outcome was strongly correlated ($r=0.540, p=0.000$), indicating that people who gave higher marks to the ingroup actor than outgroup actor, also gave stronger internal attributions to the ingroup. It had been expected that subjects who displayed ingroup bias in mark allocation would tend to attribute outgroup success more to external factors (task easiness and good luck) than the ingroup. However, the correlation between bias in marks and external attributions for success was negligible ($r=-0.044, p=0.751$).

Bias in marks for the failed performances was negatively correlated with the bias in internal attributions ($r = -0.262$, $p = 0.058$). Hence, the subjects who gave higher marks to the ingroup, also explained the outgroup actor's failure more by the internal explanations of lack of ability and effort than they did the ingroup actor's failure. Bias in the allocation of marks was also positively correlated with bias in external attributions ($r = 0.301$, $p = 0.028$). Subjects who gave more marks to the ingroup, also explained the ingroup actor's failure more by external attributions than they did the outgroup actor's.

Responses to questionnaire

Question No. 3 of the first questionnaire, asking

"If we were to have a competition between the UNDER and OVER - ESTIMATOR groups, to see which group is better on the word-search task, which of these three outcomes do you think would result?"

- (a) There will be no difference in the scores of the two groups.*
- (b) The OVER -estimator group will do better.*
- (c) The UNDER -estimator group will do better."*

was intended primarily to make group competition salient. The responses to this question were:

37 thought there would be no difference between the groups;

14 said they thought the Over-estimators would do better than the Under-estimators; and

5 said that Under-estimators would do better.

Thus, only 34% of the subjects thought that one group would do better than the other. Yet, of this proportion, the vast majority predicted the Over-estimators would do best. This could imply that an implicit status dimension had been established through the terms "over" and "under".

Question No. 3 of the second questionnaire asked the subjects to rank in order of preference the explanations (ability, effort, task easiness/difficulty, luck) they would like used to explain their personal success at a test or exam. Question No. 4 required the subjects to do the same for their personal failure.

Table 5.1.6 Study 2: Preference for Attributions Applied to Personal Success and Failure

Explanation	Mean ranked preference	
	Success	Failure
Ability	1.8	3.1
Effort	1.5	2.5
Task Easiness/Difficulty	3.3	1.9
Luck	3.3	2.4

(1 = most preferred, 4 = least preferred)

The preferences for the explanations of personal success were clearly split along internal and external causation lines. However, the preferences for explanations for failure were not as definite. The external cause, task difficulty, was the most preferred and the internal cause, lack of ability, least preferred. Surprisingly, lack of effort and bad luck received equivalent

ranking. This may indicate that people need to feel they have some control over their failure as well as their success.

In the question (No.2 of the second questionnaire) which attempted to ascertain whether the subjects perceived the purpose of the study, only one of the subjects indicated that s/he thought that group membership was supposed to influence their responses.

5.1.4 Discussion

A tendency towards intergroup bias in the allocation of marks was found in the case of the positive outcome, but not for the negative outcome. No bias was found in the attributions, with the exception of internal attributions for failure. One group, the Under-estimators attributed more importance to the internal causes for the failure of the ingroup actor than the outgroup actor, an essentially outgroup favouritism response. Thus, there was some support for Hypothesis 1, but none for Hypotheses 2a, 2b, 3a, and 3b.

Hypothesis 4 also received some support, as there was evidence that bias in mark allocations was mirrored by a concomitant bias in attributions. However, as the amount of ingroup bias for both marks and attributions was weak or not significant, it is difficult to argue that this is evidence of attributions being used in a group-serving manner.

The results may indicate that a status hierarchy had been accidentally established. The finding that of the 19 people who said they expected one group to do better than the other, 14 (74%) expected the Over-estimators to

do better, together with the responses of subjects in the Under-estimator group which suggest the outgroup favouritism characteristic of a low status group, may imply that a slight status discrepancy had been introduced by the names of the groups. The term "over" may have more positive connotations than the term "under".

The experimental conditions also presented a problem. The subjects were tested as a class, sitting in close proximity to one another. It was observed that during the experiment, despite strict instructions to keep their estimations of the dot clusters and their subsequent group membership confidential, some children did compare these. This may have led to a disbelief in their group allocations, and hence a lessening of group identification.

The ambiguity of the results, together with the suggested design problems, led to the decision that the study should be replicated. This replication is reported below.

5.2 Study 3: Bias in Intergroup Product Evaluation and Causal Attributions in Minimal Groups - Trial 2

This study consisted of a basic replication of the previous experiment, with slight changes aimed at correcting the possible inadvertent establishment of a status hierarchy that may have occurred. The sample base was also broadened. A different school was used, which catered for a lower class community than did the first school.

5.2.1 Predictions

The same hypotheses as made for Study 2 apply.

5.2.2 Method

Subjects

Forty-four schoolchildren (27 girls and 17 boys) aged between 14 and 15 years were the subjects of this study. The subjects consisted of two classes from an East Oxford comprehensive school.

Material

These were identical to those of Experiment 1, with two exceptions. The Dot-Estimation task was replaced by the Reversing Images task, and the two groups produced by the task were termed Sigma and Theta.

Reversing images task: Five different examples of reversing images were copied from Attneave (1971) on to overheard projection sheets. These pictures could be construed as two images. The 5 images were (i) duck or rabbit; (ii) goblet or two face profile; (iii) devils or angels; (iv) old woman or young woman; (v) horizontal or vertical arrows. Each image was shown for 10 seconds, and the subjects instructed to record which they personally found to be dominant. The subjects were told that the pattern of dominance identified two groups, who differed in their mode of perception. Copies of

these images are presented in Appendix B.

Procedure

This followed the same procedure as used in Experiment 2a.

5.2.3 Results

The ratings of the four explanations were, again, subjected to a Principal Components Analysis. Two factors with eigenvalues greater than one emerged:

Table 5.2.1 Study 3: Principal Component Factors of the Attributions

	Factor I	Factor II	Communalities
Ability	-	0.886	0.824
Effort	-0.461	0.707	0.713
Task	0.778	-	0.605
Luck	0.763	-	0.583
Eigenvalue	1.439	1.286	
% variance explained	36.0%	32.3%	

(Loadings of less than 0.25 have been replaced by '-')

The two factors together explained 68.3% of the variance in responses, 36% being explained by Factor I which was essentially an external attribution factor, while Factor II, the internal attribution factor explained 32.3%. Interestingly, effort loaded negatively on to Factor I, indicating that

subjects saw effort as being expressly opposed to task easiness/difficulty and luck. The second dimension of stability was again not in evidence.

The two sets of factor scores, external and internal, were used in the subsequent analyses.

Intergroup Analyses

As with the first experiment, 2 (Theta/Sigma) x 2 (Ingroup/Outgroup) split-plot Analyses of Variance were used to analyse the data. The first factor was the between factor, and the second the within factor. The bimodal nature of the distribution of the marks allocation again necessitated the separate analysis of the success and failure data.

The means and standard deviations of the dependent variables are presented in Table 5.2.2, overleaf, and a summary of the analyses results presented in Table 5.2.3. The full results are provided in Appendix B.

Table 5.2.2 Study 3: Means and Standard Deviations of the Evaluation Marks, Internal and External Attributions

Group	Success		Failure	
	Ingroup	Outgroup	Ingroup	Outgroup
Theta	78.864 (9.408)	74.773 (12.839)	34.000 (10.014)	30.546 (10.523)
	0.492 (0.946)	0.517 (0.709)	-0.626 (0.957)	-0.278 (0.936)
	-0.439 (0.737)	-0.083 (0.841)	-0.126 (0.877)	0.101 (1.297)
	22	22	22	22
Sigma	73.955 (11.680)	76.318 (13.054)	33.182 (9.922)	32.727 (7.899)
	* 0.413 (0.805)	0.558 (0.960)	-0.486 (0.770)	-0.624 (0.917)
	* 0.102 (0.867)	0.392 (1.209)	-0.061 (1.095)	0.065 (0.890)
	22	22	22	22

(The standard deviations are the scores in parentheses).

- 1 Marks representing evaluation of the word-search performance.
- 2 Internal attribution (factor score) for the performance.
- 3 External attribution (factor score) for the performance.
- 4 Number of subjects in the cell.

* One of the subjects in the Sigma group failed to complete the questions concerning attributions for failure, hence the Internal and External Failure means consisted of only 21 scores, not 22.

Table 5.2.3 Study 3: Summary of the ANOVA Analyses

	Dependent Variables		
	Mark	Internal	External
<u>F Statistics for Effects: Success</u>			
Groups (A)	0.28	0.01	4.09 ^b
Judged Group (B)	0.28	0.65	6.70 ^b
AxB	3.88 ^c	0.33	0.07
<u>F Statistics for Effects: Failure</u>			
Groups (A)	0.07	0.19	0.00
Judged Group (B)	2.33	0.54	1.28
AxB	1.37	2.90 ^c	0.10

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

The full ANOVA tables may be found in Appendix B.

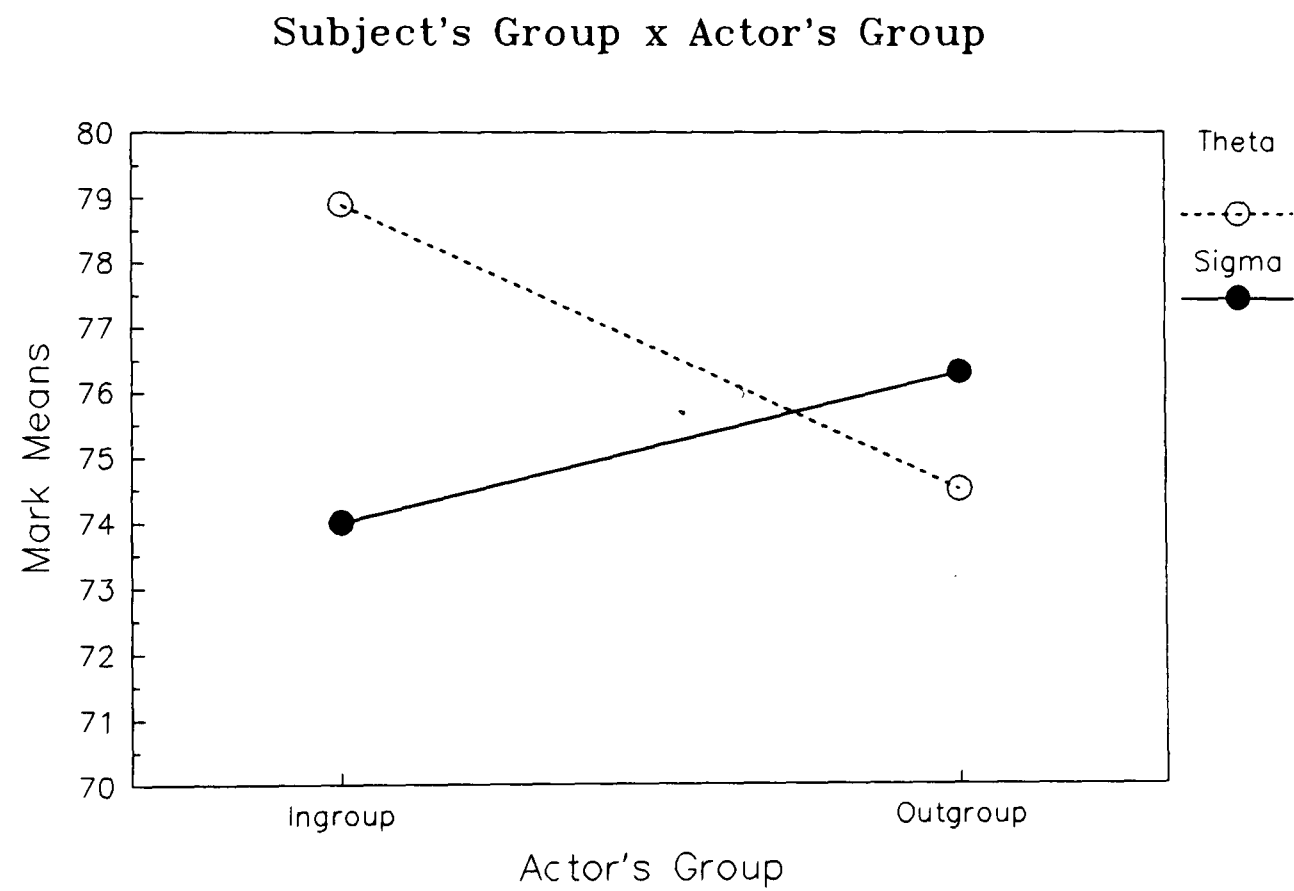
Marks Allocated for Successful Performance

The interaction between the groups and the judged group was significant ($F(1, 42) = 3.88, p = 0.056$). An analysis of simple main effects was performed to explore this further.

Table 5.2.4 Study 3: Marks Allocated for Success Analysis of Simple Main Effect

Source	SS	df	MS	F ratio	p
Groups at Ingroup	265.078	1	265.078	2.37	
Groups at Outgroup	26.266	1	26.266	0.24	
Error	9383.79	84	111.712		
Bias at Theta group	184.063	1	184.063	3.12	0.085
Bias at Sigma group	61.438	1	61.438	1.04	
Error	2481.444	42	59.082		

Figure 5.2.1 Study 3: Marks for Successful Performance



The analysis of simple main effects indicated that subjects in the Theta group gave more marks to members of their own group than to the outgroup ($F(1, 42)=3.12, p=0.085$). Subjects in the Sigma group did not favour the ingroup. These means indicate that there was a slight tendency to

outgroup favouritism, but this was far from significant.

Marks Allocated for Failed Performance

Although the means indicate a slight tendency to ingroup favouritism in the mark allocation for unsuccessful performances, this was not significant ($F(1, 42)=2.33, p=0.134$). No other effects are significant.

Internal Attributions for Success

The internal attributions for success were not affected by group membership, or the membership of the actor being judged.

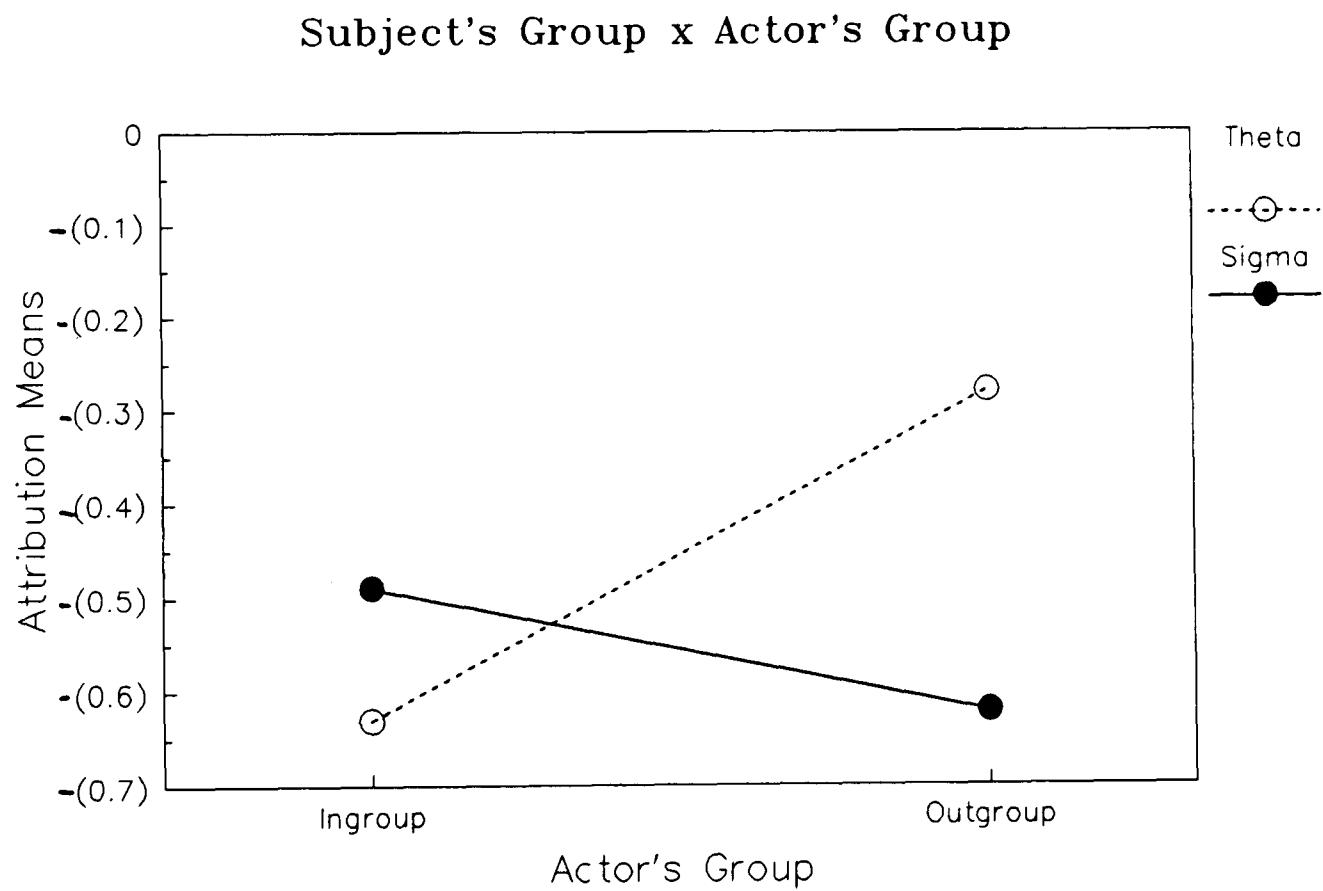
Internal Attributions for Failure

The interaction effect between the group membership of the subject and the group membership of the actor being judged tends towards significance, ($F(1, 41)=2.90, p=0.096$). An analysis of simple effects was performed to locate the source of the effect.

Table 5.2.5 Study 3: Internal Attributions for Failure Analysis of Simple Main Effect

Source	SS	df	MS	F ratio	p
Groups at Ingroup	0.211	1	0.211	0.19	
Groups at Outgroup	1.286	1	1.286	1.17	
Error	89.777	82	1.095		
Bias at Theta group	1.332	1	1.332	3.04	0.089
Bias at Sigma group	0.200	1	0.200	0.46	
Error	17.958	41	0.438		

Figure 5.2.2 Study 3: Internal Attribution for Failure



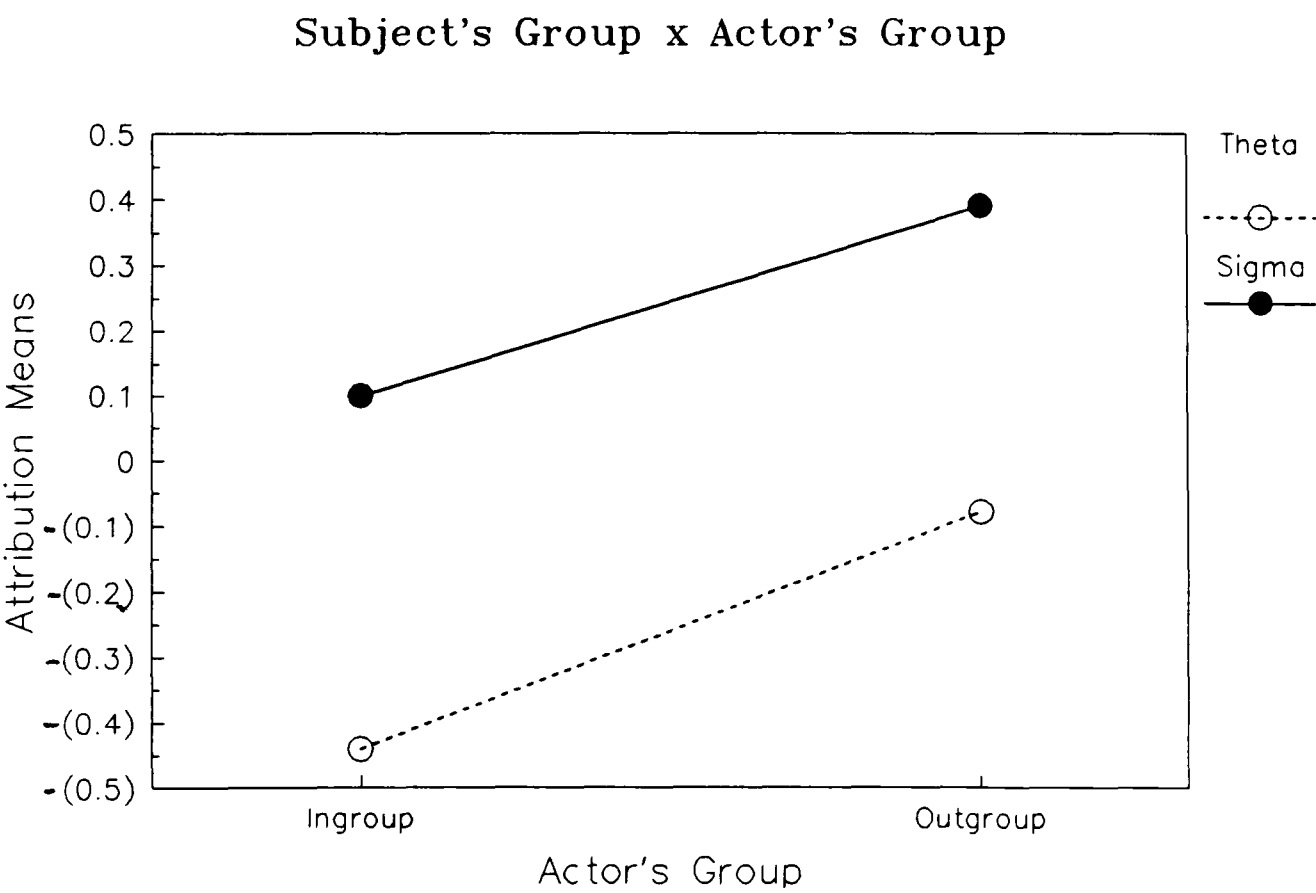
The subjects in Theta group tended to give stronger internal attributions (*i.e.* lack of ability and lack of effort) ($M = -0.28$) when explaining

the outgroup actor's failure, than they did in explaining the ingroup actor's ($M = -0.63$) ($F(1, 41) = 3.03, p = 0.089$). This is an ingroup favouritism response. The subjects in Sigma did not differ in the internal attributions for ingroup and outgroup ($F(1, 41) = 0.46, p = 0.50$).

External Attributions for Success

Both the main effects: the group membership of the subject, and the membership of the judged actor affected the external attributions for the positive outcome. Subjects in the Sigma group gave higher external attributions (to both the ingroup and the outgroup) than did subjects in Theta group. Stronger external attributions were made by all subjects for the success of the outgroup than of the ingroup. This is an ingroup favouritism response.

Figure 5.2.3 Study 3: External Attributions for Success



External Attributions for Failure

Neither the group membership of the subject, nor the membership of the judged actor affected the external attributions for the negative outcome.

Correlations between bias in Mark Allocation and Bias in Attributions

Pearson Product-Moment correlations were performed between the bias in mark allocation and attributions, for the positive and negative outcomes respectively.

Table 5.2.6 Study 3: Correlations between Bias in Mark Allocation and Bias in Attributions

	Success		Failure	
	Internal	External	Internal	External
Marks for Success	0.406 44 p=0.006	-0.281 44 p=0.065	-	-
Marks for Failure	-	-	-0.252 43 p=0.102	0.293 43 p=0.057

(2-tailed tests of significance)

Bias in marks and bias in internal attributions for the positive outcome were strongly correlated ($r=0.406, p=0.006$), indicating that people who gave higher marks to the ingroup actor than outgroup actor, also gave

stronger internal attributions to the ingroup. Bias in marks for the successful performance tended to be negatively correlated with the bias in external attributions for success ($r = -0.281$, $p = 0.065$), implying that subjects who gave the ingroup higher marks for the positive outcome also attributed this success less to external factors than the outgroup.

When the outcome was failure, there was a slight tendency for bias in marks to be negatively correlated with biased use of internal attributions for failure ($r = -0.252$, $p = 0.102$). Subjects who gave the ingroup higher marks for the failed performances also attributed the ingroup's failure less to internal factors (lack of ability and lack of effort) than the outgroup's failure. Bias in marks for failure was positively correlated with bias in external attributions ($r = 0.293$, $p = 0.057$). Subjects who gave more marks to the ingroup, also explained the ingroup actor's failure more by external attributions than they did the outgroup actor's.

Responses to the questionnaires

When asked for their prediction as to the outcome of a competition between Sigma and Theta members on the word-search task (Question No. 3 of the first questionnaire)

31 thought there would be no difference between the groups;
5 said they thought that Sigma would do better than Theta; and
6 said that Theta would do better than Sigma.

In this study, only 26% of the subjects predicted one group would do better than the other, and there was no definite preference as to which group would do better.

The means of the preference rankings for personal success and failure (Questions No. 3 and 4 of the second questionnaire) were:

Table 5.2.7 Study 3: Preference for Attributions Applied to Personal Success and Failure

Explanation	Mean ranked preference	
	Success	Failure
Ability	2.2	2.8
Effort	1.4	2.2
Task Easiness/Difficulty	3.2	2.3
Luck	3.3	2.8

(1 = most preferred, 4 = least preferred)

Again, the preference for internal explanation in explaining personal success is apparent. It is to be noted that the difference in preferences for failure are not as clear as for success, nor as clear as the distinctions made by the subjects in Experiment 2 ..

None of the subjects indicated that they thought that group membership was supposed to matter to their responses.

5.2.4 Discussion

The results of this study largely duplicated that of the first experiment. There was ingroup favouritism in the allocation of marks for the positive outcome, though in this study this manifested in only one of the groups (Theta). The other group (Sigma) tended to show outgroup favouritism. No ingroup bias was apparent in the allocation of marks for failure.

Again there was no bias in the internal attributions for success, but in this study there was ingroup favouritism in the internal attributions for failure, amongst group Theta. These subjects placed more emphasis on the internal causes (lack of ability and lack of effort) in explaining the failure of the outgroup actor than the ingroup actor.

Contrary to the previous study, the hypothesized bias in external attributions for success did emerge - subjects in both groups attributed more importance to the external factors (task easiness and good luck) in explaining the success of the outgroup actor than of the ingroup actor. There was no favouritism effect in the external attributions for failure.

The correlations did support the hypotheses, though some were statistically weak.

As with the previous experiment, more ingroup favouritism was exhibited by one of the groups (Theta). Post-experimental verbal questioning of the subjects elicited that subjects were familiar with the word "theta" from their mathematics, but had not heard "sigma" used. This might indicate that, once again, evaluative connotations associated with the name had been accidentally introduced.

5.3 General Discussion of Experiments 2 and 3

The results of the two studies provide weak support for the central proposition that categorization into ingroup and outgroup will be sufficient to elicit the use of attributions in a group-serving fashion.

The intergroup discrimination effect, as measured by the allocation of marks, was similarly weak. While the effect for the successful outcome was found in both studies, it was only marginally present in the first experiment, and evident in only one of the groups in the second. Discrimination in mark allocation was completely absent for the unsuccessful outcome. Thus Hypothesis 1 was only partially verified.

The hypotheses with respect to the attributions received equivocal support. Hypothesis 2a, which predicted that higher attribution to the internal causes (ability and effort) would be made for the success of the ingroup actor than the outgroup actor was not confirmed by the results of either study. Hypothesis 2b, which predicted higher attributions to the external causes (task difficulty and luck) for the outgroup actor's success than the ingroup actor, was confirmed in the second experiment.

Higher attributions to the external causes was expected for the failure of the ingroup actor than the outgroup (Hypothesis 3b). This was not found in either study. Hypothesis 3a, which predicted that more emphasis would be placed on the internal causes to explain the failure of the outgroup actor than the ingroup was confirmed in the second experiment, though not in the first.

Hypothesis 4, which proposed a relationship between bias in evaluations and bias in the causal attributions, received the most clear-cut support. The evaluative responses, whether favouring the ingroup or outgroup, were linked to a similar pattern of explanations. Thus, while this indicates that attributions are used in the same manner as evaluation discrimination, the effect of minimal group categorization in eliciting intergroup favouritism was not definitive.

The lack of discrimination in the mark allocation for the failed word-searches was not altogether surprising, as numerous studies have indicated that ingroup favouritism in evaluation of group products is dampened by failure (Bass and Duntzman, 1963; Worchel, Lind and Kaufman, 1975). However, the weak effect for the successful outcome was unexpected. The manifestation of discrimination in minimal group experiments has been so frequently demonstrated, that it was intended as a yardstick for the bias in the attributions. This raises the question of why this study failed to demonstrate the effect. Comparing the methodology of the standard experiments (*e.g.* Tajfel *et al.*, 1971) with that of this study, a number of differences are noted.

Firstly, as discussed previously, the present study required subjects to assess a concrete product, whereas in the standard study, subjects are merely required to allocate points (or money) to ingroup and outgroup members. The technique of asking subjects to assess the products of their own and other groups has been used frequently, but generally amongst existing social groups (Deschamps and Doise, 1978; Turner and Brown, 1978) or of face-to-face groups (Blake and Mouton, 1962; Hinkle and Schopler, 1979; Rabbie

and Wilkens, 1971; Sherif *et al.*, 1961), but has not been used within the minimal group paradigm.

Hinkle and Schopler (1986) suggest that because research on the bias of intergroup performance evaluation has typically made use of intragroup interaction (*e.g.* to create the product to be evaluated), it has been seen as incompatible with the minimal group paradigm. However, the numerous instances of "real-life" discrimination in the evaluation of performances of groups such as race and gender, clearly indicates that there is a need to analyse the issue of intergroup performance evaluation within the framework of Social Identity Theory.

Secondly, most of the minimal group experiments have tended to use the matrix format (*cf.* Tajfel *et al.*, 1971; Turner, 1978) as the means by which points were allocated, rather than the free format method used in this study. This may have a number of effects: (a) the matrix format could be argued to "cue" the subject for discrimination, since the pairs of numbers range from the widely discrepant to the very little. For instance, this study's free format method is analogous to the standard favouritism matrix, which measures the pull of ingroup favouritism on fairness. This matrix does not provide a pair of equal numbers which would allow for total fairness whereas the free format method does. The second way in which the matrix format might effect the results, is statistical. The matrix curtails the amount of variation possible, since it provides in essence a 14 point (from -7 to +7) measure of bias. The amount of variation possible in the open format is much wider, since the subjects can allocate marks from 0% to 100%.

Another possible reason for the weak categorization effect was the context of the experiments. They were conducted within a classroom setting,

without the cubicles and other measures to ensure the anonymity of group membership described in the traditional minimal group experiments. Although repeatedly exhorted to keep their group membership secret, the arrangement of the classrooms made it easy for surreptitious exchanges to take place. This would have led to a lessening of group identity.

A further problem with these studies was the finding, in each case, that the two groups responded differently on some of the variables, one group showing what may be construed as less group identification than the other. In the first experiment it was suggested that an inadvertent status dimension had been established through the use of the word "Over" relative to "Under". In the second study, the report that the subjects were familiar with the term "Theta" but not "Sigma" may have had an influence on group identification.

The fact that group product evaluation has not previously been used as a measure within the minimal group paradigm means there is no evidence that categorization will have the same discriminatory effect as with the simple allocation of points. It is possible that the task of evaluating a product may either become compelling in itself and hence distract attention away from the group membership of the author(s), or it may reinforce the norm to fairness.

In conclusion, it would appear that these experiments have not provided decisive evidence that group-serving attributions occur in minimal groups. However, since there was little evidence of intergroup bias in the behavioural response (product evaluation), this does not mitigate against the central proposition. In view of the exploratory nature of the experiments, the

weak evidence of group-serving bias in the attributions will be taken as encouraging, as in particular, is the finding that the pattern of biases in the evaluation and attributions are correlated. However, these experiments do reveal that more work on the bias in product evaluation is required.

CHAPTER 6

CAUSAL ATTRIBUTIONS AND ORDINARY EXPLANATIONS

6.0 Introduction

The next section of the thesis turns to 'real' social groups, and presents a series of studies which investigate the basic hypothesis that group-serving attributions are influenced by the intergroup perception factors (perceptions of the stability and legitimacy of the group status hierarchy). In Chapter 7, the effect of these factors on attributions for actions, outcomes and for intergroup inequality is investigated; and in Chapter 8, their effect on attributions of blame for a crime is considered. Two types of social groups are used in these studies; race groups (black and white) and gender groups (men and women) in South Africa. In each case, the traditional vignette methodology is used.

In the vignettes which encompass attributions for actions and outcomes, the actors consist of hypothetical individuals who belong to one or other group, the group identification being implicit in the name used. In the social issues vignettes, instances of inequality experienced by the groups as a whole are presented for explanation.

Most of the studies on intergroup attributions reviewed in Chapter 4 tend to focus on the effect of intergroup bias in the relative use of internal and external causal attributions (eg. Greenberg and Rosenfield, 1979;

Hewstone *et al.*, 1982; Taylor and Jaggi, 1974). For the studies in Chapter 7, it was decided to develop original materials which were not constrained by causality or the locus dimension, but to use more general explanations that could convey bias in evaluation. To support this decision, a brief discussion on the recent critiques on the nature of causal explanations within attribution theory is made. Further, since blacks and whites in South Africa represent different cultural as well as status groups, it was necessary to ensure that the vignettes used, and the explanations presented were meaningful for both groups. This inter-ethnic factor touches on a further debate, on the issue of cross-cultural attributions, which is also briefly discussed below.

This chapter, which is essentially a pilot for Chapter 7, presents the process whereby 12 (4 action, 4 outcome and 4 social issue) vignettes, with appropriate explanations were selected for use in Studies 4 and 5.

6.1 Critiques of Attribution Methodology

6.1.1 The Internal-External Dichotomy

In much of attribution research, the causal explanations are usually stipulated in terms of internal factors (characteristics pertaining to the actor) and external or situational factors (referring to environmental elements). This 'fundamental' dichotomy stems from the writings of Heider (1958), though, as Hewstone (1989) points out, he did not use the concept of 'internality' consistently. At times internal factors were taken to include such

features as ability, effort, intention, motivation, whereas at others it was used in referring to dispositions or personality traits. Critiques on attribution theory's preoccupation with the internal-external dimension have included issues such as (i) whether these attributions do represent a single dimension; (ii) whether internal and external attributions are used independently of each other; (iii) the constitution of internal and external attributions; and (iv) the significance of the 'fundamental attribution error':

The internal-external distinction has been interpreted as implying that the internal and external attributions represent bipolar opposites of a single dimension. Thus, the more likely the attribution to internal factors, the less likely the attribution to external factors, and *vice versa*. However, a number of problematic assumptions are implicit in this conceptualization.

The first difficulty with this hydraulic assumption arises from empirical data. When internal and external explanations are presented independently, and subjects' endorsement of them correlated, the anticipated perfect negative correlation has not emerged. Taylor and Koivumaki (1976) found a correlation of -0.14 in their study; Furnham, Jaspars and Fincham (1983) found a correlation of -0.48; Lalljee *et al.* (1982) found correlations ranging from -0.3 to -0.7. While this latter result is considerably higher, it does not validate the proposition of unidimensionality, and has resulted in the call for separate measures of these factors (Solomon, 1978).

Also assumed in this internal-external dichotomy, is the notion that people make single explanations, of one type or other. It is now emerging that single causes are, in fact, rare and that given the opportunity, "laypeople" tend to give multiple causes covering both internal and external dimensions.

Moreover, this tendency is exaggerated when the circumstance to be explained is unfamiliar or the event (or behaviour) is unexpected or extreme (Antaki, 1985; Cunningham and Kelley, 1975; Lalljee, Watson and White, 1982, 1983).

The issue of what constitutes an internal or an external explanation is the subject of considerable controversy. The role of dispositions as internal causation has been the topic of extensive debate (*cf.* Fletcher, 1984). Central to this debate is the question whether internal causation is constituted by attributions of dispositions alone. Numerous researchers have contended that internal causation is broader than trait attributions (Hewstone, 1989; Lalljee, 1981; Ross and Fletcher, 1985). However, it has also been suggested that the contents of the categories, internal and external causes, are so expansive, that the distinction between them tends to become blurred. Further, it has been argued that situational causes frequently contain an underlying dispositional cause (Ross, 1977). The example provided to illustrate this is the explanation "Jack bought the house because it was secluded" (Ross, 1977; p.176), which would be taken as a situational attribution, yet clearly contains an allusion to Jack's personality.

The internal-external distinction is particularly significant for the concept of the "fundamental attribution error". As discussed in Chapter 4, this tendency of the layperson to (mistakenly) attribute the cause of the actor's behaviour to internal, dispositional causes, and to underrate the role of situational factors; has been the focus of a considerable amount of attributional research. It has been disputed that situational explanations are indeed more accurate than dispositional ones, and the argument made that

laypersons are equally likely to make errors in attributing causes to external factors (Funder, 1982). However, this position still accedes to the essential internal-external dichotomy. If, as implied previously, there is no clear-cut distinction between the two types of explanations, the predominance of dispositional causes may tell us little about where people see the locus of causation. But, as Antaki (1988) suggests, it may tell us more about what the respondent is attempting to communicate with the attribution.

Emerging from the above discussion, is the question whether the dichotomy between internal and external causes has not been misguided. The supposition that internal and external causes are diametrically related has been disputed; and there are indications that the layperson's explanations contain both elements, either explicitly through providing multiple explanations, or implicitly through intrinsic extensions between the two. Finally, the lack of clear theoretical delimitation between the concepts diminishes their usefulness in understanding the nature of naive explanations.

6.1.2 The Predominance of Causal Explanations

Traditional attribution theory has focused entirely on causal explanations, a feature that has been criticized by numerous authors. These challenges have centred primarily around the controversy of whether causal explanations are a 'natural' phenomenon or a creation of attribution theorists, and the issue of what constitutes a causal explanation.

The question of whether the layperson does produce causal explanations in normal discourse was addressed by Weiner (1985). He

reviewed a number of studies which researched natural explanations occurring in newspaper articles, in unobtrusive conversation recordings and in open-ended questions, and concluded that causal explanations did occur spontaneously, though numerous other noncausal explanations were also present. Weiner (1985) also noted that causal explanations were particularly elicited by unexpected events and nonattainment of goals. A recent study by Bohner *et al.* (1988), however, failed to confirm the increase in causal reasoning after unexpected events, but they did find evidence that when faced with an adverse evaluation of their performance, subjects experienced a negative mood state and engaged in heightened causal reasoning.

At a theoretical level, there have been accusations that attribution theorists have been guilty of circularity - they have specified the phenomena they wish to find and have used methodologies which only detect this phenomena (Antaki, 1988; Bem, 1972; Buss, 1978; Enzyle and Schopflocher, 1978). This criticism is elegantly articulated by Buss (1978, p. 1312):

In explaining explanations, attribution theorists have uncritically and unconsciously projected their own (causal) explanatory self-image onto laypersons. In this way, attribution theorists have fallen victim to the ideology of causality.

The distinction between causes and reasons is a debate that continues to rage with reference to attribution theory (Lalljee, 1981; Locke and Pennington, 1982; McClure, 1984). Buss (1978) argues that causes are the explanations which explain what generates change, while reasons explain why the change takes place. He further argues that occurrences (events over which the actor has no volition) may be explained with causes by both the

actor and observer. Actions, on the other hand, is explained with reasons only by the actor, whereas the observer may use either reasons or causes. This thesis has received some empirical support. Hinkle and Schmidt (1984) found that actions were explained by actors primarily in terms of reasons and by observers in terms of causes, whereas occurrences were explained primarily in terms of causes by both actors and observers. However, it must be pointed out that 'primarily' implies that a 'greater proportion' not 'exclusivity', which questions whether Buss's argument can be taken in as definitive a manner as implied in his statements. Locke and Pennington (1982) point out that Buss (1979), himself, acknowledges that actors are also capable of providing causal explanations.

At a philosophical level, much of the argument centres around the definition of what is a cause and what is a reason. If the definition of cause implies that the behaviour in question is an inevitable consequence of the cause, in the sense that a marionette's limb will move if a certain string is pulled, then that cause would either be so obvious as to not be worth mentioning (such as explaining a person walking as the function of certain muscular contractions) or would be so complex and intrinsic as to not be available to either the actor or observer (for example, an action may be explicable in terms of past experiences in a person's childhood).

Reasons, with their teleological implications, are frequently seen as being used as justifications or rationalizations. However, Locke and Pennington (1982) argue that reasons may equally function as true causes in the sense of motivating behaviour. Without that motivation, the behaviour would not occur. It is beyond the scope of this thesis to thoroughly explore

the reason/cause debate, but it is clear that both are used in the verbalizations of the layperson, and no decisive argument exists for the superiority of one or the other as 'true' explanations.

The arguments contained in the latter two sections support the decision that there were no compelling reason to use internal or external causal explanations in the attribution studies. The lack of clarity in the definitions of these concepts, and the indications that they do not necessarily reflect 'natural' thought processes implies that little would be gained by restricting the explanations to these categories.

6.1.3 The Culture Delimitations of Causal Attributions

The controversy about the cultural specificity of attribution theory is of particular relevance here, in view of the inter-ethnic nature of this thesis. Bond (1983) argued that concepts and constructs implicit in many of the attribution theories may have no meaning in non-Western cultures. While many authors would not go so far as to propose such a deep disjuncture between cultures, a number of studies have noted national, ethnic and cultural differences in the use of attributions.

Cross-cultural diversity has been noted most particularly in the attribution of dispositions to actors at the expense of contextual factors. The North American "layperson" attributes more importance to dispositional attributions than do non-Western laypeople. Stephan (1977), reviewed previously, found that his Anglo subjects used more dispositional attributions for positive actions than did Chicanos or Blacks. Miller (1984) notes a

number of references in which the relative emphasis on dispositional attributions by people from Anglo-Saxon cultures is argued: Levy (1973), Selby (1974, 1975), Shweder and Bourne (1982), Strauss (1973).

Work on cross-cultural attributions to outcomes, particularly academic achievement have tended to demonstrate more similarity than differences. The most popular methodology used in such studies has been to consider the classification of causes into stability, locus and (occasionally) controllability (Weiner *et al.*, 1972; Weiner, 1979). In general it appears that ability and effort are universally the most often quoted explanations for success and failure (Chandler *et al.*, 1981; Little, 1987; Louw and Louw-Potgieter, 1986), though the emphasis on the various causes differed in some of the studies. For example, Chandler *et al.* (1981) in a comparative study of 5 countries, the U.S., India, Japan, Yugoslavia and South Africa, found that while all the subjects tended to attribute most importance to effort followed by ability, contextual factors and luck in explaining success, and lack of effort in explaining failure, there were differences amongst the various countries. For instance, the Japanese subjects placed more emphasis on their lack of effort in explaining failure than the other countries, and the U.S. subjects placed less importance on contextual factors in explaining failure than success than the other subjects. Louw and Louw-Potgieter (1986) compared three ethnic groups (blacks, whites, Indians) in South Africa, and again found similar usage of causal categories, with different emphases placed on these by the different groups. For instance, it was noted that Black subjects tended to attribute more importance to contextual factors in explaining their successes than did the white and Indian subjects.

A number of interpretations have been made for cultural differences, which may be broadly classified along the deficit - difference dimension. On the deficit pole is the cognitive interpretation, which holds that there are differences in the cognitive capabilities of the attributors, stemming from their inability to abstract and classify in an appropriate manner. This has been applied to children rather than to non-Western adults, but the implication carries over.

On the difference pole, are interpretations which point to cultural differences in socialization practices as the basis of attributional variations. This interpretation holds that the socializing effects of schooling, urbanization, and other modern Western influences result in cognitive orientations which differ from those non-Western cultures. This socialization argument received support from a study by Guimond and Palmer (1990) in which it was found that explanations (person-blame versus system-blame) made for social issues (poverty, unemployment, intergroup inferiority) were found to change as a result of type of training at university. While there was no difference in the explanations of students in social science, engineering and commerce on entrance to university, by the third and fourth year there were significant differences in the attributions made by students from these faculties.

Miller (1984) extends the socialization interpretation to argue that cultural influences affect not only the socializing institutions but the implicit perception of the person and her/his role in society which in turn will account for the differences in attributions. This notion is similar in conception to that of Weber's (1930) link between the influence of religion and work habits.

Conversely, it has been argued that it is not so much cultural differences as socio-political differences that account for attribution distinctions. For instance, Louw and Louw-Potgieter (1986) interpreted the differences in the attributions made by their black, white and Indian subjects in terms of the social status and societal position of the groups rather than on cultural differences.

The above, brief review leads one to speculate that the notion of cultural differences in attributions may be something of a straw man. It should be noted that the texts which have emphasized the difference in dispositional attributions are largely ethnographic, and with the exception of Miller (1984) did not apply systematic tests of attributions. Bond (1983) argued that although other cultures and groups are able to produce causal attributions in the "Western-framework" when asked, these would not necessarily occur in 'natural' explanations. However, this argument becomes tenuous in the light of our previous discussion which implies that causal attributions are not particularly 'natural' for Western laypeople either. This does not imply that cultural differences may be ignored without consideration, but merely places a note of caution in assigning too much importance on perceived differences when the validity of the phenomenon within the parochial population is in doubt.

In conclusion, it appears that this review indicates that little confirmation for purely cultural diversity in attributions exists. Firstly, the contention that causal attributions are 'natural' and typical of Western laypeople has been brought into doubt, and secondly cross-cultural differences in attribution may equally be explained by experiential factors

due to the socio-economic position of the groups as by culture. However, the fact that there are differences in attributions made by groups embodying these distinctions alerted this author to the need to ensure that there is uniformity in the perceptions of the materials used by black and white South Africans.

6.2 The Development of Experimental Material

The two studies in this chapter were prompted by the above considerations. It was decided that the primary issue to consider was the nature of the population on which the materials would be used - blacks and whites in South Africa. As neither group could be taken as equivalent to North Americans, it seemed inappropriate to use vignettes that have been applied elsewhere. But predominantly, it was important to establish explanations that are common to both groups.

As the intended experiments were not designed to further knowledge into the nature of ordinary explanations and attributions, it was decided that the exact nature of the explanations was not directly relevant. Nor was it necessary to pursue the issue of the internal-external dichotomy.

The first study was thus aimed at finding vignettes that had relevance to both groups and elicited a variety of different explanations that were, broadly speaking, shared. A free-response format methodology was selected as most appropriate to achieve this aim. The second study was aimed at reducing the number of explanations to a manageable proportion and to

establish the relative social desirability implications of the explanations selected.

It must be emphasized that it is beyond the scope of this thesis to perform an in depth examination of the nature of ordinary explanations made by the two groups. In the first instance, there are considerable linguistic problems inherent in gleaning explanations from a sample whose first language is not English. No attempt was made to establish similarity of meaning or note semantic structures. It was left to the bilingual interviewers to report the explanations as they understood them. The construction of the classification systems was not intended to be tested, or compared to existing systems. Its purpose was to provide a quick method of sorting the explanations, and no attempt is made to claim that a reliable scheme has been devised.

6.2.1 Pilot Study 1: Selection of the Vignettes

6.2.2 Method

Subjects

One hundred and seventy-eight South African adults ('off the street') were interviewed in this study. This sample was comprised of 35 white males, 37 white females, 46 black males, 56 black females, 5 Indian males, 5 Indian females, 1 "coloured" male and 3 "coloured" females. Their ages ranged for 15 years to 77 years, the average being 33.9 years.

Materials

A number of vignettes pertaining to positive and negative actions, to positive and negative outcomes, and to social examples of inequalities that were relevant to both race and gender groups in South Africa were selected. In the outcome and action vignettes the actor was referred to as a set of initials, to avoid specifying race or gender.

The vignettes were divided into two questionnaires, so each subject had 24 to complete.

Action vignettes: These consisted of brief sentences describing the behaviour of a fictitious actor. Sixteen widely varying situations were devised, 8 describing positive behaviours and 8 describing negative behaviours. These are presented in Table 6.2.1, together with the terms used to abbreviate them:

Table 6.2.1 Action Vignettes

Code	Vignette
<i>Cha</i>	There was a collection box for a charity at the entrance of the shopping centre. A.B. went up and gave a donation of R5.
<i>Uni</i>	W.S. was active in the factory's trade union.
<i>Hwk</i>	W.M. was rebuked by the teacher for not doing the homework.
<i>Crp</i>	G.H. helped his neighbour harvest his crop of mealies.
<i>Log</i>	The log of wood was lying in the road. D.L. stopped and pulled the log to the side of the road.
<i>Sch</i>	R.T. did not send his son to school at all this year.
<i>Pty</i>	D.T. was invited to the party.
<i>Car</i>	The car was standing empty by the side of the road. J.S. went up to it and slashed the tyres with a knife.
<i>Stm</i>	J.B. invited the stranger into the house to shelter from the storm.
<i>Mee</i>	E.C. often went to political meetings.
<i>Try</i>	T.L. dropped the tray and broke a great deal of crockery.
<i>Dbt</i>	P.E. has been unable to pay his debts for over three months.
<i>Lft</i>	A.P. gave the hitchhiker a lift.
<i>Bil</i>	The customer brought the basket of shopping to the till. S.M. totalled the bill and overcharged the customer.
<i>Fam</i>	A.N. did not spend much time with his family.
<i>Wk</i> </	

Table 6.2.2 Outcome Vignettes

Code	Vignette
<i>Mes</i>	F.C.'s crop of mealies last year was the best in the district.
<i>Mef</i>	F.C.'s crop of mealies last year was the worst in the district.
<i>Prs</i>	T.P. received promotion at work.
<i>Prf</i>	T.P. failed to receive promotion at work.
<i>Tes</i>	Almost all of the children W.R. taught did well in Matric.
<i>Tef</i>	Very few of the children W.R. taught did well in Matric.
<i>Dis</i>	In his career as a scientist, J.S. made many important discoveries.
<i>Dif</i>	In his career as a scientist, J.S. did not make any discovery worth speaking of.
<i>Rus</i>	L.S. was selected for the school rugby team.
<i>Ruf</i>	L.S. was not selected for the school rugby team.
<i>Mas</i>	H.D. wrote his Matric exams in November. He achieved a B aggregate and was admitted into university.
<i>Maf</i>	H.D. wrote his Matric in November. He did not get sufficient marks for a Matric exemption so did not gain admittance into university.
<i>Ins</i>	R.A. went for an interview for a large company. The next day he was told that he had been given the job.
<i>Inf</i>	R.A. went for an interview for a large company. The next day he was told that he had not been given the job.
<i>Das</i>	J.S. entered a dancing competition and

Table 6.2.3 Social Issue Vignettes

Code	Vignette
<i>Laws</i>	Many of the laws and policies of the country benefit the men, not women.
<i>Lawr</i>	Many of the laws and policies of the country benefit the whites, not the blacks.
<i>Res</i>	Women are more likely to be made redundant, or to be unemployed than are men.
<i>Rer</i>	Blacks are more likely to be made redundant, or to be unemployed than are whites.
<i>Ims</i>	The image of women that one sees in the media (films, books, magazines, newspapers, t.v.) is usually less positive than that of the men.
<i>Imr</i>	The image of the black that one sees in the media (films, books, magazines, newspapers, t.v.) is usually less positive than that of the whites.
<i>Sps</i>	Men have more facilities for recreation, e.g. sports, than do women.
<i>Spr</i>	Whites have more facilities for recreation, e.g. sports than do blacks.
<i>Cos</i>	Women lack the self-confidence to try to enter fields that are dominated by men.
<i>Cor</i>	Blacks lack the self-confidence to try to enter fields that are dominated by whites.
<i>Pas</i>	Women receive lower pay than men, even when they are doing similar jobs.
<i>Par</i>	Blacks receive lower pay than whites, even when they are doing similar jobs.
<i>Pos</i>	Shopkeepers, civil servants, etc. often treat male customers more politely than they treat women customers.
<i>Por</i>	Shopkeepers, civil

Procedure

The subjects were approached by interviewers of the same race, and asked to complete the questionnaire. In the case of black subjects, if they preferred, they were allowed to respond verbally in Zulu which the interviewer would translate directly into English on the questionnaire.

a wide range of categories, and (iii) 2 of the 4 had to be positive and 2 negative. For the social issue vignettes, the second criterion alone was relevant, as it was inevitable that there would be differences between the races.

6.2.3 Results

Table 6.2.4 Content Analysis of Action Vignettes

Vignette Code	Total Number of Explanations	Number of Explanation Categories	Chi
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as positive behaviours, and by others as negative. With the latter two, probably because of the passive voice in which the vignettes were phrased, many subjects gave explanations which were not directed at the intended actor, but at subsidiary people in the situation - the teacher in "Hwk", and the friends in "Pty".

The best two of the positive behaviour vignette and of the negative behaviour vignettes were selected for use in subsequent studies. These are presented in Table 6.2.5.

Table 6.2.5 Selected Action Vignettes

Code	Vignette
<i>Stm</i>	J.B. invited the stranger into the house to shelter from the storm (8 categories used).
<i>Crp</i>	G.H. helped his neighbour harvest his crop of mealies (8 categories used).
<i>Car</i>	The car was standing empty by the side of the road. J.S. went up to it and slashed the tyres with a knife (8 categories used).
<i>Bil</i>	The customer brought the basket of shopping to the till. S.M. totalled the bill and overcharged the customer (7 categories used).

Outcome Vignettes

The results of the content analysis of the outcome vignettes are presented in the table in Table 6.2.6.

data used to establish the desirability of the explanation, and hence clarify how the explanation may be used for group-serving purposes.

Once the explanations for the social issues vignette pertaining to race had been selected, explanations that embodied the same dimensions

Factor II:

- 2. (*Eff*)

Factor II:

- 13. (Reso) *The government provides protection for whites' jobs, but blacks have none.*
- 11. (Pow) *Whites control the government.*
- 14. (Syst) *This is due to apartheid.*
- *2. (Stat) *Blacks are inferior to whites.*
- 12. (Disc) *Blacks are discriminated against.*

This factor is clearly one which lodges the cause of the inequality in the political structure of the country. The fact that explanation (2) loads negatively, would appear to reject the notion that the inferiority of the blacks is a cause.

(K) Blacks receive lower pay than whites, even when they are doing similar jobs.

Factor I:

- 3. (Abil) *Whites are better at their jobs than blacks.*
- 5. (Beha) *Whites work harder than blacks.*
- 2. (Stat) *Whites are superior to blacks.*
- 1. (Pers) *Whites are more responsible and trustworthy than blacks.*
- 6. (Val) *Blacks do not have ambition.*
- 4. (Abil) *Blacks are less experienced than whites.*
- *13. (Reso) *The government refuses to introduce laws to ensure equal pay for equal work.*
- *14. (Syst) *This is due to apartheid.*
- 8. (Nee) *Whites have a higher living standard to upkeep.*
- *12. (Disc) *Blacks are discriminated against.*
- *16. (Ext) *The employers and company bosses exploit Blacks.*

This factor groups explanations which place the cause of the inequality with the superior nature of the white group and inferior traits of the blacks. Socio-political causes load negatively, implying these causes are rejected.

Factor II:

- 12. (Disc) *Blacks are discriminated against.*
- 14. (Syst) *This is due to apartheid.*
- 13. (Reso) *The government refuses to introduce laws to ensure equal pay for equal work.*
- 11. (Pow) *Blacks do not have the vote so cannot influence the situation.*
- 15. (Opp) *Blacks do not have the as many jobs to choose from, so have to accept the offered pay.*
- 16. (Ext) *The employers and company bosses exploit Blacks.*
- 10. (Intg) *Whites try to keep Blacks down.*
- *6. (Val) *Blacks do not have ambition.*
- *1. (Pers) *Whites are more responsible and trustworthy than blacks.*

This factor holds the explanations that are largely socio-political and rejects the two explanations (6 and 1) which refer to the character of the groups.

(L) Whites have more facilities for recreation, e.g. sports, than do blacks.

Factor I:

- 6. (Beha) *Blacks destroy their facilities.*
- 5. (Att) *Blacks do not know anything about sports, so are not interested in having facilities.*
- 8. (Resp) *It is up to the Whites to maintain the Western tradition of sport.*
- 3. (Abil) *Blacks have less sporting ability than whites.*
- 1. (Pers) *Blacks are less civilized than Whites.*
- 2. (Stat) *Whites are more important than Blacks.*
- 9. (Intg) *Whites want to prevent competition from Blacks.*
- 7. (Demg) *Most Whites live in the urban areas, where there are facilities.*
- 4. (Poss) *Blacks are poor -they have no money to spend on recreation.*
- *12. (Syst) *This is due to apartheid.*

The main thrust of this factor appears to be the behaviour and character of the groups themselves, with the political system as a cause being rejected.

Factor II:

- *11. (Reso) *The government allocates funds for such things as sporting facilities, and they favour the Whites.*
- 3. (Abil) *Blacks have less sporting ability than whites.*
- 8. (Resp) *It is up to the Whites to maintain the Western tradition of sport.*
- *10. (Pow) *Whites are in power.*
- 1. (Pers) *Blacks are less civilized than Whites.*
- 2. (Stat) *Whites are more important than Blacks.*
- 5. (Att) *Blacks do not know anything about sports, so are not interested in having facilities.*
- *12. (Syst) *This is due to apartheid.*

This factor again rejects the notion of the political system being a cause, and seems to focus on explanations that impute the superiority of the whites *vis-a-vis* the blacks.

Overall Analysis:

The main factors which seem to emerge from these vignettes are the distinction between the causes related to the character of the groups, and those pertaining to the socio-political system in the country. It was decided to split into two the group characteristic factor that emerged in the analyses of the vignettes, such that one explanation will deal with the dispositions or abilities of the groups, and the other the groups' motivations and actions.

The following five dimensions were chosen as the most appropriate:

1. Group characteristics
2. Government connected explanations
3. Pseudo-objective facts
4. Work or opportunity related discrimination
5. Group actions and motivations.

In the explanations chosen it was decided not to use any stark statements such as "Blacks are discriminated against"; or "Whites are superior". The types of explanation which were chosen on the basis of the analysis of the race vignettes were used as the guide for selection of the explanations to be used for the gender vignettes. Where possible the same explanations were used, but particularly in the case of the "Pseudo-objective fact" category, a comparable explanation was chosen from the pool provided by the subjects.

The following two tables (6.3.6 and 6.3.7) present the explanations which were selected to be used with the vignettes. The mean prejudice assessments for the gender explanations were calculated from the responses of the second sample.

Table 6.3.6 Selected Explanations for Social Issues Vignettes pertaining to Race with Mean Prejudice Assessment

	Mean Assessment
I. Whites have more opportunity for education than do blacks.	
1. Blacks are less intelligent than Whites.	6.30
2. The government provides free education for whites.	2.30
3. There are fewer whites.	4.57
4. Blacks do not have the opportunity to use education.	3.09
5. Whites need education to keep the economy going and give Blacks jobs.	5.50
J. Blacks are more likely to be made redundant, or to be unemployed than whites.	
1. Whites are more capable than blacks.	6.17
2. Whites control the government.	2.22
3. Most Blacks live in the rural areas.	3.91
4. Blacks do not have the opportunity to enter many fields of work due to job reservation.	2.22
5. Blacks do not like to work.	6.13
K. Blacks receive lower pay than whites, even when they are doing similar jobs.	
1. Whites are better at their jobs than blacks.	6.20
2. The government refuses to introduce laws to ensure equal pay for equal work.	2.13
3. There are more blacks than whites.	4.89
4. Blacks do not have as many jobs to choose from, so have to accept the offered pay.	2.61
5. Blacks do not have ambition.	6.17
L. Whites have more facilities for recreation, e.g. sports, than do blacks.	
1. Blacks have less sporting ability than whites.	6.17
2. The government allocates funds for such things as sporting facilities, and they favour the whites.	2.41
3. Most Whites live in the urban areas where there are facilities.	4.13
4. Black schools do not provide coaching, so interest in sports is not developed amongst blacks.	2.08
5. Blacks do not know anything about sports, so are not interested in having facilities.	6.02

Table 6.3.7 Selected Explanations for Social Issues Vignettes pertaining to Gender with Mean Prejudice Assessment

	Mean Assessment
I. Men have more opportunity for education than do women.	
1. Women are less intelligent than men.	6.87
2. The government provides better facilities for male schools (<i>e.g.</i> many female schools do not have science laboratories).	4.74
3. Men will be the bread-winners of the family.	5.62
4. Women do not have the opportunity to use education.	4.95
5. Men need education to keep the economy going and provide for women.	6.36
J. Women are more likely to be made redundant, or to be unemployed than men.	
1. Men are more capable than women.	6.74
2. Men control the government.	4.59
3. Most women are married and have families.	4.51
4. Women do not have the opportunity to enter many fields of work due to job reservation.	4.36
5. Women do not like to work.	6.23
K. Women receive lower pay than men, even when they are doing similar jobs.	
1. Men are better at their jobs than women.	6.91
2. The government refuses to introduce laws to ensure equal pay for equal work.	4.66
3. Women usually have husbands.	6.03
4. Women do not have as many jobs to choose from, so have to accept the offered pay.	4.81
5. Women do not have ambition.	6.84
L. Men have more facilities for recreation, <i>e.g.</i> sports, than do blacks.	
1. Women have less sporting ability than men.	6.58
2. The government allocates funds for such things as sporting facilities, and they favour the men.	5.10
3. Most women have families to care for.	5.16
4. Girls are not given coaching at school, so interest in sports is not developed amongst women.	4.78
5. Women do not know anything about sports, so are not interested in having facilities.	6.58

6.3.3 Discussion

The selected explanations were analysed as a means of choosing the most appropriate ones for the study presented in the next chapter. The decisions as to which dimensions or categories of explanations to use were guided rather than determined by the results of the factor analysis. Part of the reason for this was that in some of the analyses, the interpretation was not as clear as could be hoped. The other reason was the need to have explanations which represent a range of evaluative connotations. On the basis of the analysis it is possible to rank the various explanations, such that there is a grading of how positive or negative the actor is perceived as a function of rating of the provided explanations.

It must be reiterated that the studies in this chapter have not sought to establish a new framework with which to examine explanations, but has presented an attempt to select vignettes and explanations appropriate for the purpose of the subsequent study, and for the population groups who are to be used.

CHAPTER 7

ATTRIBUTIONS AND THE INTERGROUP PERCEPTION FACTORS

7.0 Introduction

The central proposition of this thesis is that attributions are used to maintain and reflect the intergroup status quo. For members of groups that seek to assert their positive distinctiveness, this would involve a number of strategies. Positive information about the ingroup will be explained in the most flattering way, while negative information will be excused or justified so as not to reflect badly on the group. At the same time, positive information about a competing outgroup will be explained in such a way as to minimize its favorable reflection on that group and negative information will be attributed to the unpleasant nature of the outgroup.

Such group-serving attributions may be applied to two foci. The first concerns information about the behaviour and circumstances of individual members of the ingroup or outgroup, and the second concerns information about the groups as a whole, their status and position in society.

In this chapter two similar studies are reported. The major difference between the studies is the type of group used; race groups are used in the first and gender groups in the second. In each case, the object of the study was to investigate whether the intergroup perception factors, the relative status of the groups and the perceptions of the legitimacy and stability of this

extenuating circumstances, whereas when concerning an outgroup member, the explanations would refer to internal attributes.

However, the review presented in Chapter 4 of the studies which researched the above hypothesis, seems to indicate that there was little support for the proposition that opposite types of attributions would be made for the ingroup and outgroup. But, the conclusion was reached that there was some evidence that greater emphasis was placed on internal attributions for the positive actions of ingroup members than of outgroup members, and more emphasis was placed on external explanations for negative actions of the ingroup than the outgroup member.

In the work on intergroup attributions for outcomes, where the locus and stability dimensions were included, the results were more complex. Again, bias was not reflected in diametrically opposed explanations, but rather in the degree to which the various causes are attributed. For instance, success of the ingroup member tends to be attributed more to ability than that of the outgroup member, whereas failure of the ingroup tends to be attributed less to lack of ability than that of the outgroup.

The studies reported in this chapter do not use internal and external attributions *per se*, but employ explanations that have been pre-tested to determine their relative favourableness. The manner in which all the explanations are endorsed allows a single index to be abstracted which reflects the evaluative connotation directed at the actor of the vignette. Thus, testing whether the use of explanations reflect the intergroup expectations is greatly clarified.

7.1.2 Attributions to Groups as a Whole

Blaming groups, as a whole, for events or disasters in society (*e.g.* plagues, earthquakes, economic depression, AIDS) has been well documented in history, and has been mentioned earlier in the discussion of conspiracy theory. However, in this section the focus is on the attributions made for groups' position in society. As discussed in Chapter 4, societal attributions, or attributions for social issues bear similarities to the internal-external dichotomy of individual attributions. Explanations for such things as poverty or unemployment tend to be attributed to the nature or characteristics of the people afflicted or to external, structural aspects of society.

Research on intergroup attributions for social inequality is very limited, but there are indications that group-serving use is made of dispositional versus structural explanations.

As with the explanations for actions and outcomes, these studies do not focus specifically on the dispositional and structural attributions. The explanations were pre-tested to determine how prejudicial to the subordinate group they were. Then, the way the relevant explanations as a whole are used lead to a single 'prejudice' score being abstracted for analysis.

7.2 Study 4: Inter-race Bias in Attributions as a Function of the Intergroup Perception Factors.

The race groups in question are blacks and whites in the Durban area of South Africa. At the time these studies were performed, racial

discrimination was completely institutionalized in South Africa, despite the talk about reforms. However, the increasing disfavour with which South Africa has been viewed by the rest of the world, has resulted in a sensitivity to the issue on the part of the whites. This was noticeable, firstly, in the evidence that the socially desirable response on the Ladder Task was to state that the races should be equal, and secondly by the extreme reluctance of white adults to participate in the study. It was with considerable difficulty that suitable numbers for the experiment were obtained. No such problem was experienced with the black population.

Predictions

The predictions for this for this study mirror those for Study 1.

- H1. For the white (high status) groups, it is predicted that those who perceive the intergroup status hierarchy as illegitimate will evidence less ingroup favouritism and a more positive attitude to blacks than those who perceive the situation as legitimate.
- H2. For the black (low status) groups, it is predicted that the effect of perceived illegitimacy will be to increase ingroup favouritism and positive attitudes to their group.
- H3. Whites in the group who perceive the situation as legitimate and unstable will exhibit the highest ingroup bias and highest anti-black attitudes, as these subjects feel their superiority under threat from external forces.
- H4. It is expected that of all the black groups, the subjects in the group with secure social identity (*i.e.* who perceive the situation as stable

and legitimate) will evidence the least ingroup favouritism and the least favourable attitude to their own group.

7.2.1 Method

Subjects

Four hundred and sixty-eight people were tested in all, of which 12 (2 white and 10 black) were excluded because they refused to complete the Ladder questions, and 30 (12 white and 18 black) because they gave anomalous responses on the Ladder status question (*i.e.* they placed blacks higher or equal to whites when asked where the groups stand in South Africa at present). Of the remaining 203 whites and 223 blacks, 15 further subjects (all white) had either refused or incorrectly completed the attribution and/or room tasks so were excluded from these analyses. Thus the number of subjects used in the final analyses ranged between 411 and 419 subjects.

The subjects were taken from a broad spectrum of Durban society, including the unemployed, labourers, housewives, pensioners and professionals. The average age of the subjects was 35.9 years.

Materials

A booklet consisting of the following tasks was completed by the subjects:

Attribution Vignettes: The 12 vignettes and explanations, which had been devised and tested in the previous chapter were used in this task. However, in the case of the action and outcome vignettes, the initials used in the testing phase were replaced by names which clearly depicted the race of the actor.

Two forms (A and B) of the attribution task were constructed, each containing the identical vignettes and explanations. In each form, one of the two positive and one of the two negative action and outcome vignettes were attributed to the black actor, and the other positive and negative vignettes to the white actor. However, the vignettes which had a black actor in Form A, were presented with a white actor in Form B, and *vice versa*.

This arrangement meant that for the action vignettes, each respondent rated explanations for one positive and one negative vignette that had a black actor and one positive and one negative that had a white actor. But the two corresponding vignettes (the one with a black actor, the other with a white actor) were responded to by different subjects. The same arrangement was used for the outcome vignettes. While this design prevented the carryover effects that would result if the same vignette had been presented with different actors, the consequence was that a within subject analysis could not be performed, and each vignette would have to be treated separately.

This problem did not occur with the social issue vignettes as actors were not involved. All the respondents were given the same vignettes.

Room Task: This task was similar to that used in Study 1. Subjects were provided with a floor plan of one floor of a proposed residence block.

The plan consisted of 30 rooms, each of which was rated according to how desirable they were. The subjects were told that 70 students (half black and half white) had applied for entrance into the residence. The subjects were asked to allocate the rooms to the students according to race.

Ladder task: This task was again similar to the one used in Study 1. The subjects were shown a ladder of 11 levels, which they were asked to take to represent life circumstances in South Africa. They were asked to decide on which level blacks and whites (as a whole) should be placed to represent (i) where they stand at present, (ii) where they stood 5 years ago, (iii) where they will stand in 5 years time, and (iv) where they should stand.

The order of the tasks within the booklet was randomized. An example of a booklet appears in Appendix D.

Intergroup Perception Factors

The intergroup perception variables, perceived legitimacy and stability of the group status hierarchy, were determined from the Ladder Task. The manner in which these factors are determined from this task was described fully in Study 1. The stable/unstable dichotomy was again made as a median split. However, the median for this sample was such that subjects with stability scores of -2 and below were placed into the unstable category, and those with scores of -1 and above were placed in the stable category.

The measure of legitimacy was based on the question asking where the groups should stand. Subjects who continued to place whites on a higher level than blacks were placed in the legitimate category, while those who placed blacks at an equal or superior level were placed into the illegitimate category.

As mentioned above, the 30 subjects who placed blacks on an equal or higher level than whites (on the question of where the groups stand at the present time) were removed from the subject pool.

Dependent Variables

A number of dependent variables were calculated from the responses on the room and attribution tasks.

1. **Weighted room bias.** This was derived from the room allocation task. The number of rooms allocated to each race group, weighted by the desirability of the rooms selected, was calculated and the ingroup to outgroup difference calculated. Scores ranged from high (positive), implying strong ingroup favouritism, to low (negative) scores, indicating outgroup favouritism.
2. **Integration score.** This was also taken from the room task. The desired level of integration in the student residence was calculated by counting the number of adjacent rooms that were allocated to students of different race groups. This gave a score which ranged from 0 to 18, where higher scores imply a greater desire for mixing of the races.
3. **Attribution evaluation score.** Each of the 8 action and outcome vignettes provided a single score. The agreement ratings of the two explanations that were most positive (as determined in Pilot Study 2) were given a weighting of +1, and the ratings of the two least positive explanations were given a weighting of -1. The ratings (multiplied by their weighting) of the 4 explanations were totalled to produce the attribution evaluation score. This score reflects how admirable (or otherwise) the actor has been presented by

the subject's use of the explanations. The higher the score, the more positive the image of the actor.

Ingroup favouritism would be expressed (in the action and outcome vignettes) by higher attribution evaluation scores when the actor is a member of the ingroup (of the same race as the subject) than when a member of the outgroup.

4. Attribution prejudice score. Each of the 4 social issue vignettes produced a single score. The agreement ratings of the two explanations which were evaluated (in Pilot Study 2) as the most racially prejudiced were given a loading of +1 and the two explanations that were least prejudicial were given a loading of -1. The weighted ratings of the 4 explanations were totalled. The fifth explanation was not included in the calculation. However, it was considered important to provide this explanation to present a range of explanations for the respondents. The resulting score indicated the amount of prejudice in which blacks were held by the subject. It also reflected the degree to which internal explanations were favoured over structural explanations.

High attribution prejudice scores indicate a more negative attitude to blacks, and a low prejudice score a more positive attitude.

Analysis

Action and Outcome Vignettes

The attribution evaluation scores were analysed independently for each vignette as a 2 (race) x 2 (stable/unstable) x 2 (legitimate/illegitimate)

x 2 (race of actor) completely randomized Analysis of Variance. The SAS GLM programme was again used to account for the discrepancy in cell numbers.

The fact that each subject responded to one positive vignette with a white actor and a different positive vignette with a black actor, precluded the possibility of using a within subjects design. It also prevented the use of a MANOVA to analyse the responses to the vignettes as a whole. Further, the complex multifactorial nature of the design necessitated the investigation of pairwise comparisons between means of the different conditions. These pairwise comparisons were provided by the SAS GLM programme.

Testing the Predictions

The following pattern of results should occur for the hypotheses to be supported:

H1 For white subjects:

An interaction between Legitimacy and Race of Actor is expected, such that the mean evaluation score attributed to the white actor should be higher than that attributed to the black actor by subjects in the Legitimacy conditions. Subjects in the Illegitimacy conditions should attribute higher evaluative scores to the black actor than the white actor.

H2 For black subjects:

Similarly, an interaction between Legitimacy and Race of Actor is expected. Subjects in the Legitimacy conditions should attribute higher evaluation scores to the white actor than to the black actor, and subjects in the Illegitimacy conditions should attribute higher evaluative scores to the black actor than the white actor.

- H3 White subjects in the Legitimate/Unstable condition should attribute markedly higher evaluation scores to the white actor than the black actor.
- H4 Black subjects in the Legitimate/Stable condition should attribute markedly lower evaluation scores to the black actor than the white actor.

Social Issue Vignettes, Weighted Room Bias and Integration Scores

The attribution evaluation scores on the social issue vignettes, and the weighted bias and integration scores from the room task were together analysed as a 2 (race) x 2 (stable/unstable) x 2 (legitimate/illegitimate) completely randomized effects MANOVA. Significant results on the MANOVA were further explored using ANOVAs on the individual dependent variables.

Testing the Predictions

The following pattern of results are expected:

- H1 - For white subjects:
A main effect for Legitimacy is expected. The subjects in the Legitimacy conditions should give higher prejudice scores than the subjects in the Illegitimacy conditions.
- H2 - For black subjects:
Similarly, the subjects in the Illegitimacy condition should give lower prejudice scores than those in the Legitimacy conditions.
- H3 - White subjects in the Legitimate/Unstable condition should attribute the highest prejudice scores.

H4 - Black subjects in the Legitimate/Stable condition should evidence the highest prejudice scores.

Procedure

Subjects were approached either as individuals or through various types of institutions (work, church groups, training colleges, clinics, sports clubs, *etc.*). The subjects were always seen by an interviewer of the same race. Depending on the subjects' facility with written English, they were either left with the booklet to complete on their own, or they were taken through it by the interviewer. The instructions before each task were designed to be sufficiently explicit to not require further explanation.

7.2.2 Results

Action Vignettes

Table 7.2.1 presents the least square means of the evaluation scores for the subjects in each condition for the four vignettes. The least squares means is produced by the SAS package as the best representation of means in unbalanced designs. Table 7.2.2 summarizes the ANOVA results for the vignettes. Thereafter the results of each vignette is discussed individually. The full ANOVA tables are presented in Appendix D.

Table 7.2.1 Study 4: Least Square Means of Action Vignette Attribution Evaluation Scores

	White Subjects		Black Subjects	
	White Actor	Black Actor	White Actor	Black Actor
Stable	2.700 0.375 2.200 0.250	(10) (8) (10) (8)	2.250 1.400 1.000 -1.200	(8) (10) (8) (10)
	4.200 4.833 1.300 -3.667	(10) (6) (10) (6)	7.667 4.400 4.000 -3.300	(6) (10) (6) (10)
Legitimate	3.429 2.105 5.429 -0.737	(7) (19) (7) (19)	4.526 -1.429 2.526 -3.286	(19) (7) (19) (7)
	4.500 1.667 5.000 1.000	(2) (6) (2) (6)	4.333 3.500 2.833 -8.500	(6) (2) (6) (2)
Unstable	4.385 -0.238 4.154 -0.300	(26) (21) (26) (21)	6.145 1.293 3.364 -0.914	(55) (58) (55) (58)
	6.379 3.927 3.439 -2.537	(58) (55) (58) (55)		
Stable	4.000 0.698 4.057 -1.868	(52) (53) (52) (53)	4.519 0.558 4.019 -0.077	(53) (52) (53) (52)
	5.234 3.947 3.085 -3.282	(47) (39) (47) (39)	3.769 4.170 0.526 -0.936	(39) (47) (39) (47)
Illegitimate				
Unstable				

- 1 Action Vignette A
- 2 Action Vignette B
- 3 Action Vignette C
- 4 Action Vignette D

The figures in parentheses are the number of scores in the cell for the vignette in question.

Table 7.2.2 Study 4: Summary of the Univariate ANOVA Analyses of the Action Vignettes

Dependent Variables				
	Vig A	Vig B	Vig C	Vig D
<u>Full Model</u>				
F Ratio	2.36 ^a	5.75 ^a	2.27 ^a	2.18 ^a
Mean Square Error	14.106	14.988	15.654	19.248
R-square	8.1%	17.7%	7.8%	7.5%
df	15, 402	15, 402	15, 401	15, 401
<u>F Statistics for Effects</u>				
Race of Subject (A)	5.97 ^b	26.38 ^a	0.66	6.73 ^a
Stability (B)	0.87	0.00	0.60	0.94
AxB	3.47 ^c	0.20	1.08	0.25
Legitimacy (C)	1.52	0.40	0.27	2.59
AxC	0.77	0.04	2.61	0.75
BxC	0.84	4.39 ^b	4.73 ^b	0.12
AxBxC	0.51	0.62	0.02	0.18
Race of Actor (D)	0.66	0.07	1.50	4.03 ^b
AxD	0.01	2.24	0.19	1.12
BxD	0.67	0.87	3.52 ^c	0.77
AxBxD	2.12	0.76	1.34	1.62
CxD	0.76	0.52	0.05	7.73 ^a
AxCxD	1.12	0.01	2.07	0.66
BxCxD	0.01	0.00	0.61	9.74 ^a
AxBxCxD	0.57	3.80 ^c	0.02	3.70 ^c

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

Positive Actions

Vignette A: *Mbongeni Shage (John Bennett) invited the stranger into the house to shelter from the storm.*

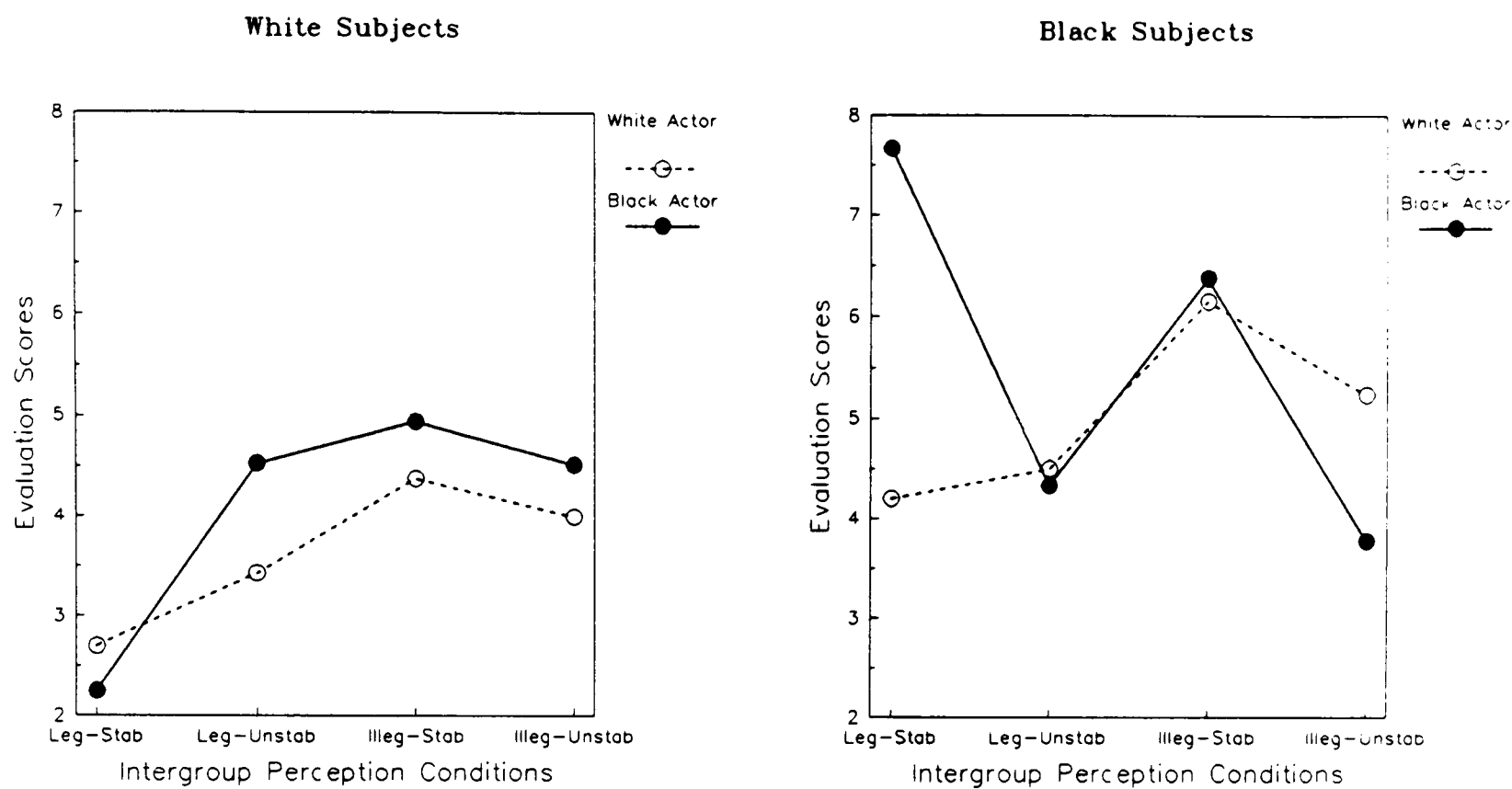
The model was significant ($F(15, 402) = 2.36; p = 0.0029$), explaining 8% of the variance.

The main effect for Race of subject was significant, indicating that there was a tendency to stronger evaluation bias made by blacks ($M = 5.28$) than by whites (3.85) ($F(1, 402) = 5.97; p = 0.0150$).

The interaction between Race of respondent and Stability tended towards significance ($F(1, 402) = 5.27; p = 0.0632$). However, the Race of the Actor was not implicated in this interaction, so it has no direct bearing on the hypotheses.

Inspection of the means indicates that there was a slight tendency for blacks in the Legitimate-Stable condition to provide higher evaluation scores to the black actor ($M = 7.67$) than the white ($M = 4.20$); and for those in the Illegitimate-Unstable condition to provide higher evaluation scores to the white actor ($M = 5.23$) than the black ($M = 3.77$). Both these findings contradict the hypotheses.

Figure 7.2.1 Study 4: Evaluation Scores on Vignette A



Vignette B: *Graham Kisten (Sipho Dlamini) helped his neighbour to harvest his crop of mealies.*

The model was significant ($F(15, 402) = 5.75; p < 0.0001$), explaining 17.7% of the variance.

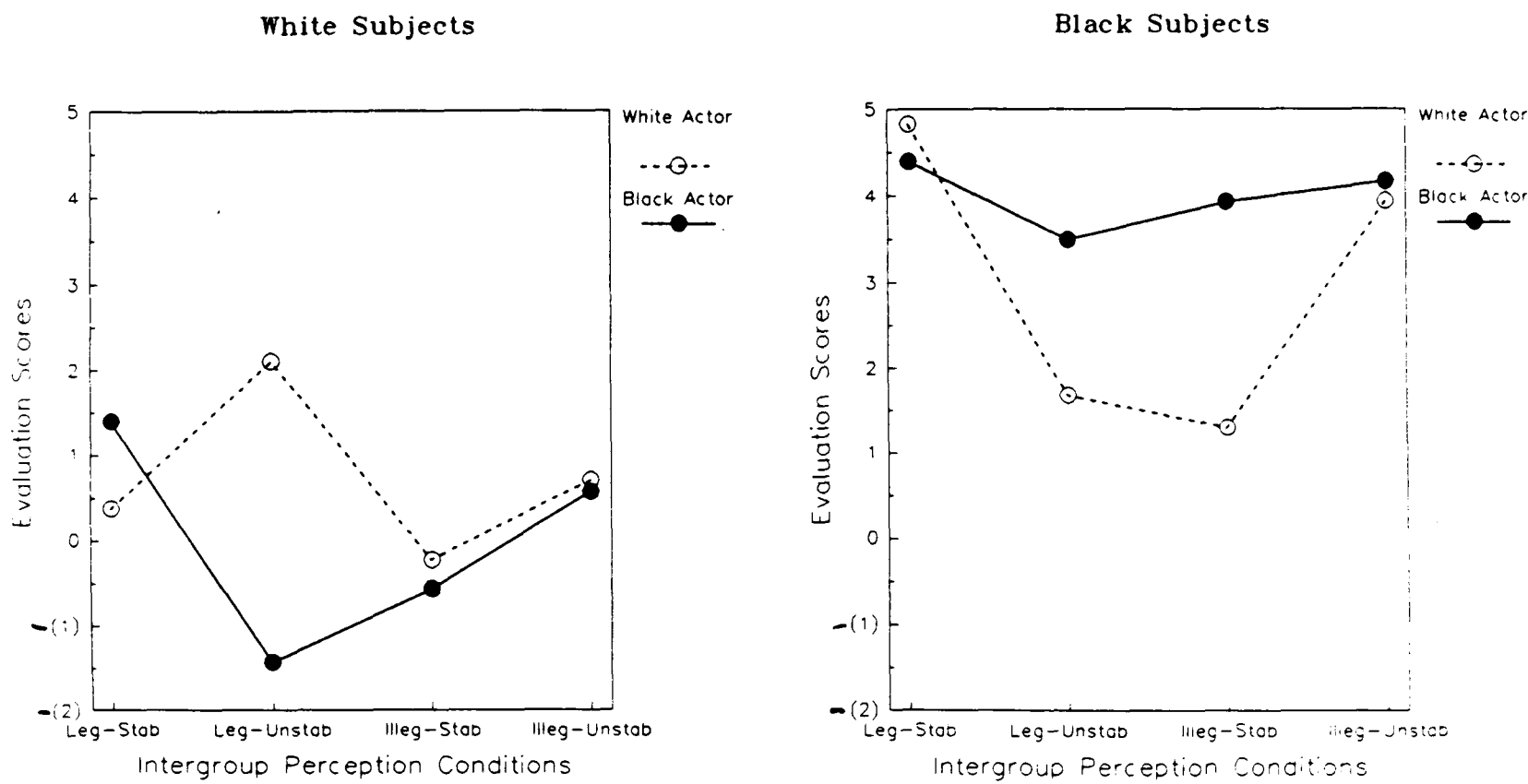
The ANOVA Summary Table indicated that the 4-way interaction Race x Stability x Legitimacy x Race of Actor was almost significant ($F(1,402) = 3.80; p = 0.052$), the 2-way interaction between Stability x Legitimacy was significant ($F(1,402) = 4.39; p = 0.037$), as was the main effect for Race ($F(1,402) = 26.38; p < 0.0001$).

The main effect for Race indicated that the black subjects in general tended to make more positive attributions ($M = 3.467$) than did the white

subjects ($M=0.362$). Inspection of the cell means indicates that of the white subjects, those in the Legitimate-Unstable condition, judging the white actor gave the most positive ratings ($M=2.105$), while those judging the black actor gave the most negative rating ($M=-1.429$). This difference was significant ($p=0.040$), providing support for Hypothesis H3.

Overall, the black subjects in ^{both} the Legitimacy ^{and Illegitimacy} conditions gave more positive evaluation scores to the black actor than to the white. However, this result was due mainly to the subjects in the Legitimate-Unstable condition, and in the Illegitimate-Stable condition. The difference in the evaluation ratings as a function of Race of Actor by the black subjects in the Illegitimate-Stable condition was a significant ($p=0.0003$); those judging the white actor gave lower ratings ($M=1.293$) than those judging the black actor ($M=3.927$). Thus, there was some support for Hypothesis H2.

Figure 7.2.2 Study 4: Evaluation Scores on Vignette B



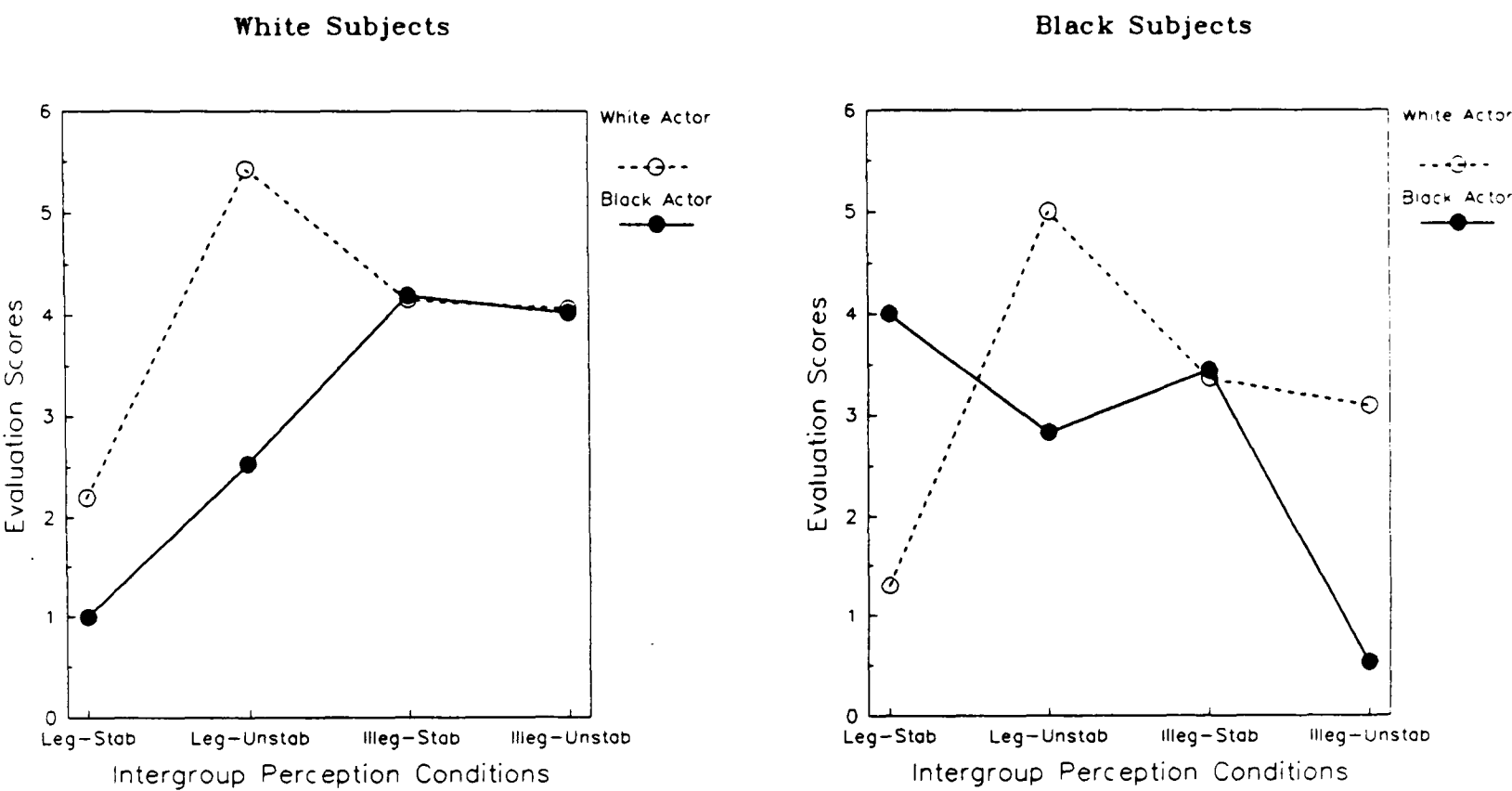
Negative Actions

Vignette C: *The customer brought the basket of shopping to the till. Zolani Ndlovu (Steven Nash) totalled the bill and overcharged the customer.*

The model was significant ($F(15, 401) = 2.27; p = 0.0043$), explaining 7.8% of the variance.

No main effects were significant. The 2-way interaction, Stability x Legitimacy ($F(1,402) = 4.73; p = 0.0303$) was significant. However, stability was also implicated in the interaction, Stability x Race of Actor which tended to significance ($F(1,402) = 3.52; p = 0.0613$). Inspection of the cell mean differences indicate that whites in the Legitimacy conditions gave higher evaluation scores to the white actor than to the black actor, providing some support for Hypothesis H1, but this did not reach significance. Black subjects in the Illegitimate-Unstable condition judging the white actor (contrary to expectations) gave higher evaluation scores ($M = 3.085$) than those judging the black actor ($M = 0.526$) ($p = 0.0032$). White subjects in Legitimate-Unstable condition judging the white actor gave higher evaluation scores ($M = 5.429$) as compared to those judging the black actor ($M = 2.526$), but this difference only tended towards significance ($p = 0.0979$). Thus there is some support for Hypothesis H3.

Figure 7.2.3 Study 4: Evaluation Scores for Vignette C



Vignette D: *The car was standing empty by the side of the road. Michael Wilkinson (Msebenzi Sosibo) went up to it and slashed the tyres with a knife.*

The model was significant ($F(15, 401)=2.18$; $p=0.0066$), explaining 7.5% of the variance.

The main effect for Race of Respondent was significant ($F(1,401)=6.73$; $p=0.0098$), indicating that black subjects tended to view the actor as more negative ($M=-2.767$) than did white subjects ($M=-0.989$). The main effect for Race of Actor was also significant ($F(1,401)=4.03$; $p=0.0454$), indicating that the black actor was viewed more negatively ($M=-2.566$) than the white actor ($M=-1.190$).

The 2-way interaction Legitimacy x Race of Actor was significant ($F(1, 401)=7.73$; $p=0.0057$). This interaction indicates that the respondents

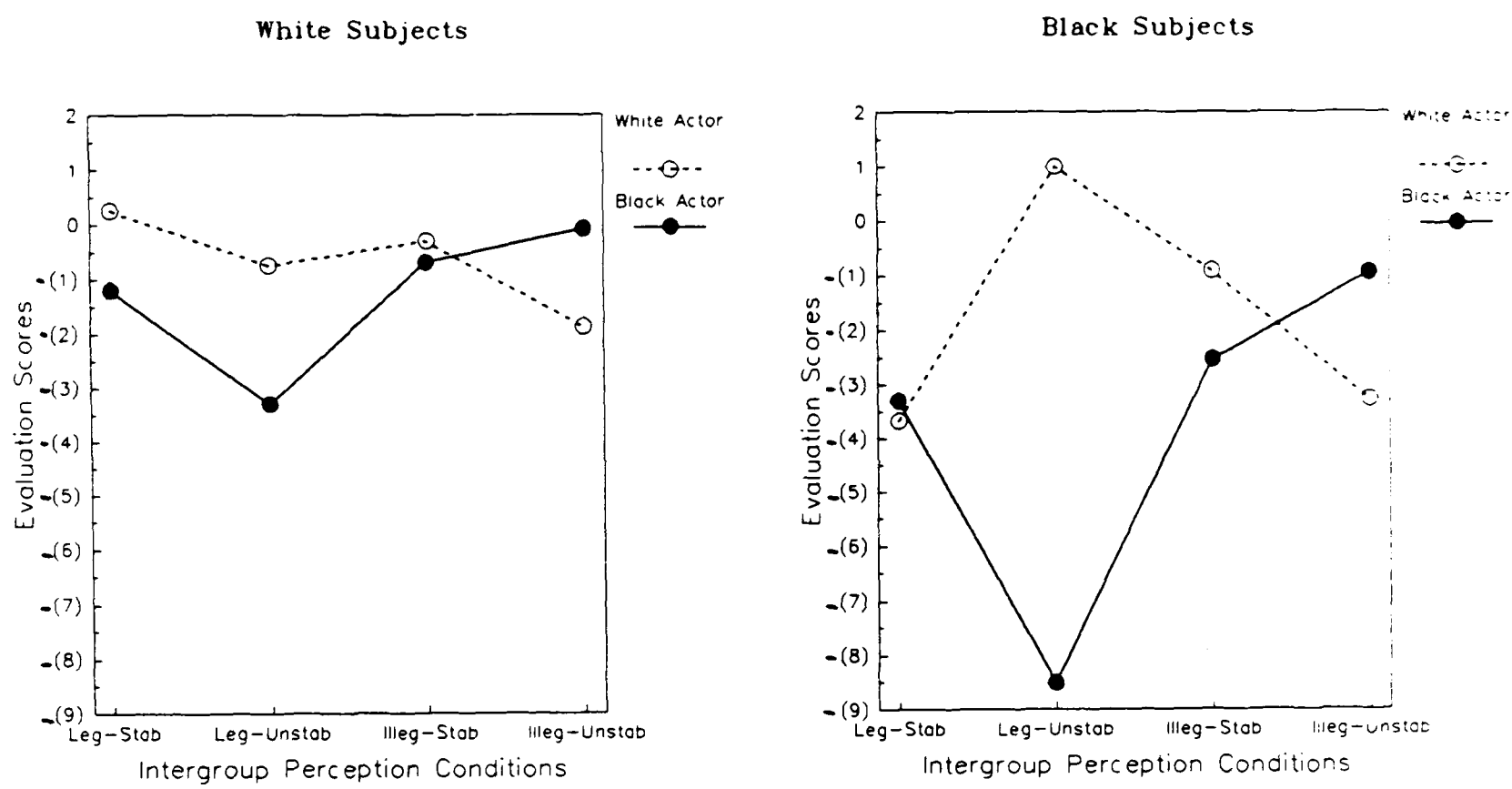
who see the situation as legitimate tend to have a stronger negative view of the black actor ($M = -0.407$) than of the white actor ($M = -0.0788$), while those who see it as illegitimate did not differ significantly in their views of the black and white actors. This finding supports Hypotheses H1 and H2.

The 4-way interaction, Race of Respondent x Stability x Legitimacy x Race of Actor tended towards significance ($F(1,401) = 3.70$; $p = 0.0551$).

The white respondents in the Illegitimate-Unstable condition who judged the white actor gave a more negative rating ($M = -1.868$) than those rating the black actor ($M = -0.077$) ($p = 0.0371$). The white subjects in the two Legitimate conditions were more negative when judging the black actor than the white, but these individually did not reach significance.

The black respondents in the Legitimate-Unstable condition gave significantly stronger negative bias to the black actor ($M = 8.5$) than the white ($M = 1.00$) ($p = 0.0083$); and those in the Illegitimate-Unstable condition stronger negative bias to the white actor ($M = -3.252$) than the black ($M = -0.936$) ($p = 0.014$).

Figure 7.2.4 Study 4: Evaluation Scores of Vignette D



7.2.3 Discussion of Action Vignettes

The results appear to display little consistency in the responses across the four action vignettes. Hypothesis 1 predicted that white subjects in the legitimacy conditions would provide higher evaluation scores for the white actor than the black actor. There was support for this hypothesis in the negative actions, though only the responses on Vignette D reached statistical significance. Hypothesis 2 predicted that black subjects in the illegitimacy conditions would provide higher evaluation scores for the black actor than for the white actor. There was some support for this hypothesis from Vignettes B and D, though this was mainly from the outgroup favouring responses of those in the Legitimate-Unstable condition.

In general, the third prediction that whites in the Legitimate-Unstable condition would be most biased against the black actor received considerable confirmation. Differences in the evaluation scores ascribed to the white and black actors was in the prescribed directions in the responses for Vignettes, B, C, and D, but only reached significance on Vignette B.

Hypothesis 4, which suggested that black subjects in the Legitimate-Stable group would show least favouritism to their own group was definitely not confirmed by the data. In general these subjects did not differ in the amount of positive evaluation credited to both actors, or marginally favoured the black actor.

Outcome Vignettes

Table 7.2.3 presents the means of the evaluation scores for the outcome vignettes, and Table 7.2.4 presents a summary of the analyses. The full ANOVA tables are provided in Appendix D. The results for each vignette is discussed below.

Table 7.2.3 Study 4: Least Square Means of Outcome Vignette Attribution Evaluation Scores

	White Subjects		Black Subjects	
	White Actor	Black Actor	White Actor	Black Actor
Stable	2.700 (10) 2.875 (8) 0.600 (8) -1.875 (10)	2.000 (8) 2.300 (10) 0.375 (10) -0.400 (8)	3.200 (10) 4.167 (6) 1.100 (6) -2.500 (10)	2.333 (6) 2.000 (10) -1.000 (10) -0.800 (6)
Legitimate	3.571 (7) 4.737 (19) 0.857 (19) -1.316 (7)	3.158 (19) 4.000 (7) -0.789 (7) -0.857 (19)	2.500 (2) 3.333 (6) 1.500 (6) 1.500 (2)	3.667 (6) 7.000 (2) -0.167 (2) 1.000 (6)
Unstable				
Stable	3.346 (26) 3.381 (21) 0.692 (21) -1.810 (26)	4.476 (21) 4.615 (26) -0.476 (26) -0.731 (21)	3.370 (55) 3.684 (58) 0.255 (58) 0.086 (58)	3.431 (58) 2.164 (55) 1.121 (55) 0.018 (58)
Illegitimate				
Unstable	2.635 (52) 4.321 (53) -0.712 (53) -1.679 (52)	4.038 (53) 4.769 (52) 0.057 (52) -0.346 (52)	2.978 (47) 2.231 (39) -0.043 (39) -1.103 (47)	1.821 (39) 3.191 (47) -1.026 (39) 0.702 (39)

- 1 Outcome Vignette E
- 2 Outcome Vignette F
- 3 Outcome Vignette G
- 4 Outcome Vignette H

The figures in parentheses are the number of scores in the cell for the vignette in question.

Table 7.2.4 Study 4: Summary of the Univariate ANOVA Analyses of the Outcome Vignettes

Dependent Variables				
	Vig E	Vig F	Vig G	Vig H
<u>Full Model</u>				
F Ratio	1.13	2.66 ^a	2.05 ^b	2.36 ^a
Mean Square Error	10.957	10.445	11.098	11.027
R-square	4.2%	9.0%	7.1%	8.2%
df	15, 401	15, 402	15, 402	15, 399
<u>F Statistics for Effects</u>				
Race of Subject (A)	0.40	0.64	1.10	1.73
Stability (B)	0.01	4.33 ^b	0.88	1.82
AxB	0.30	0.05	0.05	1.68
Legitimacy (C)	0.51	0.26	0.66	0.50
AxC	0.59	4.33 ^b	0.23	0.00
BxC	1.98	3.06 ^c	1.44	0.25
AxBxC	0.02	0.28	1.15	1.67
Race of Actor (D)	0.02	0.11	2.42	5.17 ^b
AxD	0.29	0.02	0.04	0.60
BxD	0.11	3.33 ^c	0.02	3.63 ^c
AxBxD	0.00	5.26 ^b	0.12	0.00
CxD	0.30	0.05	0.74	0.10
AxCxD	1.49	1.57	0.20	0.27
BxCxD	0.62	0.97	0.01	3.73 ^c
AxBxCxD	0.61	0.46	2.79 ^c	0.03

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

Positive Outcomes

Vignette E: *Menzelwa Zulu (Paul Dickson) wrote his matric exams in November. He achieved a "B" aggregate and was admitted into university.*

The model was not significant ($F(15, 401) = 1.16; p = 0.2982$), and explained only 4.2% of the variance.

Vignette F: *Andrew Kruger (Zamini Mhlongo) entered a dancing competition and won first prize.*

The model was significant ($F(15, 402) = 2.66; p = 0.0007$), explaining 9.0% of the variance.

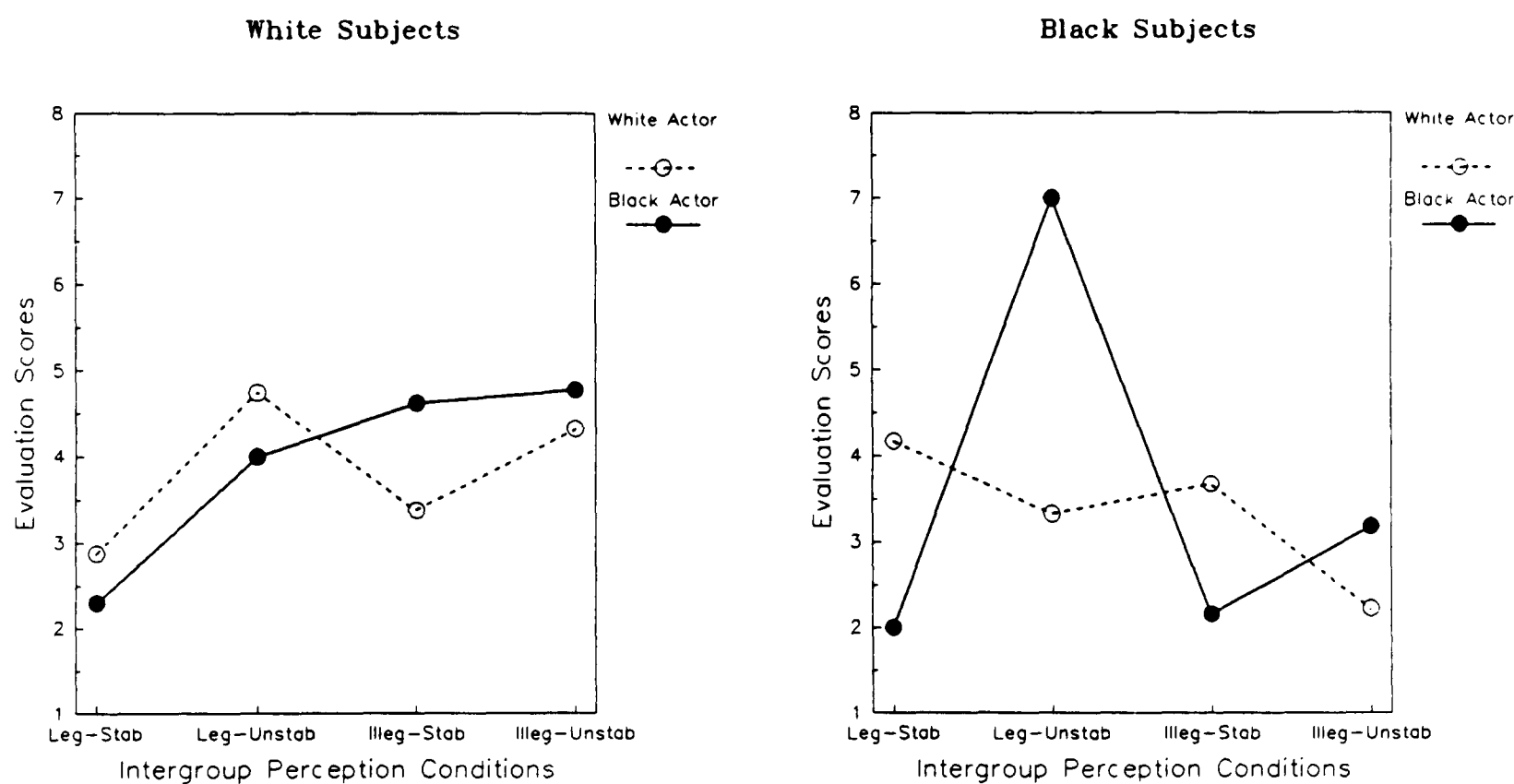
The main effect for Stability was significant ($F(1, 402) = 4.33; p = 0.0382$), indicating that subjects who see the race hierarchy as stable ascribe less evaluation bias ($M = 3.148$) than do subjects who see the situation as unstable ($M = 4.198$).

Three 2-way interactions were significant: Race of Respondent x Legitimacy ($F(1, 402) = 4.33; p = 0.038$); Stability x Legitimacy ($F(1, 402) = 3.06; p = 0.0811$); and Stability x Race of Actor ($F(1, 402) = 3.33; p = 0.0688$). The 3-way interaction, Race of Respondent x Stability x Race of Actor was also significant ($F(1, 402) = 5.26; p = 0.0233$). As all the effects are implicated within these interactions, it would be best to consider the cell differences.

In general, the white subjects who perceived the situation as Legitimate gave higher evaluation scores to the white actor than to the black actor, while those in the Illegitimate conditions gave higher scores to the black actor than the white. However, none of these differences were

significant, so it could not be claimed that Hypothesis H1 is supported. Amongst the black subjects, those in the Stable conditions gave higher scores to the white actor than the black actor, while those in the Unstable conditions gave higher scores to the black actor than the white. However, only the difference pertaining to the Illegitimate-Stable condition was significant ($p=0.0132$). This was contrary to the predictions.

Figure 7.2.5 Study 4: Evaluation Scores of Vignette F



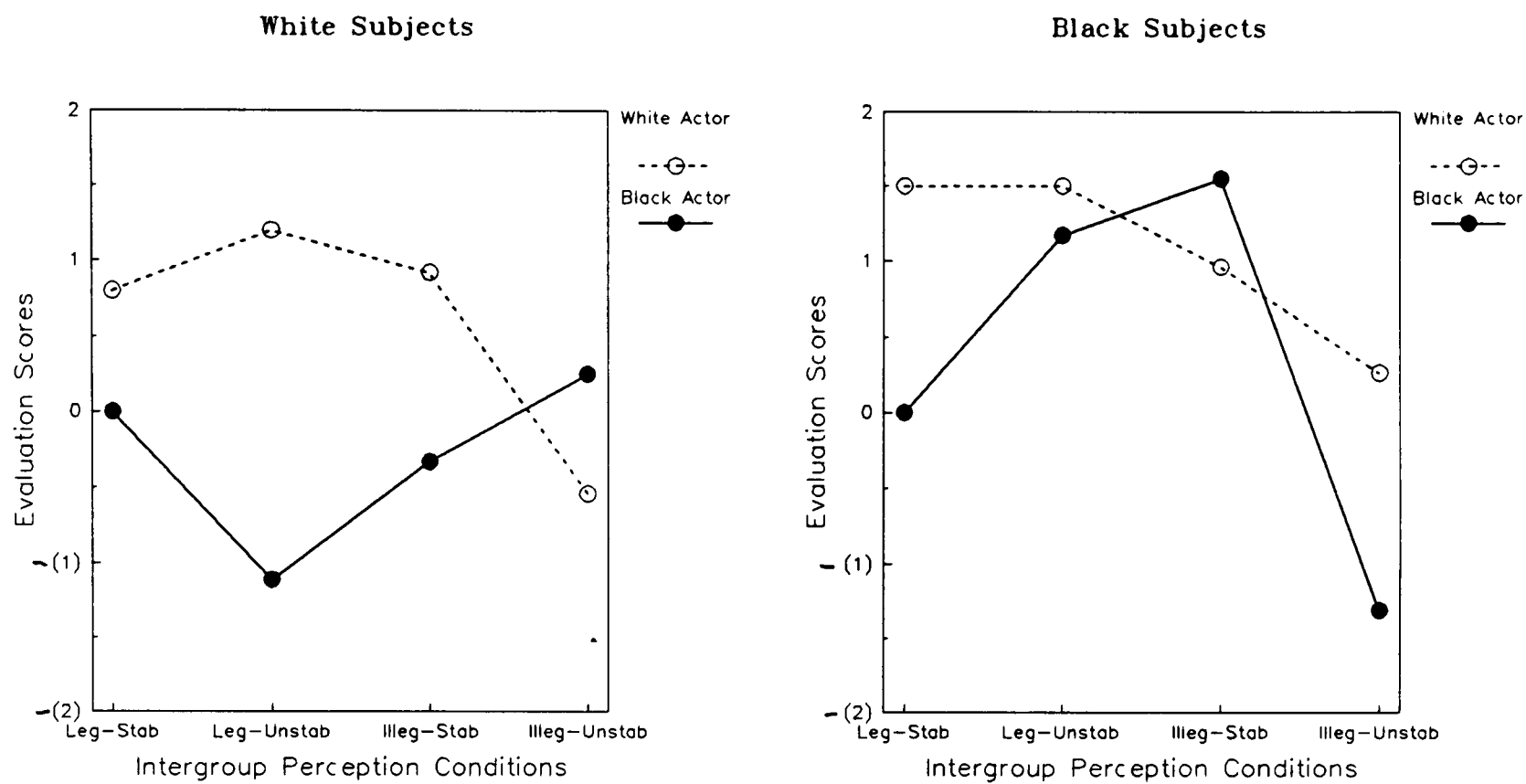
Vignette G: *Khanyisami Mdluli (Alan James) failed to receive promotion at work.*

The model was significant ($F(15, 402)=2.05$; $p=0.0116$), explaining 7.1% of the variance.

Only the 4-way interaction: Race of respondent x Stability x Legitimacy x Race of actor tended towards significance ($F(1, 402) = 2.79$; $p = 0.0955$) and will be interpreted. The white subjects in the Legitimate conditions ascribed more positive evaluations to the white actor than the black, but this tended to significance only in the Legitimate-Unstable condition ($p = 0.1053$). Thus there was some support for Hypothesis H1 and H3. Surprisingly, the whites in the Illegitimate-Stable condition also credited the white actor with higher evaluation than the black actor, though this was not significant ($p = 0.1994$).

Amongst the black subjects, although the direction of evaluation differences allocated to the white and black actors were as predicted for the two Legitimate conditions and the Illegitimate-Stable condition, these were nowhere near significance. However, contrary to expectations, black subjects in the Illegitimate-Unstable condition provided significantly higher evaluation scores to the white actor than the black actor ($p = 0.0311$).

Figure 7.2.6 Study 4: Evaluation Scores on Vignette G



Vignette H: *Philip du Preez (Themba Gumede) was not selected for the school rugby team.*

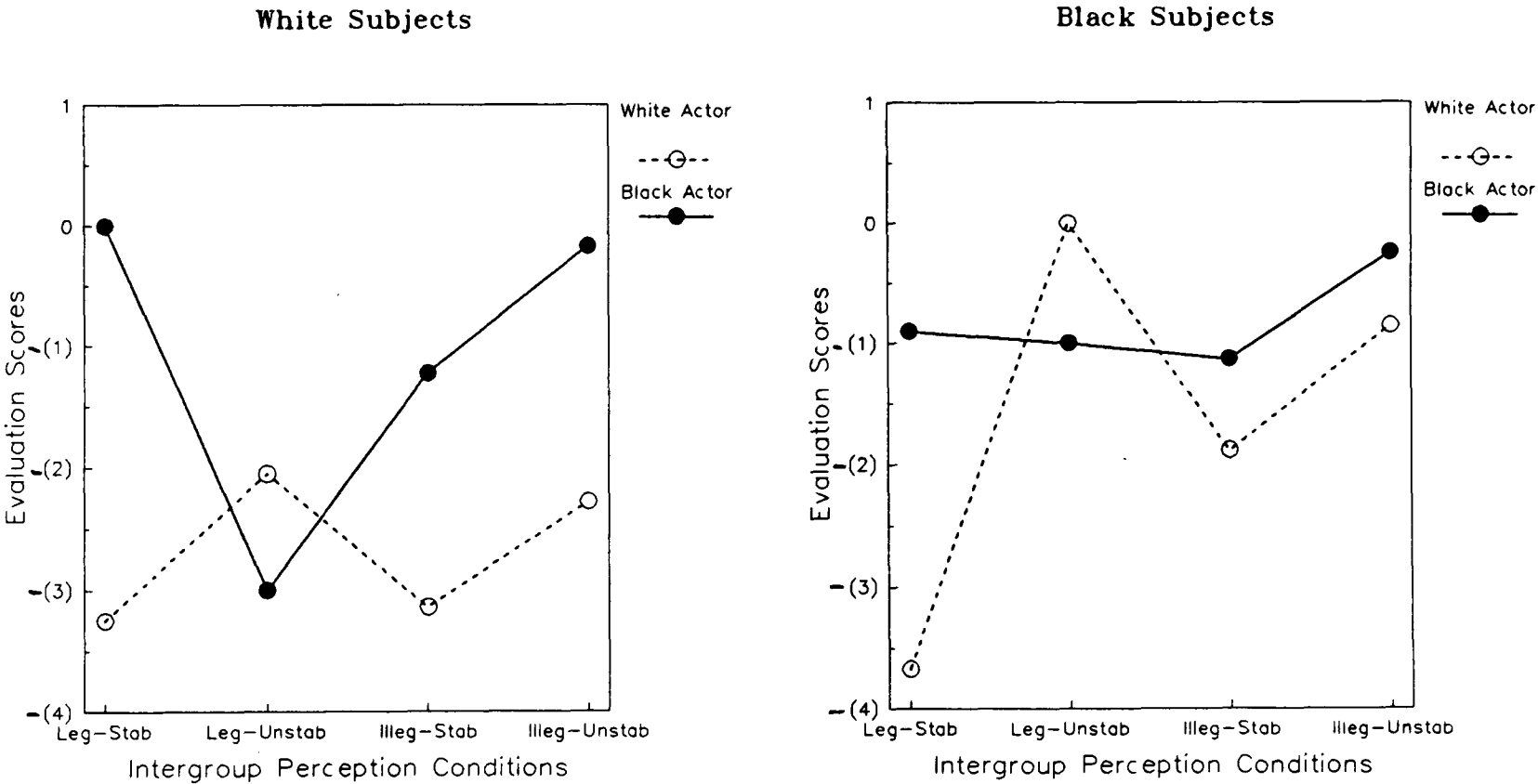
The model was significant ($F(15, 399)=2.36$; $p=0.0029$), explaining 8.2% of the variance.

The main effect for Race of Actor was significant ($F(1, 399)=5.17$; $p=0.0235$) indicating that the respondents credited the white actor with less positive evaluations ($M=-2.14$) than the black actor ($M=-0.96$).

The 2-way interaction Stability x Race of Actor tended toward significance ($F(1, 399)=3.63$; $p=0.0573$), as was the 3-way interaction Stability x Legitimacy x Race of Actor ($F(1, 399)=3.73$; $p=0.0541$). This interaction indicated that subjects in the Legitimate-Stable , the Illegitimate-Stable and the Illegitimate-Unstable conditions were more punitive to the

white actor than the black actor. However, the subjects in the Legitimate-Unstable conditions ascribed higher evaluation scores to the white actor than the black actor, though this did not reach significance. Closer inspection of the cell mean differences indicates that it is mainly the responses of the white subjects that established this pattern. Although the pattern of responses for the black subjects was similar the differences in the scores allocated to the white and black actors did not reach significance.

Figure 7.2.7 Study 4: Evaluation Scores on Vignette H



7.2.4 Discussion of Outcome Vignettes

While the direction of the results for the outcome vignettes provided support the hypotheses, there were fewer statistically significant results than

for the action vignettes. Part of the reason for this may be due to the fact that the evaluation weightings were not as clearly differentiated as with the action vignettes. Hypothesis H1 received some support from the results on vignette G, and to a certain extent from vignette F. Hypothesis H2 was supported only on vignette G. Hypothesis H3 could be said to be the most powerfully verified, since in all the vignettes, the white subjects in the Legitimate-Unstable condition credited the white actor with higher positive evaluations than the black actor, though this difference reached significance only on vignette G. Hypothesis H4 received only slight support in that in vignettes F and G there was an insignificant tendency on the part of the black subjects in the Legitimate-Stable condition to credit the white actor with more positive evaluations than the black actor.

Social Inequality Vignettes, Weighted Room Bias and Integration Scores

The overall prejudice scores for each of the social issue vignettes, together with the weighted room bias and integration scores were analysed together in a MANOVA. Table 7.2.5 presents the MANOVA results, Table 7.2.6 the individual ANOVA results and Table 7.2.8 the least square means for all the variables. The findings for each dependent variable are discussed below.

From Table 7.2.5, it can be seen that the main effects for Race and Legitimacy are significant, as are the two-way interactions, Race x Legitimacy and Stability x Legitimacy. The univariate ANOVA analyses must be considered to further explore the data.

Table 7.2.5 Study 4: MANOVA Results

	Wilks' Lambda	F	df	Prob
Race	0.794	15.901	6, 368	0.0001
Stability	0.979	1.300	6, 368	0.2561
Race x Stab	0.986	0.900	6, 368	0.4948
Legitimacy	0.902	6.654	6, 368	0.0001
Race x Leg	0.921	5.291	6, 368	0.0001
Stab x Leg	0.965	2.232	6, 368	0.0396
Race x Stab x Leg	0.975	1.604	6, 368	0.1449

Table 7.2.6 Study 4: Summary of the Univariate ANOVA Analyses for Social Inequality Vignettes, Weighted Room Bias and Integration Scores

Full Model	Dependent Variables				
	Vig I	Vig J	Vig K	Vig L	Weighted Rooms
F Ratio	7.88 ^a	12.89 ^a	16.40 ^a	4.50 ^a	3.86 ^a
Mean Square	23.179	19.771	17.592	13.577	0.027
Error					
R-square	19.3%	23.3%	7.8%	6.7%	6.6%
df	7, 377	7, 377	7, 377	7, 377	7, 377
F Statistics for Effects					
Race	26.19 ^a	60.74 ^a	59.72 ^a	0.74	2.06
Stability	0.01	1.33	1.03	1.16	1.05
Race x Stab	0.00	1.82	0.04	0.50	0.66
Legitimacy	12.91 ^a	7.89 ^a	20.06 ^a	9.68 ^a	11.63 ^a
Race x Leg	7.44 ^a	19.58 ^a	20.32 ^a	1.85	3.02 ^c
Stab x Leg	0.14	0.35	4.22 ^b	4.12 ^b	1.30
Race x Stab x Leg	0.52	2.34	1.54	2.46	3.08 ^c

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

Table 7.2.7 Study 4: Least Square Means of Weighted Room Bias, Integration Scores and Attribution Prejudice in Social Is Vignettes

	Legitimate		Illegitimate	
	Stable	Unstable	Stable	Unstable
Whites	1.438	2.190	-2.436	-3.253
	0.250	1.000	-3.923	-4.411
	1.688	0.667	-4.436	-4.442
	-1.563	-2.800	-4.282	-5.011
	0.160	0.150	-0.004	0.016
	8.438	7.238	13.179	11.084
	19	26	42	101
Blacks	-3.750	-4.125	-4.500	-4.369
	-5.938	-9.000	-6.274	-6.524
	-5.063	-7.875	-7.104	-5.798
	-2.313	-4.500	-5.260	-3.482
	-0.004	0.111	0.050	0.024
	10.938	7.500	10.708	11.095
	16	8	86	113

- 1
- 2
- 3
- 4
- 5
- 6
- 1 Social Issue Vignette I
- 2 Social Issue Vignette J
- 3 Social Issue Vignette K
- 4 Social Issue Vignette L
- 5 Weighted room bias
- 6 Integration scores

Explanations for Intergroup Inequality

Vignette I: *Whites have more opportunities for education than do blacks.*

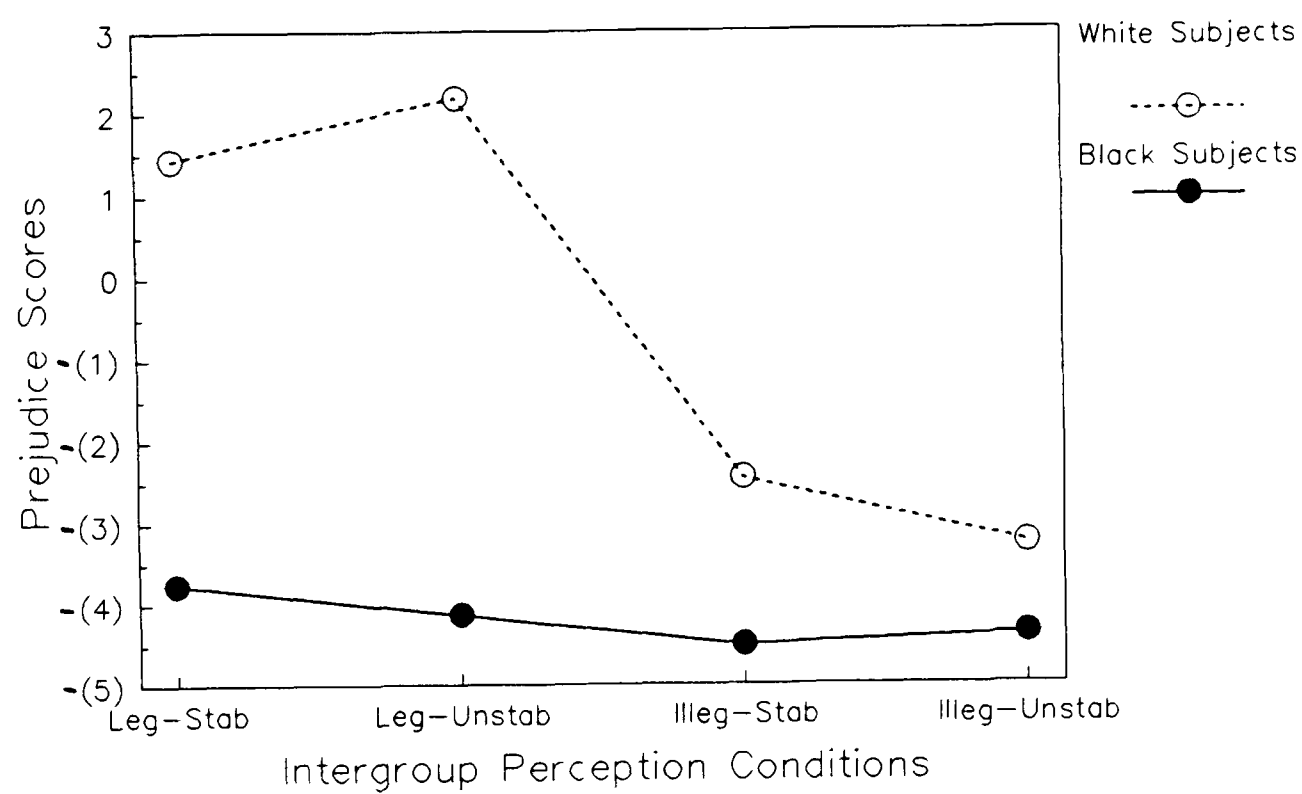
The model was significant ($F(7, 377) = 7.88; p < 0.0001$), explaining 12.8% of the variance.

The main effects for Race of respondent ($F(1, 377) = 26.19; p < 0.0001$), and for Legitimacy were significant ($F(1, 377) = 12.91; p = 0.0004$), as was the interaction between them ($F(1, 377) = 8.41; p = 0.0039$).

The results indicate that whites in the Legitimacy conditions had significantly higher prejudice scores than those in the Illegitimacy conditions, confirming Hypothesis H1. However, although the prejudice scores of those in the Legitimate-Unstable group were higher ($M = 2.19$) than those of the Legitimate-Stable group ($M = 1.44$) this did not reach significance ($p = 0.6377$). Hence, Hypothesis H3 can not really be said to be supported.

No difference was evident in the prejudice scores of the black subjects as a function of Stability or Legitimacy.

Figure 7.2.8 Study 4: Attribution Prejudice Scores on Vignette I



Vignette J: Blacks are more likely to be made redundant, or to be unemployed than whites.

The model was significant ($F(7, 377) = 12.89; p < 0.0001$), explaining 19.3% of the variance.

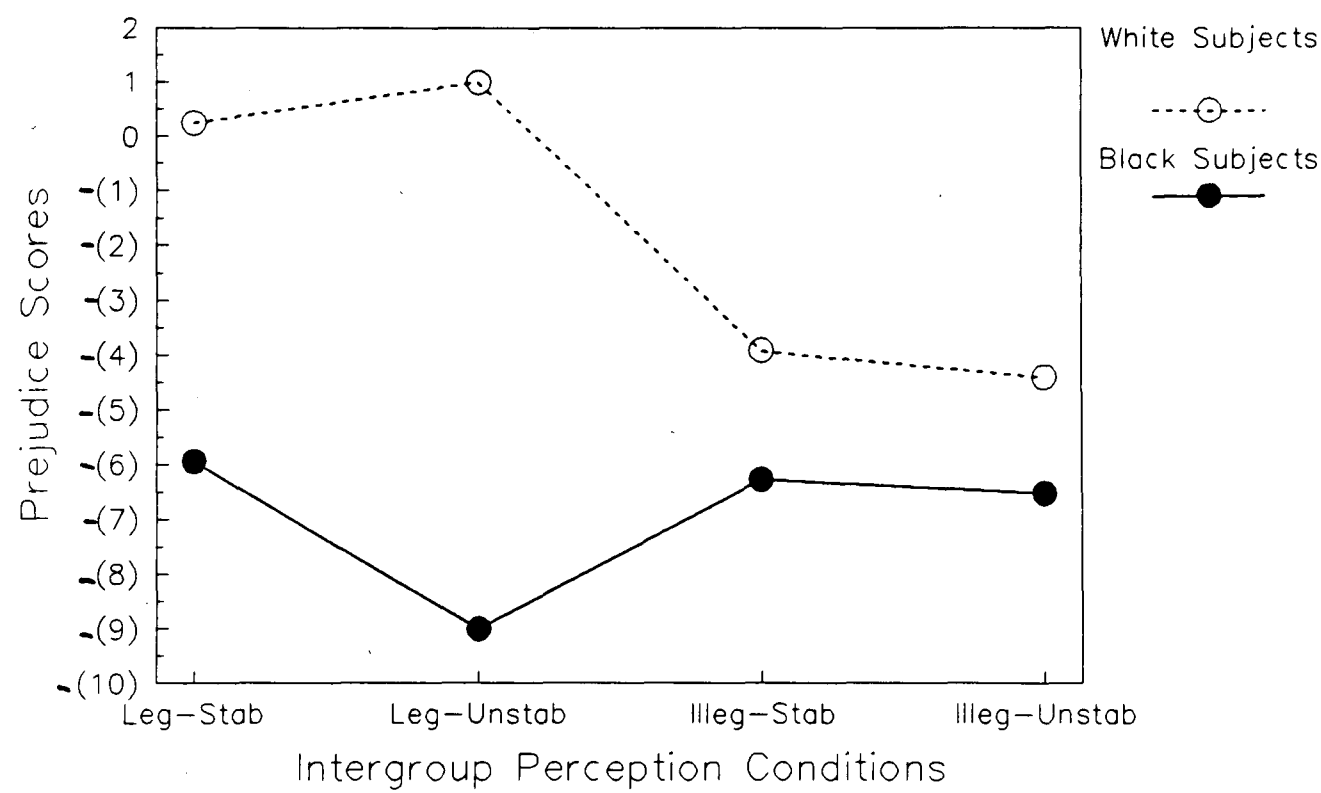
The main effects for Race of respondent was significant ($F(1, 377) = 60.74; p < 0.0001$), Legitimacy ($F(1, 377) = 7.89; p = 0.0052$) and the interaction between them were significant ($F(1, 377) = 19.58; p < 0.0001$).

The anticipated (Hypothesis H1) greater prejudice scores of subjects in the Legitimacy groups in comparison to those in the Illegitimacy group was once again found to hold only for the white subjects. Those in the

Legitimate-Unstable group had the highest prejudice scores, but this was not significantly greater than the scores of the Legitimate-Stable group.

There were no significant differences in the prejudice scores of the black subjects as a function of perceived Legitimacy or Stability, though there was a slight tendency for those in the Legitimate-Unstable group to give particularly low scores on this vignette.

Figure 7.2.9 Study 4: Attribution Prejudice Scores on Vignette J



Vignette K: Blacks receive lower pay than whites, even when they are doing similar jobs.

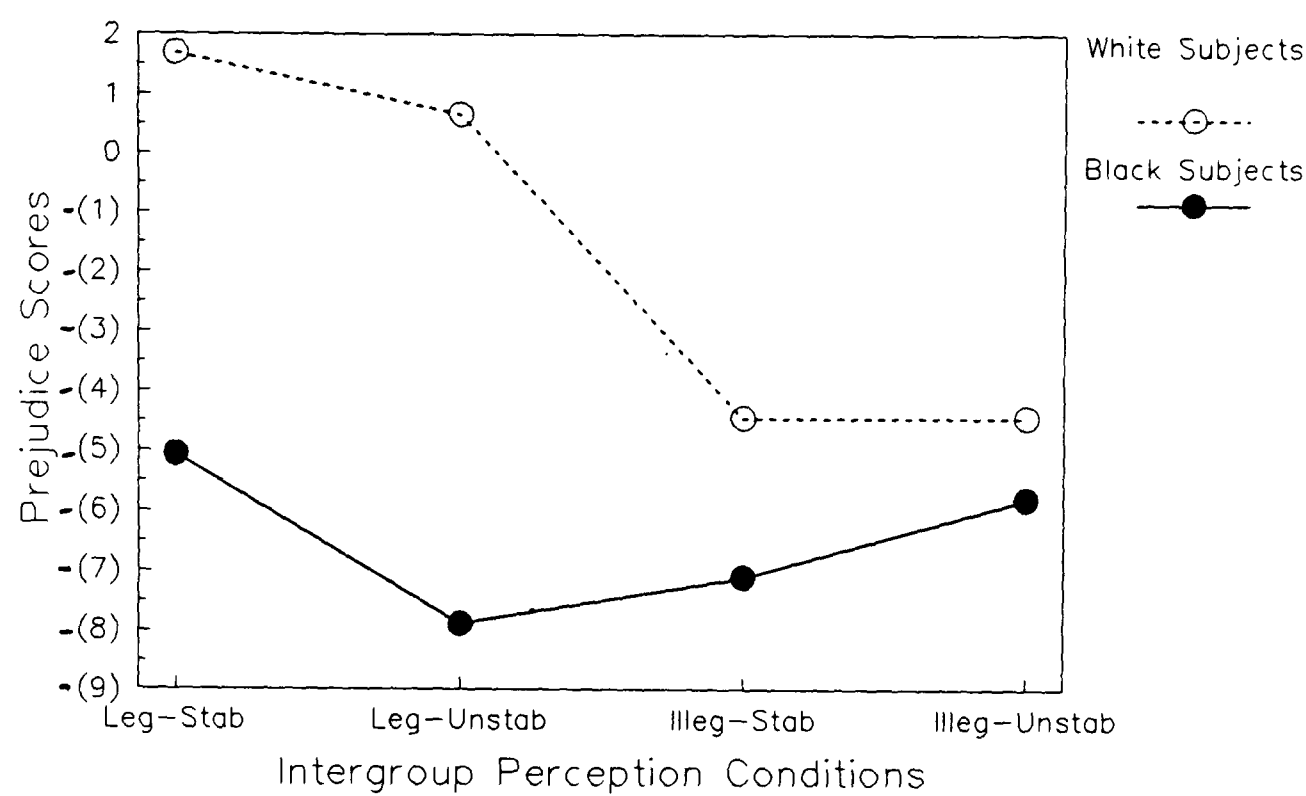
The model was significant ($F(7,377) = 16.40$; $p < 0.0001$), explaining 23.3% of the variance.

The main effects for Race of respondent ($F(1, 377) = 59.72; p < 0.0001$) and Legitimacy ($F(1, 377) = 20.06; p < 0.0001$) were significant. Both 2-way interaction involving Legitimacy were significant: Race x Legitimacy ($F(1, 377) = 20.32; p < 0.0001$) and Stability x Legitimacy ($F(1, 377) = 4.22; p = 0.0407$).

The pattern of responses are the same as the previous vignettes. Hypotheses H1 is supported, the whites in the Legitimacy groups have significantly higher prejudice scores than those in the Illegitimacy groups. However, in this vignette the prejudice scores of the Legitimate-Unstable group are not the highest.

There is not a consistent effect due to Legitimacy in the scores of the black subjects, but the mean of those in the Legitimate-Stable group is significantly higher than those in the Illegitimate-Stable groups (Legitimate-Stable, $M = -5.06$; Illegitimate-Stable, $M = -7.10; p = 0.0704$), and the mean of the Legitimate-Unstable group is significantly lower than the Illegitimate-Unstable groups (Legitimate-Unstable, $M = -7.87$; Illegitimate-Unstable, $M = -5.80; p = 0.0337$). Thus there is slight support for Hypothesis H4.

Figure 7.2.10 Study 4: Attribution Prejudice Scores on Vignette K



Vignette L: *Whites have more facilities for recreation, e.g. sports than do blacks.*

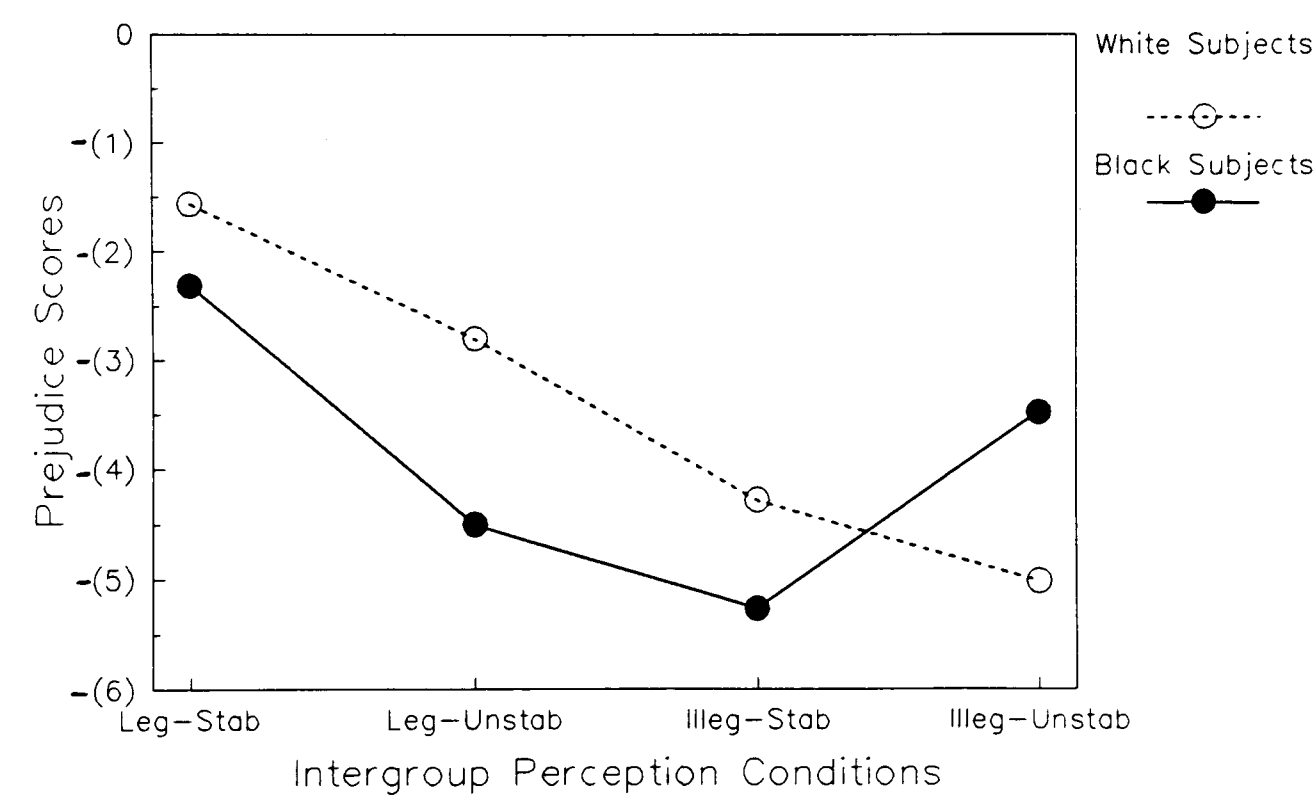
The model was significant ($F(7, 377)=4.50; p<0.0001$), explaining 7.8% of the variance.

The main effect for Legitimacy was significant ($F(1, 377)=9.68; p=0.0020$), and the interaction Stability x Legitimacy is significant ($F(1, 377)=4.12; p=0.0431$).

The Legitimacy main effect indicates that Hypotheses H1 and H2 are supported. However, the pattern of subjects in the Legitimacy group displaying higher prejudice scores than those in the Illegitimacy group is most marked in the case of white subjects.

Amongst the black subjects, as with vignette K, the effect is contaminated by the interaction with Stability; those in the Legitimate-Stable and Illegitimate-Unstable groups have higher prejudice scores than those in the Legitimate-Unstable and Illegitimate-Stable groups.

Figure 7.2.11 Study 4: Attribution Prejudice Scores on Vignette L



Weighted Room Bias

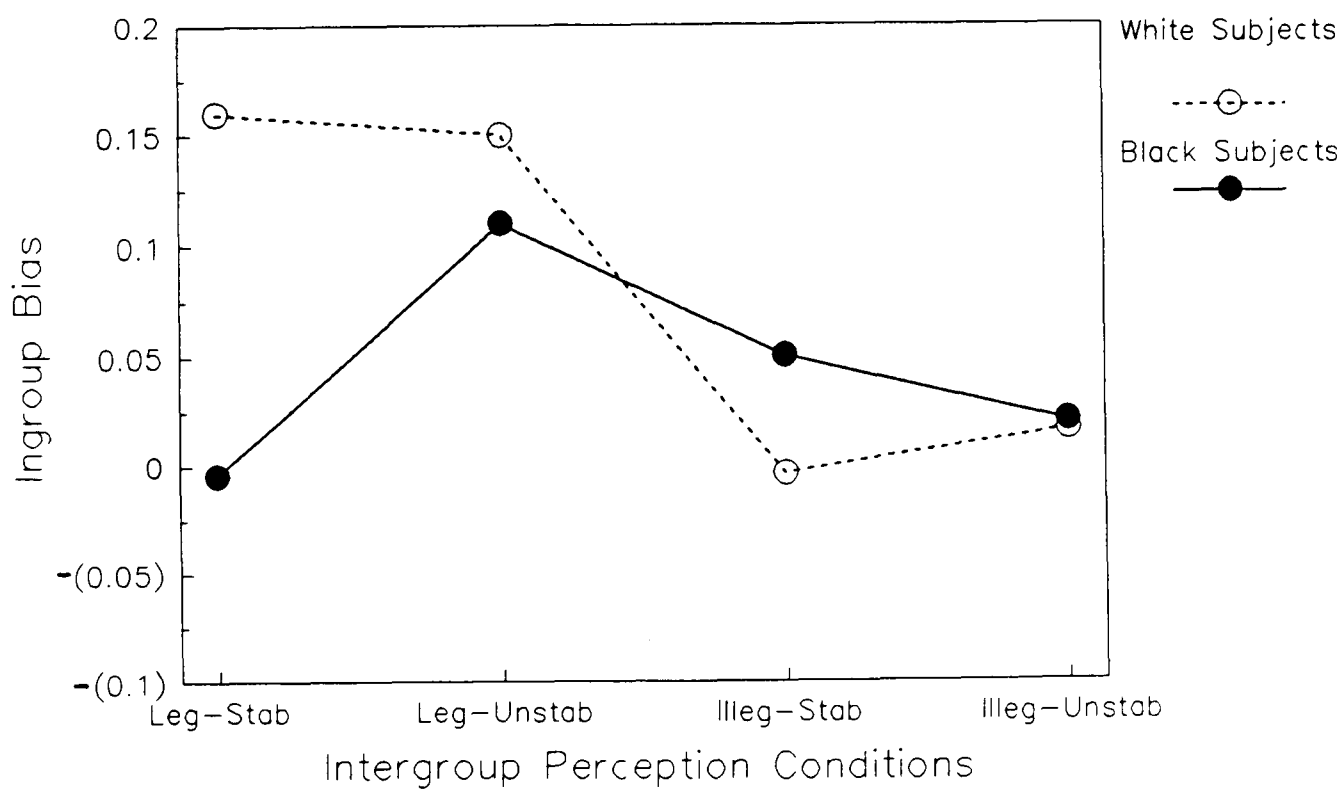
The model was statistically significant ($F(7, 377)=3.86; p=0.0005$), explaining 6.7% of the variation. The ANOVA indicated that the main effect for Legitimacy was significant ($F(1, 377)=11.63; p=0.0007$), as was the

interaction between Race x Legitimacy ($F(1, 377)=7.44; p=0.0067$). The three-way interaction Race x Stability x Legitimacy tended towards significance ($F(1, 377)=3.08; p=0.0802$).

With the white subjects, those in the Legitimate (Stable and Unstable) conditions displayed significantly more ingroup favouritism than did those in the Illegitimate conditions. Those in the Illegitimate-Stable condition evidenced outgroup favouritism. This supported Hypothesis H1. However, the degree of ingroup favouritism shown by the whites in the Legitimate-Unstable condition was not significantly greater than those in the Legitimate-Stable condition, as anticipated by Hypothesis H3.

Amongst the black subjects, there was no significant difference in the amount of ingroup favouritism shown in the allocation of rooms as a function of Legitimacy or Stability.

Figure 7.2.12 Study 4: Ingroup Favouritism on the Room Task



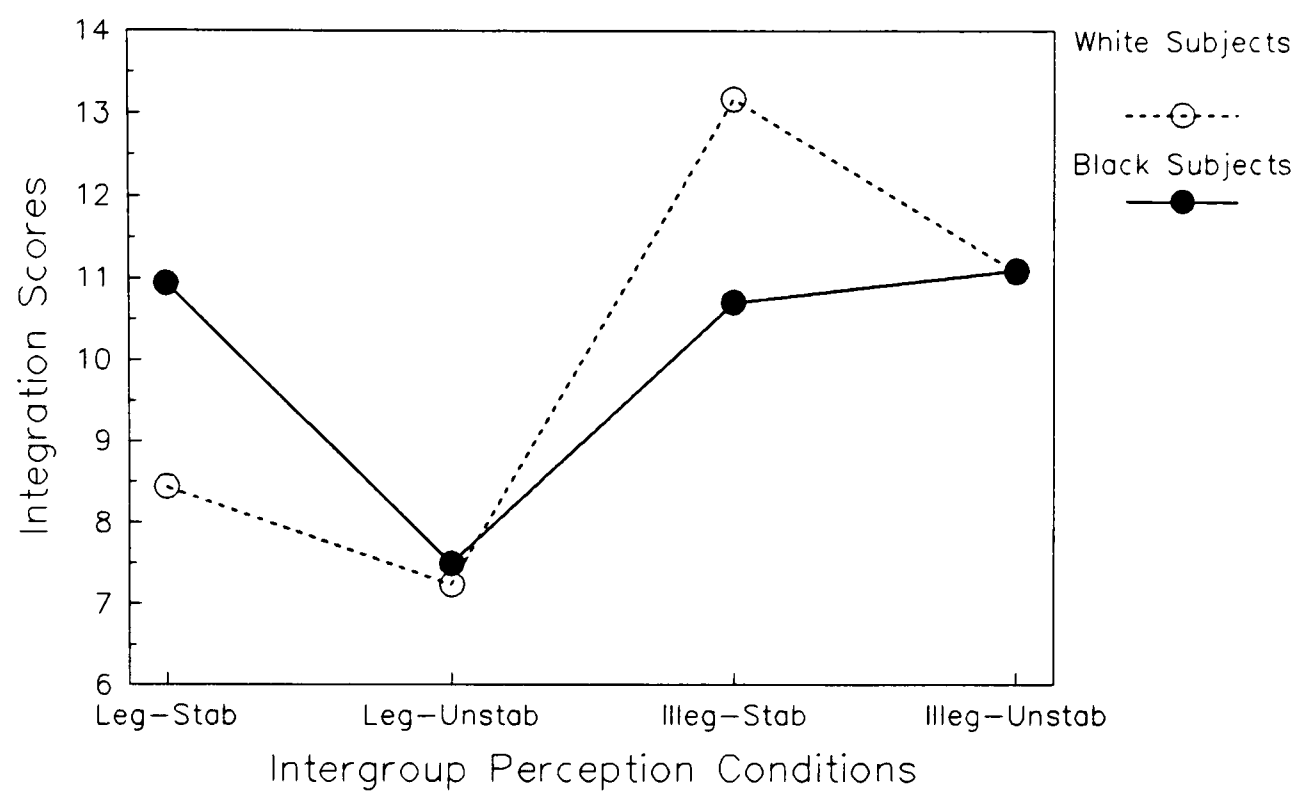
Integration Score

The model was significant ($F(7, 377) = 3.82; p = 0.0005$), explaining 6.6% of the variation. The ANOVA table indicated that the main effects for Stability ($F(1, 377) = 4.46; p = 0.0354$) and Legitimacy ($F(1, 377) = 15.83; p < 0.0001$) were significant. The 2-way interaction between Race x Legitimacy tended towards significance ($F(1, 377) = 3.02; p = 0.0829$).

Although the significant Stability effect indicated that (both black and white) subjects who view the intergroup hierarchy as Unstable have higher integration scores ($M = 10.82$) than those in the Stable condition ($M = 9.23$); and that those in the Legitimacy conditions have lower integration scores ($M = 8.53$) than those in the Illegitimacy conditions ($M = 11.52$), closer inspection indicates that these effects are due mainly to the responses of the white subjects. Amongst the black subjects, those in the Legitimate-Unstable condition have lower integration scores than those in the other conditions. However, the difference only tends to significance when compared to the Legitimate-Stable scores ($p = 0.0547$).

Thus Hypotheses H1 and H3 have been supported, but H2 and H4 have not.

Figure 7.2.13 Study 4: Integration Scores



7.2.5 Discussion of Social Issue Vignettes, Weighted Room Bias and Integration Scores

The fact that the main effect for Legitimacy was significant in the MANOVA and all the univariate ANOVAs confirmed that the perception that whites' superiority is legitimate was related to the degree of ingroup bias in the allocation of the rooms, to the amount of integration desired in the residence, and to the use of explanations for the inequality of blacks. However, the interaction between Race and Legitimacy was also significant, which indicated that this result only held for the white subjects.

Thus, Hypothesis H1 was confirmed, but not Hypothesis H2. The prediction that whites in the Legitimate-Unstable condition would evidence the most 'racist' responses was marginally supported. These subjects desired the least integration, and provided the most prejudiced responses on two of the four vignettes. However, the difference between these scores and the scores of the whites in the Legitimate-Stable condition did not differ significantly.

Hypothesis H4, which anticipated that blacks in the Legitimate-Stable condition would evidence the least ingroup favouritism in their responses, was also not really supported. Although the subjects in this condition produced means that were the least favourable to the ingroup on all the vignettes, they did not differ significantly from the other conditions. Surprisingly, the blacks in the Legitimate-Unstable condition evidenced the least desire for integration, but the highest ingroup favouritism on the room allocation task.

7.2.6 General Results and Conclusion

Before discussing the results, it is worth noting that the median of the stability scores differed from Study 1. In Study 1 the median was between -3 and -4, while in Study 4 the median was between -1 and -2. This would seem to imply that the subjects in Study 1 viewed the intergroup situation as more unstable than the present sample.

This difference may have been a function of the type of subject, as those in Study 1 were university students while those in the present study

were more representative of the general population. The difference may also be related to the time at which the experiments were performed. Study 1 was performed in 1985, when there was considerable optimism about political change. The United Democratic Front had been established and was gaining considerable force. Although the State of Emergency had just been called, the implications had not yet manifested. The present study was carried out between late 1986 and 1989. By then the UDF had been banned, thousands of political activists had been detained, and state repression was particularly flagrant. Thus, the likelihood of political change might be seen as more remote.

The results of the discrimination tasks and the social inequality vignettes imply that the intergroup perception factors do affect the pattern of responses. However, this was not the case in the attributions for individual group members' actions and outcomes. The hypotheses with respect to the social inequality vignettes, were largely supported mainly by the responses of the white subjects. The fact that this was not the case for even the white subjects in the action and outcome vignettes suggests that attributions to individuals are treated differently from attributions to groups.

A number of reasons may be responsible for this: The intergroup aspect of the task may not be sufficiently salient when considering individuals, particularly individually named actors, to elicit a response, and the action or outcome to be explained may have taken predominance over the group membership of the actor. The salience of the intergroup nature of a situation has been found to affect the degree of intergroup bias elicited (Oakes and Turner, 1986; Sachdev and Bourhis, 1984).

In addition, there are a number of different strategies or perspectives through which the actions of individuals may be viewed, so as to discount or augment group-serving implications. A positive action or outcome of an outgroup member, or a negative action or outcome of an ingroup member may be neutralized by considering these actors as atypical group members. The role of the perception of actors as atypical group members has been discussed by Pettigrew (1979) and Hewstone (1988), but has not been empirically investigated. Further, it may also be suggested that positive actions and outcomes of a subordinate outgroup member may be turned to the advantage of the superordinate ingroup. For instance, in a society in which a group suffers material discrimination, the success of such a group member may be used as "proof" that it is possible for members of this group to achieve, which further reinforces the perception that the failure of the majority of the group to do so is a measure of their lack of abilities or motivation, which has nothing to do with any societal discrimination.

The black subjects responses did not really conform to the expectations of Social Identity Theory. This may suggest a number of problems. Firstly, it is possible that the predictions of the theory do not actually hold for low status groups in general, or to non-Western low status groups. This, in turn, may imply that perceptions of stability and legitimacy have somewhat different meanings to this group, or that the Ladder task did not elicit these perceptions for the black subjects. A further possibility, is that the discourse of change and resistance is so prevalent among blacks in South Africa at this time, that little variation is discernible as a function of the intergroup perception factors.

7.3 Study 5: Inter-Gender Bias in Attributions as a Function of the Intergroup Perception Factors.

The groups in this study were men and women in the Durban region. South African society, both black and white, is largely discriminatory towards women. Although there are women, both black and white, who are concerned about women's liberation issues, the movement has not become a strong force here. Part of the reason for this is the predominance of the race issue, and the very different experience women of the various races and classes have of their oppression.

Thus, the groups in this study represent a very different picture of intergroup relationships.

7.3.1 Method

Subjects

Six hundred and thirty-six people, consisting of 156 white males, 129 black males, 171 white females and 180 black females completed the questionnaires. Of these, 206 were dropped from the main analysis. Nine of these (6 white men, 2 white women and 1 black woman) were excluded because they refused to complete the ladder task. The remaining 197 were excluded because they stated that men and women were equal or that women

were "better off" than men at present. This group consisted of 56 white men, 34 black men, 40 white women and 67 black women. Thus approximately 430 subjects were used in the full analyses. The average age of the sample was 27.41 years.

Materials

The booklet used in this study was very similar to that used in Study 4. The tasks completed by the subjects were:

Attribution Vignettes: These were similar to those used in Study 4. The differences were that the actors of the action and outcome vignettes were male and female. The gender of the actor was again depicted by the names. The names used for the black and white subjects differed. Typical Zulu names were used for the black sample and Western names for the white sample.

The social issue vignettes depicted the social inequalities as related to gender not race.

Funding Task: It was decided that the room task should not be used for the gender study, as the responses would be contaminated by issues of sexual mores. In its place a task was constructed which asked subjects to allocate proportions of funds for (i) Fee Assistance, (ii) Book Grants (iii) Sports Fund and (iv) Residence Accommodation between male and female students. This task used the matrix format designed by Tajfel (1970) in which subjects were required to select one of 11 boxes, where each box specified

that a certain percentage of the funds or accommodation would be provided to men and to women.

Ladder task: This was identical to that used in Study 4, except that the subjects had to decide where men and women were placed on the ladder under the various questions.

The order of the tasks within the booklet were randomized. An example of a booklet appears in Appendix D.

Intergroup Perception Factors

Perceived legitimacy and stability of the gender status hierarchy was determined from the Ladder Task as described previously. The median for this sample, on which the stable/unstable dichotomy was made, was between 0 and -1. Thus, subjects with stability scores of -1 and below were placed into the unstable category, and those with scores of 0 and above were placed in the stable category.

Dependent Variables

The following dependent variables were calculated from the responses on the funding and attribution tasks.

1. **Funding bias.** This was derived from the funding task. The mean percentage allocated to each gender group was calculated and the ingroup to outgroup difference calculated. High (positive) scores imply ingroup favouritism, low (negative) scores, outgroup favouritism.

2. Attribution evaluation score. Each of the 8 action and outcome vignettes provided a single score. The method used to calculate this score was described in Study 4.

Ingroup favouritism would be expressed (in the action and outcome vignettes) by higher attribution evaluation scores when the actor is a member of the ingroup (of the same gender as the subject) than when a member of the outgroup.

4. Attribution prejudice score. In the same manner as described in Study 4, each of the 4 social issue vignettes produced a single score which represented the degree of 'sexism' of the respondent.

High attribution prejudice scores indicate a more negative attitude to women, and a low prejudice score a more positive attitude.

Predictions

- H1. For the male (high status) groups, it is predicted that those who perceive the intergroup status hierarchy as illegitimate will evidence less ingroup favouritism and a more positive attitude to women than those who perceive the situation as legitimate.
- H2. For the female (low status) groups, it is predicted that the effect of perceived illegitimacy will be to increase ingroup favouritism and positive attitudes to their group.
- H3. Men in the group who perceive the situation as legitimate and unstable will exhibit the highest ingroup bias and highest anti-women attitudes, as these subjects feel their superiority under threat from external forces.

H4. It is expected that of all the female groups, the subjects in the group with secure social identity (*i.e.* who perceive the situation as stable and legitimate) will evidence the least ingroup favouritism and the least favourable attitude to their own group.

The anticipated analyses results follow the same pattern as in Study 4.

Analysis

Action and Outcome Vignettes

The attribution evaluation scores were analysed independently for each vignette as a 2 (race) x 2 (gender) x 2 (stable/unstable) x 2 (legitimate/illegitimate) x 2 (gender of actor) completely randomized Analysis of Variance. The SAS GLM programme was again used to account for the discrepancy in cell numbers.

Social Issue Vignettes, Weighted Room Bias and Integration Scores

The attribution evaluation scores on the social issue vignettes, and the funding bias were together analysed as a 2 (race) x 2 (gender) x 2 (stable/unstable) x 2 (legitimate/illegitimate) completely randomized effects MANOVA.

Procedure

Subjects were again either located as individuals or through various types of institutions (work, church groups, training colleges, clinics, sports

clubs, *etc.*) and asked to complete the questionnaires. The subjects were always approached by an interviewer of the same race, but not necessarily the same gender.

7.3.2 Results

Action Vignettes

The evaluation score (least square) means for the four action vignettes are presented in Table 7.3.1, and the summary of the analyses are displayed in Table 7.3.2. The full ANOVA Summary tables appear in Appendix D.

Table 7.3.1 Study 5: Least Square Means of Action Vignette Attribution Evaluation Scores

	Male Subjects		Female Subjects	
	Male Actor	Female Actor	Male Actor	Female Actor
Stable	5.000 (2)	4.000 (2)	6.667 (3)	3.500 (2)
	0.500 (2)	4.000 (2)	2.500 (2)	4.333 (3)
	2.500 (2)	6.000 (2)	6.000 (3)	7.500 (2)
	-3.000 (2)	-2.500 (2)	-2.500 (2)	-3.000 (3)
Legitimate	3.286 (7)	4.333 (3)	4.000 (3)	4.444 (9)
Unstable	4.000 (3)	0.286 (7)	3.778 (9)	3.000 (3)
	0.857 (7)	3.667 (3)	6.000 (3)	3.444 (9)
White Subjects	0.333 (3)	0.714 (7)	-0.778 (9)	0.667 (3)
Stable	4.667 (9)	3.700 (10)	2.857 (7)	3.600 (15)
	-1.400 (10)	-0.111 (9)	0.933 (15)	0.571 (7)
	4.111 (9)	3.333 (10)	6.000 (7)	3.867 (15)
	3.700 (10)	1.556 (9)	-0.267 (15)	-0.143 (7)
Illegitimate	4.033 (30)	3.806 (31)	5.674 (46)	3.930 (43)
Unstable	-0.067 (31)	0.167 (30)	0.651 (43)	2.000 (46)
	3.400 (30)	2.900 (31)	4.348 (46)	4.023 (43)
	0.000 (31)	-0.767 (30)	-0.116 (43)	-1.500 (46)
Stable	4.222 (9)	3.000 (9)	5.000 (12)	7.182 (11)
	0.333 (9)	2.333 (9)	3.364 (11)	3.917 (12)
	1.778 (9)	0.778 (9)	2.750 (12)	2.000 (11)
	0.333 (9)	-0.889 (9)	-0.727 (11)	-1.083 (12)
Legitimate	2.750 (8)	2.625 (8)	5.375 (8)	2.333 (6)
Unstable	-1.625 (8)	2.625 (8)	0.167 (6)	1.000 (8)
	1.750 (8)	3.750 (8)	4.875 (8)	4.167 (6)
	1.250 (8)	-0.625 (8)	0.667 (6)	-0.250 (8)
Black Subjects	5.455 (11)	2.000 (12)	5.143 (7)	7.895 (19)
Stable	0.083 (12)	2.363 (11)	3.778 (19)	3.333 (7)
	1.818 (11)	3.917 (12)	1.143 (7)	3.105 (19)
Illegitimate	-0.750 (12)	-0.091 (11)	-0.111 (19)	0.714 (7)
Unstable	6.310 (29)	7.333 (9)	6.500 (20)	6.552 (29)
	4.889 (9)	2.656 (29)	3.793 (29)	0.900 (20)
	2.241 (29)	1.444 (9)	3.550 (20)	1.821 (29)
	-0.333 (9)	-0.483 (29)	-0.172 (29)	-1.100 (20)

1 Action Vignette A
3 Action Vignette C
2 Action Vignette B
4 Action Vignette D

Table 7.3.2 Study 5: Summary of the Univariate ANOVA Analyses of the Action Vignettes

	Dependent Variables			
	Vig A	Vig B	Vig C	Vig D
<u>Full Model</u>				
F Ratio	2.13 ^a	2.27 ^a	1.11	0.86
Mean Square Error	14.612	15.329	17.661	15.059
R-square	14.3%	15.2%	8.0%	6.3%
df	31, 396	31, 393	31, 394	31, 395
<u>F Statistics for Effects</u>				
Race (A)	2.10	1.03	8.57 ^a	0.21
Gender (B)	2.83 ^c	3.87 ^b	4.85 ^b	0.91
AxB	1.54	0.19	0.84	0.71
Stability (C)	0.01	0.09	0.22	0.54
AxC	0.00	0.77	3.38 ^c	0.14
BxC	0.42	2.02	0.20	0.11
AxBxC	2.09	1.82	0.29	0.28
Legitimacy (D)	1.95	1.33	0.54	1.83
AxD	4.42 ^b	11.53 ^a	0.02	2.52
BxD	0.28	0.07	1.41	0.12
AxBxD	0.00	0.18	0.00	0.84
CxD	4.72 ^b	2.44	0.09	8.21 ^a
AxCxD	0.66	0.74	2.15	2.66
BxCxD	0.00	0.18	0.03	0.13
AxBxCxD	0.81	0.08	0.05	1.09
Gender of Actor (E)	0.64	0.79	0.08	0.55
AxE	0.13	0.01	0.00	0.04
BxE	0.14	0.76	1.71	0.12
AxBxE	0.98	1.08	0.29	0.00
CxE	0.03	2.48	0.45	0.06
AxCxE	0.56	0.30	0.01	0.41
BxCxE	3.26 ^c	0.75	0.37	0.04
AxBxCxE	1.98	0.71	0.04	0.00
DxE	0.13	1.15	0.57	0.02
AxDxE	0.06	2.13	1.41	1.60
BxDxE	0.84	0.00	0.67	0.01
AxBxDxE	0.05	0.14	0.27	0.22
CxDxE	0.03	0.01	0.09	0.15
AxCxDxE	2.51	5.35 ^b	3.17 ^c	0.01
BxCxDxE	0.45	0.06	0.58	0.49
AxBxCxDxE	0.22	0.46	0.09	0.21

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

Positive Actions

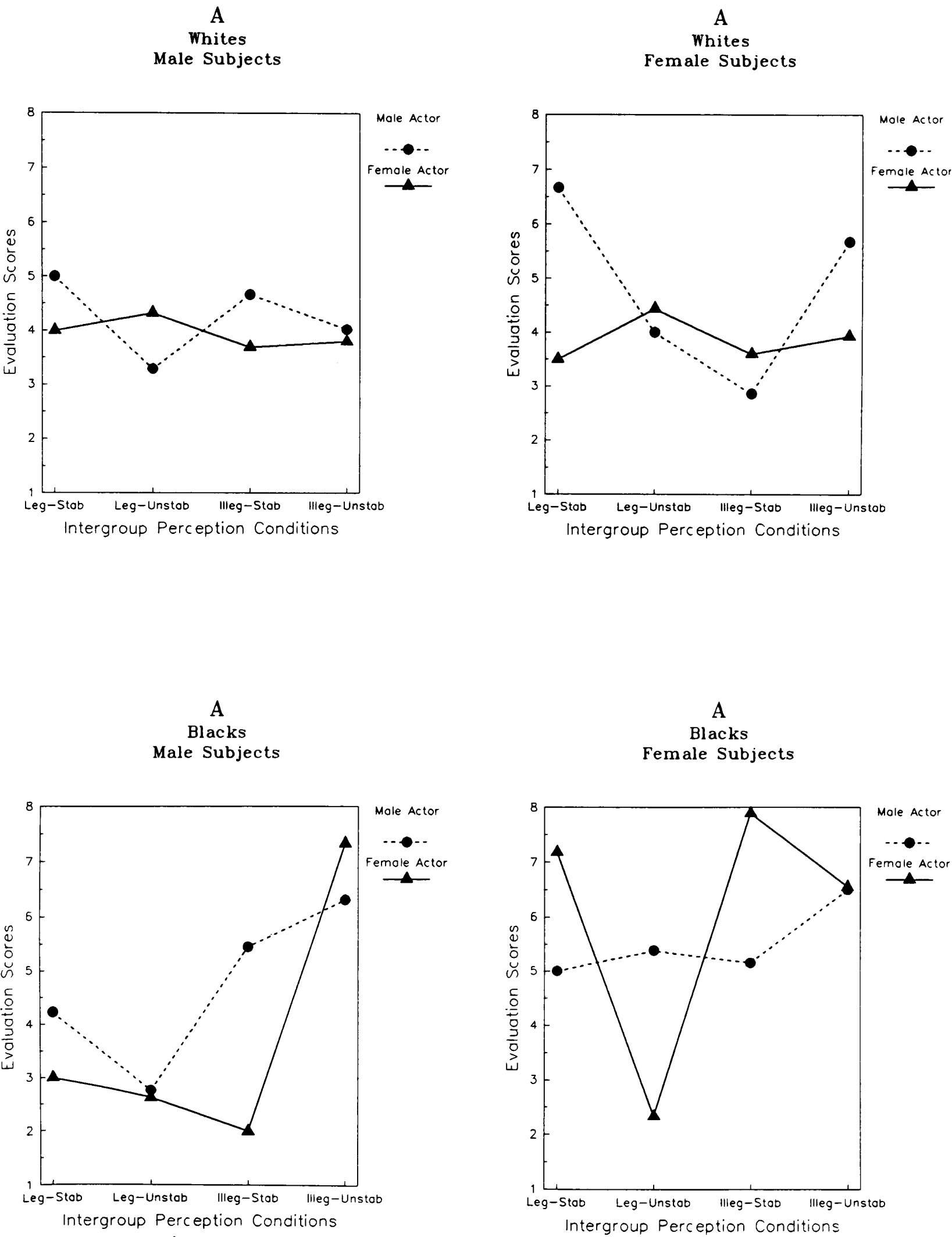
Vignette A: *Melanie Adams/John Baker (Thabeisile Mngadi/Zakhele Thusi) invited the stranger into the house to shelter from the storm.*

The model is significant ($F(31, 396) = 2.13; p = 0.0005$), explaining 14.3% of the variance.

The main effect for Gender tended towards significance, indicating that women in general give higher evaluation scores ($M = 5.04$) than men ($M = 4.15$). The 2-way interactions, Race x Legitimacy, and Stability x Legitimacy were significant, and the 3-way interaction Gender x Stability x Gender of actor tended towards significance.

The results do not support any of the hypotheses. The only conditions in which there were differences in the evaluation scores allocated to the male and female actors were: white females in the Illegitimate-Unstable condition, and black males in the Illegitimate-Stable condition, where contrary to predictions, the male actor received higher evaluation scores than the female. The black women in the Illegitimate-Stable condition tended to allocate higher scores to the female actor than the male actor, which was anticipated by Hypothesis H2.

Figure 7.3.1 Study 5: Graph of Evaluation Scores on Vignette A



Vignette B: *Gerald Hall/Glenda Hicks (Lungisani Hlongwa/Sibongile Ntuli) helped his/her neighbour to harvest his crop of mealies.*

The model is significant ($F(31, 393) = 2.27$; $p = 0.0002$), explaining 15.2% of the variance.

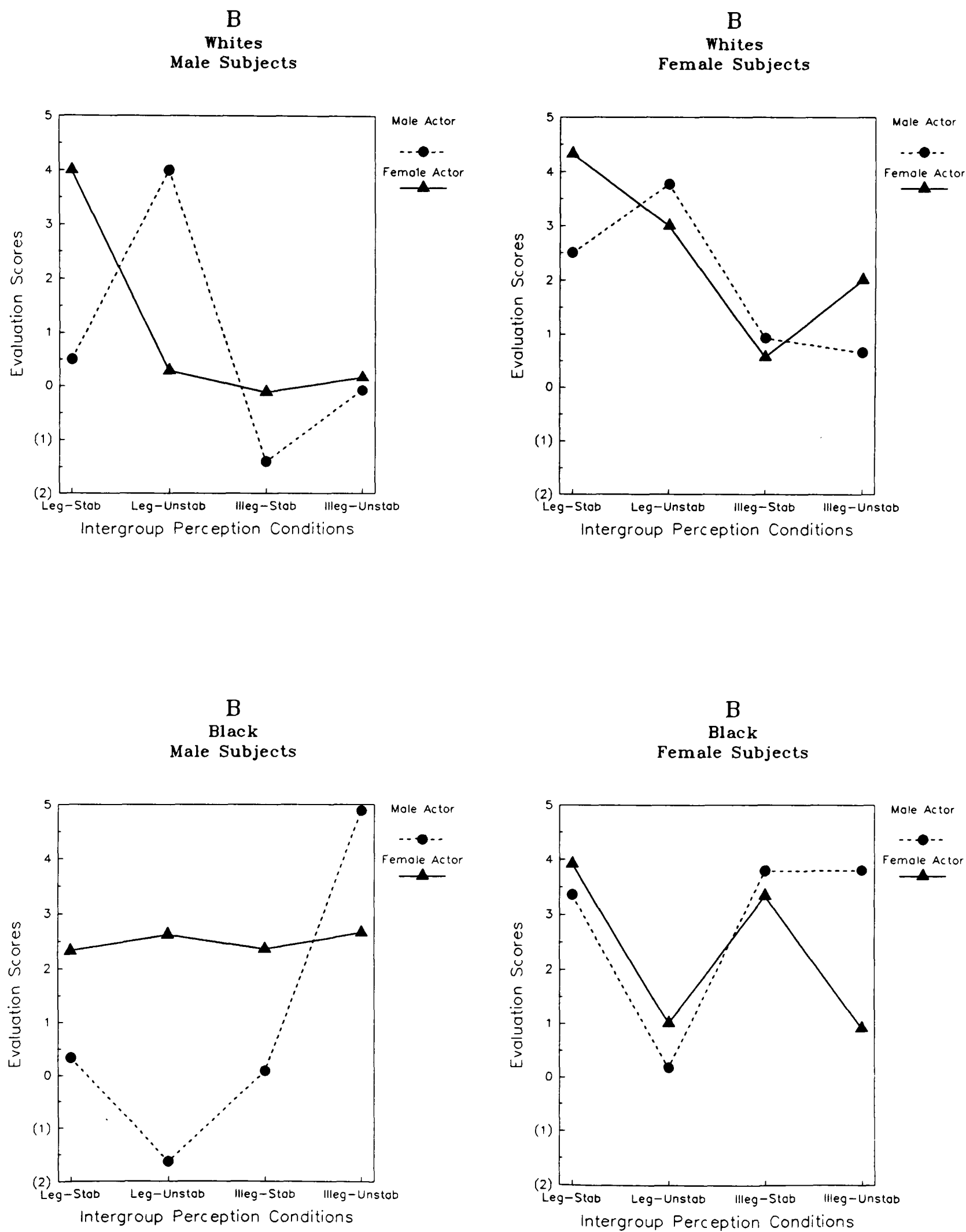
The main effect for gender is significant, indicating that women in general provide higher evaluation scores ($M = 2.38$) than do men ($M = 1.31$).

The 2-way interaction, Race x Legitimacy is significant, and these factors are implicated in the 4-way interaction Race x Stability x Legitimacy x Gender of Actor.

Close inspection of the results provide little support for the hypotheses. The (H1) prediction that men in the Legitimacy conditions exhibit ingroup favouritism in the attribution evaluation scores was not confirmed. There was a slight tendency for men in the Legitimate-Unstable condition to give higher evaluation scores to the male actor than the female actor (H3) to be supported in the case of the white subjects ($p = 0.1700$). The black male subjects in the Legitimate-Unstable condition, on the other hand, gave significantly higher evaluation scores to the female actor than the male actor ($p = 0.0305$).

There was a tendency for white women in the Illegitimate-Unstable condition to give higher evaluation scores when judging the female actor than the male actor ($p = 0.1052$), which conforms slightly with the expectations of Hypothesis H2. However, black women in these conditions give significantly higher scores when judging the male actor than the female actor ($p = 0.0114$). Hypothesis H4, which predicted that women in the Legitimate-Stable condition would show the least favouritism to their own group was not borne out by the data.

Figure 7.3.2 Study 5: Graph of Evaluation Scores on Vignette B



Negative Actions

Vignette C: *The customer brought the basket of shopping to the till. Sandra Marais/Stanley Moore (Nomusa Mlungwana/Phumlani Buthelezi) totalled the bill and overcharged the customer.*

The model was not significant ($F(31, 394) = 1.11; p = 0.3195$), so no further analyses were considered.

Vignette D: *The car was standing empty by the side of the road. John Scott/Jenny Smith (Mfanafuthi Kweyama/Thandiwe Sibiya) went up to it and slashed the tyres with a knife.*

The model was again not significant ($F(31, 395) = 0.86; p = 0.6796$).

7.3.3 Discussion of Action Vignettes

Only the models of the positive actions reached significance. Within these, there was little support for the predictions of the study.

Outcome Vignettes

Table 7.3.3 displays the means of the outcome vignette evaluation scores, and Table 7.3.4 presents the summary of the analyses.

Table 7.3.3 Study 5: Least Square Means of Outcome Vignette Attribution Evaluation Scores

		Male Subjects		Female Subjects						
	Male Actor		Female Actor		Female Actor					
Stable	2.500 0.500 2.000 -6.000	(2) (2) (2) (2)	-0.500 4.500 2.000 -2.500	(2) (2) (2) (2)	5.333 6.000 5.333 -3.000	(3) (2) (2) (3)	4.000 7.333 -1.000 -3.000	(2) (3) (3) (2)		
	Legitimate	0.571 4.000 -1.142 -0.667	(7) (3) (3) (7)	4.333 3.143 0.333 -2.286	(3) (7) (7) (3)	1.667 6.222 2.000 -1.111	(3) (9) (9) (3)	4.556 2.000 2.222 -0.333	(9) (3) (3) (9)	
		White Subjects	3.778 3.100 -0.889 -1.700	(9) (10) (10) (9)	2.200 5.444 1.400 -1.250	(10) (9) (9) (10)	4.000 4.600 2.000 -2.467	(7) (15) (15) (7)	4.733 5.429 1.333 -2.000	(15) (7) (7) (15)
			Stable	2.933 4.300 0.833 -0.367	(30) (31) (31) (30)	2.700 4.933 0.467 -1.967	(31) (30) (30) (31)	4.565 4.907 1.239 -2.357	(46) (43) (43) (46)	3.628 6.000 1.767 -1.043
Illegitimate				2.556 0.000 0.556 -1.333	(9) (9) (9) (9)	2.222 4.000 0.444 -1.222	(9) (9) (9) (9)	5.909 4.545 1.167 -1.545	(12) (11) (11) (12)	4.091 3.083 1.364 -2.583
	Legitimate			3.625 1.500 1.000 -2.000	(8) (8) (8) (8)	2.250 1.500 3.000 -1.125	(8) (8) (8) (8)	6.125 2.667 0.000 -2.500	(8) (6) (6) (8)	4.000 2.250 1.500 -3.125
		Black Subjects		3.818 2.667 1.000 -1.417	(11) (12) (12) (11)	2.417 4.182 0.500 -0.091	(12) (11) (11) (12)	4.429 4.000 2.714 -1.211	(7) (19) (19) (7)	4.889 3.857 0.944 -4.000
			Stable	4.586 4.556 -0.786 -1.778	(29) (9) (9) (29)	4.444 4.379 1.444 -2.517	(9) (29) (29) (9)	3.500 3.621 1.500 -2.724	(20) (29) (29) (20)	4.517 5.350 0.862 -2.450
Illegitimate										

1 Outcome Vignette E 3 Outcome Vignette G
2 Outcome Vignette F 4 Outcome Vignette H

Table 7.3.4 Study 5: Summary of the Univariate ANOVA Analyses of the Outcome Vignettes

	Dependent Variables			
	Vig E	Vig F	Vig G	Vig H
<u>Full Model</u>				
F Ratio	2.36 <i>a</i>	3.10 <i>a</i>	1.02	0.92
Mean Square Error	6.837	7.799	11.524	12.178
R-square	15.7%	19.5%	7.4%	6.7%
df	31, 394	31, 396	31, 393	31, 394
<u>F Statistics for Effects</u>				
Race (A)	4.64 <i>b</i>	10.90 <i>a</i>	0.13	0.03
Gender (B)	19.68 <i>a</i>	9.76 <i>a</i>	2.93 <i>c</i>	1.15
AxB	0.18	0.95	0.88	2.08
Stability (C)	0.08	0.10	0.38	1.08
AxC	0.44	0.02	0.33	4.13 <i>b</i>
BxC	3.85 <i>c</i>	2.53	0.01	0.00
AxBxC	0.04	0.51	1.17	0.04
Legitimacy (D)	1.89	8.69 <i>a</i>	0.35	0.27
AxD	0.55	1.72	0.13	0.95
BxD	3.49 <i>c</i>	3.07 <i>c</i>	0.29	0.63
AxBxD	0.50	0.08	0.58	0.85
CxD	0.00	3.48 <i>c</i>	0.03	1.73
AxCxD	0.03	0.15	1.61	0.77
BxCxD	0.22	1.78	0.09	0.65
AxBxCxD	2.42	1.19	1.58	0.19
Gender of Actor (E)	0.89	2.77 <i>c</i>	0.00	0.05
AxE	1.10	0.00	0.59	0.41
BxE	0.31	4.30 <i>b</i>	3.50 <i>c</i>	0.41
AxBxE	0.08	0.06	0.51	1.25
CxE	3.74 <i>c</i>	5.69 <i>b</i>	3.43 <i>c</i>	0.10
AxCxE	3.14 <i>c</i>	2.19	0.01	1.29
BxCxE	0.92	2.60	0.76	2.68
AxBxCxE	0.94	1.43	2.30	0.43
DxE	0.05	0.79	0.08	0.31
AxDxE	2.98 <i>c</i>	0.39	2.04	0.00
BxDxE	1.11	3.28 <i>c</i>	0.04	0.36
AxBxDxE	0.60	0.04	1.61	0.21
CxDxE	2.01	3.89 <i>b</i>	1.46	0.07
AxCxDxE	6.34 <i>b</i>	0.90	1.77	0.32
BxCxDxE	0.11	0.04	0.07	0.21
AxBxCxDxE	0.03	0.46	0.00	1.53

a $p < 0.01$
b $p < 0.05$
c $p < 0.10$

Positive Outcomes

Vignette E: *Helen Davis/Harold de Villiers (Busisiwe Ndhlovu/Thokozani Gwala) wrote her/his matric exams in November. She/He achieved a "B" aggregate and was admitted into university.*

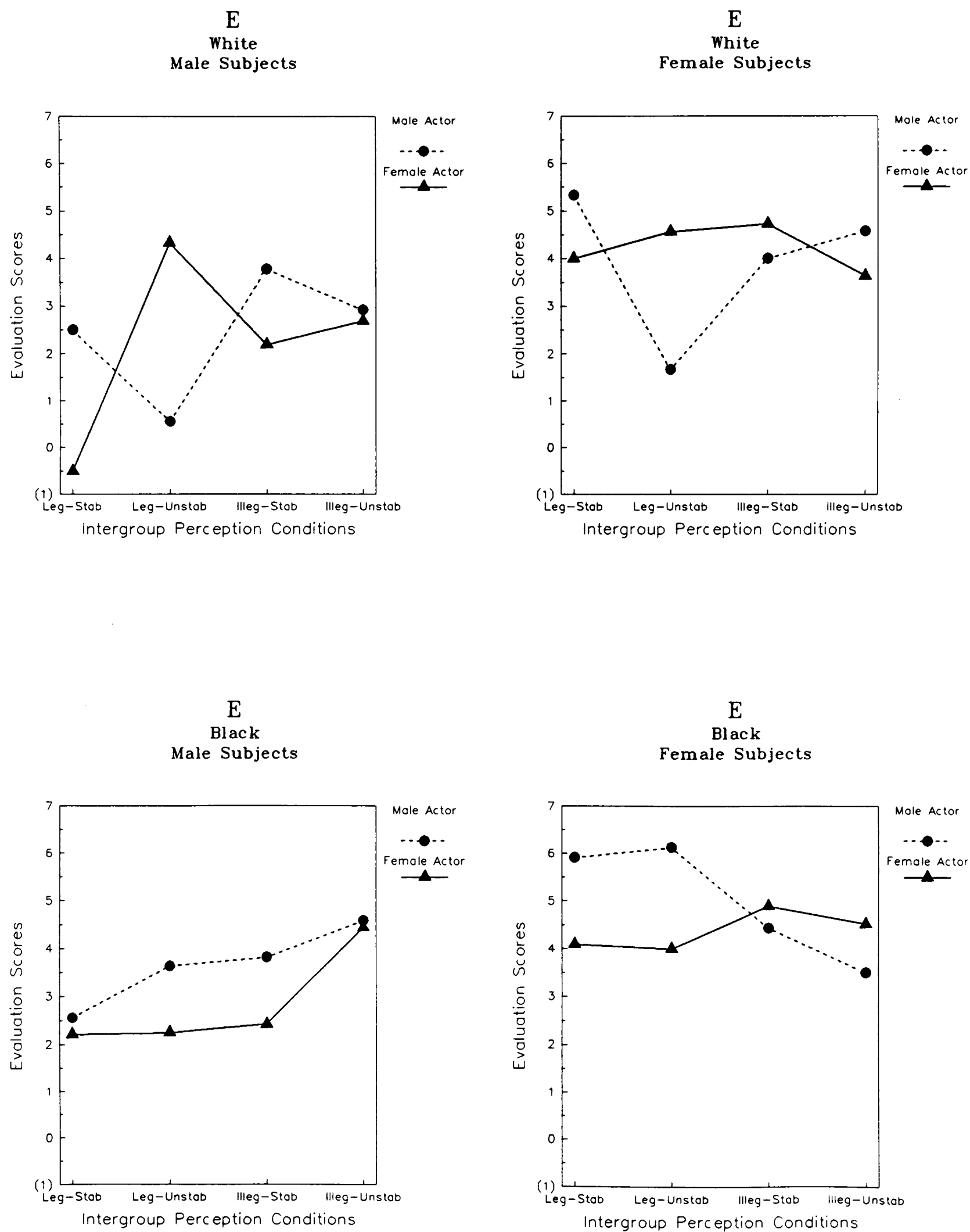
The model is significant ($F(31, 394) = 2.36; p < 0.0001$), explaining 15.7% of the variance.

The main effects for Race and Gender are significant, indicating that blacks gave higher evaluation scores ($M = 3.96$) than whites ($M = 3.19$), and women gave higher evaluation scores ($M = 4.37$) than men ($M = 2.78$). A number of 2- and 3-way interactions tended towards significance: Gender x Stability, Gender x Legitimacy, Stability x Gender of Actor, Race x Stability x Gender of Actor, and Race x Legitimacy x Gender of Actor. The 4-way interaction Race x Stability x Legitimacy x Gender of Actor was significant.

The pattern of responses were largely contrary to expectations. Males in the Legitimacy conditions did not ascribe greater positive evaluations to the male actor than the female actor. In fact, contrary to the third prediction (H3) significantly higher scores were allocated to the female actor than the male actor by white males in the Legitimate-Unstable group ($p = 0.0377$). There was a tendency for the white women in the Legitimate-Unstable group to ascribe more positive evaluations to the female actor than the male actor ($p = 0.0983$), and for those in the Illegitimate-Unstable group to ascribe higher scores to the male actor than the female actor ($p = 0.0918$). Both these findings were contrary to the expectations of the hypotheses.

Very slight support for hypothesis H4 was provided by black women in the Legitimate-Stable condition. There was a tendency for these subjects to allot higher evaluation scores to the male actor than the female actor ($p = 0.1038$).

Figure 7.3.3 Study 5: Graph of Evaluation Scores on Vignette E



Vignette F: *Kevin Roberts/Karen Grove (Sibonelo Gumede/Nozipho Kunene) entered a dancing competition and won first prize.*

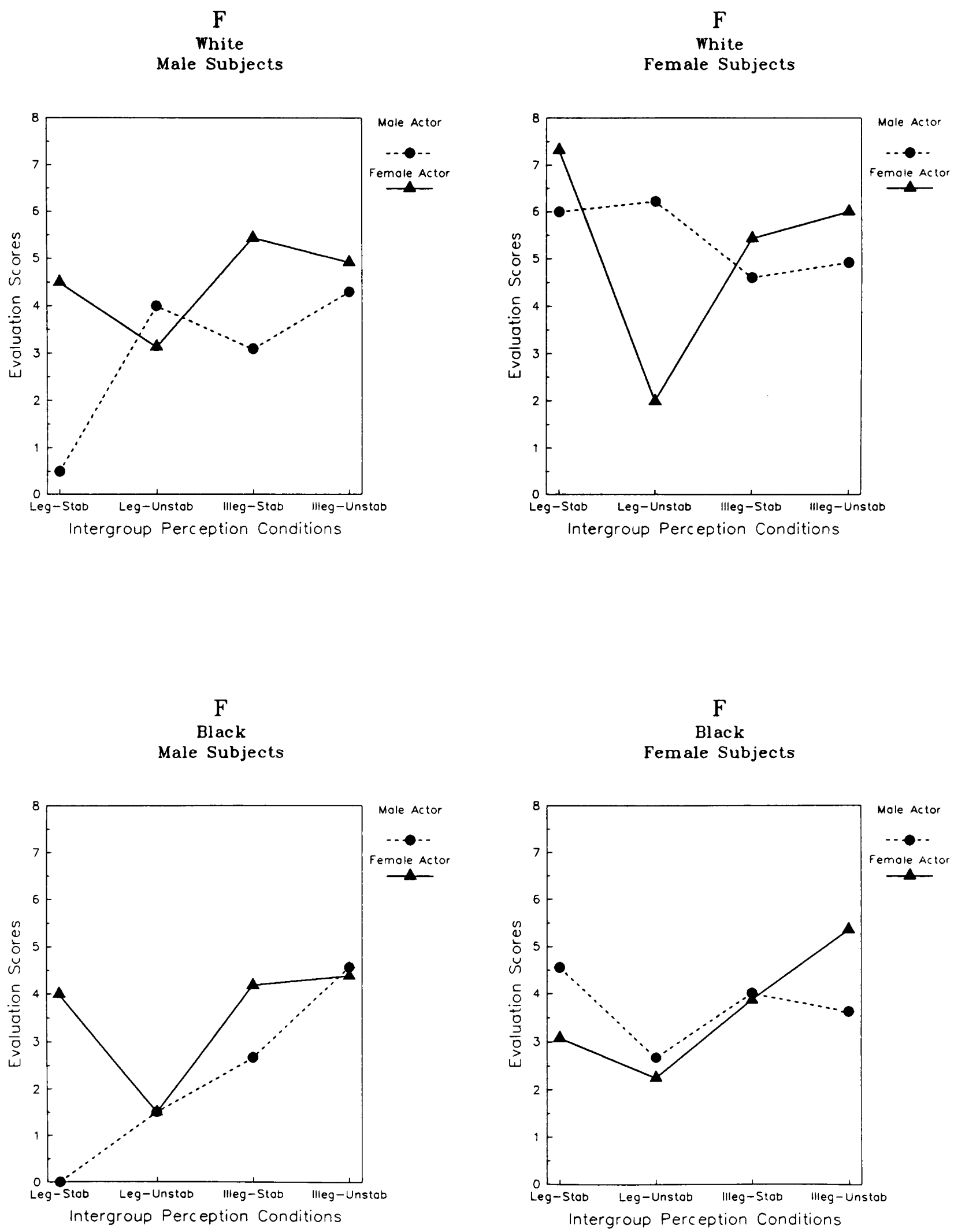
The model is significant ($F(31, 396) = 3.10$; $p < 0.0001$), explaining 19.5% of the variation.

The main effects for Race, Gender and Legitimacy are significant. In this vignette, whites in general give higher evaluation scores ($M = 4.52$) than blacks ($M = 3.53$); women ($M = 4.49$) higher than men ($M = 3.29$); and subjects in the Illegitimacy conditions give higher scores ($M = 4.46$) than those in the Legitimacy conditions ($M = 3.33$). The main effect for Gender of actor tended towards significance, indicating that higher evaluation scores are attributed to the female actor ($M = 4.21$) than to the male actor (3.57).

The 2-way interactions: Gender x Legitimacy, Gender x Gender of Actor; Stability x Gender of Actor are, or tended to significance, as do the 3-way interactions, Gender x Legitimacy x Gender of Actor and Stability x Legitimacy x Gender of Actor.

Again, the pattern of responses provided little support for the hypotheses. The subjects in the Legitimacy conditions did not in general evidence higher evaluation scores for the male actor than the female actor, though white women in the Legitimate-Unstable condition did allocate significantly higher scores when assessing the male actor than the female actor. Black women in the Illegitimate-Unstable condition did ascribe higher scores to the female actor than the male actor, as would be anticipated by Hypothesis H2.

Figure 7.3.4 Study 5: Graph of Evaluation Scores on Vignette F



Vignette G: *Tessa Pienaar/Trevor Potter (Zandile Nduli/Nhlanhla Dlodla) failed to receive promotion at work.*

The model was not significant ($F(31, 393) = 1.02; p = 0.4379$), explaining 7.5% of the variability.

Vignette H: *Peter Evans/Linda Turner (Thulani Ngcobo/Khethiwe Makhathini) was not selected for the school rugby/hockey team.*

The model was not significant ($F(31, 392) = 0.92; p = 0.5977$)/ 6.7% of the variance was explained.

7.3.5 Discussion

Again, only the positive outcomes resulted in significant models. However, little support for the predictions emerged from the data.

Social Issue Vignettes and Funding Bias

The prejudice scores for the four social issue vignettes and the funding bias scores were together analysed in a MANOVA. Table 7.3.5 presents the results of the MANOVA, Table 7.3.6 the subsequent analyses of variances of each of the dependent variable, and Table 7.3.6 displays the means for all the variables.

Table 7.3.5 Study 5: MANOVA Results

	Wilks' Lambda	F	df	Prob
Race	0.947	4.375	5, 387	0.0007
Gender	0.834	15.452	5, 387	0.0001
Race x Gender	0.983	1.335	5, 387	0.2487
Stability	0.982	1.458	5, 387	0.2028
Race x Stab	0.986	1.105	5, 387	0.3573
Gender x Stab	0.988	0.945	5, 387	0.4519
Race x Gender x Stab	0.964	2.859	5, 387	0.0150
Legitimacy	0.895	9.034	5, 387	0.0001
Race x Leg	0.986	1.081	5, 387	0.3706
Gender x Leg	0.958	3.431	5, 387	0.0048
Race x Gender x Leg	1.000	0.026	5, 387	0.9997
Stab x Leg	0.987	0.996	5, 387	0.4197
Race x Stab x Leg	0.989	0.853	5, 387	0.5129
Gender x Stab x Leg	0.994	0.464	5, 387	0.8032
Race x Gender x Stab x Leg	0.975	1.958	5, 387	0.0840

The MANOVA results indicate that the main effects for Race, Gender and Legitimacy are significant, as is the 2-way interaction Gender x Legitimacy, and the 3-way interaction Race x Gender x Stability. The 4-way interaction Race x Gender x Stability x Legitimacy also tends towards significance.

These results will be explored further, through the univariate ANOVA results.

Table 7.3.6 Study 5: Summary of the Univariate ANOVA Analyses

	Dependent Variables				
	Vig I	Vig J	Vig K	Vig L	Funding Bias
<u>Full Model</u>					
F Ratio	4.48 ^a	7.25 ^a	5.90 ^a	4.35 ^a	7.30 ^a
Mean Square Error	12.693	15.678	13.689	12.516	178.321
R-square	14.7%	21.8%	18.5%	14.3%	21.9%
df	15, 391	15, 391	15, 391	5,391	5, 391
<u>F Statistics for Effects</u>					
Race (A)	6.32 ^b	13.50 ^a	1.18	0.25	0.19
Gender (B)	9.17 ^a	16.02 ^a	15.71 ^a	6.49 ^b	56.24 ^a
AxB	0.26	0.07	0.54	2.58	1.26
Stability (C)	0.32	2.17	0.01	3.15 ^c	0.27
AXC	2.56	0.10	1.58	0.02	2.17
BxC	0.68	1.18	0.10	2.77 ^c	1.29
AXBxC	2.72	0.70	4.24 ^b	0.97	4.70 ^b
Legitimacy (D)	12.76 ^a	12.21 ^a	24.00 ^a	26.81 ^a	9.68 ^a
AXD	2.97 ^c	1.78	4.70 ^b	1.48	0.01
BxD	0.12	0.12	0.44	1.71	15.61 ^a
AXBxD	0.02	0.01	0.03	0.01	0.00
CxD	0.21	0.64	0.36	1.92	0.05
AXCxD	0.02	0.28	0.02	0.19	3.78 ^c
BxCxD	0.97	0.45	0.00	0.00	0.07
AXBxCxD	0.25	0.32	3.93 ^b	0.01	3.02 ^c

^a $p < 0.01$
^b $p < 0.05$
^c $p < 0.10$

Table 7.3.7 Study 5: Least Square Means of Funding Bias and Social Inequality Vignettes Attribution Scores

	Legitimate		Illegitimate	
	Stable	Unstable	Stable	Unstable
Male	-1.000 -0.750 -2.500 1.500 10.000	2.100 -2.600 0.600 1.200 22.000	-2.765 -4.941 -4.941 -3.000 4.118	-1.404 -4.053 -4.491 -1.737 2.982
	4	10	19	61
White Subjects	-0.400 -3.800 -2.200 0.200 -4.000	-1.100 -4.600 -3.400 -2.800 -1.000	-3.409 -6.182 -6.091 -3.136 -1.136	-3.000 -6.885 -6.080 -4.230 -0.690
	5	12	23	89
Female	1.438 -0.563 0.125 0.250 24.688	1.063 -0.688 -2.188 -0.813 10.31	0.826 -2.043 -2.435 -2.696 5.000	-0.583 -1.778 -3.194 -2.806 4.028
	18	16	23	38
Black Subjects	-0.667 -1.714 -4.524 -0.476 -7.619	-0.714 -3.786 -3.071 -2.143 -2.857	-1.261 -2.826 -4.217 -2.217 -5.652	-1.413 -4.717 -5.261 -3.022 -1.957
	23	14	26	49

1 Social Issue Vignette I
2 Social Issue Vignette J
3 Social Issue Vignette K
4 Social Issue Vignette L
5 Funding Bias
6 Number of subjects

Vignette I: *Men have more opportunities for education than do women.*

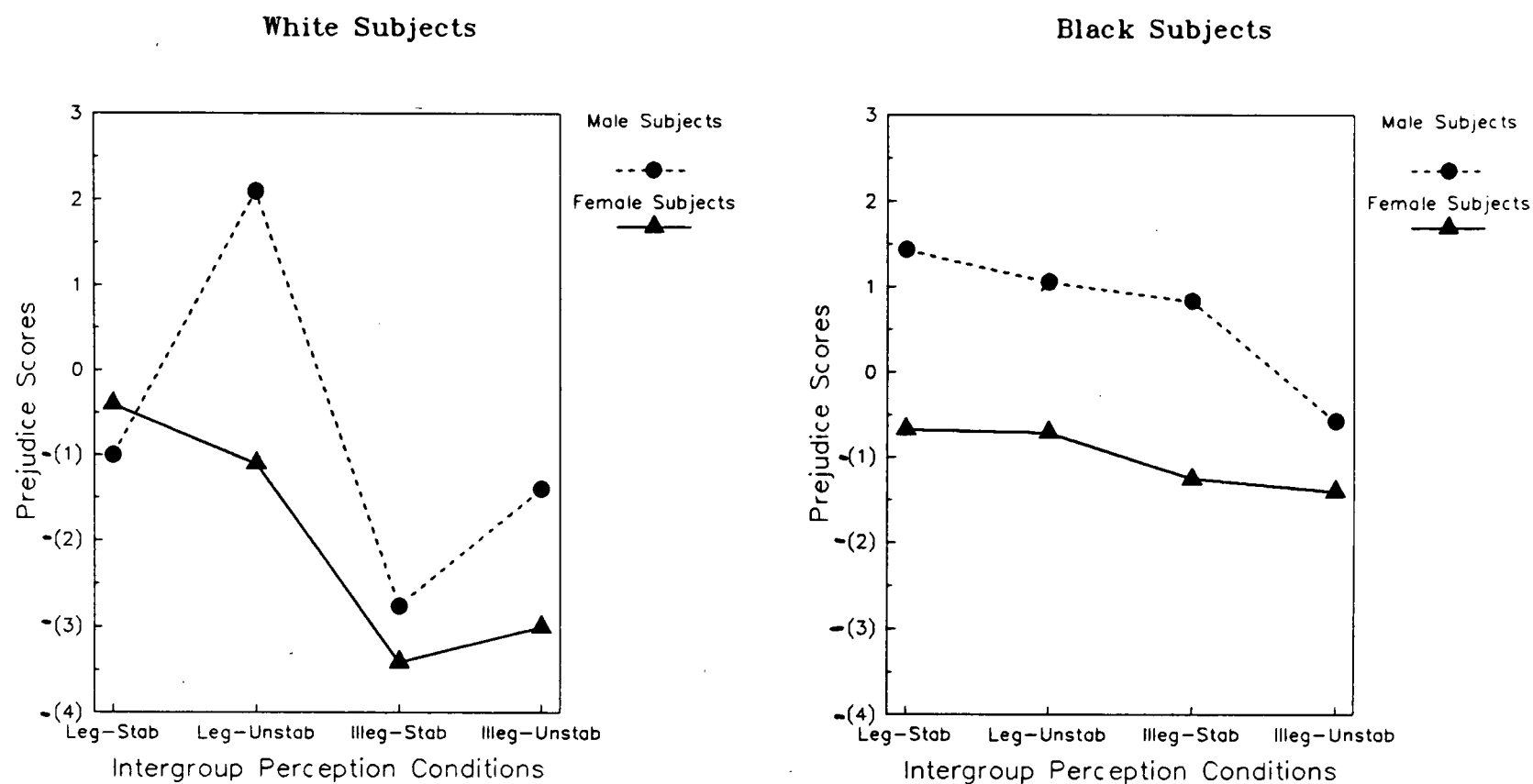
The model is significant ($F(15, 391)=4.48$; $p < 0.0001$), explaining 14.7% of the variance.

The main effects for Race, Gender and Legitimacy are significant, indicating that blacks in general have higher anti-women prejudice scores ($M = -0.16$) than whites ($M = -1.37$); that women in general attribute lower prejudice scores ($M = -1.50$) than men ($M = -0.04$); and that subjects in the Illegitimacy conditions attribute lower prejudice scores ($M = -1.63$) than subjects in the Legitimacy conditions ($M = 0.09$).

The 2-way interaction between Race and Legitimacy tends to significance. This interaction indicates that the difference between the prejudice scores of the Illegitimate and Legitimate conditions of the white subjects is greater than the difference in these conditions for the black subjects.

These results support both Hypothesis H1 and H2. Inspection of the condition means, indicates that amongst the whites, males in the Legitimate-Unstable condition give the highest prejudice scores, as predicted by Hypothesis H3. However, this pattern does not occur amongst the black subjects. Amongst the white female subjects, those in the Legitimate-Stable group provide the highest prejudice scores, giving some support for Hypothesis H4. But, this is not mirrored by the black female subjects.

Figure 7.3.5 Study 5: Graph of Prejudice Scores on Vignette I



Vignette J: *Women are more likely to be made redundant, or to be unemployed than men.*

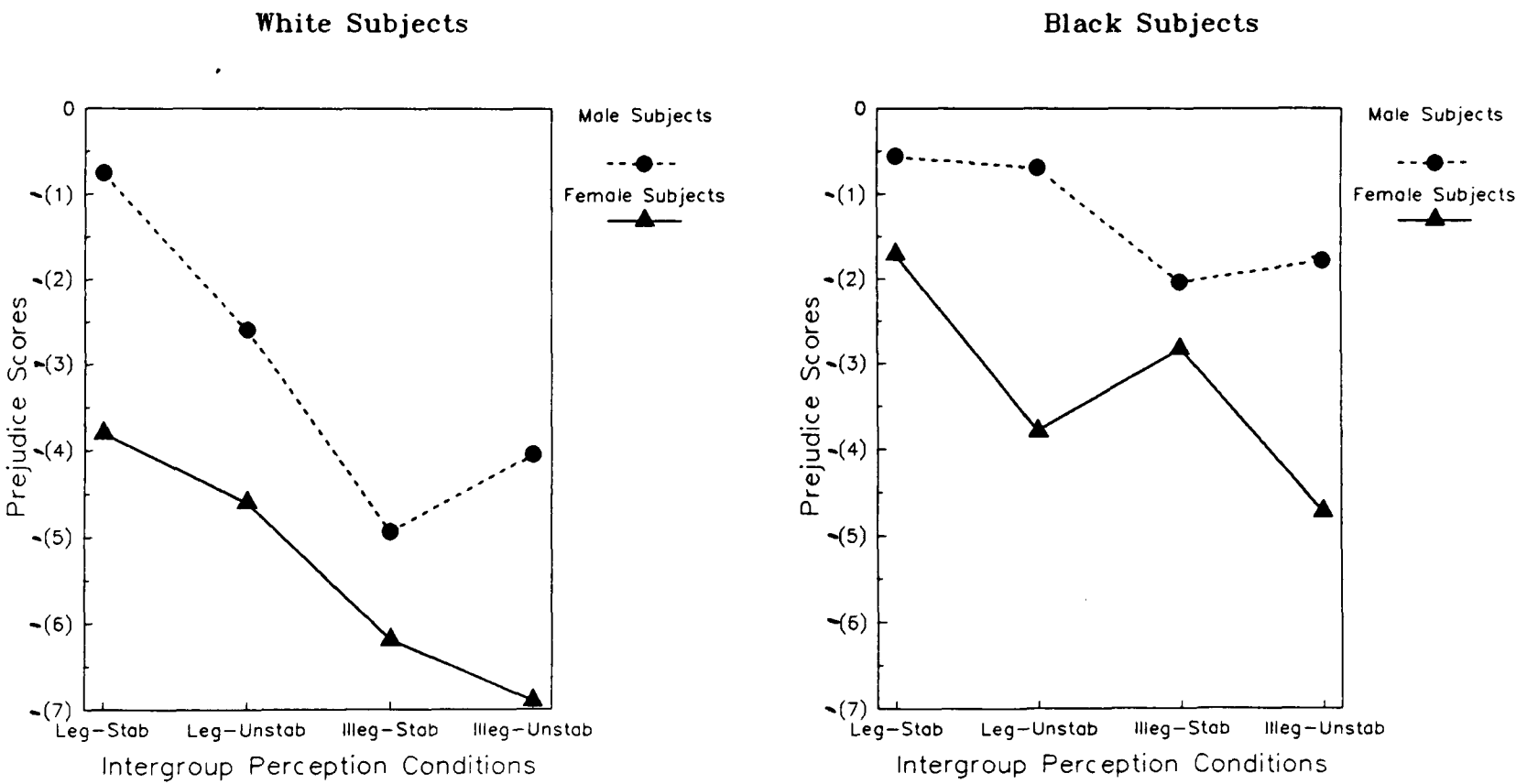
The model is significant ($F(15, 319)=7.25;p < 0.0001$), explaining 21.8% of the variability.

Only the three main effects Race, Gender and Legitimacy are significant. Again, whites in general gave lower prejudice scores ($M=-4.23$) than blacks ($M=-2.26$); and women gave lower prejudices scores ($M=-2.18$) than men ($M=-1.31$). Subjects in the Legitimacy conditions attributed significantly higher anti-women prejudice scores ($M=-2.31$) than those in the Illegitimacy groups ($M=-4.18$), confirming the prediction of Hypotheses H1

and H2.

Inspection of the condition means fails to provide support for Hypothesis H3 amongst either the black or white male subjects. Hypothesis H4 receives marginal support from the data. Amongst both black and white women, those in the Legitimate-Stable condition evidence the highest anti-women prejudice scores.

Figure 7.3.6 Study 5: Graph of the Prejudice Scores on Vignette J



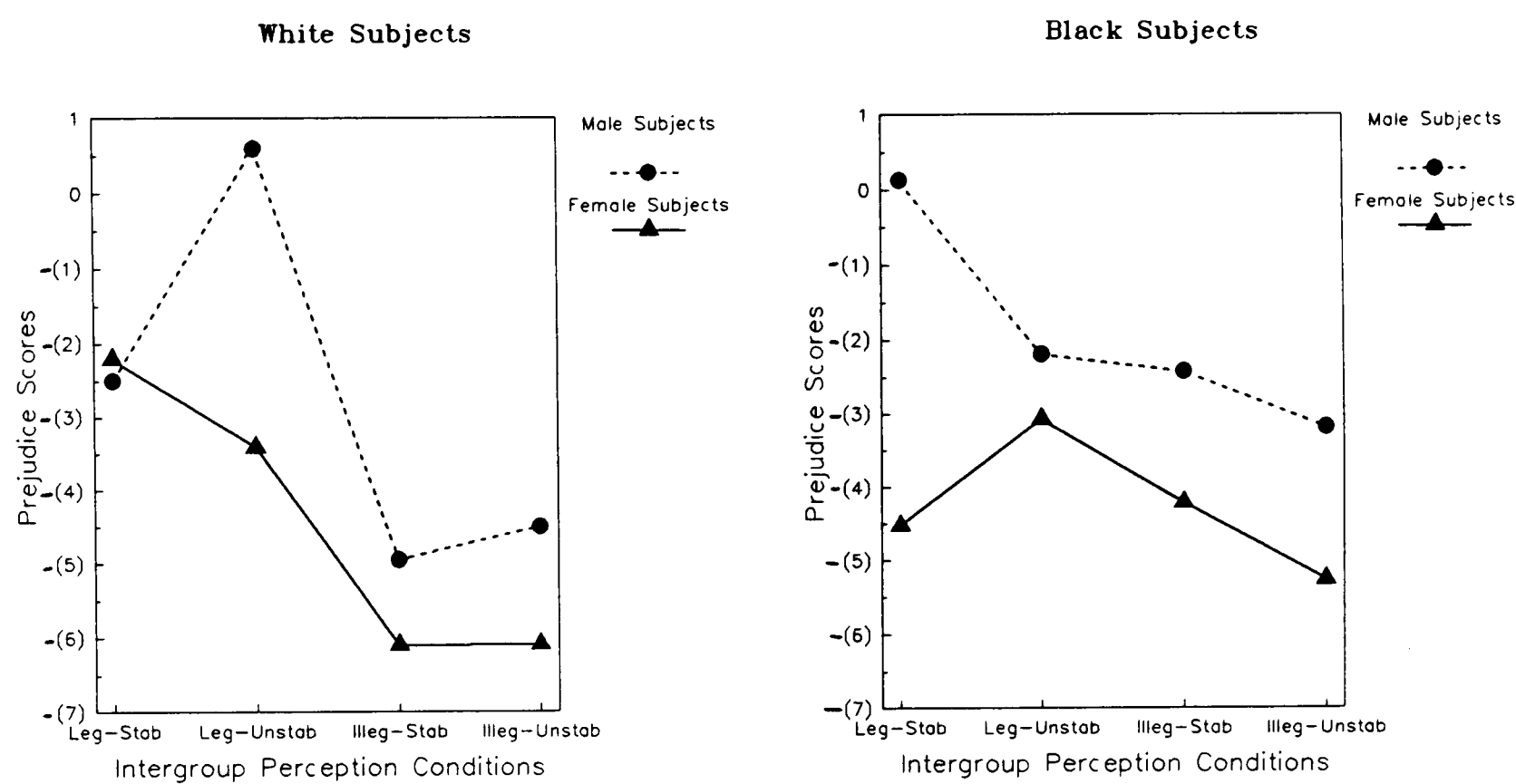
Vignette K: *Women receive lower pay than men, even when they are doing similar jobs.*

The model is significant ($F(15, 391)=5.90; p<0.0001$), explaining 18.5% of the variance.

The main effects for Gender and Legitimacy are significant, showing that women provided lower prejudices scores ($M = -4.36$) than men ($M = -2.38$); and that subjects in the Legitimacy conditions attributed higher prejudice scores ($M = -2.14$) than those in the Illegitimacy conditions ($M = -4.59$). However, the 2-way interaction between Race x Legitimacy was significant, as was the 3-way interaction between Race x Gender x Stability, and the 4-way interaction between Race x Gender x Stability x Legitimacy.

The results indicate that the greater prejudice scores amongst subjects in the Legitimacy conditions as compared to those in the Illegitimacy conditions is strongly manifest amongst white men and women, but weaker for black males. The pattern is not apparent among black women. Thus there is some support for Hypotheses H1 and H2, but it is not general. Hypothesis H3 receives some support from the white male subjects, as those in the Legitimate-Unstable group evidence the highest prejudice scores, but this is not mirrored amongst the black male subjects. Similarly, Hypothesis H4 receives some support from the white female subjects, as those in the Legitimate-Stable group manifest the highest prejudice scores, but this does not occur amongst the black female subjects.

Figure 7.3.7 Study 5: Graph of Prejudice Scores on Vignette K



Vignette L: *Men have more facilities for recreation, e.g. sports than do women.*

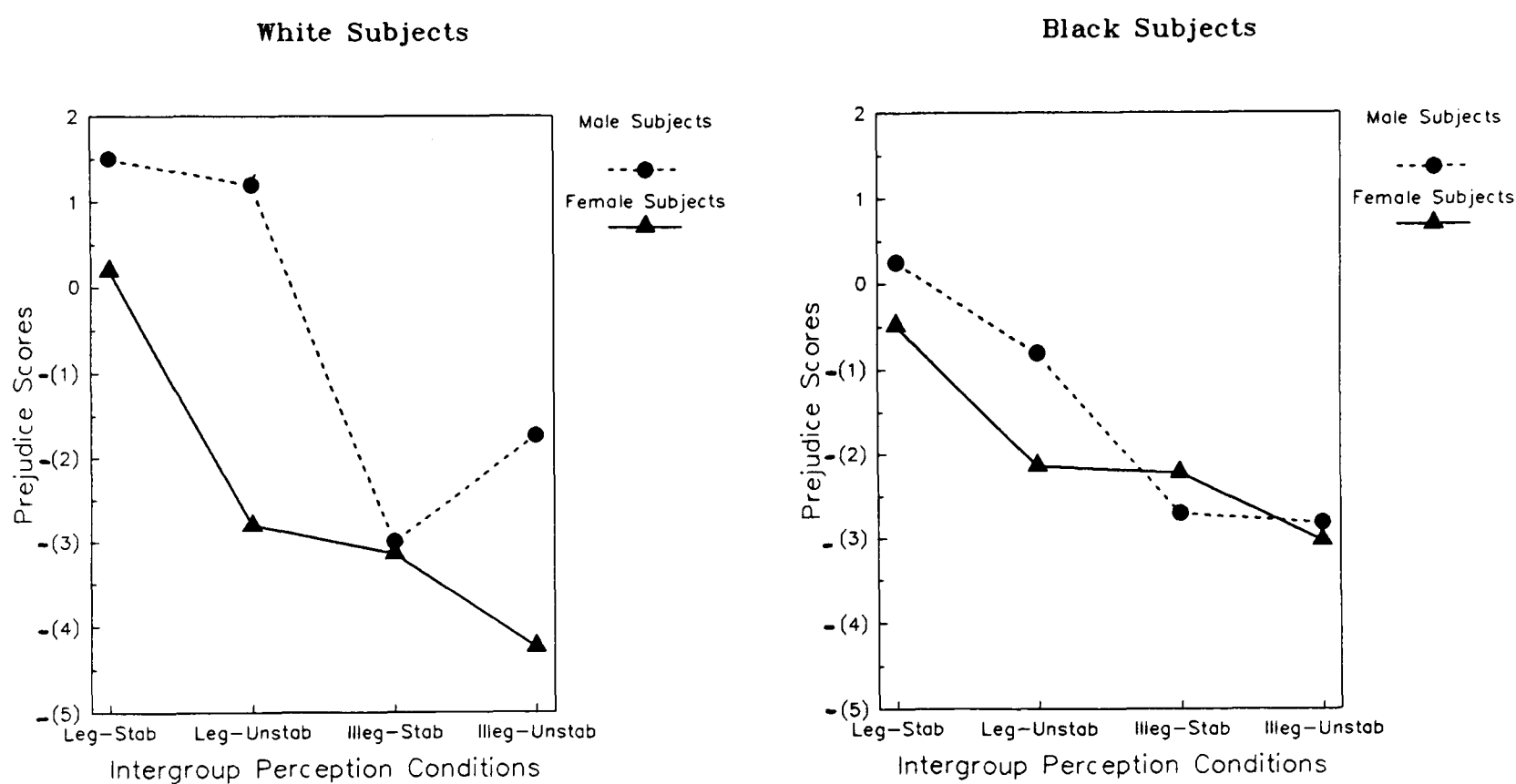
The model is significant ($F(15, 391)=4.35; p<0.0001$), explaining 14.3% of the variability.

The main effects for Gender and Legitimacy are significant. Men gave higher prejudice scores ($M=-1.01$) than women ($M=-2.23$); and subjects in the Legitimacy conditions gave higher prejudice scores ($M=-0.39$) than those in the Illegitimacy conditions ($M=-2.86$). The main effect for Stability tends to significance as does the interaction between Gender x Stability. These effects indicate that while subjects in the Stable conditions give higher prejudice than those in the Unstable conditions, this difference is more

marked amongst the female subjects than the male subjects.

Hypothesis H1 and H2 have been supported by these results, but Hypothesis H3 has not. Hypothesis H4 receives support from both black and white female subjects, as those in the Legitimate-Stable group provide the highest prejudice scores.

Figure 7.3.8 Study 5: Graph of the Prejudice Scores on Vignette L



Funding Bias

The model is significant ($F(15, 391) = 7.30; p < 0.0001$), explaining 21.9% of the variability.

The main effects for Gender and Legitimacy, and the interaction

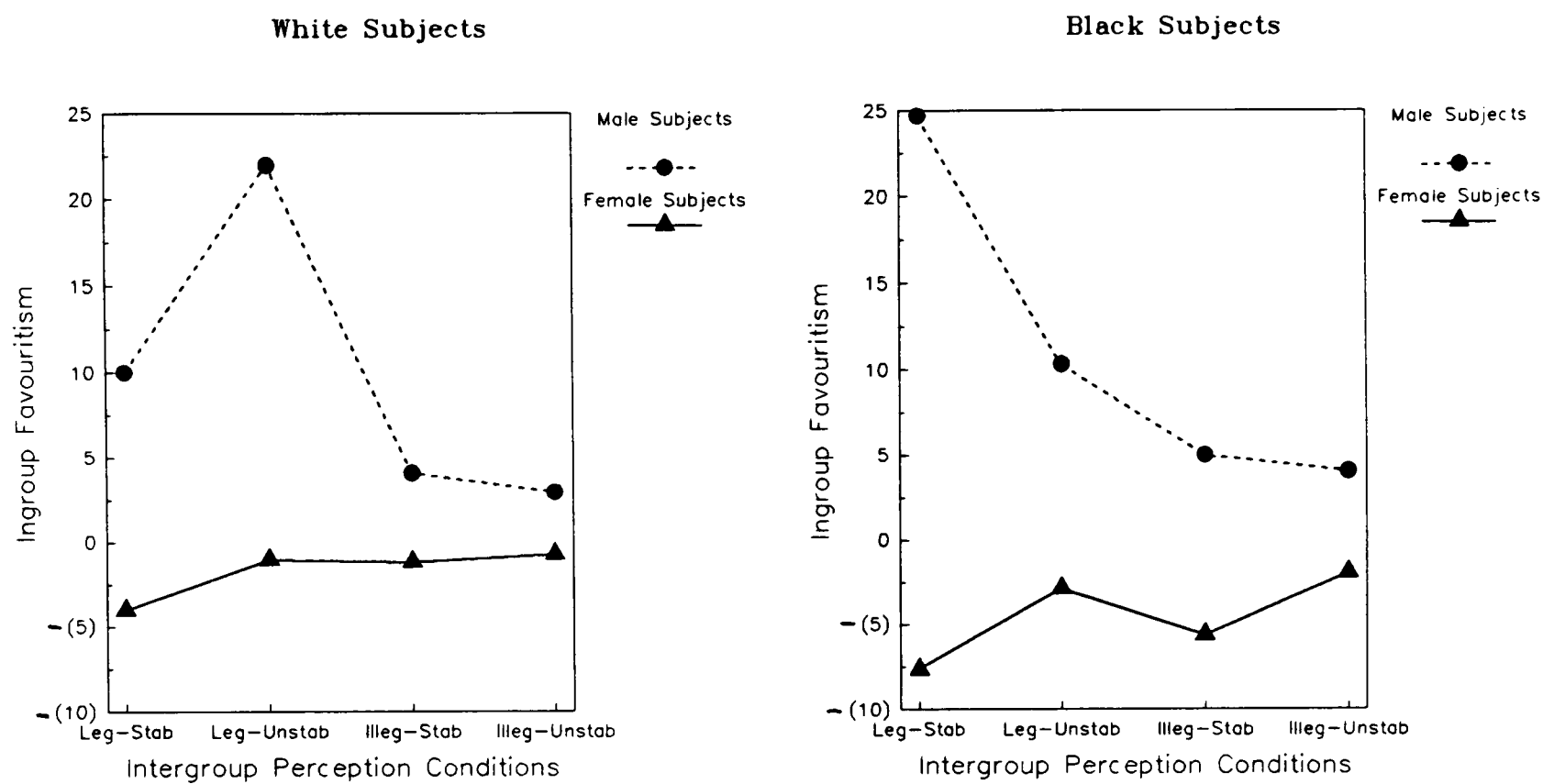
between them (Gender x Legitimacy) are significant. This effect indicates that males in the Legitimacy conditions evidenced much stronger ingroup bias ($M = 16.75$) than did those in the Illegitimacy conditions ($M = 4.03$) ($p < 0.0001$). Overall, women tended to show outgroup favouritism in funding bias, though this was insignificantly greater amongst those in the Legitimacy condition.

The 3-way interactions Race x Gender x Stability and Race x Stability x Legitimacy were significant or tended to significance, as did the 4-way interaction between Race x Gender x Stability x Legitimacy.

The results show that Hypothesis H1 is confirmed for both the white and black male subjects. Hypothesis H3 is supported by the scores of the white males, those in the Legitimate-Unstable condition giving the highest ingroup favouritism, but not of the black males where those in the Legitimate-Stable group evidenced the highest ingroup favouritism.

The women in both race groups and across all conditions evidenced slight outgroup favouritism. There were no significant differences in the amount as a function of Legitimacy or Stability.

Figure 7.3.9 Study 5: Ingroup Favouritism in Funding



7.3.5 Discussion of Social Issue Vignettes and Funding Bias

The results of the attribution prejudice scores provide considerable support for the hypotheses. The effect of Legitimacy was overwhelmingly present across the variables. Subjects who indicated that they believed that the superiority of men over women was legitimate reflected a more prejudicial use of explanations than those who did not believe the hierarchy to be legitimate. While this difference is strongest among the male subjects, it also existed in the female samples. However, the effect was not as marked among the black subjects, particularly the black female subjects.

Surprisingly, while the effect for Legitimacy was also apparent in the Ingroup Favouritism scores, closer inspection indicated that amongst women the effect was not present. Further, women in general tended to evidence marginal outgroup favouritism. This may reflect the still strong belief that men have to succeed and be the main earners, so they should receive more of the resources to promote this.

The expectation that men in the Legitimate-Unstable condition would evidence the greatest ingroup favouritism and outgroup discrimination (H3) was confirmed in the case of white men on two of the vignettes and with the funding task. However, with the black male subjects this was not the case, and in general those in the Legitimate-Stable condition tended to be the most discriminatory.

Hypothesis H4, which predicted that women in the Legitimate-Stable condition would evidence the least favouritism to their own group received considerable support. This pattern emerged on all the vignettes but not the funding task in the case of white women, and on two of the vignettes in the case of black women.

7.3.6 General Results and Conclusion

With the inter-gender bias, even more than the inter-racial bias it was clear that the predicted patterns of attribution bias on the individual actor's actions and outcomes were not obtained. It was also interesting that the models of only the positive actions and outcomes reached significance. This

is at variance with previous research which has found that "*ingroup-protection, instigated by the threatening implications of failure, appears to be stronger than ingroup-enhancement*" (Hewstone, 1989, p. 184).

In addition to the issues raised in Study 4, explaining the lack of intergroup bias in attributions for actions and outcomes, a further problem here may have been the influence of sex-role stereotyping. In the pre-testing of the vignettes, the actor had been depicted as an anonymous set of initials. It might have been assumed by the subjects in Pilot Study 1, that these actors were invariably male. As such, the implications of female actors in the vignette might not have been accounted for. For instance, a female actor inviting a stranger into her home to shelter from the storm, may not be seen as a positive action, but rather either a foolhardy one at best, or a sexually inviting one at worst. Similarly, a female actor helping neighbours harvest their mealies, may not have been seen as particularly positive, as the helping role of women tends to be assumed. As crime amongst women is still relatively rare, the vignette about the actor slashing a car's tyre may well have seemed unrealistic when the actor was female.

The results on the resource discrimination task and the social inequality vignettes did, however, provide considerable support for the hypotheses. Thus, it may be argued that for issues which pertain to groups as a whole (rather than individuals) people use explanations in a manner that concurs with their intergroup perceptions. People who believe that the inferiority of women *vis-a-vis* men is illegitimate, explain women's social inequality in more complimentary ways than those who believe the inferiority to be legitimate. Thus, structural explanations are used in preference to

explanations which lodge the responsibility for the inequality in the characteristics of women themselves.

The fact that black male subjects, and to a certain extent black female subjects, were affected by the gender intergroup perception factors does dismiss the suggestion made in Study 4, that the theory does not hold for blacks in South Africa. Thus it would appear that the final alternative, that the social representations or generally held explanations of race relations is so pervasive that variations as a function of perceptions of legitimacy or stability do not manifest.

CHAPTER 8

INTERGROUP ATTRIBUTION TO CRIME

8.0 Introduction

Crime is one of the most dominant features of modern life. It receives constant coverage in the various disseminators of news, the papers, television and radio; and has come to be one of the most prevalent if not most popular subject of entertainment fiction. Despite this, the topic of crime has received surprisingly little attention within mainstream social psychology. The study of crime and criminals has for a considerable time, been of interest to applied psychologists and personality theorists, but it is only recently that it has become the focus of social psychological research (Brown, 1986; Stephenson, 1988).

8.1 Attribution Theory and Crime

Attribution theory and "lay explanations" have contributed to the recent research into crime in a number of ways. A rich source of insights has been produced by investigations into the way in which crime is conceptualized and understood by the layperson (Banks *et al.*, 1975; Furnham, 1988; Furnham and Henderson, 1983; Hollin and Howells, 1987; Howells *et al.*, 1984) and by the perpetrators of crimes (Emler *et al.*, 1987;

Felson and Ribner, 1981; Henderson and Hewstone, 1984; Scully and Marolla, 1984). However, possibly the most prolific section of this field has been the research into attributions of blame to the actors involved in the event. An enormous amount of attention has been paid to the prevalent, though counter-intuitive, finding that people tend to attribute blame to the victims of accidents, crimes, illnesses and other misfortunes.

The term 'blame' is used in preference to 'responsibility' in this chapter for two reasons. Firstly, this chapter will not deal with Heider's (1958) levels of responsibility, which has traditionally defined work on responsibility attribution, and secondly the term blame does imply a more inclusive concept:

... an assignment of blame begins with a particular description of the event that occurred, continues with the identification of a minimal sufficient causal subset thought to have produced the occurrence, contains a judgment about whether the outcome had been foreseen or intended, considers the likelihood of external coercion, rests on a decision about responsibility, and finally takes into account any relevant excuse or justification that might be offered.

(Shaver, 1985; p.160).

8.1.1 Attribution of Blame to Victims

The theories that have dominated these investigations are Equity Theory, in particular its offshoot, the Just World Hypothesis (Lerner, 1970) and the Defensive Attribution Hypothesis (Shaver, 1970; Walster, 1966). Equity theory, and the Just World Hypothesis, assume that individuals have an internalized belief in fairness and equality, which implies that people receive what they deserve. Hence, when faced with evidence of the violation

of this principle, they will be motivated to redress the perceived imbalance, either in actuality (through giving aid) or psychologically (through reinterpreting the situation) (*cf.* Eiser, 1986; Walster *et al.*, 1976). The Just World Hypothesis extends this, hypothesizing that people tend to blame the victim in order to maintain their belief that this is a just world, and hence unpleasant occurrences do not happen unless they are in some way deserved. A number of studies by Lerner and his colleagues have provided support for this theory (Eiser, 1986; Lerner, 1970; Lerner and Matthews, 1967; Lerner and Miller, 1978; Lerner and Simmons, 1966).

The Defensive Attribution Theory, on the other hand, suggests that the motivation behind the derogation and blame of the victim is the need to vicariously protect oneself. By locating the source of blame for the crime or accident in the person of the victim, one avoids facing the possibility that a similar event may befall oneself. This theory has ^{been} tested empirically by varying the elements of the situation, in particular, the severity of the negative event and the degree of resemblance between the victim and the subject.

The studies considering the degree of severity predicted that the more threatening the negative event is to the subject, the more blame would be accorded the victim. This prediction was confirmed by a number of studies which found that more blame was attributed to the victim when the outcome was severe than when it was mild (Chaikin and Darley, 1973; Hill, 1975; Sadow and Laird, 1981; Sadow, 1983; Walster, 1966). However, this result has not been universally demonstrated by all studies (Gleason and Harris, 1976; Shaver, 1970; Shaw and McMartin, 1975).

Varying the personal relevance of the negative incident to the observer, through manipulating perceived personal or situational similarity provided some corroboration for the Defensive Attribution Hypothesis. Personal similarity was manipulated through making it appear that the victim was the same type of person as the subject, whereas situational similarity involved presenting the victim as engaged in the same kinds of activity and context as the subject. In general, it has been found that when there was high situational but low personal relevance for the subject, there was an increase in the blame attribution, but when the depicted event had high situational and high personal relevance for the subject, there was a tendency for vicarious blame avoidance so little blame would be attributed to the victim (Burger, 1981; Gold *et al.*, 1977; Hill, 1975; Shaver, 1970; Shaw and McMartin, 1977; Thornton, 1984). This pattern is particularly exemplified by Thornton's (1984) study, which investigated blame to a rape victim, and found that more behavioural blame (blaming the victim for what she did) was attributed to the victim when there was high situational and high personal relevance for the subject, whereas more characterological blame (blaming the victim for what she was) occurred when there was high situational and low personal relevance.

In summary, both these theories accounting for victim blame focus their explanations for the phenomenon on the functional needs of the observer. The attributions of blame are made to vicariously protect the observer from the idea that s/he may suffer a similar fate or that the world is not fair. While this focus is reasonable when considering incidents such as accidents and illness, its application to crime is arguable less fitting. With

crime and other instances of intended harm (by the perpetrator), issues of morality, justice and retribution must intervene. Yet despite this, as will be discussed later, the Defensive Attribution and Just World theories are frequently used to explain attribution of blame in crime.

8.1.2 Factors Affecting Attribution of Blame

A considerable amount of research has concentrated on the factors which affect the amount of blame attributed to the actors in the crime, the victim and the assailant. Much of this research has been generated by interest in how jurors respond in criminal trials. Attention has been directed at features of the victim, of the defendant and of the observer.

Research on the physical attractiveness of the victim and defendant has produced discrepant findings. Victim attractiveness was found to have no effect in some studies (Best and Demmin, 1982; Seligman *et al.*, 1977; Singleton and Hofacre, 1976; Thornton, 1977); while others have found that less blame is attributed to the attractive victim than to the unattractive victim (Efran, 1974; Kanekar and Nazareth, 1988; Seligman *et al.*, 1974; Thornton and Ryckman, 1983; Tieger, 1981). Other studies also found the reverse - more blame attributed to the attractive victim (Calhoun *et al.*, 1978; Turkat and Dawson, 1976). The majority of these studies considered the victims of rape, so the discrepant findings may be accounted for by the different kinds of responsibility involved. Some studies have shown that while the attractive victim is responded to more favourably, she is also rated as a stronger rape-precipitating factor yet is considered to have been less responsible for

provoking the rape than an unattractive victim (Seligman *et al.*, 1977). Thus, there appears to be a distinction between blame assigned for characterological (or in this case appearance) reasons and for behavioural reasons.

The attractiveness of the defendant (in a crime scenario) has been found to lead to less blame being attributed (to the more attractive defendant) in some studies (Barnett and Feild, 1978; Deitz and Byrnes, 1981; Feild and Barnett, 1978; Sigall and Ostrove, 1975;), but has been found to be unimportant in others (*e.g.* Kahn *et al.*, 1977). Thus, it appears that neither the attractiveness of the victim nor of the defendant can be concluded to affect the amount of blame attributed to them.

When the crime is sexual assault, the victim's respectability, in terms of her marriage status, her socio-economic status and her concurrence with 'prescribed' female behaviour have been found to be important features in the amount of blame attributed to her and to the defendant (Alexander, 1980; Cann *et al.*, 1979; Kanekar and Vaz, 1983; Kidder and Cohn, 1979; Krahe, 1988; Luginbuhl and Mullin, 1981; McCaul *et al.*, 1990; Pugh, 1983; Salmon, 1983; Scully and Marolla, 1984). Most studies have found that the more 'respectable' (middle-class, married, traditional) the victim, the less blame is attributed. However, Jones and Aronson (1973) report a study in which the respectable victim was blamed more than the unrespectable one. This finding (which has not been widely replicated) was interpreted as support for the Just World Hypothesis.

The behaviours of the victim and assailant were found to be important in some studies. The reaction of the victim to her sexual assault (Deitz *et al.*,

1984; Krulewitz and Nash, 1979; Payne, 1989; Shotland and Goodstein, 1983); and the amount of force used by the assailant (Krulewitz and Payne, 1978; Kanekar and Nazareth, 1988; Kanekar and Shirgavi, 1988) are some of the variables considered. In general, the more the victim resists the attack, the less blame is attributed to her, and the more force the assailant uses or hurt he inflicts, the less the victim blame.

Observer characteristics have also been considered. When considering a rape situation, the sex of the observer has almost invariably been found to be significant. Women observers have been found to attribute less blame to the victim than men and to be more punitive to the assailant (Calhoun *et al.*, 1978; Deitz and Byrnes, 1981; Gilmartin-Zena, 1983; Howard, 1984; Kanekar and Kolsawalla, 1980; Kanekar and Nazareth, 1988; Kanekar *et al.*, 1981; Kanekar *et al.*, 1985; Krulewitz and Nash, 1979; Lewis and Johnson, 1989; Smith *et al.*, 1976; Thornton *et al.*, 1982; Thornton and Ryckman, 1983; Thornton *et al.*, 1981; Tieger, 1981). This finding has generally been taken as partial support for the Defensive Attribution Hypothesis, in that the rape scenario will have high personal and situational relevance for women observers, so they attribute less blame than the male observers for whom there is low relevance on both dimensions (eg. Gilmartin-Zena, 1983).

It must, however, be noted that much of the research in this area victim blame consists of vignette-type studies presented to college students, and that most of these vignettes have tended to report rape or sexual assault situations. In a survey of 127 victim-blame studies, 60% concerned a rape situation, of which 83% used students as subjects. There are a number of

problems inherent in this. Firstly, the lack of external validity which generally plagues such social psychological research. College students are not the 'jurors' they are often supposed to represent, nor are they making decisions which have any real consequence as would a juror's decision. It is also likely that the experimental situations present rather explicit cues which in a real crime situation would be one of a myriad of other influences, many of which would have greater priority. For example, the studies investigating the effect of attractiveness, either manipulated this factor by providing photographs, or by explicitly calling to attention the victim's appearance, which arguably prescribes the subjects' response. Howard and Leber (1988) demonstrate this in a replication of Howard's (1984) study, using adults in a jury situation instead of students. While some of the results were similar, there were enough differences to warrant their statement that they

.. contend that the careful identification of the differences produced by context and subject characteristics is necessary to support responsible generalization of laboratory-based research
(Howard and Leber, 1988, p. 685).

Secondly, while the predominance of the use of rape cases may reflect the prevalence of and concern with this type of crime, many of the studies neglect to take into account that rape is a very particular crime. It is, according to both legal definition and social representation, an inter-gender, hence intergroup, crime, which has wide social implications. This will be discussed in the next section.

8.1.3 Rape

The nature of the crime, rape, is a source of considerable contention,

as exemplified by the extreme (though frequently used) claim that there is "*no such thing as rape*" in juxtaposition to the statement that rape is "*a conscious process of intimidation by which all men keep all women in a state of fear*" (Brownmiller, 1976, p. 15). These two positions represent some of the conflicting themes defining rape. The popular "myths" about rape are that it is a crime of lust, infrequent (except as a justification for sexual activity on the woman's part), which, when it does occur, is committed by either mentally deranged men, or by men sexually provoked by the behaviour, dress or manner of the victim.

In recent times, the feminist analysis of rape has become more accepted. This analysis begins with the premise that rape is essentially a crime of aggression, which is predicated on the power discrepancy of men and women in society. Rape is seen as being inextricably associated with general attitudes to women and their place in society. It is also argued that the myths or false beliefs about rape serve to provide a justification for rapists, and lead to the crime being regarded as trivial, as well as enhancing the intimidation of women.

This view has received support from some empirical studies. Schwarz and Brand (1983) demonstrated that making rape salient to (non-raped) women has negative effects on their self-esteem and feelings of vulnerability, illustrating the intimidation consequence of rape. It has also been found that people who believe the myths about rape generally hold more stereotypical attitudes to women, to sex stereotyping and sexual relations (Mina, 1986; Tieger, 1981).

These attitudes and beliefs of the observer also influence attributions of blame to the victims (Acock and Ireland, 1983; Coller and Resick, 1987;

Jenkins, M.J. and Dambrot, 1987; Krahe, 1988; Krulewitz and Payne, 1978; Tieger, 1981; Thornton *et al.*, 1982). Men who subscribed to the stereotypical attitudes to women tend to attribute more blame to the victims of rape, and reported a greater likelihood of committing rape themselves (Tieger, 1981). The use of prevalent myths has been demonstrated in the justifications and excuses made by convicted rapists (Felson and Ribner, 1981; Scully and Marolla, 1984; Vogelmann, 1990).

The stereotypical views of rape are also argued to have pragmatic effects: accounting in part for the low proportion of rapes that are reported to the police, which is estimated to be as low as one in twenty; for the unsympathetic manner in which rape victims are treated by officials and the general public; for the degree of self-blame felt by rape victims; and for the large attrition rate of rape cases (Collings, 1987; Wright, 1984). Wright (1984, p. 400) further underlines the low conviction rate of rapists:

Given the attrition of rape cases at every stage from the attack onwards, the rapist who receives a stiff fine must consider himself extremely unlucky. And the rapist who goes to gaol must believe that he was doubly unfortunate - the odds weigh heavily against that happening.

Thus, what is argued here, is that rape is more than just a crime: it is an intergroup crime, in which the assailant is almost invariably male and the victim female; and it is above all a site of intergroup conflict. Rape and perceptions surrounding the issue must therefore be analysed in intergroup terms.

8.2 Intergroup Judgments of Crime

*In England, justice is open to all,
like the Ritz hotel.*

(Variously attributed, cf. Fraser, 1988)

The above, rather tongue-in-cheek quote, introduces the contention that the treatment of crime in the courts is not impartial. It has been suggested that social categories affect the justice system at all stages: the likelihood of a crime being reported, of the complaint being acted upon by the police and state officials, of the defendant being convicted, and the severity and type of sentence given to the convicted offender. Box (1981) and Reiman (1984) have surveyed relevant literature in Britain and the U.S.A. and conclude that lower class and black offenders are more likely to be convicted and to receive more severe sentences than higher status and white offenders. There is some evidence that the same situation applies in South Africa (Kotze, 1983; van Niekerk, 1976). Waters (1988), however, argues that the situation is extremely complex, and if the influence of such things as previous convictions and age range are controlled, the race effect becomes negligible. While this argument may alleviate the accusation of direct racial prejudice against the courts, it reinforces the need to view the social context as a whole. Factors such as the different social conditions under which the races (and classes) live, giving rise to the culture if not necessity of crime; the ability of certain groups to afford good defence counsel; the biased behaviour of the police and other officials, lead to certain social groups bearing the brunt of crime, both as victims of the offence and in the punishment for the offence.

The treatment of women as offenders is a rather compounded picture. It has been argued that women receive more lenient sentences than men, though Farrington and Morris (1983) demonstrated that once the likelihood of reconviction and the seriousness of the offence has been taken into account, this difference disappears. Box (1981) contends that while the so-called "chivalrous" approach to women has meant that women offenders have not been treated the same as men, this has frequently led to more severe consequences for the women. They are more likely to be institutionalized ("for their own protection") for offences that would not be treated as criminal for men, and are more likely to be viewed as mentally disturbed and placed in the hands of the psychiatric system.

In view of the large amount of research into the factors surrounding rape, it is surprising how few studies have considered intergroup factors (other than gender), in the judgement of crime. In general, these studies have found that defendants of the same race group as the respondent have been treated more leniently than if he belonged to another race group (Feild, 1979; Kuhn and Levett, 1988; Ugwuegbu, 1976, 1979). Similarly, the victim of the same race was treated more positively, that is less blame attributed, and more positive traits ascribed to her, than a victim of another race (Ugwuegbu, 1976, 1979). The race of the victim has also been shown to influence the amount of blame attributed to the assailant, both in social psychology experiments (Miller and Hewitt, 1978, Ugwuegbu, 1976, 1979) and analyses of court cases (Kotze, 1983; Salmon, 1983). The study by Barnett and Feild (1978), however, did not evidence an effect due to race of defendant.

Tajfel (1984) stressed that issues of power and status differentials are important in understanding the perceptions and manipulations of "justice", as well as the justifications made for these decisions. Very few studies have included intergroup attitudes in the analysis of crime judgement. However, following my argument that rape is by its very nature, an intergroup crime, there are some studies that support the hypothesis that crime judgments are influenced by intergroup attitudes. These studies have demonstrated that subjects who have a more liberal, less traditional, less stereotyped view of women and sex-roles, tend to make judgments of rape victims that are more positive and less blaming (Field, 1978; Klemmack and Klemmack, 1976; Krulewitz and Payne, 1978; Thornton *et al.*, 1982). However, the measures of attitudes used by these studies are diverse and unsystematic. There is clearly a need to discern the essential features of these intergroup attitudes, and to evaluate these more widely.

8.3 Aim of the Empirical Research

It is the aim of the two studies reported in this chapter to investigate whether the intergroup attitudes embodied in the perceptions of the stability and legitimacy of the status hierarchy affect judgments of blame for an intergroup crime. Two types of crime were considered, a sexual assault and an assault for the purpose of theft. Study 6 focuses on the gender group hierarchy, while Study 7 focuses on the race group hierarchy. The same methodology was used for both studies, and the data was collected at the same time using similar materials. For this reason, the common aspects of

the method will be described first, before the individual accounts of the studies

8.3.1 General Method

Subjects

The subjects pool consisted of 1114 black and white South African adults living in the Durban region. Details of the subjects will be given in the individual studies.

Material

The material, which was presented as a booklet comprised of the Attribution task and the Intergroup Perception Ladder task.

Attribution Task: This task consisted of a lengthy vignette, in which a crime - either a rape or a robbery - was reported. The report briefly told of a nurse who while walking from the hospital to the bus stop at 7.00 p.m. in the evening, was attacked by a man who either robbed or raped her. The race groups of the victim and assailant were either of the same race group, in the case of Study 6, or differed such that the victim was black and the assailant white, or vice-versa for Study 7. The report was followed by 27 questions, 26 of which involved making a rating on an 11-point Likert-type scale, in which the poles were marked as "Not at all" and "Very much so". The questions were preceded by a demonstration, illustrating the use of the scale.

The first two questions asked "how serious" and "how common" was the crime, and the third question, which was not on a Likert scale, asked what prison sentence the defendant should get. The subsequent three questions asked, respectively, how much to blame were the victim, defendant and society, for the events that took place. Following these were 7 questions which itemized aspects of the victim's behaviour and character, 7 which itemized aspects of the defendant's behaviour and character and 6 giving aspects of society, which were suggested as being to blame for the events. The selection of these items was influenced by those used in Howard (1984). A final question asked the respondents how believable they thought the report was. The order of the itemized features of the victim, defendant and society was randomized over different questionnaires.

The questionnaires provided for the black subjects were translated into Zulu. The translation into Zulu was achieved by standard translation procedure. The translation into Zulu was performed by one person, then an independent second person translated the Zulu back into English.

Ladder Task: This ladder was similar to that described in Studies 1, 4 and 5, except that subjects were required to position blacks, whites, men and women on the ladder, not only blacks and whites. The responses for men and women only, were analysed to deduce the subjects' perceptions of the stability and legitimacy of the gender group status hierarchy for Study 6; and the responses for blacks and whites used to produce the race status hierarchy factors for Study 7.

An example of the booklet is presented in Appendix E.

Procedure

Subjects read through the report and answered the questions with the interviewer standing by to respond to any queries. Subjects were asked to provide their names and addresses, but were not pressurized if they were reluctant to do so.

Analysis

The responses to all the questions concerned with attributing blame to the society, the victim and the defendant (the term defendant was used in preference to assailant, as it was considered a less emotive word) were initially subjected to a factor analysis. The data from all subjects, including those who were subsequently discarded, was used for this analysis.

8.3.2 Results of the Factor Analysis

The 23 blame questions, together with the overall mean and standard deviations of their rating are presented in Table 8.3.1. Considering the amount of blame attributed globally to the victim, assailant and society, it can be seen that the most blame is attributed to the assailant (D0) and least to the victim (V0). Furthermore, if one ranks the amount of blame attributed to the various items, four of the top five are assailant related and only one victim related. In general, the victim related items were held more to blame than societal items.

Table 8.3.1 Question Contents, with Mean and Standard Deviations of their Ratings

Code	Question	Mean	St. Dev.
V0	How much do you think that the victim is to blame for the events that took place?	2.327	2.880
D0	How much do you think that the defendant is to blame for the events that took place?	8.551	2.139
S0	How much do you think that the society in which we live is to blame for the events that took place?	4.583	3.437
S1	The lack of morality and values in our present society?	6.406	3.036
S2	The lack of religion?	4.689	3.477
S3	The lack of good discipline given to children from parents and teachers?	4.353	3.427
S4	The economic situation in the country?	4.148	3.544
S5	The way crime is shown in films and on television?	4.288	3.502
S6	The political situation in the country?	2.879	3.368
D1	The defendant's upbringing?	4.513	3.208
D2	The defendant's need for sex/money*?	4.645	3.396
D3	The defendant's mental condition?	4.220	3.534
D4	The defendant's need to dominate?	6.960	2.841
D5	The defendant seeing the victim as vulnerable?	7.632	2.328
D6	The defendant's aggressiveness?	7.378	2.442
D7	The defendant's desire to harm someone?	7.028	2.785
V1	The victim's poor judgement?	5.493	3.029
V2	The victim's trusting nature?	5.670	3.070
V3	The victim not fighting back?	5.081	3.235
V4	The victim looking scared?	6.097	3.241
V5	The victim's carelessness?	3.342	3.315
V6	The victim not trying to escape?	2.827	2.700
V7	The victim being alone?	7.217	2.911

* "Sex" was used in the rape vignettes, and "money" in the robbery ones.

These items were subjected to a factor analysis by the Maximum Likelihood method, using the BMDP computer package (Dixon, 1983), followed by a Varimax rotation. Six factors with eigenvalues over 1.00 emerged. The six factors together explained 50% of the variance. The factors, and the loadings of each item (depicted by the codes defined in Table 8.3.1) are presented in Table 8.3.2, overleaf.

Table 8.3.2 Sorted Factor Loadings of the Crime Questions

	F1	F2	F3	F4	F5	F6	Communality
S6	0.76	-	-	-	-	-	0.645
S4	0.73	-	-	-0.32	-	-	0.648
S5	0.59	-	0.27	-	-	-	0.522
V3	-	0.76	-	-	-	-	0.632
V4	-	0.72	-	0.35	-	-	0.662
V1	-	0.55	-	-	-	0.36	0.509
V5	-	-	0.74	-0.25	-	-	0.688
VO	-	-	0.66	-0.31	-	-	0.582
V6	0.26	-	0.57	-	-	-	0.433
D6	-	-	-	0.65	-	-	0.441
D7	-	0.30	-	0.63	-	-	0.602
D4	-	-	-	0.62	-	-	0.505
S2	-	-	-	-	0.72	-	0.542
S1	-	-	-	-	0.67	-	0.502
D5	-	-	-	-	-	0.64	0.431
V7	-	-	-	-	-	0.60	0.403
S3	0.39	-0.31	0.34	-	0.41	-	0.534
V2	-	0.48	-	-	-	0.45	0.461
D1	0.42	-0.37	0.33	-	-	-	0.449
D3	0.37	-0.40	0.34	-	-	-	0.464
DO	-	-	-	-	-	-	0.060
SO	0.42	-0.30	-	-	0.31	-	0.432
D2	0.43	-	-	-0.32	-	-	0.340

Eigenvalues	2.65	2.37	2.00	1.87	1.33	1.27	
% Variance Explained	11.5%	10.3%	8.7%	8.1%	5.8%	5.5%	50.0%

(Loadings <0.25 or >-0.25 have been replaced with "-")

Interpretation of the Factors

Factor I

Nine items load onto this factor. Those that load strongest are the three society items; the political situation (S6), the economic situation (S4) and the coverage of crime in the media (S5). The following items load less strongly: general blame to society (S0) and lack of discipline given to children (S3). Three defendant items also load significantly; his need for money/sex (D2), his upbringing (D1) and his mental condition (D3). The item concerning the victim not trying to escape (V6) has a slight loading.

The fact that all the society items that refer to concrete social conditions load on the factor (and not those referring to the abstract conditions such as morality or religion) implies that this is the main thrust of the factor. It can also be argued that the defendant's need for sex/money, his upbringing and mental condition, as well as the victim's escape behaviour, emerge from such social conditions.

This factor was thus interpreted to embody material social conditions.

Factor II

The items that load strongest on this factor are the items pertaining to the passivity of the victim; her not fighting back (V3), her looking scared (V4), her poor judgement (V1) and her trusting nature (V2). The defendant's mental condition (D3) and upbringing (D1); and general society blame (S0) and lack of discipline given to children (S3) load negatively onto

this factor. This implies that tangible social conditions are explicitly not implicated in this factor. The defendant's desire to harm someone (D7) also has a small loading. The connection of this with the victim passivity items would seem to indicate that a sado-masochism theme may be implied.

This factor is interpreted as referring to victim weakness and passivity.

Factor III

The items which load strongest are those that refer to the victim's actions, her carelessness (V5) and her not trying to escape (V6), including overall victim blame (V0). Some of the social condition items also load onto this factor; the lack of discipline given to children (S3), media representations of crime (S5), defendant's mental condition (D3) and upbringing (D1). It may be argued that these latter items, refer to socialization issues and aspects of assailant's behaviour which would affect a victim's actions.

The essence of this factor is thus interpreted to be victim behaviour and actions.

Factor IV

The most notable items loading on this factor are those concerning the assailant's aggressiveness and belligerence; his aggressiveness (D6), his desire to harm someone (D7) and his need to dominate (D4). The impression that this dimension refers to dispositional attributes of the

assailant are further reinforced by the fact that his need for sex/money (D2), the economic situation (S4) and the victim's behaviour - general (V0) or carelessness (V5) - load negatively, hence indicating an inverse relationship. This implies that they are explicitly excluded (*e.g.* the economic situation is not to blame). However, the victim looking scared (V4) does load onto this factor, which may once again imply the sado-masochism theme mentioned previously.

This factor is thus taken to refer to the assailant's aggressiveness.

Factor V

The major items to load on this are the society questions pertaining to morality and values; the lack of religion (S2) and lack of morality and values (S1). To a lesser extent load the items, general society blame (S0) and lack of discipline given to children (S3), which also have reference to morals and values.

This dimension thus embodies (the lack of) social values.

Factor VI

The items loading on this factor are; the defendant seeing the victim as vulnerable (D5), the victim being alone (V7), the victim's trusting nature (V2) and the victim's poor judgement (V1). These items refer mainly to the victim's vulnerability, both through her physical situation and through dispositional attributes.

This factor is thus interpreted as victim vulnerability.

Experimental Manipulation Check

Question 27 of the questionnaire asked the subject "*How believable the events in the report are?*" as a check on the materials used in the study. The ratings for this are summarized below:

Mode = 10
 Median = 9
 Mean = 8.539
 Standard Deviation = 1.782

Thus, it may be concluded that subjects did find the vignette story very believable.

8.3.3 Discussion

The factor analysis extracted six factors, three victim factors, two society factors and one assailant factor. The fact that there were three victim factors would seem to imply that subjects were focussing on the victim of the crime rather than on the assailant. This is perhaps understandable in the light of Kidder and Cohn's (1979) finding that people focus more on victimization prevention than crime prevention. Thus, more emphasis would be placed on searching for explanations surrounding the victim, than other features of the crime situation. The three factors distinguished between the victim's (passive) character, her actions and her vulnerability. The first two factors mirror the distinction between characterological and behavioural blame found by Janoff-Bulman (1979) and Howard (1984). The third factor,

vulnerability, is particularly interesting in that it represents aspects which acknowledge the situational reality of the victim. Attributing blame to the victim's weakness or to her actions, in contrast, lodge the blame within the person of the victim.

The two society factors distinguished between the more concrete societal conditions and the more abstract, morality based conditions. The assailant factor implies that blame is located in attributes which are controllable and intentional. The assailant items which could be argued to be less under his control - his need for sex/money, his upbringing and his mental state, either did not occur in the factor, or were explicitly excluded. The global factor, "*blame to the defendant*" did not load on any of the factors, though it received a high blame rating (Mean=8.55). This would seem to imply that the attributes of the assailant provided did not encompass the subjects perceived source of culpability. Considering the global blame to society and victim, it would appear that subjects tended to see societal blame as referring predominantly to tangible conditions, and global victim blame to refer to the victim's behaviour. However, it is worth noting that the mean for global victim blame was very low (Mean=2.33), implying that, in fact, little blame was attributed to the victim.

Considering the index of relative blame, it emerged that most blame was attributed to societal conditions and victim vulnerability, then to the assailant's aggressiveness and the victim's behaviour, followed by societal moral values, and least to the victim's passivity. The strong concern with the victim's vulnerability is not a feature that has appeared in the social psychological literature surrounding this area. It is, however, the most

pragmatic explanation that would be considered if trying to answer the question; "Why has this individual been the victim of crime on this occasion?" rather than the question; "Why has this individual, rather than another individual, been the victim of this crime". While the latter question is the one which has received the most attention, and is the one predicted by theories such as the Just World Hypothesis and the Defensive Attribution Hypothesis, the former question indicates that subjects are concerned with context-based, practical explanations. This finding further reinforces the need for social psychological research to leave the laboratory and student populations and investigate the perceptions of subjects with wider and more diverse life experiences, using material of practical relevance to these populations.

8.4 Study 6: The Effect of Gender Intergroup Perceptions on Attributions of Blame in a Crime Situation.

This study attempted to investigate the effect of perceptions of the gender hierarchy (*i.e.* the inequality of men and women in South African society) on attributions of blame for a crime. It was predicted that the perceptions of the legitimacy and stability of the inter-gender situation would lead to varying degrees of ingroup bias, and that the factors that directly deal with assailant and victim blame; that is the severity of the sentence, assailant blame, victim passivity and victim behaviour; would be used in a group serving manner. This was expected to be exaggerated in the case of rape in contrast to that of robbery.

Predictions

H1. Men who perceive the gender hierarchy as legitimate will evidence more group-serving responses than those who perceive the situation as illegitimate.

i.e. they will:

- (a) recommend a lower sentence to the assailant;
- (b) attributed less blame to the assailant; and
- (c) attribute more blame to the victim;

than those who perceive the situation as illegitimate.

H2. Women who perceive the gender hierarchy as illegitimate will evidence more group-serving responses than those who perceive the situation as legitimate.

i.e. they will:

- (a) recommend a higher sentence to the assailant;
- (b) attribute more blame to the assailant; and
- (c) attribute less blame to the victim;

than those who perceive the situation as legitimate.

H3. Men who perceive the gender hierarchy as legitimate but unstable will evidence the most marked group-serving responses of the male subjects.

i.e. they will:

- (a) recommend the lowest sentence to the assailant;
 - (b) attribute the least blame to the assailant; and
 - (c) attribute the most blame to the victim;
- of the male subjects.

H4. Women who perceive the hierarchy to be legitimate and stable will evidence the least group-serving responses of the female subjects.

i.e. they will:

- (a) recommend the lowest sentence to the assailant;
 - (b) attribute the least to the assailant; and
 - (c) attribute the most blame to the victim;
- of the female subjects.

No intergroup predictions are made about attributions of blame to societal conditions.

8.4.1 Method

Subjects

559 subjects were interviewed for this study. Of these, 193 were not used, on account of their responses on the Intergroup Perception Ladder. Eighty-two men and 111 women stated that they thought women were better off than men in South Africa. The final sample of 366 adults consisted of 94 white males, 91 black males, 114 white females and 67 black females. The

ages of the subjects ranged from 17 years to 80 years, the mean age of the sample being 36.4 years. Subjects were selected "off the street" by a number of interviewers. The interviewers were of the same race as the subjects.

Intergroup Perception Factors

These were deduced from the Gender Ladder task in the same manner as Study 5. The median split for stability was -1. Subjects with stability scores from -1 and below were placed in the unstable conditions, and those with scores of 0 and above were placed in the stable conditions.

The dichotomy for legitimacy was as described previously. The subject who placed women at the same step or higher than men on the "*Where should the groups stand*" question were classified into the illegitimate conditions, while those who put men higher than women were in the legitimate conditions.

Dependent Variables

All the dependent variables were taken from the crime questionnaire. Nine dependent variables were analysed:

1. The rating for the question "*How serious do you think this crime is?*"
2. The rating for the question "*How common do you think this type of crime is?*"
3. The prison sentence (number of years) the assailant should get.

- 4. Factor I: Objective social conditions.
- 5. Factor II: Victim’s passivity.
- 6. Factor III: Victim’s actions.
- 7. Factor IV: Assailant’s aggressiveness.
- 8. Factor V: Social values.
- 9. Factor VI: Victim’s vulnerability.

Analysis

The responses to the questions pertaining to the seriousness and commonness of the crime were individually analysed using logistic regression, as their distribution was too severely skewed to be analysed using a parametric test. The distribution of the recommended prison sentences was also not normal, but the application of a logarithmic transformation amended this.

The factor analysis described above provided six factor scores for each subject. The factor scores together with the transformed recommended prison sentences were statistically analysed; firstly, in a MANOVA, and subsequently, as univariate 2 (gender) x 2 (stability) x 2 (legitimacy) x 2 (crime) x 2 (race) ANOVAs. The SAS GLM programmes were used for this analysis, as these accounted for the large discrepancies in the number of subjects in the various conditions.

8.4.2 Results

Table 8.4.1 presents the results of the MANOVA, Table 8.4.2 gives the least square means (converted back to their original scales) of the 7

dependent variables in the Gender x Legitimacy x Stability x Race x Type of Crime conditions. While all analyses were performed on the transformed sentence variable and the factor scores themselves, the means are converted back to the original 11-point scale, to make these more meaningful to the reader.

The factor scores were converted to a normal curve with a standard deviation of 3 and a mean that was ascertained by finding the average of the mean ratings of the three items which load most strongly on the factor. The integer closest to this number was used as the mean of the curve. The integer for the factors were: F1=4, F2=6, F3=3, F4=7, F5=5, F6=7.

The sentence variable was converted by reversing the transformation, using the formula: $Y = e^X - 10$.

The individual ANOVA analyses of each dependent variable are presented in Table 8.4.3.

Table 8.4.1 Study 6: MANOVA Results

	Wilks' Lambda	F	df	Prob
Gender (A)	0.970	1.31	7, 301	0.2454
Stability (B)	0.994	0.28	7, 301	0.9611
AxB	0.985	0.66	7, 301	0.7061
Legitimacy (C)	0.951	2.23	7, 301	0.0317
AxC	0.995	0.24	7, 301	0.9762
BxC	0.970	1.31	7, 301	0.2454
AxBxC	0.994	0.27	7, 301	0.9645
Crime (D)	0.808	10.24	7, 301	0.0001
AxD	0.984	0.71	7, 301	0.6660
BxD	0.962	1.69	7, 301	0.1115
AxBxD	0.990	0.45	7, 301	0.8716
CxD	0.980	0.87	7, 301	0.5309
AxCxD	0.992	0.37	7, 301	0.9213
BxCxD	0.949	2.30	7, 301	0.0270
AxBxCxD	0.954	2.10	7, 301	0.0439
Race (E)	0.396	65.62	7, 301	0.0001
AxE	0.942	2.63	7, 301	0.0118
BxE	0.984	0.69	7, 301	0.6815
AxBxE	0.986	0.59	7, 301	0.7652
CxE	0.940	2.72	7, 301	0.0094
AxCxE	0.968	1.41	7, 301	0.2002
BxCxE	0.984	0.72	7, 301	0.6594
AxBxCxE	0.977	1.02	7, 301	0.4173
DxE	0.817	9.65	7, 301	0.0001
AxDxE	0.984	0.68	7, 301	0.6891
BxDxE	0.961	1.74	7, 301	0.1000
AxBxDxE	0.981	0.82	7, 301	0.5683
CxDxE	0.972	1.22	7, 301	0.2905
AxCxDxE	0.997	0.15	7, 301	0.9940
BxCxDxE	0.989	0.47	7, 301	0.8589
AxBxCxDxE	0.969	1.38	7, 301	0.2137

Table 8.4.2 Study 6: Least Square Means of Dependent Variables, Converted Back to the Original Scales

RAPE		Legitimate		Illegitimate		
	Stable	Unstable	Stable	Unstable		
Male	9.365	6.321	10.031	14.806	1	1
	8.262	7.264	7.500	6.591	2	2
	4.830	2.992	2.998	3.623	3	3
	5.182	5.246	3.452	5.212	4	4
	8.811	7.413	5.605	7.348	5	5
	3.886	4.705	3.588	3.279	6	6
	6.811	6.528	4.799	4.206	7	7
	2	6	8	28	8	8
Whites	10.328	16.052	21.634	13.487	1	1
	7.433	6.657	8.580	8.269	2	2
	5.765	5.221	4.248	3.407	3	3
	4.075	4.649	3.965	3.612	4	4
	4.350	7.325	7.982	6.958	5	5
	5.166	5.720	4.544	4.869	6	6
	6.174	6.755	3.923	5.069	7	7
	3	10	11	30	8	8
Female	4.778	7.778	12.609	9.986	1	1
	8.993	7.552	6.668	7.412	2	2
	7.283	8.635	7.702	7.074	3	3
	1.628	1.523	1.983	2.529	4	4
	8.020	7.340	8.541	7.267	5	5
	2.972	1.390	0.442	2.367	6	6
	6.007	4.415	6.183	5.619	7	7
	10	10	7	19	8	8
Blacks	10.000	7.413	9.617	8.637	1	1
	9.997	7.471	5.494	8.445	2	2
	8.483	7.034	6.618	7.440	3	3
	1.622	2.501	1.500	3.023	4	4
	5.122	7.437	7.364	7.303	5	5
	1.698	2.163	1.621	1.713	6	6
	6.713	3.984	6.550	5.548	7	7
	1	3	7	18	8	8
Male	4.778	7.778	12.609	9.986	1	1
	8.993	7.552	6.668	7.412	2	2
	7.283	8.635	7.702	7.074	3	3
	1.628	1.523	1.983	2.529	4	4
	8.020	7.340	8.541	7.267	5	5
	2.972	1.390	0.442	2.367	6	6
	6.007	4.415	6.183	5.619	7	7
	10	10	7	19	8	8
Whites	10.328	16.052	21.634	13.487	1	1
	7.433	6.657	8.580	8.269	2	2
	5.765	5.221	4.248	3.407	3	3
	4.075	4.649	3.965	3.612	4	4
	4.350	7.325	7.982	6.958	5	5
	5.166	5.720	4.544	4.869	6	6
	6.174	6.755	3.923	5.069	7	7
	3	10	11	30	8	8
Female	4.778	7.778	12.609	9.986	1	1
	8.993	7.552	6.668	7.412	2	2
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	6.007	4.415	6.183	5.619	7	7
	10	10	7	19	8	8
Blacks	10.000	7.413	9.617	8.637	1	1
	9.997	7.471	5.494	8.445	2	2
	8.483	7.034	6.618	7.440	3	3
	1.622	2.501	1.500	3.023	4	4
	5.122	7.437	7.364	7.303	5	5
	1.698	2.163	1.621	1.713	6	6
	6.713	3.984	6.550	5.548	7	7
	1	3	7	18	8	8
Male	4.778	7.778	12.609	9.986	1	1
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Male	4.778	7.778	12.609	9.986	1	1
	8.993	7.552	6.668	7.412	2	2
	7.283	8.635	7.702	7.074		

Table 8.4.3 Study 6: Summary of the Univariate ANOVA Analyses of the Dependent Variables

	Dependent Variables					
	Sentence	Assailant Aggress.	Victim Passiv.	Victim Actions	Victim Vulner.	Social Condit.
Full Model						
F Ratio	5.66a	4.08a	7.58a	3.35a	1.97a	5.74a
Mean Square Error	0.135	0.551	0.553	0.615	0.563	0.539
R-square	36.4%	29.2%	43.3%	25.3%	16.6%	36.7%
df	31, 307	31, 307	31, 307	31, 307	31, 307	31, 307
F Statistics for Effects						
Gender (A)	2.33	2.06	0.22	0.97	1.67	1.36
Stability	0.00	0.20	0.70	0.13	0.05	0.00
AxB	0.27	0.84	0.02	1.77	1.19	0.10
Legitimacy	4.26b	0.55	4.86b	1.81	3.69c	2.53
AxC	0.71	0.35	0.01	0.10	0.30	0.47
BxC	0.05	0.97	1.03	0.00	2.14	6.43b
AxBxC	0.82	0.49	0.00	0.03	0.17	0.00
Crime (D)	46.16a	17.89a	0.15	0.27	0.02	10.51a
AxD	0.37	1.02	0.06	0.50	1.36	0.01
BxD	0.06	1.10	0.18	0.86	8.20a	0.01
AxBxD	0.05	0.01	0.09	0.02	0.94	1.50
CxD	0.85	1.58	0.51	0.02	1.32	1.02
AxCxD	0.22	0.73	0.33	0.41	0.03	0.22
BxCxD	0.37	5.18b	0.06	3.18c	4.25b	1.44
AxBxCxD	0.06	0.08	0.01	3.19c	1.93	3.00c
Race (E)	0.28	19.05a	86.32a	28.94a	2.25	55.21a
AxE	0.16	0.06	4.23b	0.84	8.89a	3.45c
BxE	0.15	0.00	0.11	0.10	2.23	0.64
AxBxE	0.52	0.17	0.27	0.46	1.08	1.15
CxE	0.22	2.00	2.16	3.10c	1.08	2.80c
AxCxE	0.20	2.20	0.04	4.64b	0.37	0.00
BxCxE	0.22	0.51	1.51	1.68	1.36	0.00
AxBxCxE	1.41	0.62	2.14	1.82	0.55	0.16
DxE	12.73a	17.35a	0.00	4.61b	21.09a	0.96
AxDxE	2.07	0.14	0.29	2.07	0.10	0.67
BxDxE	0.02	1.79	2.80	2.78c	1.92	1.74
AxBxDxE	0.14	0.40	0.08	0.31	4.20b	0.10
CxDxE	0.00	0.75	0.16	0.81	5.32b	0.33
AxCxDxE	0.14	0.52	0.00	0.29	0.03	0.16
BxCxDxE	0.36	2.24	0.03	0.16	0.07	0.95
AxBxCxDxE	2.81c	0.34	1.98	0.38	1.05	2.05

a $p < 0.01$
b $p < 0.05$
c $p < 0.10$

The MANOVA results indicate that over all the seven dependent variables, the following effects are significant: Legitimacy, Crime and Race, and the interactions between Gender x Race, Legitimacy x Race, Crime x Race, Stability x Legitimacy x Crime and Gender x Stability x Legitimacy x Crime. These will be explored further in the context of the univariate ANOVAs.

Assailant Blame

The sentence severity and the attribution of blame to the assailant's aggressiveness are the two variables which measure attitudes towards the male assailant.

Recommended Sentence

Sixteen subjects ignored the instruction to give the recommended sentence in years, and put "life". This was replaced by 40 years, which was the highest sentence recommended for this study.

The model was statistically significant ($F(31, 307) = 5.66, p < 0.000$) and explained 36.4% of the variance.

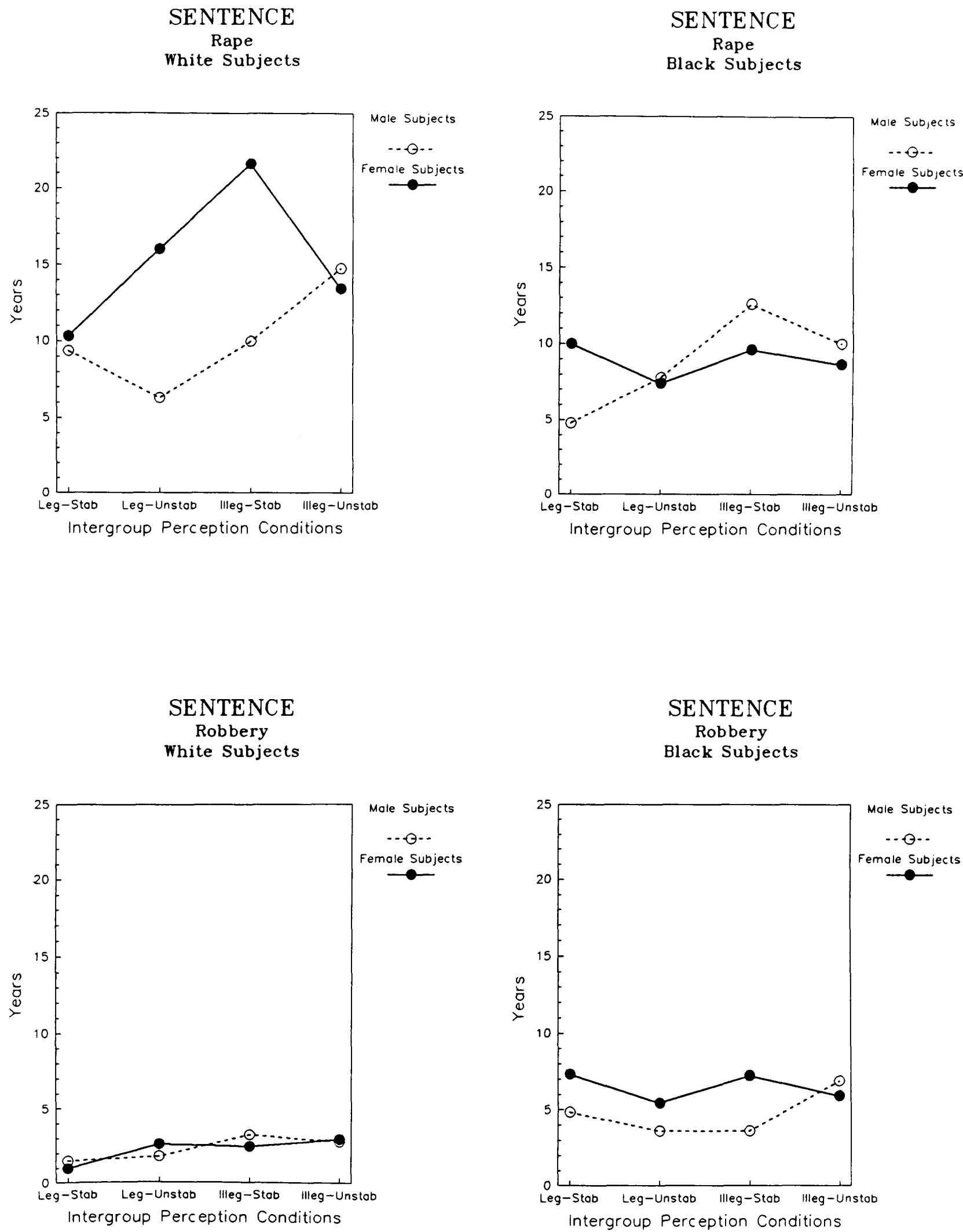
Two main effects were significant; Crime ($F(1, 307) = 46.16, p < 0.000$) and Legitimacy ($F(1, 307) = 4.26, p = 0.061$); and the interaction between Crime and Race was also significant ($F(1, 307) = 12.73, p < 0.000$). These results indicate that in general subjects applied a more severe sentence for the crime of rape ($M = 10.18$) than for robbery ($M = 3.91$), but whites gave a lower sentence for robbery ($M = 2.23$) than did blacks ($M = 5.82$), while blacks gave a lower sentence for rape ($M = 8.53$) than whites ($M = 11.98$).

The effect for legitimacy was as anticipated in the hypotheses. Subjects who perceived the gender hierarchy as illegitimate, recommended a more severe sentence for the assailant ($M=7.62$) than did subjects who perceived the hierarchy as legitimate ($M=5.94$). Thus H1 and H2 were supported.

The effect of stability was not significant as a main effect or within an interaction. However, orthogonal comparisons did indicate that white men who considered gender inequality to be both Legitimate and Unstable recommended the lowest sentence for rape (of the white groups). However, this reached significance only when compared with men in the Illegitimate-Unstable group, who (of the men) recommended the highest sentence. This provided some support for H3. However, this pattern did not occur in for the black males subjects, nor for the subjects judging the robbery crime.

Hypothesis H4 was supported by the white subjects only. Women who perceived the gender hierarchy to be Legitimate and Stable, recommended the lowest sentences for rape and robbery. However, this was only significantly lower than the white women in the Illegitimate-Stable condition judging rape. The responses of the black women did not match this pattern.

Figure 8.4.1 Study 6: Graphs of Recommended Sentence



Assailant Aggressiveness

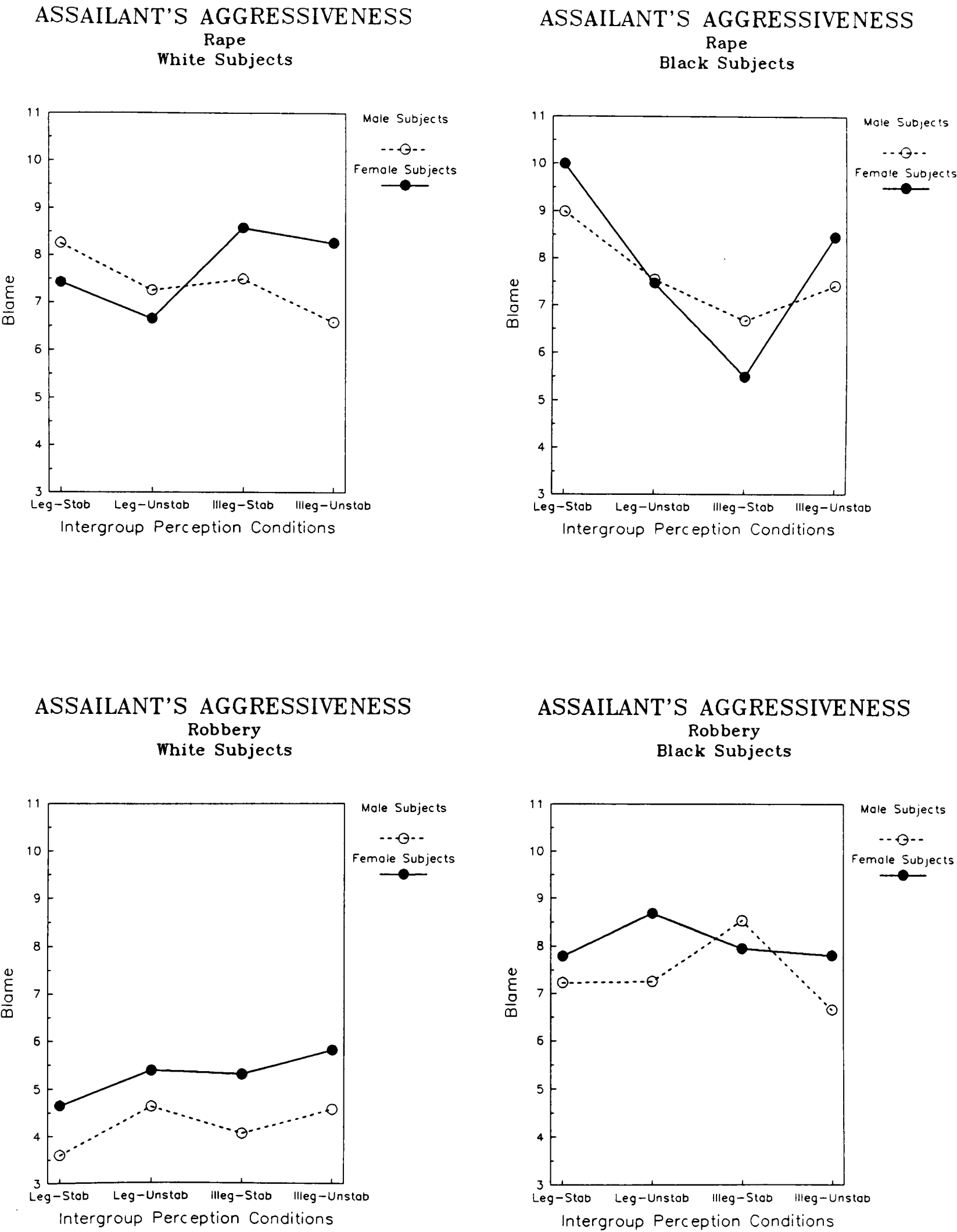
The model was significant ($F(31, 307) = 4.08, p < 0.000$), explaining 29.2% of the variation.

The main effects for Crime ($F(1, 307) = 17.89, p < 0.000$) and Race ($F(1, 307) = 19.05, p < 0.000$) were significant, as well as the interaction between them ($F(1, 307) = 17.35, p < 0.000$). More blame was attributed to the assailant when the crime was rape ($M = 7.67$) than robbery ($M = 6.24$); and greater blame was attributed by black subjects ($M = 7.75$) than white ($M = 6.16$). However, the interaction indicated that only white subjects attributed less blame when the crime was robbery (Rape, $M = 7.59$, Robbery, $M = 4.73$). Both black and white subjects attributed similar amounts of blame to the rape assailant.

Legitimacy as a main effect was not significant, but was implicated in a 3-way interaction term: Stability x Legitimacy x Crime ($F(1, 307) = 5.18, p = 0.024$). This interaction indicates that subjects in the Legitimate-Stable conditions were more blaming of the rape assailant and less blaming of the robbery assailant than subjects in the other conditions, particularly in the Legitimate-Unstable conditions.

Inspection of the cell means indicate that Legitimacy appears to have an effect only amongst white women judging the rape vignette. Those in the Illegitimate conditions attributed greater blame to the assailant than those in the Legitimate conditions. This is slight support for hypothesis H2. There was no support for any of the other hypotheses.

Figure 8.4.2 Study 6: Graphs of Blame to Assailant's Aggressiveness



Victim Blame

The three variables which measure attitudes to the female victim are attributions to the victim's passivity (characterological blame), to the victim's actions (behavioural blame) and to the victim's vulnerability.

Attribution of Blame to Victim's Passivity

The model is statistically significant ($F(31, 307) = 7.58, p < 0.000$), and explains 43.3% of the variance.

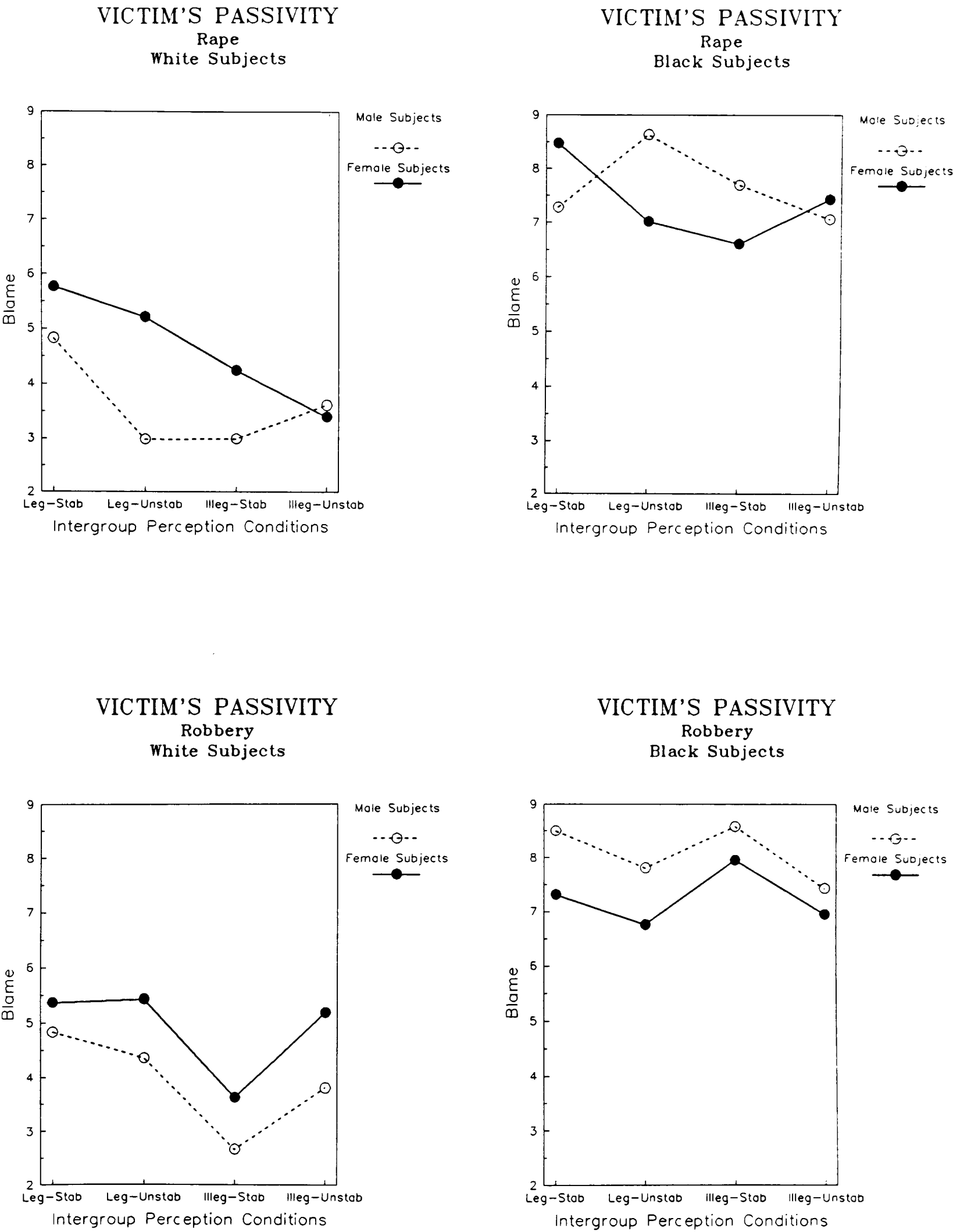
Two main effects were significant: Legitimacy ($F(1, 307) = 4.86, p = 0.028$) and Race ($F(1, 307) = 86.32, p < 0.000$). Race is further implicated in a 2-way interaction with Gender ($F(1, 307) = 4.23, p = 0.041$). The main effects indicate, firstly, that black subjects attribute more blame to the victim's passivity ($M = 7.60$) than do whites ($M = 4.30$), and secondly, that subjects who regard gender inequality as Legitimate attribute more victim blame ($M = 6.34$) than do those who regard it as Illegitimate ($M = 5.56$). This again supports the central hypothesis: men in the Legitimate conditions gave responses that are more group serving than those in the Illegitimate conditions; and women in the Illegitimate conditions gave responses that were more group serving than those in the Legitimate conditions.

The Gender x Race interaction indicates that there was little difference in the amount of victim blame attributed by black subjects as a function of gender, but that white men attributed less blame to the victim's passivity than did white women.

Considering the means, the only support for H3 is from the black men judging the rape case, those in the Legitimate-Unstable condition attributed

the highest blame to the victim's passivity, but this only reached significance when compared with those in the Illegitimate-Unstable group. Similarly, there is slight support for hypothesis H4. Both black and white women in the Legitimate-Stable condition judging rape produced the least group-serving response. But this only tended ^{to} significance when compared white women in the Illegitimate-Unstable group.

Figure 8.4.3 Study 6: Graphs of Blame to Victim's Passivity



Attribution of Blame to Victim's Behaviour

The model was statistically significant ($F(31, 307) = 3.35, p < 0.000$), and explains 25.3% of the variance.

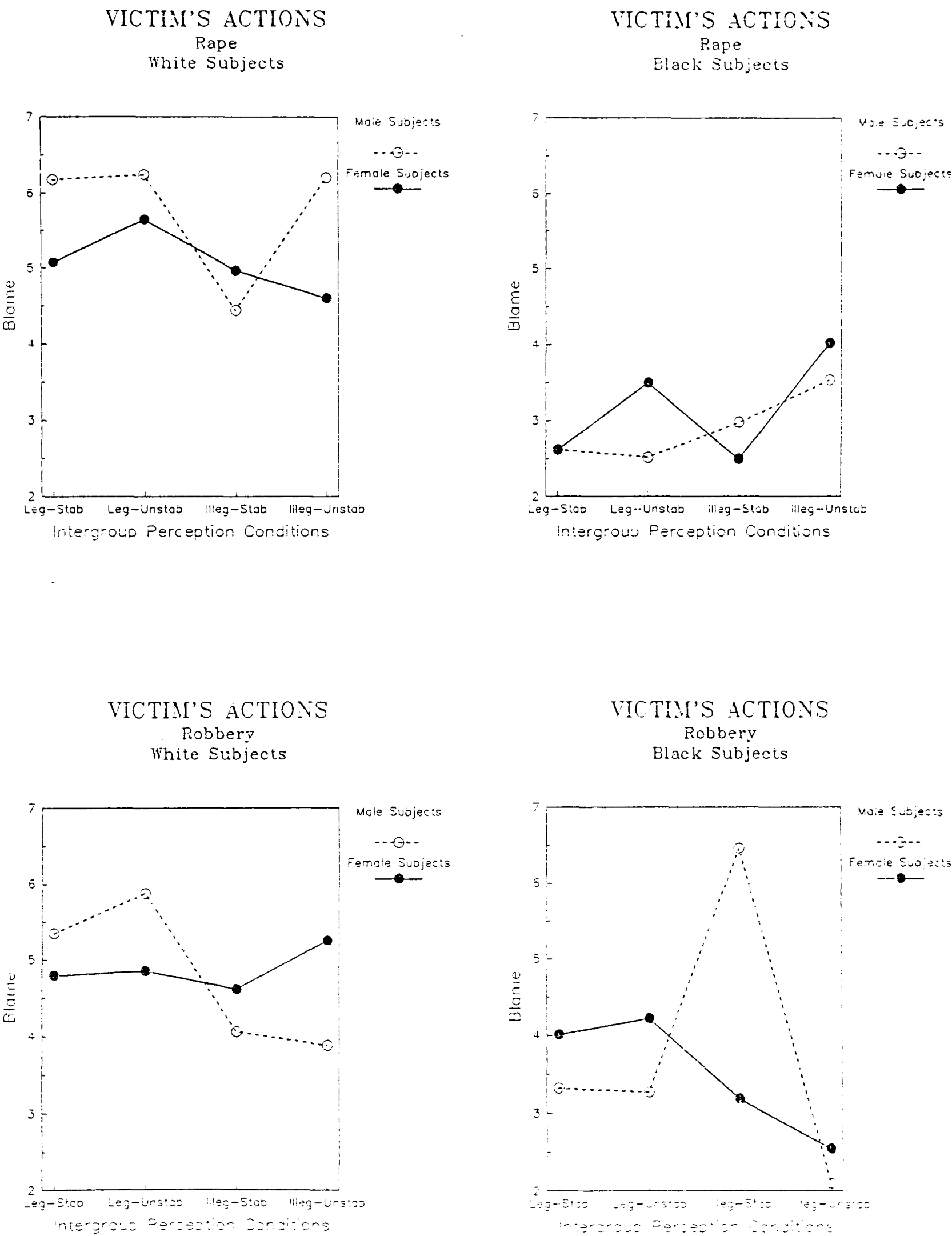
The Race main effect was significant ($F(1, 307) = 28.94, p < 0.000$), as was the Crime x Race interaction ($F(1, 307) = 4.61, p = 0.033$). Overall, white subjects attributed more blame to the victim's actions ($M = 4.30$) than did the black subjects ($M = 2.32$), but while the black subjects attributed the same amount of blame for rape and robbery, the whites attributed more blame to the actions of the victim of rape than of robbery.

Legitimacy is not significant as a main effect, but the interaction between Gender x Legitimacy x Race is ($F(1, 307) = 4.64, p = 0.032$). The 3-way interaction indicates that legitimacy only has an effect on the amount of blame attributed by white men. Those who consider gender inequality to be legitimate attributed significantly greater blame to the victim's behaviour ($M = 5.48$) than do those who consider it illegitimate ($M = 3.63$). Thus there is some support for hypothesis H1 but not for H2.

Inspection of the cell means indicated that hypothesis H3 is supported only in the case of white men judging robbery. Those who perceive the gender hierarchy as Legitimate and Unstable attributed the greatest blame to the victim's behaviour. Amongst black men judging robbery, surprisingly, it was those in the Illegitimate-Unstable group that attributed most blame.

Hypothesis H4 was not supported.

Figure 8.4.4 Study 6: Graphs of Blame to Victim's Actions



Attribution of Blame to the Victim's Vulnerability

The model is statistically significant ($F(31, 307) = 1.97, p = 0.002$), explaining 16.6% of the variance.

The main effect for Legitimacy is almost significant ($F(1, 307) = 3.69, p = 0.056$). Subjects who consider gender inequality to be illegitimate attribute more blame to the victim's vulnerability ($M = 7.10$) than those who consider it to be legitimate ($M = 6.44$). If this factor of victim vulnerability is seen as locating the responsibility outside the victim herself, and laying it more on to situational issues such as circumstantial events, or the position of women in society, endorsing this factor may imply a 'women-serving' response. In this case the above finding may be taken to support hypothesis H1 and H2.

The interaction between Crime x Race ($F(1, 319) = 21.09, p < 0.001$) indicates that whites attribute more blame to the victim's vulnerability when the crime is robbery ($M = 7.72$) than when it is rape ($M = 6.40$), while blacks attribute more blame when the crime is rape ($M = 7.30$) than when robbery ($M = 5.66$). The amount of blame attributed by whites is greater than blacks for robbery, but less than blacks for rape.

Three 2-way interactions are significant: Gender x Race ($F(1, 307) = 8.89, p = 0.003$), which emerges from the responses of black women. These subjects attribute the least blame to this factor ($M = 5.74$), significantly less than white women ($M = 7.33$) and black men ($M = 7.22$). There was no difference in the amount of blame attributed by men as a function of race, nor between whites as a function of gender (White men: $M = 6.80$).

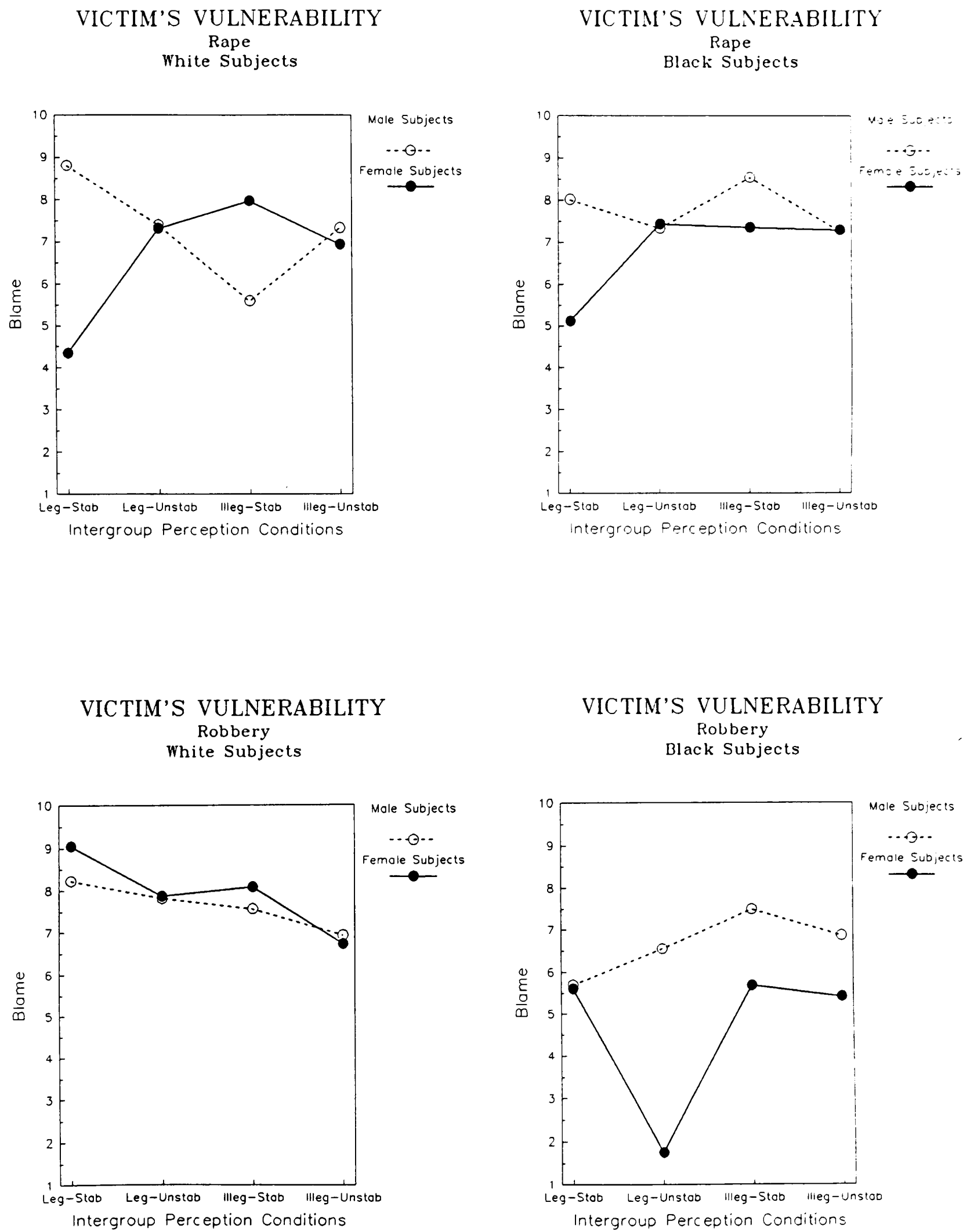
The interaction between Stability x Crime ($F(1, 319) = 8.20, p = 0.005$) indicates that subjects who see the gender hierarchy as unstable, attribute

less blame to victim vulnerability when the crime is robbery ($M=6.22$) than do subjects who see it as stable ($M=7.16$), but attribute more blame to this factor when the crime is rape ($M=7.32$) than do the subjects in the stable conditions ($M=6.38$).

The 3-way interaction; Stability x Legitimacy x Crime ($F(1, 307)=4.25$, $p=0.0402$) and Legitimacy x Crime x Race ($F(1, 307)=4.20$; $p=0.0412$) were significant, as was the 4-way interaction between Gender x Stability x Crime x Race ($F(1, 319)=4.20$, $p=0.041$). As all the factors are involved in interactions, it would be best to consider the cell comparisons.

Hypothesis H3, which for this variable, predicted that men in the Legitimate-Unstable condition would attribute the least blame to victim vulnerability, was not supported. Hypothesis H4, which predicted that women in the Legitimate-Stable condition would attribute the least blame to this factor, was confirmed for white women judging rape. The pattern of means for black women judging rape was similar but did not reach statistical significance. The responses of the women judging robbery did not conform to this pattern.

Figure 8.4.5 Study 6: Graph of Blame to Victim's Vulnerability



Attribution to Society

The two variables which deal explicitly with blame to societal factors are Social Conditions and Social Values. No direct predictions were made about these variables in terms of a group-serving function, but it had been anticipated that attribution to these factors may be used to diminish the blame to the defendant.

Attribution to Social Conditions

The regression equation was significant ($F(31, 307) = 5.74, p < 0.000$), explaining 36.7% of the variance.

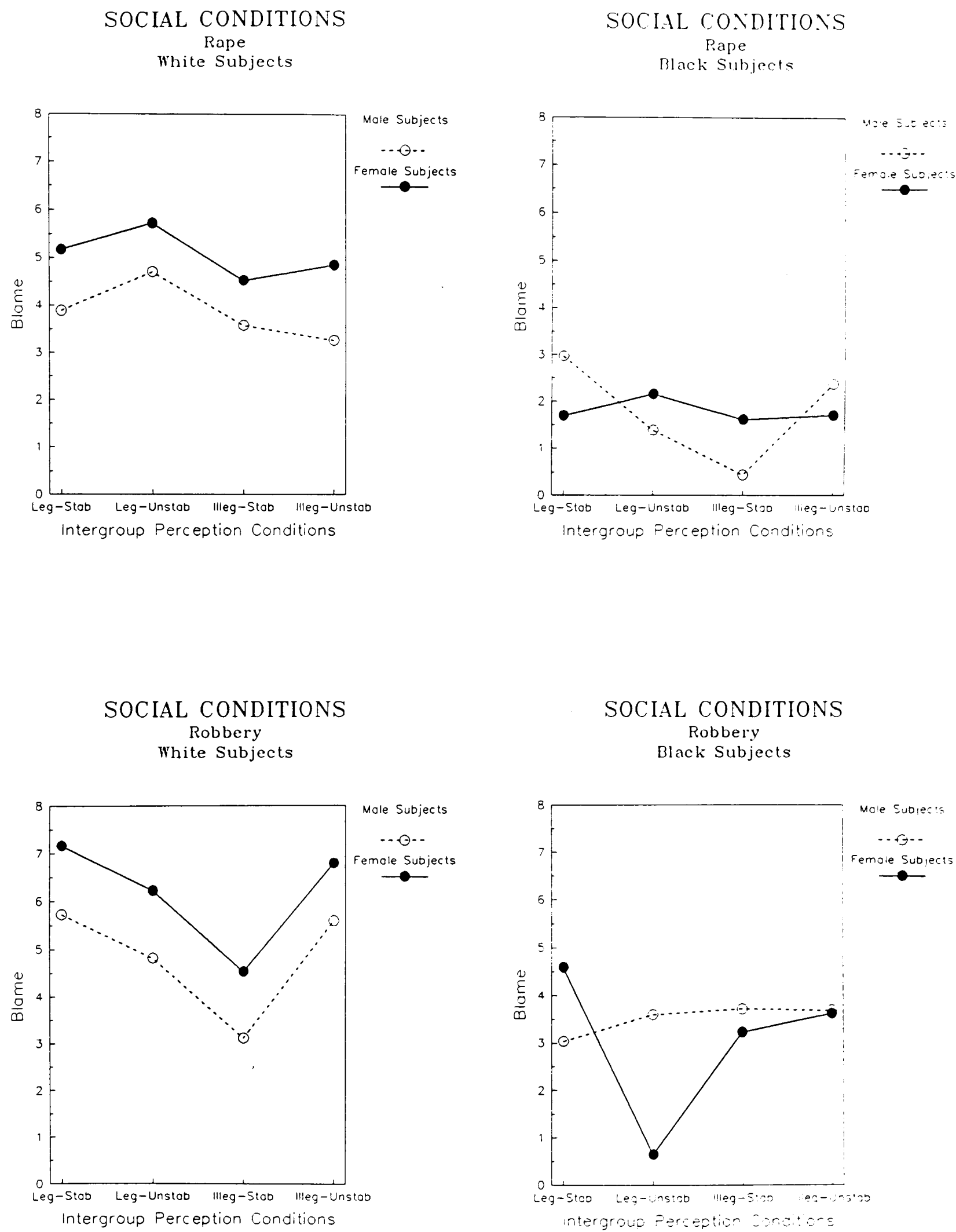
Two main effects were significant; Crime ($F(1, 307) = 10.51, p < 0.000$) and Race ($F(1, 307) = 55.21, p < 0.000$). These indicate that more blame is attributed to social conditions when the crime is robbery ($M = 4.41$) than when rape ($M = 3.14$). White subjects consider this variable more important ($M = 5.00$) than do black ($M = 2.55$).

The interaction between Stability x Legitimacy is significant ($F(1, 307) = 6.43, p = 0.012$). Subjects who perceive the gender hierarchy as illegitimate and stable attributed less blame to social conditions ($M = 3.07$) than did subjects in the illegitimate and unstable conditions ($M = 4.00$), and legitimate and stable group ($M = 4.31$). The effect of stability was not as salient amongst the subjects who perceive the situation as legitimate.

The interaction between Gender x Race tends to significance ($F(1, 307) = 3.45, p = 0.064$) which, in addition, indicates that while there was no difference due to gender with black subjects, white women attributed greater importance to social conditions ($M = 5.65$) than did white men ($M = 4.35$).

Under the argument that attributions to social conditions will be used to diminish blame to the assailant, hypotheses H1 and H2 predict that subjects who perceived the gender hierarchy as Legitimate should have attributed more importance to this factor than those who saw it as Illegitimate. There was a slight tendency to this in the results of the white subjects (Legitimate, $M=5.50$, Illegitimate, $M=4.50$; $p=0.029$), but there was little effect with the black subjects (Legitimate, $M=2.51$, Illegitimate, $M=3.34$; $p>0.1$). Comparisons of the cell means failed to support hypotheses H3 and H4.

Figure 8.4.6 Study 6: Graph of Blame to Social Conditions

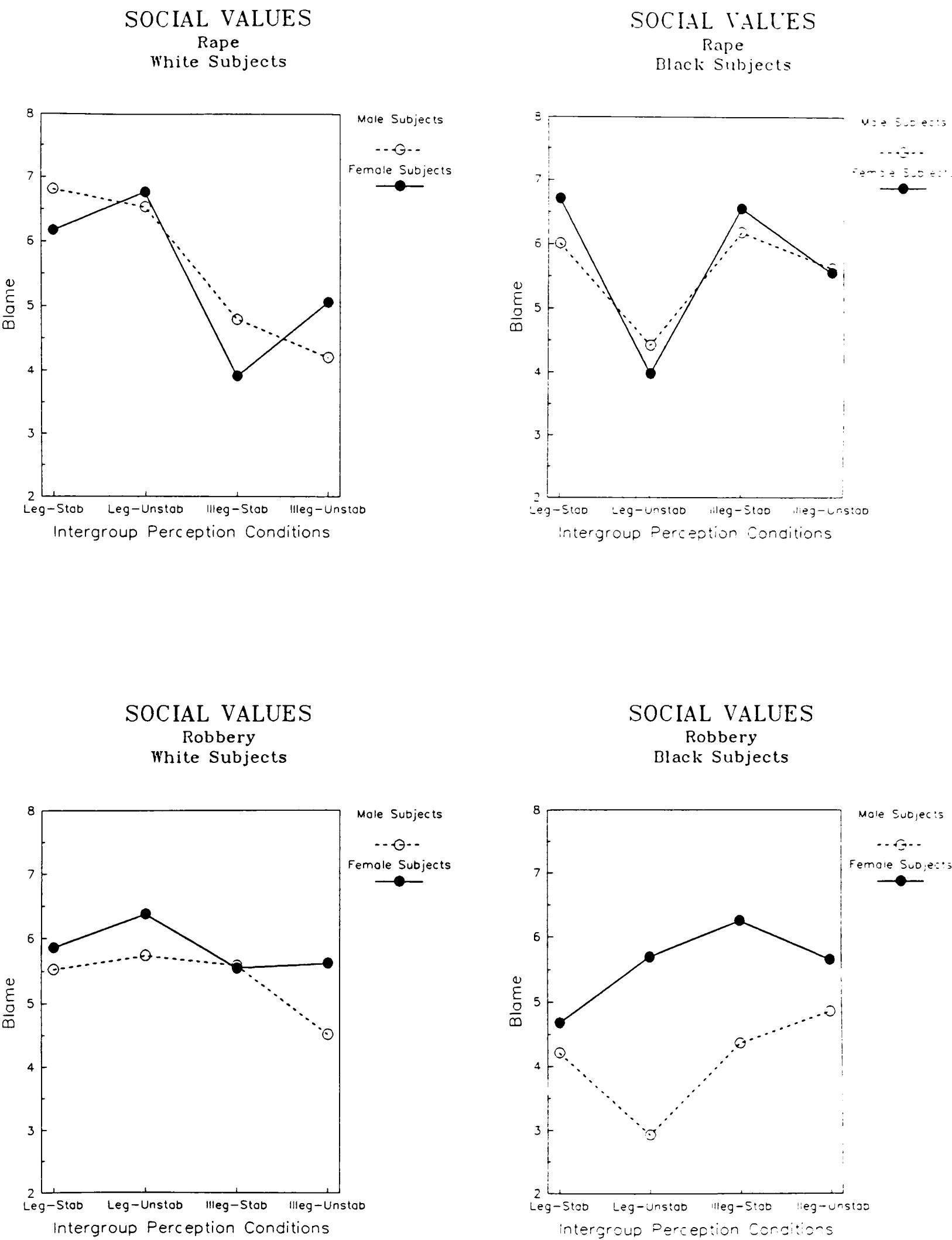


Blame to Social Values

The model was almost significant ($F(31, 307) = 1.46, p = 0.058$), explaining 12.9% of the variation.

The interaction between Legitimacy and Race is significant ($F(1, 307) = 8.38, p = 0.004$). Amongst black subjects, there was no effect due to legitimacy (Legitimate: $M = 4.83$, Illegitimate: $M = 5.64$). White subjects who perceived gender inequality to be illegitimate attributed significantly less importance to social values ($M = 4.88$) than those who see it as legitimate ($M = 6.29$). This result confirms the predictions of hypotheses H1 and H2.

Figure 8.4.7 Study 6: Graph of Blame to Social Values



Commonness of the Crime and Degree of Seriousness

The logistic regression analyses of these variables inferred that there was no effect for any of the independent variables or their interactions. This was surprising, as it was expected that the type of crime, at least, would affect these responses. However, this could be due to the design of the study, which was a completely randomized factorial design. This determined that each subject judged only one crime, and was not asked to rate the commonness and seriousness of rape *vis-a-vis* robbery.

8.4.3 Discussion

Before discussing the implication of the results for the hypotheses, it is important to point out that there were race differences in every variable, either as a main effect or involved within one or more interactions. From the results it is clear that an essential difference is that the black subjects considered the crime of robbery to be more serious than did the whites. In recommending sentences, both black and white subjects recommended a more severe sentence for the rapist than the robber, but the white subjects desired a higher sentence for rape and lower sentence for robbery than did the blacks. The black subjects also attributed as much blame to the assailant's aggressiveness in the rape as in the robbery, but whites attributed far less when the crime was robbery. The circumstances of the respective race groups in South Africa explains the different perspectives. For blacks, who in general live under stringent economic circumstances, the loss of any

money through robbery has significant consequences for themselves and their families. Furthermore, they do not have access to credit cards and cheque accounts, as do whites, so must carry necessary money in cash. Hence, this kind of robbery (essentially a mugging) would mean a considerable loss, whereas for most whites it would not represent a major financial shock.

The attribution of blame to the victim also highlights a further difference in the perspectives of the race groups. For whites, there would be less necessity for a woman to be walking alone down a lonely street to catch a bus. The option of taking a taxi, getting a lift in a colleague's car or even possessing one's own car would be available, whereas this would not be so for blacks. This would account for the finding that white subjects attribute greater blame to the victim's actions than blacks. Blacks attribute more blame to the victim's weakness and passivity than whites, which may reflect that black women are expected to be more physically assertive than are women in the white culture.

The central hypothesis of this study was that subjects who regarded gender inequality to be illegitimate, would give responses that were "pro-women", while those who regard the situation to be legitimate would give responses that were "pro-men". According to Social Identity Theory, men who view their superiority as legitimate will seek to maintain or enhance their position while those who see their superior position as illegitimate would tend to dissociate themselves from that position and give pro-women responses. Women in the legitimate conditions accept their inferiority as legitimate and respond in ways that reinforce this position and promote the interests of the male group, while those who reject their inferiority will

promote the interests of their own group. This prediction received considerable support from the findings. The subjects in the illegitimate conditions recommended a more severe sentence for the male assailant, attributed less characterological blame to the victim and placed more importance on the victim being vulnerable than did subjects in the legitimate conditions.

For the variables, assailant aggressiveness and victim behaviour, legitimacy was not significant as a main effect, but was implicated in interactions. Amongst white women judging rape, those in the illegitimate conditions attributed more blame to the assailant's aggressiveness than did those in the legitimate conditions. This finding supports the prediction, but the localization of the effect would seem to indicate that firstly, white women regard the assailant's aggressiveness as the motivation behind rape but not robbery. Blacks, on the other hand see the assailant's aggressiveness as important in robbery as rape. This is evident from Race x Crime interaction, and will be discussed in terms of general differences between the races. Men, in general, and white men, in particular, attribute much less importance to assailant aggressiveness in crime than women. This may emerge from the fact that aggression is more normative for men, hence is not noteworthy.

In the case of victim behaviour, white subjects, particularly males, in the illegitimate conditions attributed less blame to the victim's behaviour than did those in the legitimate conditions. This again supported the central hypothesis.

The subsidiary predictions; that men in the Legitimate-Unstable condition (H3) and women in the Legitimate-Stable condition (H4) would

provide the most "pro-men" response did receive some support. The Multivariate Analysis of Variance results showed that Stability was involved in interaction with Legitimacy in both the Gender x Stability x Legitimacy x Crime and the Stability x Legitimacy x Crime interactions. Hypothesis H3 was confirmed in the following instances: of the white male subjects judging rape, those in the Legitimate-Unstable condition recommended the lightest sentence; of the black men judging rape, those in this condition attributed the highest characterological blame to the victim; and of the white men judging robbery, those in this condition attributed the highest behavioural blame to the victim. Hypothesis H4 received support in the following instances: of the white women judging both rape and robbery, those in the Legitimate-Stable group attributed the most behavioural blame to the victim; both black and white women judging rape attributed the most characterological blame; and white women judging rape attributed the least blame to victim vulnerability.

The attribution of blame to the social factors - social condition and moral values, were not included in the predictions. There was a suggestion that attributing blame to social conditions might deflect blame from the assailant, for which the results provided some support amongst white subjects only. White subjects who perceived the gender inequality to be legitimate attributed more blame to the concrete social conditions, and to social values than did those in the illegitimate conditions.

The factor, blame to the victim's vulnerability deserves some mention. The factor would seem to point to issues surrounding sex-role socialization and women's physical vulnerability, for which the victim could not be held accountable. This type of factor does not appear in any of the studies on attribution of blame for rape, and clearly deserves future attention.

In conclusion, this study offers considerable validation to the predictions emerging from Social Identity Theory. Cognizance of the illegitimacy of the inequality between men and women is associated with response trends that are essentially sympathetic to women. Many of the studies reviewed have focussed on the difference between the attributions of men and women to an inter-gender crime with equivocal results. This study demonstrates that this dichotomy is too superficial, and that information of how people view the intergroup situation must be sought. Other studies have determined that more "liberal" gender role attitudes, as measured by such scales as the Spence *et al.* (1973) Attitudes to Women Scale (Howard and Leber, 1988;); and the Attitude to Feminism Scale (Krulowitz and Payne, 1978) have a similar association. However, these measures are specific to attitudes to women, and tend to be culturally and historically specific. The concept of illegitimacy presents a more robust index, as it does not suffer from such specificity, but more important it aligns the behaviour of gender groups with other social groups and demonstrates that it is subject to the same influences.

8.5 Study 7: Race Differences in the Attribution of Blame for an Inter-racial Crime

In this study, both the crimes, robbery and rape, were inter-racial. The race of the victim differed from the race of the assailant, giving two possible combinations: black victim with white assailant (Bv/Wa) or white

victim with black assailant (Wv/Ba). The group serving responses in this study will depend on the race of the victim and assailant. Thus a typical group-serving response, leaving aside the influences of perceptions of status, stability and legitimacy, would be for the respondent to accentuate the blame of the victim and minimize the blame to the assailant when he is of the same race group as the respondent, and to reduce the blame to the victim and accentuate the blame to the assailant when he is of a different race group.

Hypotheses

- H1. Whites who perceive the race hierarchy to be legitimate will attribute blame to favour the ingroup and discriminate against the outgroup more than respondents who perceive the situation to be illegitimate. This entails:
- (a) recommending a lower sentence to the assailant when the assailant is white than when black;
 - (b) attributing less blame to the assailant when the assailant is white and more blame when the assailant is black; and
 - (c) attributing more blame to the victim when she is black and less when she is white.
- H2. Blacks who perceive the race hierarchy to be illegitimate will slant their attributions of blame to favour the ingroup and discriminate against the outgroup more than respondents who perceive the situation to be legitimate. This entails:

- (a) recommending a lower sentence to the assailant when he is black than when white;
- (b) attributing less blame to the assailant when the assailant is black and more blame when the assailant is white; and
- (c) attributing more blame to the victim when she is white and less when she is black.

H3. Whites who perceive the race hierarchy to be legitimate and unstable will evidence the most group-serving biases in their attributions of blame. This entails:

- (a) recommending the lowest sentence to the white assailant;
- (b) attributing the least blame to the white assailant; and
- (c) attributing the most blame to the white victim:

relative to other white subjects.

H4. Blacks who perceive the race hierarchy to be legitimate and stable will evidence the least group favouring biases in their attribution of blame.

This entails:

- (a) recommending the lowest sentence to the white assailant;
- (b) attributing the least blame to the white assailant; and
- (c) attributing the most blame to the white victim:

relative to other black subjects.

8.5.1 Method

Subjects

Five hundred and fifty-five people were interviewed. Forty-two were discarded because of their anomalous use of the ladder. The final subject pool of 513 people consisted of 107 white men, 124 white women, 135 black men and 147 black women. Their ages ranged between 16 years and 90 years, the mean being 34.4 years.

Intergroup Perception Factors

In this study the perception of stability and legitimacy refers to the inter-racial situation, and the Race Ladder was used to obtain the categorizations for legitimacy and stability. The median split for stability was -1. Subjects with stability scores from -3 and below were placed in the unstable conditions, and those with scores of -2 and above were placed the stable conditions.

The dichotomy for legitimacy was as described previously. The subjects who placed blacks at the same step or higher than whites on the "Where should the groups stand" question were classified into the illegitimate conditions, while those who put whites higher than blacks were in the legitimate conditions.

Dependent Variables

The dependent variables were the same nine as in Study 6:

1. The rating for the question "*How serious do you think this crime is?*"
2. The rating for the question "*How common do you think this type of crime is?*"
3. The prison sentence (number of years) the assailant should get.
4. Factor I: Objective social conditions.
5. Factor II: Victim's passivity.
6. Factor III: Victim's actions.
7. Factor IV: Assailant's aggressiveness.
8. Factor V: Social values.
9. Factor VI: Victim's vulnerability.

Analysis

The distributions of the responses to the questions pertaining to the seriousness and commonness of the crime were again too severely skewed to use parametric tests, so were individually analysed using logistic regressions.

The recommended prison sentences variable was also transformed using a logarithmic function. This together with the six factor scores were statistically analysed first with a MANOVA, and subsequently, as univariate 2 (race) x 2 (stability) x 2 (legitimacy) x 2 (crime) x 2 (race of assailant and victim) ANOVAs. The SAS GLM programmes were used for this analysis.

However, once the factors crime and race of the actors was added to the intergroup perception factors, the distribution of the subjects into the various conditions was considerably more unbalanced than was the case in the gender study. Three conditions contained only one subject and one had none at all. This meant the 5-way interaction could not be determined, and the hypotheses predicting the interactions between Stability and Legitimacy (H3 and H4) could not be assessed.

8.5.2 Results

The results of the MANOVA analysis are presented in Table 8.5.1; the least square means of the dependent variable (again transformed to the original scales) in Table 8.5.2 and the results of the univariate ANOVAs in Table 8.5.3

Table 8.5.1 Study 7: MANOVA Results

	Wilks' Lambda	F	df	Prob
Race (A)	0.562	49.01	7, 441	0.0001
Stability (B)	0.976	1.57	7, 441	0.1437
AxB	0.979	1.36	7, 441	0.2196
Legitimacy (C)	0.974	1.68	7, 441	0.1119
AxC	0.962	2.50	7, 441	0.0159
BxC	0.975	1.63	7, 441	0.1239
AxBxC	0.983	1.07	7, 441	0.3821
Crime (D)	0.835	12.42	7, 441	0.0001
AxD	0.959	2.69	7, 441	0.0097
BxD	0.996	0.26	7, 441	0.9683
AxBxD	0.994	0.40	7, 441	0.9046
CxD	0.979	1.37	7, 441	0.2177
AxCxD	0.995	0.32	7, 441	0.9472
BxCxD	0.995	0.33	7, 441	0.9389
AxBxCxD	0.993	0.46	7, 441	0.8642
Race of Actors (E)	0.996	0.25	7, 441	0.9733
AxE	0.977	1.49	7, 441	0.1700
BxE	0.982	1.12	7, 441	0.3467
AxBxE	0.994	0.35	7, 441	0.9295
CxE	0.991	0.55	7, 441	0.7944
AxCxE	0.988	0.75	7, 441	0.6316
BxCxE	0.979	1.35	7, 441	0.2271
AxBxCxE	0.994	0.39	7, 441	0.9095
DxE	0.991	0.56	7, 441	0.7850
AxDxE	0.989	0.72	7, 441	0.6520
BxDxE	0.998	0.15	7, 441	0.9938
AxBxDxE	0.995	0.29	7, 441	0.9593
CxDxE	0.997	0.19	7, 441	0.9867
AxCxDxE	0.992	0.45	7, 441	0.8703
BxCxDxE	0.991	0.56	7, 441	0.7873
AxBxCxDxE	-	-	-	-

Table 8.5.2 Study 7: Least Square Means of Dependent Variables, Converted Back to the Original Scales

RAPE	Legitimate		Illegitimate		
	Stable	Unstable	Stable	Unstable	
Whites	Bv/Wa	7.779	3.000	10.691	12.238
		4.836	7.032	7.763	7.793
		6.696	2.283	4.051	3.265
		6.334	3.030	3.907	3.284
	Wv/Ba	5.580	8.154	6.869	7.029
		5.480	5.104	4.763	4.902
		7.466	4.152	5.836	5.226
		7	1	18	34
Blacks	Bv/Wa	10.000	20.100	12.873	13.675
		3.757	8.404	6.896	6.470
		4.116	3.103	4.223	4.354
		7.111	4.503	4.446	4.106
	Wv/Ba	9.328	8.100	7.498	6.368
		2.263	4.909	4.579	5.300
		4.152	5.547	4.365	4.520
		1	6	19	28
Whites	Bv/Wa	8.708	3.856	12.907	6.306
		7.850	8.186	7.442	9.224
		7.165	7.823	7.920	7.037
		3.769	3.082	1.789	1.546
	Wv/Ba	6.846	7.538	7.651	8.382
		2.161	2.026	1.178	2.909
		3.599	1.919	5.245	4.763
		4	2	27	34
Blacks	Bv/Wa	7.115	5.297	11.906	5.844
		8.364	8.586	6.843	8.958
		7.658	8.584	7.758	7.562
		2.671	2.328	1.142	1.648
	Wv/Ba	6.039	4.743	7.440	8.251
		2.161	1.874	0.898	2.474
		3.276	2.830	5.434	5.042
		4	2	24	41
Whites	Bv/Wa	2.557	2.956	3.116	2.706
		6.412	4.389	5.345	5.555
		7.395	4.343	4.429	4.913
		7.211	2.610	3.741	4.378
	Wv/Ba	8.618	6.248	7.179	6.513
		6.581	5.033	5.706	5.128
		6.995	5.079	5.057	5.128
		3	5	20	22
Blacks	Bv/Wa	4.797	1.324	6.367	5.926
		8.145	6.211	5.926	7.606
		8.170	7.649	7.888	7.791
		4.526	1.475	1.093	2.367
	Wv/Ba	3.252	6.480	6.445	6.464
		2.222	2.212	3.246	3.332
		5.125	2.539	4.569	4.568
		3	3	33	26
Blacks	Bv/Wa	6.255	5.000	5.487	3.880
		7.199	9.846	6.565	6.913
		7.995	7.331	7.759	7.612
		2.243	1.961	1.208	2.616
	Wv/Ba	4.522	2.986	5.974	6.822
		2.365	1.342	3.240	3.953
		4.060	4.500	4.305	3.923
		10	1	30	19

1 Sentence in years

2 Assailant aggressiveness (Factor IV)

3 Victim's Passivity (Factor II)

4 Victim's Actions (Factor III)

5 Victim's Vulnerability (Factor VI)

6 Social Conditions (Factor I)

7 Social Values (Factor V)

8 Number of subjects in the condition

Table 8.5.3 Study 7: Summary of the Univariate ANOVA Analyses of the Dependent Variables

	Dependent Variables						
	Sentence	Assailant Aggress.	Victim Passiv.	Victim Actions	Victim Vulner.	Social Condit.	Social Values
Full Model							
F Ratio	7.64a	6.48a	10.21a	6.60a	2.75a	8.80a	0.91
Mean Square Error	0.108	0.545	0.503	0.499	0.521	0.499	0.741
R-square	33.4%	30.0%	40.7%	30.7%	15.6%	37.1%	5.8%
df	30, 447	30, 447	30, 447	30, 447	30, 447	30, 447	30, 447
F Statistics for Effects							
Race (A)	0.00	14.62a	49.46a	25.35a	10.35a	42.53a	4.68b
Stability	1.31	3.01c	2.08	4.76b	0.40	0.27	0.91
AxB	4.18b	0.01	1.54	2.94c	3.78c	0.16	0.32
Legitimacy	3.20c	0.40	0.20	5.38b	0.57	0.95	0.68
AxC	0.02	0.88	0.02	0.14	12.73a	0.24	2.28
BxC	0.18	0.06	1.09	9.09a	0.56	0.63	0.22
AxBxC	0.15	4.04b	2.77c	0.55	0.35	0.71	0.17
Crime (D)	41.64a	16.37a	5.83b	0.00	4.67b	6.00b	1.16
AxD	8.26a	2.71	3.67c	0.00	6.10b	0.04	0.28
BxD	0.71	0.10	0.10	0.01	0.25	1.17	0.00
AxBxD	0.13	0.32	0.05	0.00	1.51	0.04	0.00
CxD	0.39	0.84	0.52	0.79	0.10	1.11	3.21c
AxCxD	0.00	0.37	0.83	0.00	0.18	1.10	0.18
BxCxD	0.03	0.09	1.00	1.87	0.05	0.02	0.04
AxBxCxD	1.44	0.01	0.00	0.03	1.97	0.30	0.00
Race of Actors (E)	0.76	0.35	0.45	0.03	0.09	0.13	0.00
AXE	0.35	2.44	0.13	1.24	5.35b	0.00	0.09
BxE	1.60	2.78c	0.22	0.47	2.57	0.39	1.20
AXBxE	0.65	1.34	0.07	0.08	0.07	0.60	0.11
CxE	1.39	0.95	0.01	0.18	0.01	0.70	0.43
AxCxE	0.02	0.43	0.11	0.19	3.53c	0.23	0.00
BxCxE	2.39	5.34b	0.00	0.23	2.42	0.04	1.10
AXBxCxE	0.78	1.77	0.06	0.00	0.09	0.35	0.02
DxE	2.16	0.19	0.14	0.14	1.10	0.55	0.07
AXDxE	3.08c	0.36	0.12	0.60	0.46	0.24	0.18
BxDxE	0.01	0.65	0.24	0.09	0.03	0.03	0.00
AXBxDxE	0.11	0.50	0.08	0.02	0.29	0.35	0.13
CxDxE	0.64	0.02	0.01	0.22	0.34	0.00	0.00
AXCxDxE	2.66	0.22	0.03	0.12	0.16	0.32	0.23
BxCxDxE	0.02	2.32	0.01	0.58	0.75	0.17	0.22
AXBxCxDxE	.	.	.	.	.	.	.

a p < 0.01
b p < 0.05
c p < 0.10

The results of the MANOVA indicate that over all the seven dependent variables, the main effects for Race of subject and Crime, and the 2-way interactions, Race x Legitimacy and Race x Crime were significant. These will be explored further in the context of the univariate ANOVAs.

Blame to the Assailant

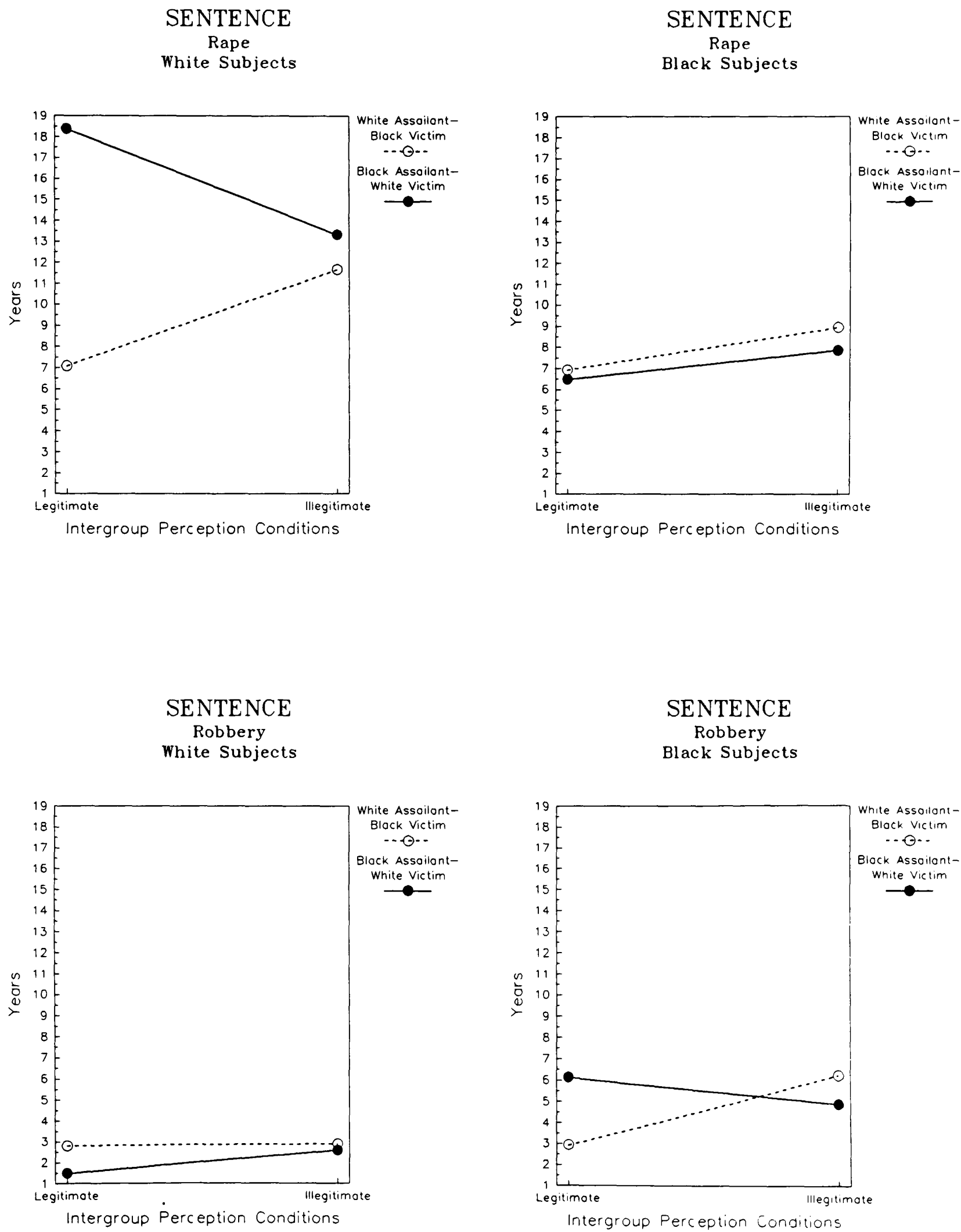
Recommended Sentence

The regression equation was significant ($F(30, 447) = 7.64, p < 0.000$), and explains 33.4% of the variation.

The main effect for Crime was significant ($F(1, 447) = 41.64, p < 0.000$). The sentences recommended for rape ($M = 9.27$) were significantly higher than for robbery ($M = 4.21$). The interaction Race x Crime was significant ($F(1, 447) = 8.26, p = 0.004$) indicating that whites recommended a higher sentence for rape ($M = 10.89$) than did blacks ($M = 7.78$), while blacks recommended a higher sentence for robbery ($M = 4.86$) than did whites ($M = 2.84$).

The effect of legitimacy did not reach significance, either as a main effect or within an interaction. Thus, hypotheses H1 and H2 were not, in general, supported. However, inspection of the Race x Legitimacy x Crime x Race of Actors comparisons indicate that for whites judging rape, those in the Legitimacy condition recommend a significantly higher sentence when assessing the black assailant than those assessing the white assailant ($p = 0.004$), while those in the Illegitimacy conditions did not differ in the sentences recommended for the black and white assailant, which supports the prediction of H1. The responses of the black subjects judging robbery exhibited a similar pattern, but did not reach significance ($p = 0.198$).

Figure 8.5.1 Study 7: Graph of Recommended Sentence



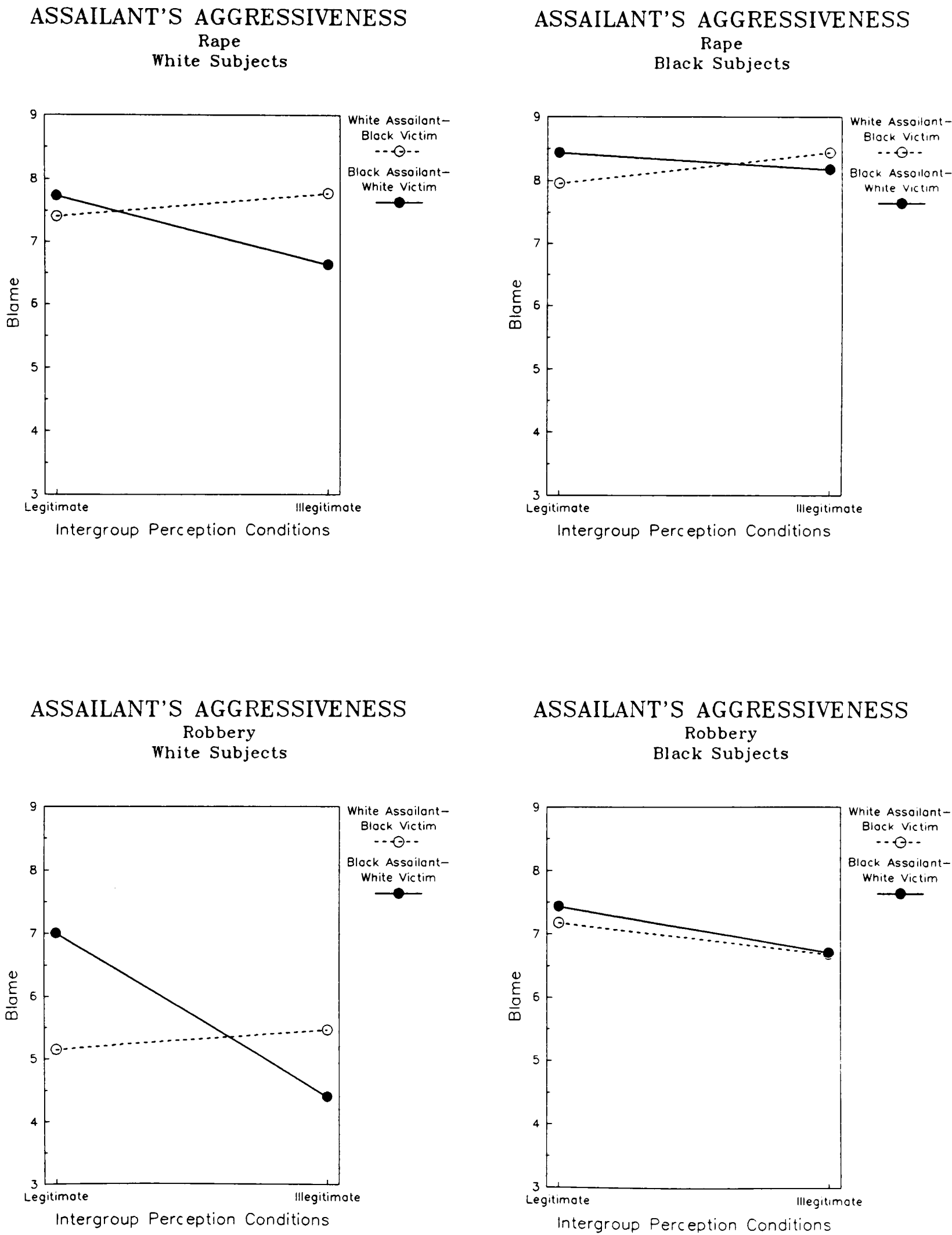
Blame to the Assailant

The regression equation was significant ($F(30, 447) = 6.48, p < 0.000$), and 30% of the variance was explained.

Two main effects were significant, Race ($F(1, 447) = 14.62, p < 0.000$) and Crime ($F(1, 447) = 16.37, p < 0.000$). These indicate that, in general, black subjects tended to attribute more blame to the assailant ($M = 7.81$) than did white subjects ($M = 6.06$), and that more blame was attributed when the crime was rape ($M = 7.59$) than when robbery ($M = 6.03$).

Legitimacy was implicated in two 3-way interactions: Race x Stability x Legitimacy ($F(1, 447) = 4.04, p = 0.045$) and Stability x Legitimacy x Race of Victim/Assailant ($F(1, 447) = 5.34, p = 0.021$). Inspection of the 4-way conditions, indicates that the white subjects in the Illegitimacy conditions attribute less blame to the assailant's aggressiveness when the assailant is black than when white, for both rape ($p = 0.0131$) and robbery ($p = 0.027$). When judging robbery, the whites in the legitimacy conditions attributed more blame to the black assailant than to the white, but this did not reach significance ($p = 0.300$). Thus, there was some support for H1.

Figure 8.5.2 Study 7: Graph of Blame to Assailant's Aggressiveness



Victim Blame

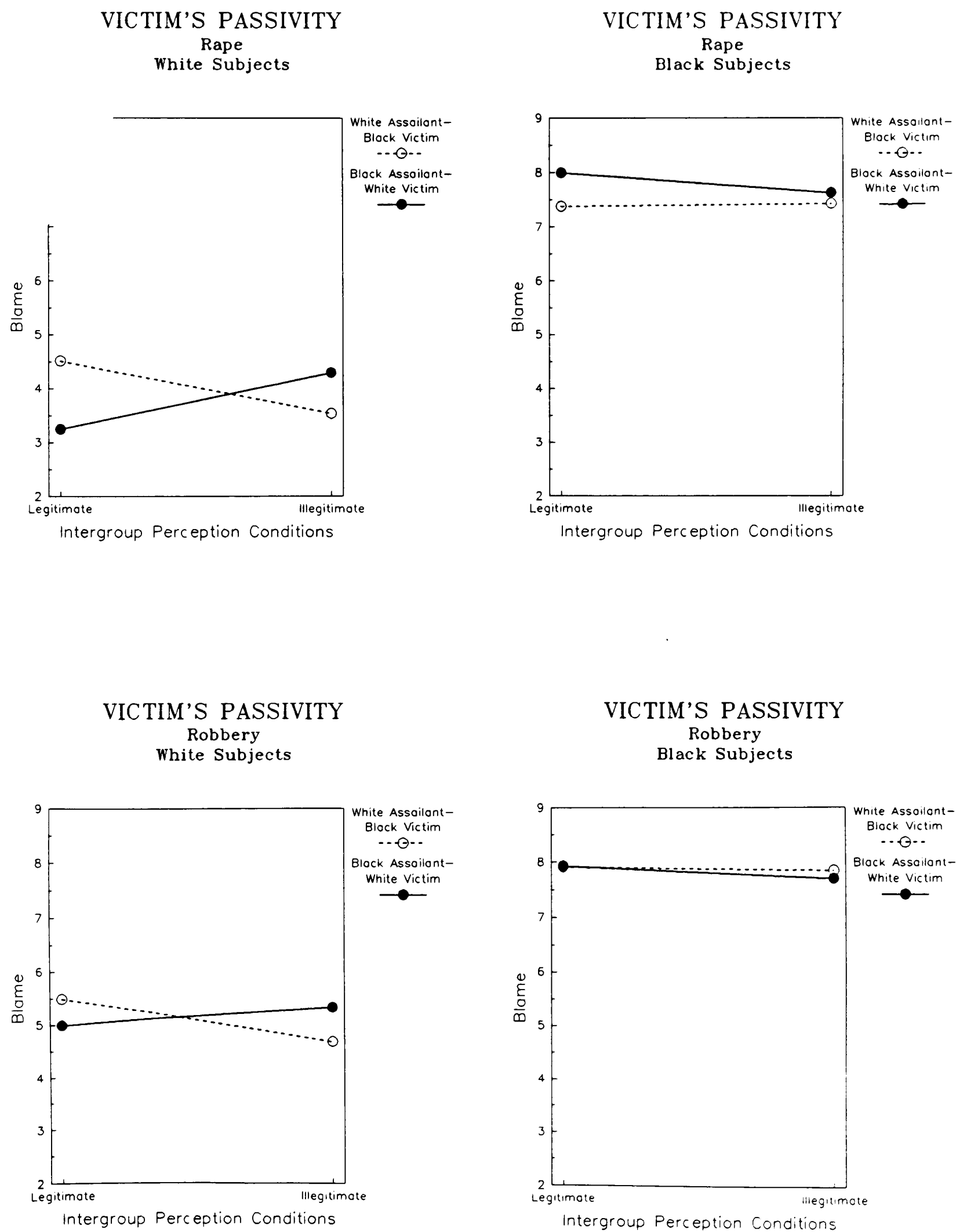
Attribution of Blame to Victim Passivity

The regression equation is significant ($F(30, 447) = 10.21, p < 0.000$), and explains 40.7% of the variation.

The main effects for Race ($F(1, 447) = 49.46, p < 0.000$) and Crime ($F(1, 447) = 5.83, p = 0.016$) are significant. More blame was attributed to the victim's passivity in robbery ($M = 6.4$) than in rape ($M = 5.9$), and black subjects attributed more blame ($M = 7.6$) than white subjects ($M = 4.5$). The interaction between these was almost significant ($F(1, 447) = 3.67, p = 0.056$), indicating that whites attributed more blame to the victim's passivity when the crime was robbery than rape, while there was little difference in the amount of blame attributed by the black subjects as a function of crime.

There was a tendency for the interaction, Race x Stability x Legitimacy to be significant ($F(1, 447) = 2.77, p = 0.097$). Inspection of the 4-way conditions indicates that the pattern of whites in the Legitimacy condition attributing more blame to the victim's passivity when the victim was black and the assailant white than when the victim was white and the assailant black, and the whites in the Illegitimacy condition attributing more blame to the victim when the victim was white and the assailant black than when the victim was black and the assailant white, was present for both rape and robbery. However, the difference between the amount of blame attributed only tended to significance with the whites in the illegitimacy conditions (Rape: $p = 0.074$; Robbery: $p = 0.146$). White subjects in the Legitimacy conditions attributed more blame to the victim when the victim was black than when white, but these differences were nowhere near significance (Rape: $p = 0.248$, Robbery: $p = 0.760$).

Figure 8.5.3 Study 7: Graph of Blame to Victim's Passivity



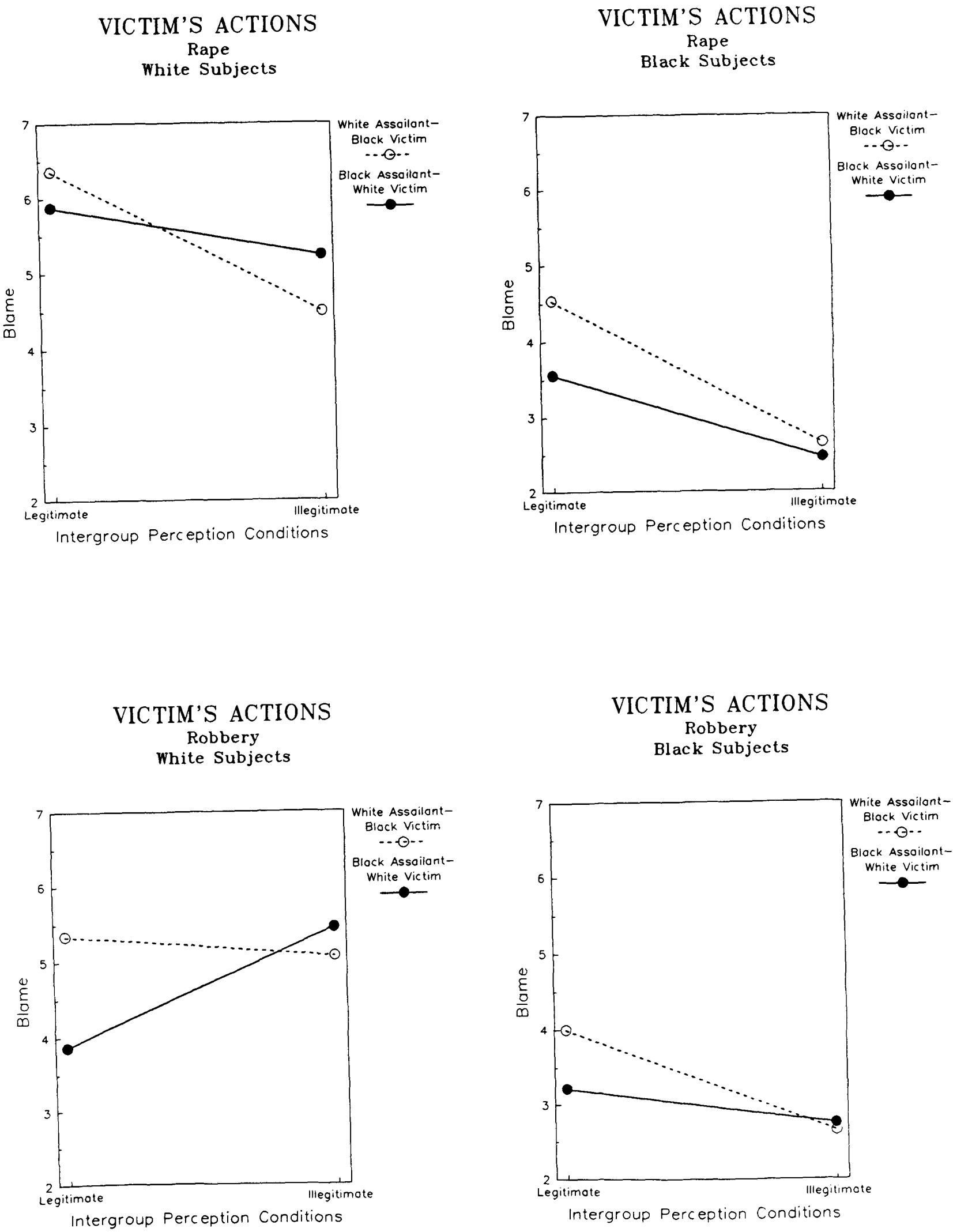
Attribution of Blame to Victim Behaviour

The regression equation was significant ($F(1, 447)=6.60, p<0.000$), explaining 30.7% of the variance.

The main effects for Race ($F(1, 447)=25.35, p<0.000$); Legitimacy ($F(1, 447)=5.38, p=0.021$) and Stability ($F(1, 447)=4.76, p=0.030$) were significant. These indicated that, in general, white subjects attributed more blame to the victim's actions than did blacks; that subjects who regarded the race hierarchy as legitimate attributed more blame than those who saw it as illegitimate; and those in the stable conditions attributed more blame than those in the unstable conditions. There was also an interaction between Stability and Legitimacy ($F(1, 447)=9.09, p=0.003$) which indicated that the effect of stability was manifest amongst the subjects in the legitimate conditions, but had little effect amongst subjects in the illegitimate conditions. However, as the Race of the Actors was not involved, this has little relevance for the hypotheses.

Inspection of the 4-way conditions shows that the pattern of more blame attributed to the victim's behaviour when the victim was black and the assailant white than when the victim was white and the assailant black by subjects in the Legitimacy conditions, and less or equal blame when the victim was white and assailant black than when the victim was black and the assailant white by subjects in the Illegitimacy conditions, was insignificantly present for both black and white subjects for both rape and robbery. However, the difference did tend to significance for the whites in the Illegitimacy condition judging the rape ($p=0.086$).

Figure 8.5.4 Study 7: Graph of Blame to Victim's Actions



Attribution of Blame to Victim's Vulnerability

The regression equation is significant ($F(30, 447) = 2.75, p < 0.000$), and explained 15.6% of the variance.

The main effects for Race ($F(1, 447) = 10.35, p = 0.001$), Crime ($F(1, 447) = 4.67, p = 0.015$) and the interaction between them, Race x Crime ($F(1, 447) = 6.10, p = 0.014$) were significant. These indicated that overall whites attributed more blame to victim's vulnerability than blacks, and more blame was attributed when the crime was rape than robbery, there was little difference between the amount of blame attributed by the races for rape, blacks attribute less blame when the crime was robbery than when rape. The attributions of whites did not differ as a function of the crime judged.

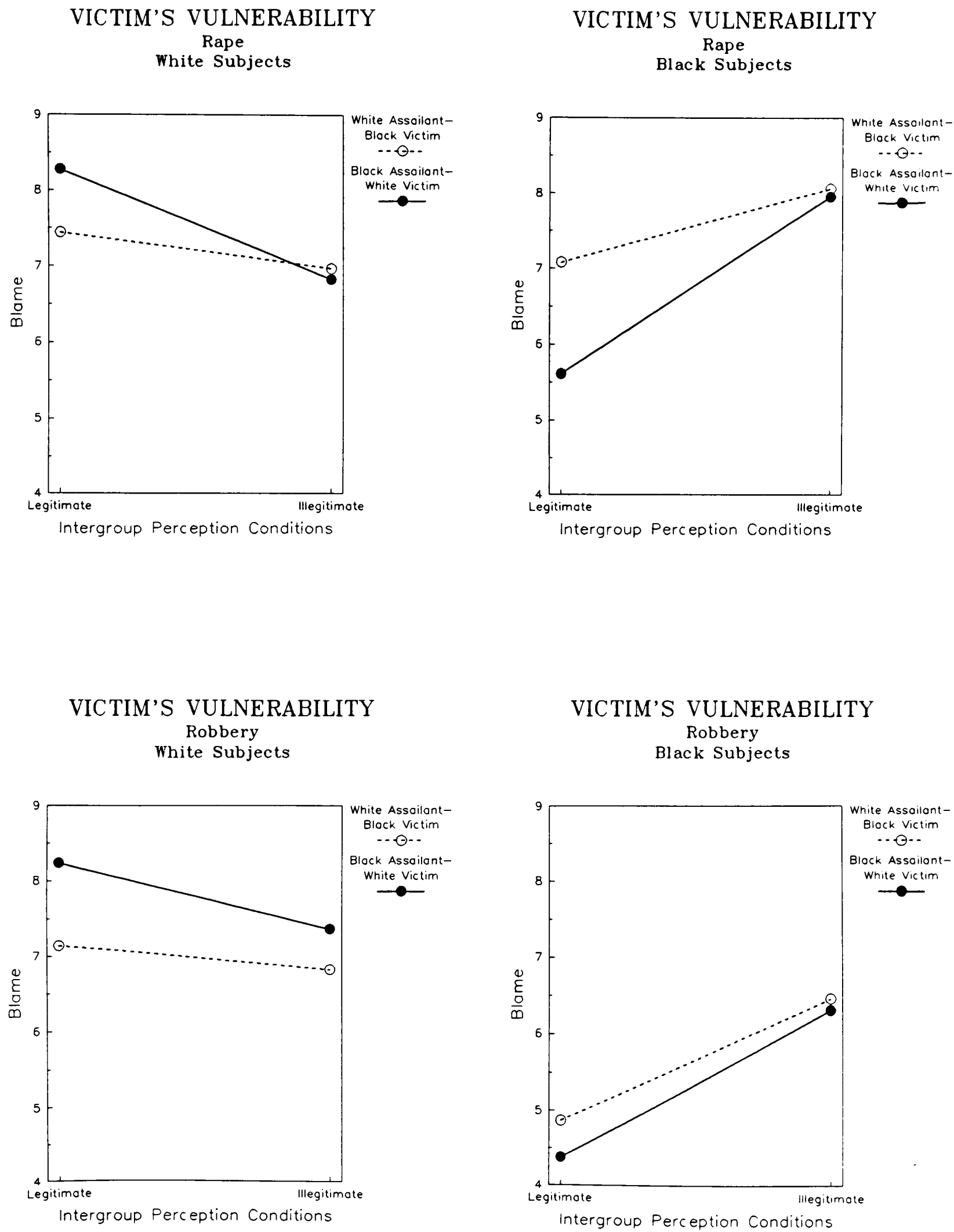
The interaction, Race x Legitimacy was significant ($F(1, 447) = 12.73, p = 0.0004$), predominantly emerging from the black subjects in the legitimacy conditions who attributed less blame to the victim's vulnerability than did the other groups.

The interaction between Race and Race of Victim/Assailant was significant ($F(1, 447) = 5.35, p = 0.021$), indicating that black subjects attributed less blame to victim vulnerability when the victim was white and the assailant black, while white subjects tended to attribute less blame when the victim was black and the assailant white.

The interaction between Race and Stability tended toward significance ($F(1, 447) = 3.78, p = 0.053$), emerging mainly from the trend for black subjects in the unstable conditions to attribute more blame to victim vulnerability than the white subjects in this condition, whereas white subjects in the stable conditions tended to attribute slightly more blame than the blacks.

The interaction between Legitimacy x Race of Actors also tended to significance ($F(1, 447)=3.53, p=0.061$). This interaction indicates that subjects in the Legitimacy conditions judging the vignette with the White Assailant and Black Victim attributed significantly more blame to the victim's vulnerability ($M=6.72$) than those judging the vignette with the Black Assailant and White Victim ($M=6.01$). Among the subjects in the Illegitimacy conditions, there was no difference in the amount of blame attributed when the assailant was white ($M=7.11$) or black ($M=7.18$). In the case of inter-racial crime, it is not clear how blame to the victim's vulnerability is used in a group-serving manner. The discussion in Study 6 argued that this factor does not put the blame on the victim herself, but more to the context. However, blaming the victim's vulnerability can be seen to mitigate against the blame to the assailant in the same manner as the blame to the social conditions and values may be used. In this light, the above result provides some support for hypotheses H1 and H2.

Figure 8.5.5 Study 7: Graph of Blame to Victim's Vulnerability



Society Blame

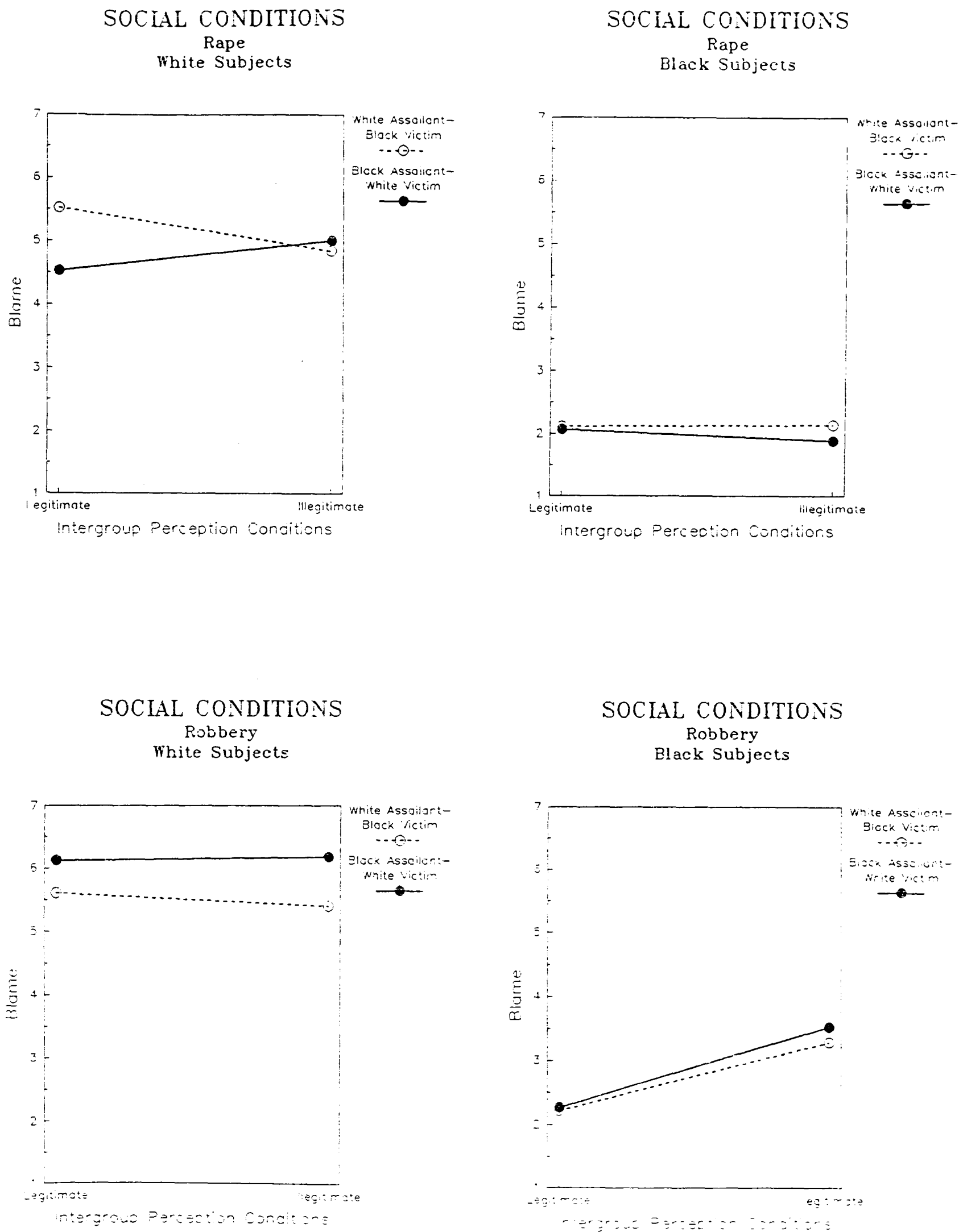
Attribution of Blame to Social Conditions

The regression equation was significant ($F(30, 447) = 8.80, p < 0.000$), explaining 37.1% of the variance.

The main effects for Crime ($F(1, 447) = 6.00, p = 0.015$) and Race ($F(1, 447) = 42.53, p < 0.000$) were significant. Whites attributed more blame to social conditions than blacks, and more blame was attributed when the crime was robbery than when rape.

Legitimacy was not significant as a main effect or involved in any interaction. Inspection of the 4-way means indicated that there was a slight tendency for whites in the Illegitimacy conditions judging robbery to attribute more blame to societal condition when the assailant was black than when white ($p = 0.09$).

Figure 8.5.6 Study 7: Graph of Blame to Social Conditions



Attribution of Blame to Social Values

The regression equation was not significant ($F(30, 447) = 0.91$, $p = 0.601$), the amount of variance explained was 5.8%.

Degree of Seriousness and Commonness of the Crime

The analyses of these variables was conducted using a logistic stepwise regression, as the distributions of the responses were too skewed to allow for the same approach as the other variables. As with the gender study, none of the independent variables or their interactions were found to affect the rating of degree of seriousness or commonness.

8.5.3 Discussion

The results of this study did not produce strong evidence of group-serving attributions. The factor, Race of Actors was not significant as a main effect or implicated in an interaction in the MANOVA. The 5-way interaction could not be assessed, due to the unsubscribed condition, so it was decided to focus on the 4-way interaction, Race x Legitimacy x Crime x Race of Actors in the interpretation of the univariate analyses.

From these, there was some support for the hypotheses. The prediction that subjects in the Legitimacy condition would give more white-favouring responses and that those in the Illegitimacy conditions would give more black-favouring responses was found in the following instances: of the whites judging rape, those in the Legitimacy conditions recommended a

higher sentence for the black assailant than the white; white subjects in the Illegitimacy condition judging both rape and robbery, attributed more blame to the white assailant than the black assailant, and less characterological blame to the black victim than the white victim. Of the whites judging rape, those in the illegitimacy condition attributed more behavioural blame to the white victim than to the black victim. More blame was attributed to the victim's vulnerability when the assailant was white than when black by whites in the Legitimacy conditions, and there was a slight tendency for the whites in the Illegitimacy condition judging robbery to attribute more blame to social conditions when the assailant was black than when white.

Some of the findings shared with the gender study were: black subjects appear to consider robbery more serious than the whites - the severity of the sentence recommended for robbers and more blame attributed to the assailant than was evidenced by whites. Again, blacks attributed more blame to the victim's passivity and less to her behaviour than whites. Blacks also attributed more blame to the victim's vulnerability for rape than for robbery while the whites attributed more blame when the crime was robbery than when rape.

The attributions of blame to society followed the same pattern as in the gender study. More blame was attributed to social conditions when the crime was robbery, and more importance placed on this factor by whites than blacks. Blame to social values was not significant in this study.

The perceptions of the status hierarchy between the races, and the legitimacy of this hierarchy do appear to effect the pattern of attributions made to crime. The effect is not as strong as in the inter-gender study, which

may be due to a number of factors. Firstly, the proportion of the sample that stated that they believed the race inequality to be legitimate was very small which made it difficult to discern an effect due to Legitimacy and impossible to investigate the interaction between Stability and Legitimacy. This study was conducted at the beginning of 1986, before the State of Emergency had been declared in Natal, hence there was still a prevalent feeling that change was coming and that the conditions of the blacks would improve. This may have contributed to the low number of people prepared to state they felt the 'apartheid' system to be legitimate.

It is, however, important to note that one major distinction between the inter-gender and the inter-race findings is that in this study the subjects in the Illegitimacy condition appear to respond in a manner that more assertively favours the black group, whereas in Study 6, the subjects in the Legitimacy condition appeared to make responses that were (defensively) favouring the male group.

A further problem with this study, is that despite the inter-racial nature of the vignettes, the crimes remain essentially inter-gender. The previous study demonstrated that gender (and the perceptions of the gender inequality) were a strong influence on the pattern of responses. These factors were also present in the race study, but could not be accounted for statistically in view of the distribution of subjects within the conditions. It is unlikely that gender group membership would be completely negated by race group membership, and a situation of crossed-group membership is evident. The research on crossed-group membership has resulted in contradictory findings. Deschamps (1977) and Deschamps and Doise (1978) found that

ingroup bias decreased under these conditions, while Brown and Turner (1979) found evidence supporting the hypothesis that ingroup bias is additive (*i.e.* there is more favouritism towards people who share both one's category memberships, less towards people who share only one and least to those who share none). The influence that the perceptions of status, stability and legitimacy have in such circumstances has, as yet, received no attention.

8.6 Conclusion

These studies represent considerable advances in this field of research. They employ subjects drawn from a wider age range and life experience than is characteristic in similar studies. The class and race membership were also much wider, ensuring a more representative picture of the population. These studies also constitute the first attempt to consider the attribution of blame in a crime situation in the light of Social Identity Theory.

In the gender study, this innovation proved to be extremely revealing. The perceptions of the legitimacy and stability of the male-female inequality appear to be a concept which systematizes various findings in the field.

While the findings of the race study were less authoritative, due to the limitations discussed above, one can still conclude that the effect of the intergroup perception factors were important in explaining the various attributions of blame.

CHAPTER 9

GENERAL DISCUSSION AND CONCLUSIONS

9.0 Introduction

The aim of this chapter is to summarize and synthesize the findings of this thesis. The thesis essentially sought to establish whether intergroup attributions were motivationally biased, such that the direction and form of the bias could be understood within the rubric of intergroup relations. To this end, four predictions emanating from Social Identity Theory which characterize intergroup behaviour, were determined. However, these predictions departed from the writings of Tajfel (1981a) in two ways. Firstly, the effects of perceived illegitimacy (of the intergroup status hierarchy) were distinguished from that of perceived instability, which Tajfel (1981a) had amalgamated under the concept of insecurity of social comparisons or social identity. Secondly, it was proposed that different levels of perceptions of legitimacy and stability exist in social groups at the same point in time, in other words that there is intra-group diversity in the intergroup perception factors.

A measure of stability and legitimacy was developed, based on Cantril's (1965) Self-Anchoring Striving Scale. This measure, termed the Intergroup Perception Ladder, was used to dichotomize the subjects across two orthogonal dimensions; legitimate-illegitimate and stable-unstable.

Through the use of this measure, the hypotheses concerning the predicted form of intergroup relations was investigated, firstly as applied to intergroup (discriminatory) behaviour, and then to various types of intergroup attributions. Attributions for the actions and outcomes pertaining to individual group members; attributions for the societal position of groups as a whole; and the attribution of blame for crime were considered. The findings of these studies are summarized in Section 9.1.1.

Aside from these investigations, a number of other studies were performed as subsidiary and pilot research preliminary to these main studies.

9.1 The Empirical Work of the Thesis

This thesis contained seven (*quasi-*) experiments, excluding the two pilot studies. Of these seven, five essentially tested the four hypotheses proposed in Chapter 2. In Table 9.1.1, the results of these five studies with reference to the four hypotheses are summarized.

9.1.1 Summary of the Findings

In the following table, the presence or absence of results in the predicted directions are marked. Those which reached statistical significance are indicated. While this is a rather unorthodox approach, since statistical insignificance traditionally denotes the absence of an effect, the problems with the design and subject dispersion (which are discussed below) suggest that a more flexible view may be appropriate.

Table 9.1.1 Summary of the Findings of the Studies Testing the Intergroup Perception Factor Hypotheses

Study	Group	Dependent Variable	Subjects	H1	H2	H3	H4
1	Race	MANOVA		Y*	Y*		
Race Attitude Scale							
		Vote Bias		Y*	N	N	N
		Trait Evaluation Bias		Y+	Y	N	Y
		Weighted Room Bias		N	N	N	N
		Integration Score		-	-	-	-
				Y*	N	Y	N
4	Race	Action Vignette A		N	N	N	N
		Action Vignette B		Y	N	Y	N
		Action Vignette C		Y	N	Y	N
		Action Vignette D		Y*	Y*	Y	N
		Outcome Vignette E		-	-	-	-
		Outcome Vignette F		Y	N	N	N
		Outcome Vignette G		Y	N	Y	N
		Outcome Vignette H		N	N	Y	N
MANOVA of Social Issue Vignettes and Discrimination Task							
				Y*	Y		
Social Issue Vignette I							
		Social Issue Vignette J		Y*	N	Y	N
		Social Issue Vignette K		Y	N	N	N
		Social Issue Vignette L		Y*	N	N	Y
		Weighted Room Bias		Y*	N	N	N
		Integration Score		Y*	N	Y	N
5	Gender	Action Vignette A	White	N	N	N	N
		Action Vignette B	Black	N	N	N	N
			White	N	N	Y	N
			Black	N	N	N	N
		Action Vignette C		-	-	-	-
		Action Vignette D		-	-	-	-
		Outcome Vignette E	White	N	N	N	N
			Black	N	Y	N	Y
		Outcome Vignette F	White	N	Y	Y	N
			Black	N	Y	N	N
		Outcome Vignette G	White	N	Y	N	N
			Black	N	Y	N	N
		Outcome Vignette H		-	-	-	-
MANOVA of Social Issue Vignettes and Discrimination Task							
				Y*	Y*		
Social Issue Vignette I							
		Social Issue Vignette J	White	Y*	Y*	Y	Y
			Black	Y*	Y*	N	N
		Social Issue Vignette K	White	Y*	Y*	N	Y
			Black	Y*	Y*	N	Y
		Social Issue Vignette L	White	Y	Y*	N	N
			Black	Y	Y*	N	Y
		Funding Bias	White	Y*	N	Y	N
			Black	Y*	N	N	N

Study	Group	Dependent Variable	Subjects	H1	H2	H3	H4
6	Gender	MANOVA		Y*	Y*		
RAPE Sentence							
			White	Y*	Y*	Y	Y
			Black	Y*	Y*	N	N
Assailant Aggressiveness							
			White	N	Y	N	N
			Black	N	N	N	N
Victim's Passivity							
			White	Y*	Y*	N	Y
			Black	Y*	Y*	Y	Y
Victim's Vulnerability							
			White	Y+	Y+	N	Y
			Black	Y+	Y+	N	Y
ROBBERY Sentence							
			White	Y*	Y*	N	N
			Black	Y*	Y*	N	N
Assailant Aggressiveness							
			White	Y*	Y*	N	N
			Black	N	N	N	N
Victim's Passivity							
			White	Y*	Y*	N	N
			Black	Y*	Y*	N	N
Victim's Actions							
			White	Y	N	Y	N
			Black	Y	Y	N	N
Victim's Vulnerability							
			White	Y+	Y+	N	N
			Black	Y+	Y+	N	N
7	Race	MANOVA		Y	N		
RAPE Sentence							
				Y*	N		
Assailant Aggressiveness							
				Y*	N		
Victim's Passivity							
				Y	N		
Victim's Actions							
				Y+	Y		
Victim's Vulnerability							
				Y	N		
ROBBERY Sentence							
				N	Y		
Assailant Aggressiveness							
				Y*	N		
Victim's Passivity							
				Y*	N		
Victim's Actions							
				Y	N		
Victim's Vulnerability							
				Y	Y		

Percentage of significant (p<0.1) confirmations	52%	31%		
Percentage of insignificant confirmations	18%	14%	29%	25%
Total percentage of confirmations	70%	45%	29%	25%

* $p < 0.05$
+ $p < 0.10$
- Indicates that the model is insignificant
Effects that could not be tested are left blank

Hypothesis H1: Examining Table 9.1.1, it is clear that this hypothesis received considerable support in the various studies. Fifty-two percent of the tests of this prediction received statistically significant confirmation, and a further 18% demonstrated results in the appropriate direction. Thus, the perception by members of high status groups of the legitimacy or illegitimacy of their 'superiority', has a profound effect on their intergroup behaviour and attributions. This finding applies equally to gender as well as race groups.

Hypothesis H2: Thirty-one percent of the tests of this hypothesis received statistical confirmation, and there were a further 14% of results in the correct direction. Thus there is support for the proposition that the perception of the legitimacy or illegitimacy of their 'inferiority' will determine whether members of low status groups accept their position or engage in some form of dissenting activity. With this hypothesis, it is important to note that the majority of the confirmations occurred in the gender studies, and there were very few confirmations in the race studies. The reason for this is most likely that there were so very few black subjects who considered their inferiority legitimate. This will be discussed further in the next section.

Hypothesis H3: Investigating both Hypotheses H3 and H4 involve considering complex interactions and simple effects. The small numbers of subjects comprising some of these means, and the fact that the designs were between subjects not within subjects, meant that statistical significance could not really be established. For example, in study 4, one could not subtract the evaluation score ascribed to the black actor from the white actor to determine ingroup favouritism on the part of white subjects, since different

subjects rated the vignette with the different race actors. Hence, no definite bias measure (of subjects in the Legitimate-Unstable condition) could be used for comparison with subjects in other conditions. Yet, despite these problems, 29% of the tests of these hypothesis were confirmed. Thus, it does appear that members of high status groups who see their 'superiority' as legitimate but unstable are likely to engage in responses aimed at enhancing their position.

Hypothesis H4: Twenty-five instances of these tests gave results in the predicted direction, implying that members of low status groups who perceive their position as completely secure (both legitimate and stable) tended to make responses that were deprecating of their own group. The majority of these responses were found in the gender studies, but this again could be the results of the minute numbers of black subjects in the Legitimate-Stable conditions.

9.1.2 Discussion of the Findings

The effect of the intergroup perception factors (determined using the Ladder), together with the relative status of the groups was initially tested on a number of measures of intergroup behaviours and attitudes, using black and white students in South Africa. The results confirmed certain of the predictions derived from Social Identity Theory. This was taken as support for the proposed heterogeneity of perceptions, and for the continued use of the Intergroup Perception Ladder.

While the Intergroup Perception Ladder provided a less reactive measure of intergroup outlook than a direct questionnaire, it was still open to

social desirability biases. The proportion of subjects who were prepared to admit that they thought the groups should be unequal (in their social benefits) was relatively low, as the following table demonstrates:

Table 9.1.2 Percentage of the Groups in the Legitimate Conditions

Inter-racial Studies			
Groups	Study 1	Study 4	Study 7
Whites	14.7	23.9	11.6
Blacks	6.2	10.8	11.0

Inter-gender Studies		
Groups	Study 5	Study 6
Males	25.4	28.7
Females	22.4	19.4

Considering the whites, it is clear that the proportion is significantly smaller than the proportion of whites in the Durban area that traditionally vote to maintain *apartheid*. Thus, it seems fair to deduce that many of the subjects placed in the Illegitimate conditions were responding in a social-desirability fashion. As mentioned previously, many whites approached to complete the questionnaires, refused to do so when they realized the inter-racial nature of the questions. The following is the text written on one of the questionnaires in refusal:

I find the questions asked cannot find my personal opinion. Although many of the questions are asking me to be racist. Also

many of the questions have ulterior motives in being asked as many of the situations are totally impossible. As for the questions on black education they are offered the same facilities but would rather burn them down than learn in them. [sic]

(Telecom Trainee, aged 18)

Thus, it would appear that people are reluctant to openly admit to 'racist' views at this time in South Africa. Yet, despite this, the effect of Legitimacy was significant across the various studies, particularly when the dependent variable measured discrimination for or against the outgroup as a whole.

Caddick (1982) argued that the perceptions of legitimacy appear to serve four functions in the writings of Tajfel:

On the one hand, it is via perceptions of illegitimacy that groups become salient to one another for comparison purposes (this may be termed its 'awareness' role). On the other, perceived illegitimacy is associated with the realization by members of a group that their group's present position is not the only one possible (an 'insight' role). Then there is a 'motivational' role in the sense that perceived illegitimacy is seen to have activity-energizing properties. And finally, there is an 'ideological' role where illegitimacy becomes something of a dialectical element in the struggle for 'justice' and 'equity'.

(Caddick, 1982, p. 138)

The practical outcome of these functions is that members of the superordinate group who perceive their group's position to be illegitimate will not display as much ingroup favouritism as group members who see the group's position as legitimate, and may evidence outgroup favouritism. Members of the subordinate group who perceive their groups low status position as illegitimate, *i.e.* reject their subordination, will display stronger ingroup favouritism than the group members who accept their subordination as legitimate.

This prediction has received a certain degree of support from a variety of empirical research reported in the literature. In general, the heightened ingroup favouritism on the part of the low status groups in the illegitimate conditions has been supported, but the high status group in the illegitimate conditions also evidenced heightened ingroup favouritism (Caddick, 1982; Turner and Brown, 1978). Yet, the most consistent finding across all the relevant studies in this thesis, for both the race and gender groups, was that members of the high status group who perceived their position to be illegitimate evidenced a decreased level of ingroup favouritism in comparison to those in the legitimate conditions. A possible reason for this is that the groups in question are ascribed social groups whose boundaries are impermeable. Thus, they differ from the groups in the afore-mentioned experiments which were largely experimental groups in which the effect of the status hierarchy was transient and superficial.

In the inter-racial studies of this thesis, the blacks in the legitimate conditions did not display less ingroup favouritism than those in the illegitimate conditions, as expected from the theory and other research. This could be assumed to indicate the possibility of a cultural difference, *i.e.* that the prediction only holds for 'western' low status groups. However, in the inter-gender studies in which the black subjects' responses were separated from the whites', there was evidence that the blacks did respond as the whites (though not as strongly). Thus, the lack of difference in the inter-race studies, is more likely to be a function of the very low numbers in the legitimate conditions. There is also the possibility that the blacks who responded by saying they thought whites should be superior to blacks, were

providing a response they thought a white experimenter would wish to see. In view of the near revolutionary situation in the country at the time the studies were conducted, it is unlikely that we were able to find enough black subjects who really did believe in the legitimacy of the race inequality to achieve a representative response.

The effect of perceived stability of the intergroup hierarchy did not emerge as a main effect as strongly as did perceived legitimacy. The predictions taken from Social Identity Theory specified certain effects with stability in combination with legitimacy. These predictions were (i) that the members of the high status group who viewed the intergroup hierarchy as legitimate but unstable would be the most biased in favour of their own group and against the outgroup; and (ii) that members of the low status group who viewed the hierarchy as legitimate and stable would not show much ingroup favouritism. These hypotheses did not receive as much support as did the legitimacy predictions. The low numbers of subjects in the relevant conditions stress that no conclusions can be drawn about the viability of these hypotheses. Further research is required to elucidate the nature of these effects.

In each of the studies employing the Intergroup Perception Ladder, a number of subjects were 'disqualified' because they stated that blacks (or women) enjoyed equal or superior conditions in South Africa at present. The number for the inter-racial studies was very limited, suggesting either a misunderstanding of the question or the fact that another dimension of judgment was in use. However, the number in the inter-gender study was considerably greater, which implies that the social inequality of women is not

widely recognized. This may be, as suggested earlier, because the race and class distinctions affect women's position, obscuring the effects of gender discrimination. Unfortunately, there were insufficient numbers in the relevant studies to allow the responses of these people to be compared with those of the people used as subjects. But, it is clear that there is a need to research this issue further.

The studies investigating the intergroup attributions confirm that these are influenced by the intergroup perception factors in the same way as are other intergroup behaviours. Previous research on intergroup attributions have demonstrated that explanations are biased along group membership lines (*cf.* Deaux and Emswiller, 1974; Hewstone *et al.*, 1982; Hewstone and Ward, 1985; Mann and Taylor, 1974; Taylor and Jaggi, 1974). However, this thesis represents the first attempt to associate bias in attributions with a theory of intergroup relations. The results indicate that the explanations for intergroup inequality and of blame for an intergroup crime are affected by the perceptions of the security of the intergroup comparisons. However, the explanations for individual group members' action and outcomes did not appear to be consistently affected. This finding confirmed the discovery in Study 1, that subjects treat variables concerning specified members of groups differently from variables that pertain to the undifferentiated group. Two reasons are suggested for this.

Firstly, it is possible that the intergroup nature of the situation is not as salient when it is the behaviour or circumstances of individuals described as compared to when issues pertaining to groups as a whole are featured. The research on salience, in general, indicates that intergroup bias is

correlated with the salience of the intergroup aspects of the situation (*cf.* Oakes and Turner, 1986; Sachdev and Bourhis, 1984, 1985). Secondly, it is possible that when considering individuals, subjects are able to regard them as atypical members of the ingroup or outgroup, so the purported behaviour of the actor does not elicit an intergroup response.

It is significant that the most consistent effect found in the inter-racial attributions for actions and outcomes was that whites in the Legitimate-Unstable condition (which is expected to be the most 'racist') did display intergroup bias in their use of the explanations. This lends support to the notion that attributions to individuals do not elicit intergroup responses unless the respondents in question are particularly sensitive to such cues. The intergroup attributions for crime, although they were attributions to individuals, did elicit intergroup responses. However crime, particularly rape, is already a highly sensitive intergroup issue.

9.1 Limitations of the Studies

Strictly speaking, the ability of *quasi*-experimental field studies to supply 'proof' is questionable. The lack of controls and unmanipulated factors introduce numerous confounding factors. However, psychology and particularly social psychology, in its quest to become 'socially relevant' has had to balance ecological validity against experimental exactitude. Most of the studies in this thesis have attempted to comply with this challenge. An explicit attempt was made to refrain from using university students as the subject population and to select respondents from as wide a range of the

populations as possible. The studies also attempted to use materials that had relevance for the subjects.

The nature of the studies also resulted in hugely unbalanced factorial designs. The GLM ANOVA and MANOVA programmes provided by the SAS computer package exist to account for the correlational error introduced by such designs, but this cannot dispose of the fact that in numerous of the studies some conditions contained as few as 1 or 2 respondents. The representativeness of these responses is questionable. However, the only means of correcting this problem was to collect even larger samples than presented, in the hope of finding more candidates for the deficient conditions. But, it is unlikely that the relative proportions of subjects in the different conditions would have changed, and such an option was also beyond my resources.

From hindsight, it is clear that some of the studies were over-ambitious. Studies 6 and 7 (which were the first field studies performed) exemplify this. Including the extra factor of type of crime in both, and presenting an inter-gender as well as inter-racial crime scenario in Study 7, were not necessary to test the basic hypotheses.

It was also interesting to learn that techniques suggested in methodological handbooks cannot be assumed to be correct. The translation of questionnaires into Zulu in Studies 6 and 7 proved to be a mistake in the context of the political situation, and was not repeated in the later field studies.

In the studies concerning attribution for actions and outcomes (Studies 2 and 3, 4 and 5), it was decided to use a between-subjects design.

Thus, subjects responded to an actor of only one group per vignette. Intergroup bias would have been demonstrated more compellingly if a within-subjects design had been used. However, if such a design had been used, the intergroup discrimination purposes of the studies would have become more transparent to the subjects. Greenwald (1976) argued that within-subject designs have greater external validity, and repeated judgments are often called for in real life. However, in the context of these studies it was felt that to ask subjects to explain the same vignette, differing the group membership of the actors, would confound the responses in a number of ways. The sensitivity of subjects to the prevalent 'norm' of equality is likely to be heightened, and subjects may have been even more reluctant to respond to the questions.

It is also important to note that these studies were conducted at a period of rapid social change in South Africa. The thesis began at a time of the most organized and heightened political activity by blacks since the banning of the African National Congress (ANC). Then followed a period of extreme state repression which saw the banning of political organization, curtailment of trade union rights and detention of thousands of activists together with economic depression. (The empirical work was completed before the current unbanning of the ANC and hope for real political change). These events must have affected the intergroup perceptions of the subjects, and it is unfortunate that the studies were not geared to monitor these.

However, despite all these problems, certain effects appeared with sufficient regularity to provide confirmation for some of the predictions emerging from Social Identity Theory.

9.2 Future Directions

This thesis succeeded in providing evidence that intergroup bias in attributions is affected by the intergroup perception factors, along the lines suggested by Social Identity Theory. However, in showing that attributions are affected in the same way as are other intergroup behaviours and attitudes, the role of attributions in intergroup relations has not been explicated. Social Identity Theory implies that the intergroup perceptions come first, and behavioural biases are a symptom of these. However, attributions and explanations present a more complex perspective. Explanations cannot be seen as emerging only as a justification or maintaining excuse for existing intergroup feelings, but must also be recognized as having a role in creating the intergroup perceptions in the first place.

A number of authors have attempted to produce theoretical models to show how attributions and explanations coalesce intergroup conflict. Pettigrew (1979) proposed that "*systematic patterning of intergroup misattributions [are] shaped in part by prejudice*" (p. 464). His model proceeds to demonstrate how, using appropriate attributions and deeming particular members of the outgroup as atypical, information that may conflict with prejudicial notions of the outgroup are denied. Taylor and McKirnan (1984) present a model to account for social change over time. In this model, attributions are seen as having both a position maintaining role (enabling the superordinate group to maintain its position, despite changes in social

conditions) and in influencing social representations and ideology. Hewstone (1988) suggested a model in which the use of attributions can be seen to contribute to the maintenance of intergroup conflict as well as to its reduction. This model proposes that the expectations that the groups have of each other's behaviour, the perceptions of this behaviour, and the stability of the attributions made about the behaviour, will determine whether intergroup conflict is reduced or continued. In all these models, the role of social representations (and ideology) is paramount in providing the substrate of the explanations used or misused, or in creating the expectancies which surround the groups.

If the role of explanations in intergroup relations is to be fully explored, it appears that a more substantial link must be made to show the distillation of social representations into individual explanations.

To probe the ideological significance of these attributions one needs to go further than documenting their existence. One needs to discover how the explanation of one sort of social event fits into a wider pattern of explaining social events. To do this, one needs to look at the way that different ideologies might be characterized by different styles, and traditions, of explaining social events.
(Billig, 1988; p. 201)

9.3 Conclusions

This thesis has researched certain amendments to Social Identity Theory. The results suggest that when considering the security of social comparisons or identity, the effects of perceived illegitimacy and instability should be distinguished. They also infer that Social Identity Theory should

acknowledge that diversity in these perceptions exists within any group at a particular time, and that this must be taken into account when predicting intergroup behaviour.

The thesis has also demonstrated that biases in intergroup attributions are partially explained by the perceptions of the legitimacy and stability of the intergroup hierarchy. This is taken as support for the proposition of Cooper and Fazio (1986; p.184) that the "*motivated misuse of attributional rules*" exists, since biases in intergroup attributions and explanations reflect the nature of intergroup relations which must inevitably serve to maintain its existence.

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APPENDIX A

Contents:

1. Material presented to the subjects. This questionnaire contains the Ladder, the Room Task, the Race Attitude scale, the voting task and the trait evaluation task.
2. The full results of the analyses

General Attitude Survey

This questionnaire investigates perceptions and attitudes regarding a number of social matters. Please answer all questions as truthfully as possible. There are no right or wrong answers. Your opinion will make a valuable contribution towards this study, so let your personal views and experience determine your response. Your name will not appear anywhere on this questionnaire, therefore you will remain anonymous. All answers are treated as confidential; the information will be processed by a computer and will come out as general statistics. If you require further information about any of the questions, please ask.

Thank you for your participation in this study.

Department of Psychology

University of Natal

Durban

1985.

Here is a picture of a ladder. Let the ladder represent life circumstances in South Africa. Imagine that the top represents the best possible life that you could hope for in this country, while the bottom represents your idea of the worst possible life in this country.

10

9

8

7

6

5

4

3

2

1

0

if you consider the position of blacks as a whole, where would you say blacks stood on the ladder at the present time?

Step number _____

Where do you think blacks stood five years ago?

Step number _____

Just as your best guess, where do you think blacks will be five years from now?

Step number _____

Now, looking at the ladder again, we would like you to think of whites in South Africa. Where do you think they stand at the present time?

Step number _____

Where do you think whites stood five years ago?

Step number _____

As your best guess, where do you think whites will be on the ladder five years from now?

Step number _____

Imagine an ideal situation in this country where everything is "as it should be".

Where would blacks be on the ladder?

Step number _____

Where would whites be on the ladder?

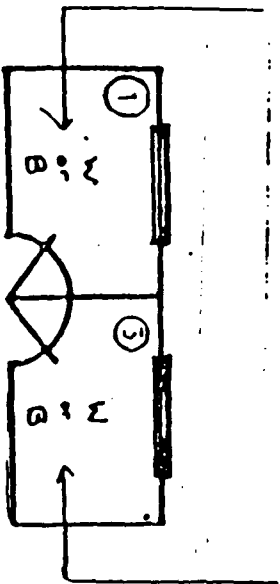
Step number _____

Recently there has been much talk about the integration of student residences on some university campuses. The following page consists of sketch plans of the room layout on two floors of a residence block. It is known that certain rooms are more desirable than others in terms of their access to facilities, noise level, lighting etc. Hence, they have been graded as follows:

- least desirable : ①
- more desirable : ②
- most desirable : ③

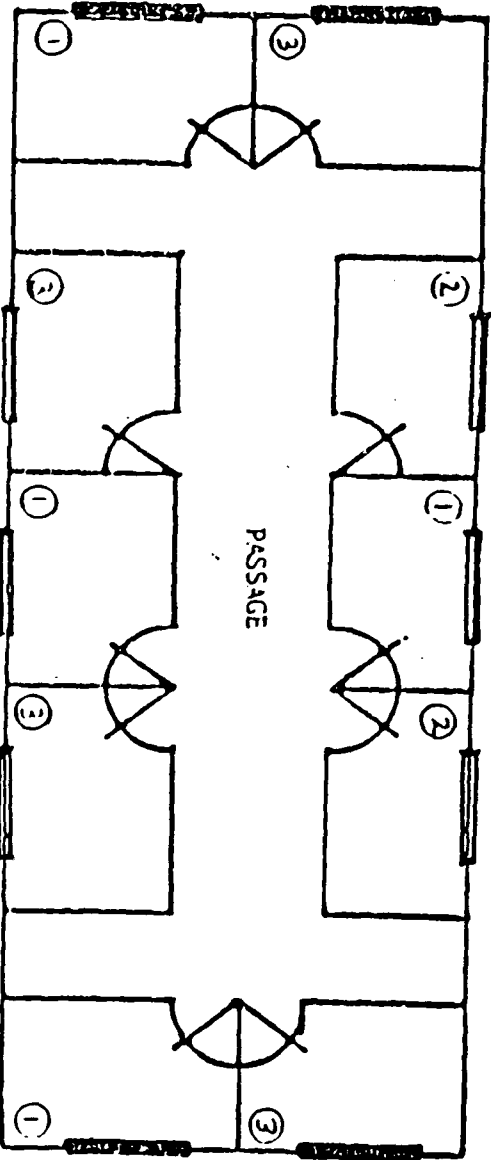
Suppose that this residence is made available to students of all race groups. At the beginning of the academic year, an equal number of white and black students apply for residence. Imagine that you are given the task of assigning students to rooms. In the case of each room please mark off either W (white) or B (black) on the diagram according to the race of the student to whom you would allocate the room.

Example : Indicate your decision (W or B) in this space.

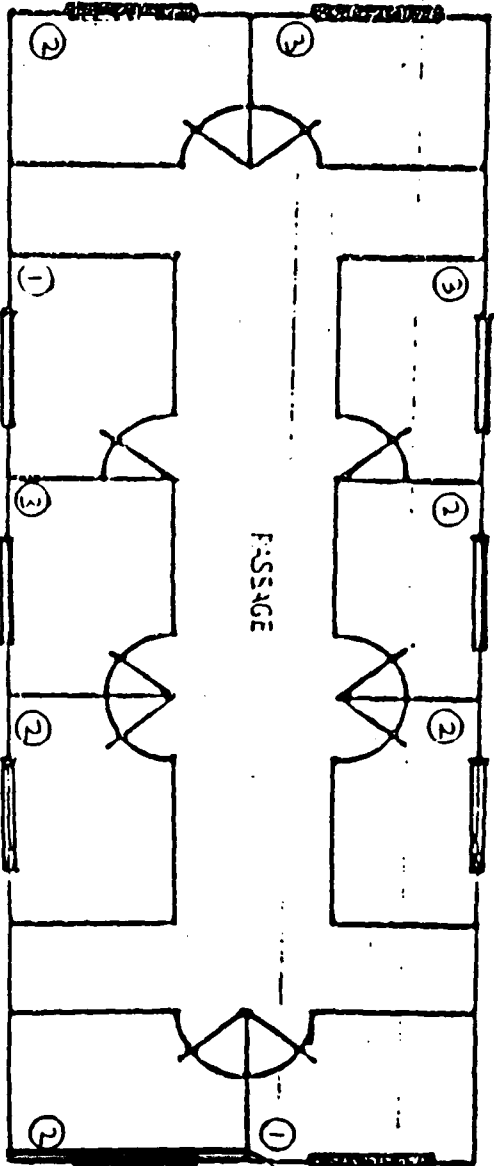


FACADE OF STUDENT RESIDENCE

FLOOR 1



FLOOR 2



① -LEAST DESIRABLE

② -MORE DESIRABLE

Here are some statements on social issues about which we all have beliefs, opinions and attitudes. We all think differently about such matters, and this scale is an attempt to let you express your beliefs and opinions. There are no right or wrong answers. The best answer to each statement below is your personal opinion. Do not spend much time on any statement; let your personal experience determine your answer. Please respond to each of the items as follows:

- 1 - completely disagree
- 2 - mostly disagree
- 3 - slightly disagree
- 4 - undecided or no definite feelings one way or another
- 5 - slightly agree
- 6 - mostly agree
- 7 - completely agree

Answer by placing a cross (X) in the space which best shows your feelings.

It will be many years before blacks reach the same level of civilisation as that of whites.

completely disagree	1	2	3	4	5	6	7	completely agree
---------------------	---	---	---	---	---	---	---	------------------

Blacks should be considered as equal to whites and be given the same advantages as whites.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

A large part of the problems facing blacks today are caused by blacks themselves.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Everybody would be happier, more secure and more prosperous if blacks were given more power and influence in the government.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

It would be a mistake not to have blacks for managers and leaders over whites.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Most blacks would become overbearing and disagreeable if given the opportunity to hold positions of power.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Change and reform in South Africa has gone far enough, things should now be left as they are.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

There is no reason to believe that blacks are less honest than anyone else.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Even if blacks should reach the same level of development as whites, the races should still be separated socially.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

The end of white rule in South Africa would bring a continuing increase in social conflict and violence.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Blacks should have the advantage of all the social benefits of the white person, but be limited to their own race in the practice thereof.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Since integration will require some painful adjustments to be made in changing from segregated schools, neighbourhoods etc., the best solution is to leave the races segregated.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

The best way to solve the problems between the races is to encourage intermarriage so that there will eventually be only one race.

completely disagree

1	2	3	4	5	6	7
---	---	---	---	---	---	---

completely agree

Because of their physical strength, blacks are inherently suited to do manual labour.

completely disagree							completely agree						
1	2	3	4	5	6	7							

What we need is firmer action against people who publicly criticize the racial policies of the present system of government.

completely disagree							completely agree						
1	2	3	4	5	6	7							

Let us assume that student faculty council elections are about to take place. Four candidates are standing for election to your faculty council. Below are their names, together with their election manifestos:

Candidate: ROGER DORKIN
Year: Third

Manifesto

- A vote for ROGER DORKIN means
- Efficient and accurate representation for all students
- Enthusiasm, hard work and responsibility
- More student benefits
- A step towards direct and sincere communication between staff and students
- Increased spirit and involvement among students

Candidate: PETER NGCOBO
Year: Third

Manifesto

- If you believe in:
- meaningful representation
 - hard work as a means to an end
 - sharing ideas, plans and skills
 - the priority of student interests
 - the smooth organisation of the faculty

Vote PETER NGCOBO

CHARLES LABUSCHAGNE

BONGANI NTULI

immature	_____	mature	_____	inflexible	_____	flexible	_____
emotional	_____	unemotional	_____	unassuming	_____	arrogant	_____
intolerant	_____	tolerant	_____	unemotional	_____	emotional	_____
arrogant	_____	unassuming	_____	irresponsible	_____	responsible	_____
open-minded	_____	closed-minded	_____	warm	_____	cold	_____
cooperative	_____	uncooperative	_____	cooperative	_____	uncooperative	_____
responsible	_____	irresponsible	_____	mature	_____	immature	_____
cold	_____	warm	_____	closed-minded	_____	open-minded	_____
inflexible	_____	flexible	_____	intolerant	_____	tolerant	_____

ANALYSES OF VARIANCE RESULTS

Dependent Variable: VOTE

Source	DF	Sum of Squares	Mean Square	F Value	Pr >
Model	7	16.09670058	2.29952865	1.88	0.078
Error	125	152.82059265	1.22256474		
Corrected Total	132	168.91729323			
R-Square C.V. Root MSE VOTE Mea					
	0.095293	-565.6063	1.105696		-.1954887

Source	DF	Type III SS	Mean Square	F Value	Pr >
RACE	1	0.01087840	0.01087840	0.01	0.925
STAB	1	0.50236358	0.50236358	0.41	0.522
RACE*STAB	1	2.69572729	2.69572729	2.20	0.140
LEG	1	0.04970756	0.04970756	0.04	0.840
RACE*LEG	1	3.84027430	3.84027430	3.14	0.078
STAB*LEG	1	0.03425624	0.03425624	0.03	0.867
RACE*STAB*LEG	1	0.03764125	0.03764125	0.03	0.861

Dependent Variable: TRAIT

Source	DF	Sum of Squares	Mean Square	F Value	Pr >
Model	7	24.31769250	3.47395607	3.49	0.001
Error	124	123.27641782	0.99416466		
Corrected Total	131	147.59411032			

R-Square	C.V.	Root MSE	TRAIT Mea
0.164761	3854.355	0.997078	0.0258688

Source	DF	Type III SS	Mean Square	F Value	Pr >
RACE	1	4.64663823	4.64663823	4.67	0.032
STAB	1	0.38875914	0.38875914	0.39	0.532
RACE*STAB	1	0.43500862	0.43500862	0.44	0.509
LEG	1	1.03562782	1.03562782	1.04	0.309
RACE*LEG	1	0.74047096	0.74047096	0.74	0.389
STAB*LEG	1	0.18082329	0.18082329	0.18	0.670
RACE*STAB*LEG	1	0.47421955	0.47421955	0.48	0.491

Dependent Variable: WRM

Source	DF	Sum of Squares	Mean Square	F Value	Pr >
Model	7	191.0114456	27.2873494	0.92	0.495
Error	117	3480.7965544	29.7503979		
Corrected Total	124	3671.8080000			

R-Square	C.V.	Root MSE	WRM Mea
0.052021	434.2669	5.454393	1.2560000

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall STAB Effect
H = Type III SS&CP Matrix for STAB E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.96033277	0.9252	5	112	0.4675
Pillai's Trace	0.03966723	0.9252	5	112	0.4675
Hotelling-Lawley Trace	0.04130571	0.9252	5	112	0.4675
Roy's Greatest Root	0.04130571	0.9252	5	112	0.4675

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RACE*STAB Effect
H = Type III SS&CP Matrix for RACE*STAB E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98507127	0.3395	5	112	0.8880
Pillai's Trace	0.01492873	0.3395	5	112	0.8880
Hotelling-Lawley Trace	0.01515498	0.3395	5	112	0.8880
Roy's Greatest Root	0.01515498	0.3395	5	112	0.8880

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall LEG Effect
H = Type III SS&CP Matrix for LEG E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.87511316	3.1967	5	112	0.0098
Pillai's Trace	0.12488684	3.1967	5	112	0.0098
Hotelling-Lawley Trace	0.14270936	3.1967	5	112	0.0098
Roy's Greatest Root	0.14270936	3.1967	5	112	0.0098

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RACE*LEG Effect
H = Type III SS&CP Matrix for RACE*LEG E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.93264542	1.6177	5	112	0.1611
Pillai's Trace	0.06735458	1.6177	5	112	0.1611
Hotelling-Lawley Trace	0.07221885	1.6177	5	112	0.1611
Roy's Greatest Root	0.07221885	1.6177	5	112	0.1611

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall STAB*LEG Effect
H = Type III SS&CP Matrix for STAB*LEG E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.95424036	1.0742	5	112	0.3786
Pillai's Trace	0.04575964	1.0742	5	112	0.3786
Hotelling-Lawley Trace	0.04795400	1.0742	5	112	0.3786
Roy's Greatest Root	0.04795400	1.0742	5	112	0.3786

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RACE*STAB*LEG Effect
H = Type III SS&CP Matrix for RACE*STAB*LEG E = Error SS&CP Matrix

S=1 M=1.5 N=55

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98985426	0.2296	5	112	0.9489
Pillai's Trace	0.01014574	0.2296	5	112	0.9489
Hotelling-Lawley Trace	0.01024974	0.2296	5	112	0.9489
Roy's Greatest Root	0.01024974	0.2296	5	112	0.9489

APPENDIX B

Contents:

1. Materials used in Study 2.
2. Full ANOVA Summary Tables for the analysis of the data from Study 2.
3. Material used in Study 3.
4. Full ANOVA Summary Tables for the analysis of the data from Study 3.

NUMBER OF THE -ESTIMATOR GROUP.

Questionnaire No. 1.

1. Were you surprised at your group membership (OVER or UNDER estimator)?

2. Can you think of any other way that you over or under estimate things - eg. time, weight, length?

3. If we were to have a competition between the UNDER and OVER - ESTIMATOR groups, to see which group is better on the wordsearch' task, which of these three outcomes do you think would result?

- (a) There will be no difference in the scores of the two groups.
- (b) The OVER-estimator group will do better.
- (c) The UNDER-estimator group will do better.

Answer (a, b or c):

•
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4. How easy or difficult did you find your particular wordsearch?

Very Easy

Very hard

5. How well or badly do you think you did on this task?

Very Badly

Very well

NUMBER OF THE ESTIMATOR GROUP.

Questionnaire No. 2.

1. Are there any other reasons that would explain why people do well or badly at the research task?

2. Did you feel that there was any particular way that you were supposed to answer? That is, did you feel that we were expecting you to act in a particular way? If so, what was that?

3. Suppose that you personally have done well at a test or exam, which of the reasons given would you like other people to use to explain your success? Please rank the explanations in order of preference, where 1=best liked and 4=least liked.

Explanations

Rank Order

Because you have ability

Because you have tried hard

Because you had an easy access

Because you were lucky

4. Suppose, this time, that you have done badly in an exam. How would you rank the given explanations for your failure?

Explanations

Rank Order

Because you little ability

Because you have not tried hard

Because you had a difficult exam

Because you were unlucky

5. Did you enjoy doing this study?

NUMBER OF THE -ESTIMATOR GROUP.

JUDGEMENT TASK

In this booklet, you will be given the completed wordsearch tasks of four unknown schoolchildren. These people have also been given code names according to whether they are members of the OVER or UNDER -ESTIMATOR groups.

A judge has already looked at the work and decided whether they are of above average or below average standard (that is, a pass or fail).

Two of the 4 completed wordsearches are failures and two are passes. Treat each independently. We would like you to do two things.

(1) We would like you to give the work the mark you think it deserves. Please give this as a percentage, which can range from 0% to 100%. (Take the pass mark to be 50%).

(2) We would also like you to give your opinion on why each person has done well or badly. We have given four possible reasons. Under each is a scale, like this:

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

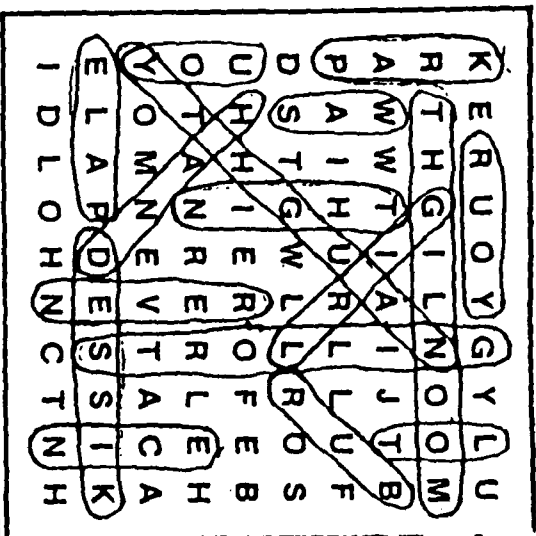
Definitely Correct

In each case, indicate how much you agree that this reason is correct by putting a cross (X) in ONE of the boxes marked 0 to 10. If you think the reason given is

not at all correct	mark	0 or 1
a little correct		2 or 3
sort of correct		4 or 5 or 6
correct		7 or 8
definitely correct		9 or 10

Author of this wordsearch task:

NUMBER 86 OF THE over -ESTIMATOR GROUP.



Assessment of this performance: ABOVE AVERAGE

1) No. 86 of the over -ESTIMATOR group has done well because he or she has a lot of ability at doing this sort of thing.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

2) No. 86 of the over -ESTIMATOR group has done well because she or he has tried hard.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

3) No. 86 of the over -ESTIMATOR group has done well because he or she was given an easy wordsearch task to do.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

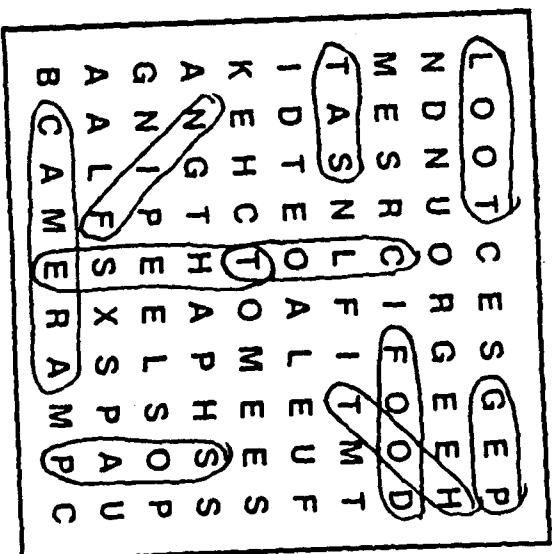
4) No. 86 of the over -ESTIMATOR group has done well because she or he has been lucky.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

5) The % score you would give this performance = %

Author of this wordsearch task:

NUMBER 81 OF THE over -ESTIMATOR GROUP.



Assessment of this performance: BELOW AVERAGE

1) No. 81 of the over -ESTIMATOR group has done badly because he or she has little ability at this sort of thing.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

2) No. 81 of the over -ESTIMATOR group has done badly because she or he has not tried hard.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

3) No. 81 of the over -ESTIMATOR group has done badly because he or she was given a difficult wordsearch task to do.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

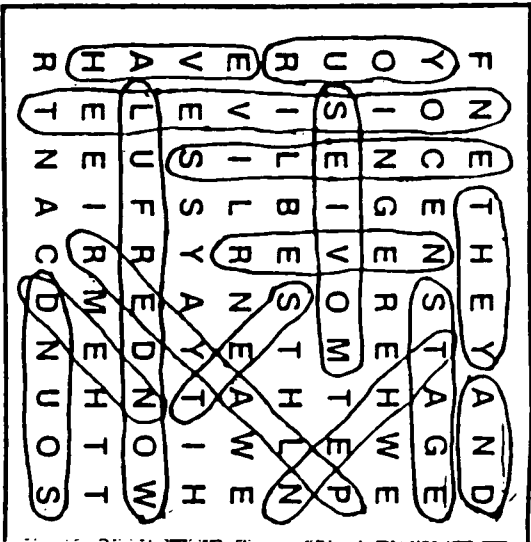
4) No. 81 of the over -ESTIMATOR group has done badly because she or he has been unlucky.

Not at All
Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

5) The % score you would give this performance = %

Author of this wordsearch task:

NUMBER 27 OF THE UNDER-ESTIMATOR GROUP.



Assessment of this performance: ABOVE AVERAGE

1) No. 27 of the UNDER-ESTIMATOR group has done well because he or she has a lot of ability at doing this sort of thing.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

2) No. 27 of the UNDER-ESTIMATOR group has done well because she or he has tried hard.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

3) No. 27 of the UNDER-ESTIMATOR group has done well because he or she was given an easy wordsearch task to do.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

4) No. 27 of the UNDER-ESTIMATOR group has done well because she or he has been lucky.

Not at All Correct

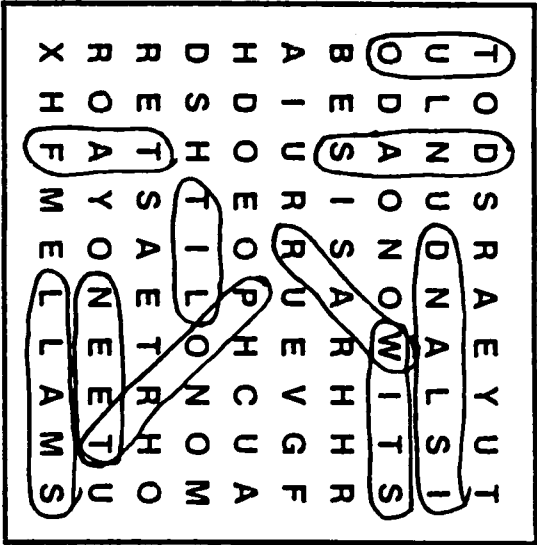
0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

5) The % score you would give this performance = %

Author of this wordsearch task:

NUMBER 28 OF THE Under-ESTIMATOR GROUP.



Assessment of this performance: BELOW AVERAGE

1) No. 28 of the UNDER-ESTIMATOR group has done badly because he or she has little ability at this sort of thing.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

2) No. 28 of the UNDER-ESTIMATOR group has done badly because she or he has not tried hard.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

3) No. 28 of the UNDER-ESTIMATOR group has done badly because he or she was given a difficult wordsearch task to do.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

4) No. 28 of the UNDER-ESTIMATOR group has done badly because she or he has been unlucky.

Not at All Correct

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

Definitely Correct

5) The % score you would give this performance = %

Internal Attributions for Failure

Source	SS	df	MS	F ratio	p
Groups (A)	0.266	1	0.266	0.23	0.63
Error	62.669	54	1.161		
Judged group (B)	0.046	1	0.046	0.12	0.73
AXB	1.640	1	1.640	4.20	0.045
Error	21.102	54	0.391		

External Attributions for Success

Source	SS	df	MS	F ratio	p
Groups (A)	0.374	1	0.374	0.21	0.647
Error	95.365	54	1.766		
Judged group (B)	0.239	1	0.239	0.56	0.459
AXB	0.071	1	0.071	0.17	0.685
Error	23.183	54	0.429		

External Attributions for Failure

Source	SS	df	MS	F ratio	p
Groups (A)	0.015	1	0.015	0.01	0.922
Error	81.456	54	1.508		
Judged group (B)	0.879	1	0.879	2.24	0.140
AXB	0.184	1	0.184	0.47	0.496
Error	21.188	54	0.392		

STUDY 2: FULL ANALYSIS OF VARIANCE RESULTS

Marks Allocated for Successful Performance

Source	SS	df	MS	F ratio	p
Groups (A)	11.343	1	11.343	0.08	0.783
Error	7724.926	52	148.556		
Judged group (B)	194.676	1	194.676	3.76	0.058
AXB	36.750	1	36.750	0.71	0.404
Error	2695.074	52	51.828		

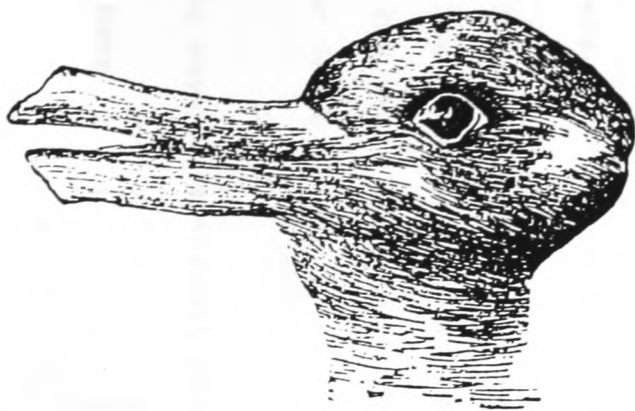
Marks Allocated for Failed Performance

Source	SS	df	MS	F ratio	p
Groups (A)	15.243	1	15.243	0.12	0.732
Error	6539.814	51	128.232		
Judged group (B)	49.592	1	49.592	1.45	0.235
AXB	6.196	1	6.196	0.18	0.673
Error	1750.031	51	34.314		

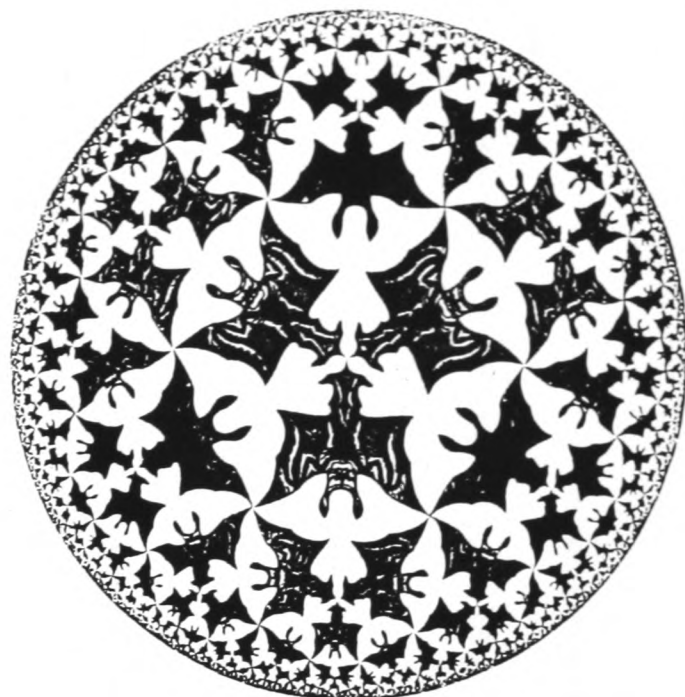
Internal Attributions for Success

Source	SS	df	MS	F ratio	p
Groups (A)	0.114	1	0.114	0.12	0.736
Error	53.356	54	0.988		
Judged group (B)	0.177	1	0.177	0.63	0.430
AXB	0.430	1	0.430	1.54	0.220
Error	15.049	54	0.279		

A



C



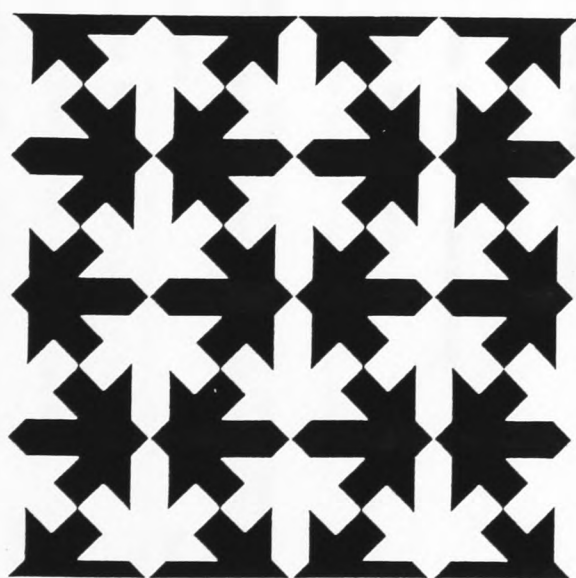
B



D



E



NUMBER OF THE GROUP

Questionnaire No. 1.

1. Were you surprised at the way the images reversed in your vision?

2. You and your classmates have been placed in one of two groups (SIGMA or THETA) according to your visual responses. Do you think that people in these groups will differ in any other way?

3. If we were to have a competition between the THETA and SIGMA groups, to see which group is better on the wordsearch task, which of these three outcomes do you think would result?

- (a) There will be no difference in the scores of the two groups.
- (b) The SIGMA group will do better.
- (c) The THETA group will do better.

Answer (a, b or c):

4. How easy or difficult did you find your particular wordsearch?

Very Easy 0 1 2 3 4 5 6 7 8 9 10 Very hard

5. How well or badly do you think you did on this task?

Very Badly 0 1 2 3 4 5 6 7 8 9 10 Very well

NUMBER OF THE GROUP

Questionnaire No. 2.

1. Are there any other reasons that would explain why people do well or badly at the wordsearch task?

2. Did you feel that there was any particular way that you were supposed to answer? That is, did you feel that we were expecting you to act in a particular way? If so, what was that?

3. Suppose that you personally have done well at a test or exam, which of the reasons given would you like other people to use to explain your success? Please rank the explanations in order of preference, where 1=best liked and 4=least liked.

Explanations	Rank Order
Because you have ability	
Because you have tried hard	
Because you had an easy exam	
Because you were lucky	

4. Suppose, this time, that you have done badly in an exam. How would you rank the given explanations for your failure?

Explanations	Rank Order
Because you have little ability	
Because you have not tried hard	
Because you had a difficult exam	
Because you were unlucky	

5. Did you enjoy doing this study?

NUMBER OF THE GROUP

JUDGEMENT TASK

In this booklet, you will be given the completed wordsearch tasks of four unknown schoolchildren. These people have also been given code names according to whether they are members of the THETA or SIGMA groups.

A judge has already looked at the work and decided whether they are of above average or below average standard (that is, a pass or fail).

Two of the 4 completed wordsearches are failures and two are passes. Treat each independently. We would like you to do two things.

(1) We would like you to give the work the mark you think it deserves. Please give this as a percentage, which can range from 0% to 100%. (Take the pass mark to be 50%).

(2) We would also like you to give your opinion on why each person has done well or badly. We have given four possible reasons. Under each is a scale, like this:

Not at All Correct

--	--	--	--	--	--	--	--	--	--	--

0 1 2 3 4 5 6 7 8 9 10

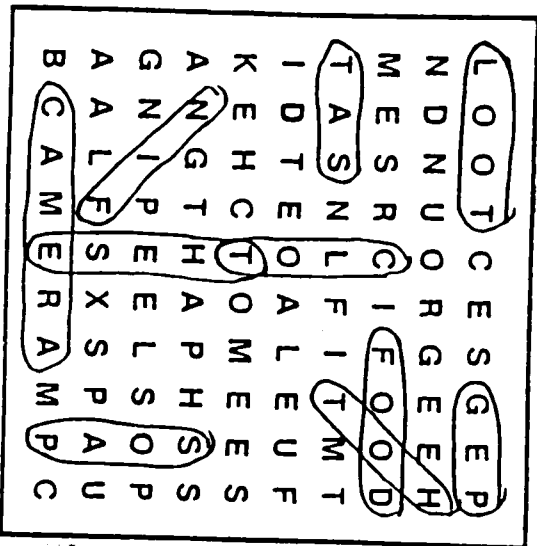
Definitely Correct

In each case, indicate how much you agree that this reason is correct by putting a cross (X) in ONE of the boxes marked 0 to 10. If you think the reason given is

not at all correct	mark	0 or 1
a little correct		2 or 3
sort of correct		4 or 5 or 6
correct		7 or 8
definitely correct		9 or 10

Author of this wordsearch task:

NUMBER 87 OF THE Theta GROUP



Assessment of this performance: FAIL

1) The % score you would give this performance = %

2) No.87 of the Theta group has done badly because he or she has little ability at this sort of thing.

Not at All Correct

3) No.87 of the Theta group has done badly because she or he has not tried hard.

Not at All Correct

4) No.87 of the Theta group has done badly because he or she was given a difficult wordsearch task to do.

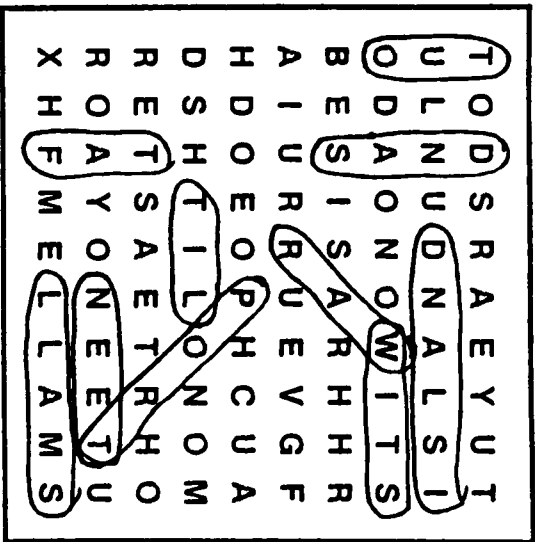
Not at All Correct

5) No.87 of the Theta group has done badly because she or he has been unlucky.

Not at All Correct

Author of this wordsearch task:

NUMBER 25 OF THE Sigma GROUP



Assessment of this performance: FAIL

1) No.25 of the Sigma group has done badly because he or she has little ability at this sort of thing.

Not at All Correct

2) No.25 of the Sigma group has done badly because she or he has not tried hard.

Not at All Correct

3) No.25 of the Sigma group has done badly because he or she was given a difficult wordsearch task to do.

Not at All Correct

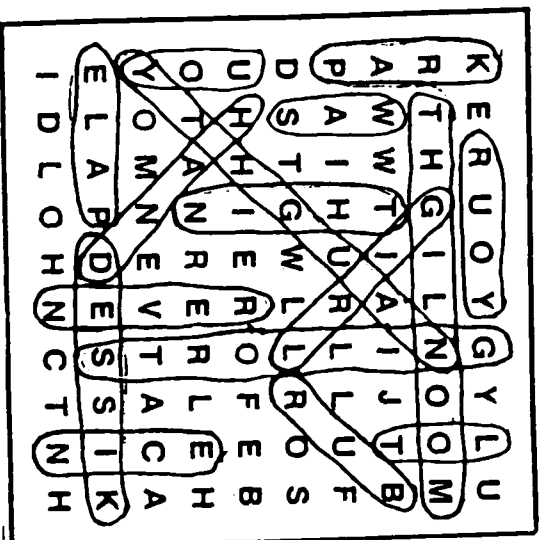
4) No.25 of the Sigma group has done badly because she or he has been unlucky.

Not at All Correct

5) The % score you would give this performance = %

Author of this wordsearch task:

NUMBER 29 OF THE *Sigma* GROUP



Assessment of this performance: *PASS*

1) The % score you would give this performance = %

2) No. 29 of the *Sigma* group has done well because he or she has a lot of ability at doing this sort of thing.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

3) No. 29 of the *Sigma* group has done well because she or he has tried hard.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

4) No. 29 of the *Sigma* group has done well because he or she was given an easy wordsearch task to do.

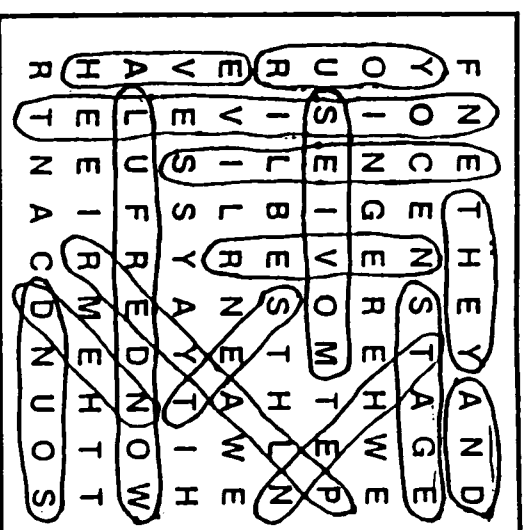
Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

5) No. 29 of the *Sigma* group has done well because she or he has been lucky.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

Author of this wordsearch task:

NUMBER 81 OF THE *Theta* GROUP



Assessment of this performance: *PASS*

1) The % score you would give this performance = %

2) No. 81 of the *Theta* group has done well because he or she has a lot of ability at doing this sort of thing.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

3) No. 81 of the *Theta* group has done well because she or he has tried hard.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

4) No. 81 of the *Theta* group has done well because he or she was given an easy wordsearch task to do.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

5) No. 81 of the *Theta* group has done well because she or he has been lucky.

Not at All Correct
0 1 2 3 4 5 6 7 8 9 10
Definitely Correct

STUDY 3 : FULL ANALYSIS OF VARIANCE RESULTS

Marks Allocated for Successful Performance

Source	SS	df	MS	F ratio	p
Groups (A)	62.227	1	62.227	0.28	0.599
Error	9282.727	42	221.017		
Judged group (B)	16.409	1	16.409	0.28	0.601
AxB	229.136	1	229.136	3.88	0.056
Error	2481.455	42	59.082		

Marks Allocated for Failed Performance

Source	SS	df	MS	F ratio	p
Groups (A)	10.227	1	10.227	0.07	0.800
Error	6296.636	42	149.920		
Judged group (B)	84.045	1	84.045	2.33	0.134
AxB	49.500	1	49.500	1.37	0.248
Error	1512.455	42	36.011		

Internal Attributions for Success

Source	SS	df	MS	F ratio	p
Groups (A)	0.008	1	0.008	0.01	0.938
Error	52.060	42	1.240		
Judged group (B)	0.157	1	0.157	0.65	0.426
AxB	0.080	1	0.080	0.33	0.570
Error	10.240	42	0.244		

Internal Attributions for Failure

Source	SS	df	MS	F ratio	p
Groups (A)	0.228	1	0.228	0.19	0.662
Error	48.351	41	1.179		
Judged group (B)	0.235	1	0.235	0.54	0.468
AxB	1.269	1	1.269	2.90	0.096
Error	17.948	41	0.438		

External Attributions for Success

Source	SS	df	MS	F ratio	p
Groups (A)	5.679	1	5.679	4.09	0.050
Error	58.389	42	1.389		
Judged group (B)	2.300	1	2.300	6.70	0.013
AxB	0.024	1	0.024	0.07	0.792
Error	14.412	42	0.343		

External Attributions for Failure

Source	SS	df	MS	F ratio	p
Groups (A)	0.005	1	0.005	0.00	0.971
Error	69.790	41	1.702		
Judged group (B)	0.672	1	0.672	1.28	0.264
AxB	0.055	1	0.055	0.10	0.748
Error	21.519	41	0.525		

APPENDIX C

Contents:

1. Category schemes for Action, Outcome and Social Issue Explanations used in Pilot Study 1.
2. Tables showing the percentage of explanations falling in each category, and ranking the popularity of the explanation category.
3. For each of the vignettes, the explanations provided in Pilot Study 2, together with the results of the factor analysis.

CATEGORY SCHEMES FOR THE FREE-FORMAT EXPLANATIONS

Table C.1 Category Scheme for Action Explanations

Category	Contents
<u>Person - characteristics</u> (Pers)	Statement which explains the action in terms of some enduring or temporary quality of the actor. This may include dispositions, feelings or states.
<u>Person - ideology</u> (Ideo)	Statement explaining the action in terms of an ideological role/belief of the actor.
<u>Person - society</u> (Soc)	Statement explaining the action in terms of the actor's situation or role in society.
<u>Selfish goal</u> (Sgo)	Explanation in terms of a selfish future state to which the actor was aiming, in which s/he would gain functionally or materially.
<u>Altruistic goal</u> (Ago)	Explanation in terms of an altruistic objective or future state to which the actor was aiming.
<u>Reciprocation</u> (Recp)	Statement explaining the actor's behaviour as an act of reciprocation or revenge.
<u>Person-other relationship</u> (Rel)	Explanation in terms of the relationship the actor has with the recipient of his/her action.
<u>External Cause</u> (Ext)	Explanation in terms of a circumstantial factor or person (other than the actor) being responsible for the action.
<u>Disposition - not responsible</u> (Nrs)	Statement which explains the action in terms of some quality of the actor which implies the actor is not wholly responsible for his/her actions.
<u>Person makes amends</u> (Amm)	Explanation which accounts for the action as an attempt to rectify or make amends for having caused the situation.
<u>Person empathy</u> (Emp)	Explanation which accounts for the actor's behaviour in terms of the actor having been in a similar situation, (hence) knowing what it feels like. This differs from reciprocation in that the recipient of the act is not the purveyor of the deed of which the actor was the recipient.
<u>Non-causative explanations</u> (NC)	These include explanations which imply indirect causation, e.g. elaborating the implication of the situation, or suggesting results of the action; statements which describe or elaborate on the actor's behaviour, feelings or state without drawing a direct causal link with the action; statement which speculates or suggests how the situation came about; and statement which continues the story of the vignette. Comments, such as statement that say that the action is "general", in the sense that anyone would do the same thing, or that it is appropriate; or that remark on the actor or the action in such a way that it is difficult to see it as an explanation for the action; and statements which draw a moral or general precept from the situation, are also placed in this category.

Table C.2 Category Scheme for Outcome Explanations

Category	Contents
<u>Ability</u> (Ab)	Explanation in terms of the actor's ability or lack of ability.
<u>Effort</u> (Eff)	Explanation in terms of the actor's long-term effort, or the effort made by the actor at the time of the task.
<u>Motivation</u> (Mot)	Explanation in terms of the actor's interest, attitude to or feelings about the task.
<u>Qualifications</u> (Qual)	Explanation in terms of the qualifications, experience, knowledge the actor does or does not possess.
<u>Personality</u> (Pat)	Explanation which accounts for the actor's success or failure in terms of personality, looks,presentation, or any personal quality not implying ability or effort.
<u>Person - society</u> (Soc)	Explanation which accounts for the actor's success or failure in terms of the actor's situation in society.
<u>Personal circumstance</u> (Pc)	Explanation which gives the actor's personal circumstances as influencing the outcome.
<u>Competition - comparison</u> (Com)	Explanation in terms of the actor's relative worth vis-a-vis other competitors or people in similar circumstances.
<u>Task handling</u> (Thd)	Explanation in terms of the way the actor handled the task, but which does not directly impute ability or effort.
<u>External people</u> (Ep)	Explanation which refers to other people influencing the outcome.
<u>External factors</u> (Ef)	Explanation which sites any external factor (rather than people, directly) as influencing the outcome.
<u>Task characteristics</u> (Tsk)	Explanation in terms of the task's characteristics.
<u>Luck</u> (Lck)	Explanation which accounts for the actor's success or failure in terms of luck or other aspects of fortune.
<u>Other responses</u> (Oth)	These are statements which are essentially not explanations, such as denials (statements which deny that the outcome/actor has been a success or failure); story continuations (statements which either re-iterate the circumstance of the vignette or speculate or advise on the actor's future actions); comments (statements which comment on the actor or the situation); or maxims (statements which draw a moral or general precept from the situation).

Table C.3 Category Scheme for Social Issue Explanations

Category	Content
<u>Group personal qualities</u> (Pers)	Statement which explains the issue in terms of personality traits, qualities or stereotypes assigned to the group(s).
<u>Inferiority/superiority</u> (Stat)	Statement which simply presents the groups as inferior or superior, without a quality or capability attached.
<u>Group capability</u> (Abil)	Statement which explains the issue in terms of abilities or talents assigned to the group(s).
<u>Group values</u> (Val)	Statement which explains the issue in terms of different values (possibly cultural) that the group(s) have.
<u>Group use of resources</u> (Use)	Statement which explains the issue in terms of the way or degree or efficiency with which the group(s) uses the resources available.
<u>Group possession of resources</u> (Poss)	Statement which explains the issue in terms of the resources the group(s) possesses, but does not attribute it to government or societal structures.
<u>Group behaviour</u> (Beha)	Statement which explains the issue in terms of the (different) way in which the group(s) conduct themselves.
<u>Group attitude</u> (Att)	Statement which explains the issue in terms of attitudes or motivations of the group(s).
<u>Group needs</u> (Nee)	Explanation in terms of different needs the groups have.
<u>Group demography</u> (Demg)	Explanation in terms of demographic properties of the groups.
<u>Group responsibilities</u> (Resp)	Explanation in terms of roles or responsibilities the groups have relative to the other.
<u>Intergroup behaviour</u> (Intg)	Statement which explains the issue in terms of the actions of one group to the other.
<u>Social indoctrination</u> (Indc)	Statement which explains the issue in terms of how the group(s) have been led to view themselves or their roles in society.
<u>Structural power</u> (Pow)	Statement which explains the issue in terms of the (different) power or status the groups possess within society.

Category	Content
<u>Discrimination</u> (Disc)	Statement which explains the issue in terms of discrimination or prejudice, per se or related to a context.
<u>Structural resources</u> (Reso)	Statement which explains the issue in terms of the resources provided for the group(s).
<u>Structural system</u> (Syst)	Statement which explains the issue in terms of government policies or the social system, but not directly associating the high status group with the government.
<u>Structural opportunity</u> (Opp)	Statement which explains the issue in terms of the societal opportunities available for the group(s).
<u>Other external forces</u> (Ext)	Statement which explains the issue in terms of the actions or behaviour of other forces in society, other than the government or generalized abstract system.
<u>Other</u> (Oth)	Statements which cannot really stand as explanations, such as general comments about the group(s), their position in society, etc. which need further clarification to become an explanation; statements which give a historical precedence as an explanation of the issue; comments which claim the presented 'fact' is not true; a statement (or polemic) on how things must/are/will change; answers explaining the issue by presenting the implications of changing the situation, or by justifying the issue.

CONTENT ANALYSIS OF ACTION EXPLANATIONS

FREQUENCY PERCENTAGES

	Pers	Ideo	Soc	Sgo	Ago	Recp	Rel	Ext	Nrs	Amm	Emp	NC	Total
All	17.8	3.7	8.9	6.5	4.5	2.6	4.5	13.2	2.3	0.3	0.7	34.9	2597 s
AL+	23.6	3.3	3.1	8.3	7.9	4.7	4.8	2.0	0.0	1.1	2.4	38.7	795 s
AL-	14.6	1.4	10.6	4.5	0.5	2.6	4.3	25.4	4.9	0.0	0.0	31.2	1168 s
ALp	10.5	15.7	14.5	14.2	13.7	0.0	1.2	0.0	0.0	0.0	0.0	30.2	344 ns
Cha	28.8	5.4	9.3	5.9	8.3	1.5	3.4	5.4	0.0	3.9	2.9	25.4	205 s
Uni	13.6	10.7	4.3	7.1	22.9	0.0	2.9	0.0	0.0	0.0	0.0	38.6	140 ns
Hwk	23.7	0.8	0.0	0.0	0.0	0.0	3.8	21.4	1.5	0.0	0.0	48.9	131 ns
Crp	13.1	2.1	0.7	12.4	4.1	15.9	9.7	0.7	0.0	0.0	0.0	41.4	145 ns
Log	14.1	0.0	2.3	11.7	22.7	0.0	1.6	0.0	0.0	0.0	0.0	47.7	128 as
Sch	7.7	7.1	12.4	4.7	3.6	0.0	0.0	45.0	0.0	0.0	0.0	19.5	169 s
Pty	22.0	0.0	20.8	1.3	0.0	0.6	12.6	1.3	0.0	0.0	0.0	41.5	159 ns
Car	27.1	0.5	9.0	5.9	0.0	14.9	3.2	2.1	11.7	0.0	0.0	25.5	188 ns
Stm	32.2	6.3	0.6	3.4	3.4	6.3	1.7	2.3	0.0	0.6	0.0	39.7	174 ns
Mec	8.3	19.1	21.6	19.1	7.4	0.0	0.0	0.0	0.0	0.0	0.0	24.5	204 ns
Try	22.1	0.0	0.0	0.0	0.0	0.0	0.7	36.8	11.8	0.0	0.0	28.7	136 ns
Dbt	8.2	0.0	38.0	0.0	0.0	0.0	0.0	20.9	0.6	0.0	0.0	32.3	158 ns
Lft	25.2	0.7	0.7	10.5	3.5	0.0	8.4	0.0	0.0	0.0	4.9	46.2	143 ns
Bil	12.2	0.0	1.7	15.5	0.0	1.1	3.9	11.0	8.3	0.0	0.0	46.4	181 ns
Fam	5.3	1.6	11.2	3.2	0.0	0.0	14.9	33.5	0.0	0.0	0.0	30.3	188 s
Wk	21.6	0.0	1.4	0.0	0.0	0.0	5.4	34.5	2.0	0.0	0.0	35.1	148 as

RANKING THE PERCENTAGES:

	Pers	Ideo	Soc	Sgo	Ago	Recp	Rel	Ext	Nrs	Amm	Emp	Total
All	1	7	3	4	5	8	5	2	9	11	10	2597 s
AL+	1	6	7	2	3	5	4	9	-	10	8	795 s
AL-	2	8	3	5	9	7	6	1	4	-	-	1168 s
ALp	5	1	2	3	4	-	6	-	-	-	-	344 ns
Cha	1	5	2	4	3	10	8	5	-	7	9	205 s
Uni	2	3	5	4	1	-	6	-	-	-	-	140 ns
Hwk	1	5	-	-	-	-	3	2	4	-	-	131 ns
Crp	2	6	7	3	5	1	4	7	-	-	-	145 ns
Log	2	-	4	3	1	-	5	-	-	-	-	128 as
Sch	3	4	2	5	6	-	-	1	-	-	-	169 s
Pty	1	-	2	4	-	6	3	4	-	-	-	159 ns
Car	1	8	4	5	-	2	6	7	3	-	-	188 ns
Stm	1	2	8	4	4	2	7	6	-	8	-	174 ns
Mec	4	2	1	2	5	-	-	-	-	-	-	204 ns
Try	2	-	-	-	-	-	4	1	3	-	-	136 ns
Dbt	3	-	1	-	-	-	-	2	4	-	-	158 ns
Lft	1	6	6	2	4	-	3	-	-	-	5	143 ns
Bil	2	-	6	1	-	7	5	3	4	-	-	181 ns
Fam	4	6	3	5	-	-	2	1	-	-	-	188 s
Wk	2	-	5	-	-	-	3	1	4	-	-	148 as

CONTENT ANALYSIS OF OUTCOME EXPLANATIONS

FREQUENCY PERCENTAGES

	Ab	Eff	Mot	QuI	Pat	Soc	Pc	Com	Thd	Ep	Ef	Tsk	Lck	Oth	Tot
All	14.2	11.9	8.6	9.0	8.6	1.5	3.6	2.9	9.4	7.6	7.9	1.1	1.2	12.4	3019s
Alf	13.9	11.1	7.9	8.9	9.3	1.5	6.0	2.0	6.3	7.8	8.7	1.5	0.7	11.5	1502s
Als	14.6	12.7	9.3	9.2	8.0	1.5	1.2	3.9	9.5	7.4	7.2	0.7	1.6	13.2	1517s
Mes	6.6	10.3	1.4	6.6	0.5	0.0	0.0	3.3	28.2	0.0	31.5	0.0	4.7	7.0	213as
Mef	1.3	9.6	1.3	5.1	1.9	0.0	10.9	0.6	27.6	0.0	36.5	0.0	1.3	3.8	156n
Prs	8.1	20.4	12.7	11.9	9.2	1.9	0.4	1.9	11.5	8.5	3.5	0.4	1.2	8.5	260s
Ptf	4.7	24.6	18.1	5.8	15.2	2.9	1.8	0.6	4.7	11.1	2.3	0.0	0.0	8.2	171n
Tes	23.8	6.6	7.7	7.7	9.4	0.0	5.0	0.6	14.9	17.1	1.7	2.8	0.0	2.8	181s
Tef	18.3	3.1	6.1	5.7	9.2	0.0	1.7	0.0	15.7	18.3	9.6	3.1	0.0	9.2	229n
Dis	17.9	15.9	21.9	9.9	2.6	3.3	0.0	0.0	2.0	2.0	11.3	1.3	2.0	9.9	151s
Dif	18.1	7.1	14.3	4.4	2.7	0.0	2.7	0.0	9.9	1.6	11.5	2.2	3.3	22.0	182n
Rus	23.5	12.7	10.8	6.6	17.5	2.4	0.0	10.2	1.8	6.0	2.4	0.0	0.0	6.0	166n
Ruf	24.7	11.4	7.8	5.5	15.5	2.3	10.5	5.0	0.5	6.4	2.7	0.0	0.5	7.3	219n
Mas	13.0	18.8	11.5	0.0	3.6	1.6	0.5	0.0	3.1	4.7	3.6	1.0	0.5	38.0	192n
Maf	9.4	23.1	12.5	0.6	1.3	0.0	15.6	0.0	2.5	3.1	8.1	1.9	0.0	21.9	160s
Ins	11.6	2.7	3.4	27.9	18.4	3.4	0.0	8.2	0.7	7.5	0.0	0.0	2.7	13.6	147n
Inf	9.0	0.0	1.8	31.7	13.6	5.4	0.0	5.9	5.9	9.5	3.2	1.4	0.9	11.8	221s
Das	16.9	10.1	6.3	6.8	5.8	0.5	3.4	8.2	6.8	13.0	1.0	0.0	1.4	19.8	207n
Daf	21.3	16.5	3.0	6.7	11.6	0.0	7.9	2.4	9.8	7.9	0.6	3.7	0.0	8.5	164as

RANKING

	Ab	Eff	Mot	QuI	Pat	Soc	Pc	Com	Thd	Ep	Ef	Tsk	Lck	Oth
All	1	2	5	4	5	11	9	10	3	8	7	13	12	3019s
Alf	1	2	6	4	3	11	9	10	8	7	5	11	13	1502s
Als	1	2	4	5	6	11	12	9	3	7	8	13	10	1517s
Mes	4	3	8	4	9	-	-	7	2	-	1	-	6	213as
Mef	7	4	7	5	6	-	3	10	2	-	1	-	7	156n
Prs	7	1	2	3	5	9	12	9	4	6	8	12	11	260s
Ptf	6	1	2	5	3	8	10	11	6	4	9	-	-	171n
Tes	1	7	5	5	4	-	8	11	3	2	10	9	-	181s
Tef	1	8	6	7	5	-	10	-	3	1	4	8	-	229n
Dis	2	3	1	5	7	6	-	-	8	8	4	11	8	151s
Dif	1	5	2	6	8	-	8	-	4	11	3	10	7	182n
Rus	1	3	4	6	2	8	-	5	10	7	8	-	-	166n
Ruf	1	3	5	7	2	10	4	8	11	6	9	-	11	219n
Mas	2	1	3	-	5	8	10	-	7	4	5	9	10	192n
Maf	4	1	3	10	9	-	2	-	7	6	5	8	-	160s
Ins	3	8	6	1	2	6	-	4	10	5	-	-	8	147n
Inf	4	-	9	1	2	7	-	5	5	3	8	10	11	221s
Das	1	3	7	5	8	12	9	4	5	2	11	-	10	207n
Daf	1	2	9	7	3	-	5	10	4	5	11	8	-	164as

CONTENT ANALYSIS OF SOCIAL ISSUE EXPLANATIONS
FREQUENCY PERCENTAGES

	All	Als	Alr	Laws	Lawr	Res	Rer
Pers	5.4	7.3	3.6	3.4	0.7	4.7	4.5
Stat	3.4	4.8	2.1	5.7	3.3	3.3	2.8
Abil	5.0	5.7	4.3	4.0	4.6	10.3	13.6
Val	1.9	2.1	1.7	1.1	0.0	2.8	0.6
Use	0.5	0.6	0.5	0.0	0.0	0.5	0.0
Poss	6.9	3.2	10.3	1.1	3.9	1.9	4.0
Beha	8.3	10.7	6.0	5.7	6.5	11.2	2.8
Att	6.5	6.8	6.3	1.7	3.9	6.1	1.7
Nee	1.0	1.4	0.7	0.0	0.0	1.9	0.6
Demg	1.9	0.6	3.2	0.6	3.9	1.9	7.3
Resp	7.3	13.3	1.7	8.6	0.0	22.0	7.3
Intg	5.8	5.1	6.4	11.4	13.7	6.1	6.8
Indc	2.5	2.2	2.8	2.3	0.7	0.9	0.6
Pow	7.5	6.6	8.2	16.6	22.2	1.4	6.8
Disc	6.3	3.5	8.9	2.9	8.5	4.7	14.1
Reso	2.1	0.2	3.8	0.6	0.0	0.0	4.5
Syst	6.5	2.9	9.9	4.0	12.4	1.4	6.2
Opp	3.0	2.9	3.2	1.1	3.9	4.7	5.6
Ext	2.2	2.4	2.0	0.0	0.0	2.8	3.4
Oth	16.1	17.8	14.6	29.1	11.8	11.7	6.8
	3487 s	1680 s	1807 s	175 ns	153 ns	214 s	177 s

	Imns	Imr	Sps	Spr	Cos	Cor
Pers	19.0	5.2	7.0	2.7	15.0	3.6
Stat	7.1	1.7	0.0	1.4	2.7	0.0
Abil	4.0	1.1	6.3	0.9	7.5	1.5
Val	0.8	1.7	2.1	2.3	1.4	0.5
Use	0.0	0.0	1.4	2.3	0.0	0.0
Poss	1.6	9.2	9.1	19.6	0.7	13.4
Beha	13.5	6.9	14.0	10.5	8.2	2.6
Att	6.3	2.3	17.5	10.5	16.3	11.3
Nee	0.0	0.0	2.8	0.0	0.0	0.0
Demg	0.8	2.9	0.0	6.4	0.0	1.5
Resp	7.9	0.6	19.6	1.8	6.1	1.5
Intg	3.2	5.7	1.4	2.3	8.2	6.2
Indc	2.4	4.0	0.7	1.8	7.5	6.2
Pow	0.8	4.0	0.7	3.2	4.1	5.2
Disc	2.4	6.3	0.7	6.4	2.7	6.7
Reso	0.0	5.2	0.7	4.6	0.0	1.5
Syst	1.6	8.0	2.1	7.8	2.0	16.0
Opp	3.2	0.0	0.7	1.8	2.7	6.2
Ext	4.8	4.0	0.7	3.7	1.4	1.0
Oth	20.6	31.0	12.6	10.0	13.6	14.9
	126 ns	174 ns	143 ns	219 ns	147 s	194 as

	Pas	Par	Pos	Por	Sas	Sar
Pers	1.1	3.8	15.0	8.5	7.4	0.6
Stat	7.4	2.5	8.3	2.0	6.9	1.9
Abil	5.7	8.9	3.0	3.0	7.4	7.1
Val	0.6	1.3	0.8	3.0	3.0	1.9
Use	0.6	1.9	0.8	0.0	0.0	0.0
Poss	1.7	3.2	7.5	9.0	1.0	3.8
Beha	6.8	0.6	24.1	10.0	11.9	4.5
Att	1.7	3.8	6.8	10.5	4.5	6.4
Nee	4.0	5.7	0.0	0.0	0.0	0.0
Demg	0.0	0.6	0.8	1.0	0.0	1.3
Resp	22.2	0.6	7.5	0.0	6.9	2.6
Intg	2.8	7.0	0.8	4.5	4.0	7.7
Indc	0.6	1.3	0.8	7.0	2.5	1.3
Pow	4.0	8.9	1.5	1.0	17.3	24.4
Disc	9.7	17.1	1.5	12.5	2.0	4.5
Reso	0.0	1.3	0.0	0.5	0.0	0.6
Syst	4.5	12.7	1.5	8.0	2.5	9.6
Opp	0.6	1.9	0.0	0.5	2.0	4.5
Ext	4.0	3.8	3.8	1.0	1.5	0.0
Oth	22.2	13.3	15.8	18.0	19.3	17.3
	176 ns	158 as	133 ns	200 s	202 s	156 ns

	Ins	Imr	Eds	Edr
Pers	5.1	3.8	2.4	0.6
Stat	7.0	3.8	1.0	1.8
Abil	3.2	2.8	3.9	3.6
Val	0.0	1.9	0.5	0.6
Use	0.0	0.0	2.4	23.6
Poss	1.3	9.5	7.2	5.5
Beha	5.7	8.1	9.2	2.4
Att	9.6	7.1	2.4	1.2
Nee	0.0	0.0	3.9	3.0
Demg	0.0	3.3	1.4	1.2
Resp	8.3	0.9	18.8	4.8
Intg	7.6	7.6	3.9	1.2
Indc	4.5	2.4	1.0	1.2
Pow	12.1	6.6	3.9	6.7
Disc	3.8	7.1	3.4	6.1
Reso	0.0	2.4	1.0	17.6
Syst	7.0	13.7	1.9	4.2
Opp	1.3	2.8	10.1	4.8
Ext	2.5	1.4	2.9	1.2
Oth	13.4	14.7	18.8	7.9
	157 ns	211 as	207 s	165 ns

RANKING THE PERCENTAGES

	All	Als	Alr	Laws	Lawr	Reds	Redr
Pers	9	3	10	8	12	6	9
Stat	11	8	14	4	11	9	13
Abil	10	6	8	6	6	3	2
Val	16	15	16	12	-	11	16
Use	19	18	19	-	-	9	-
Poss	4	10	1	12	7	13	11
Beha	1	2	7	4	5	2	13
Att	5	4	6	11	7	4	15
Nee	18	16	18	-	-	13	16
Demg	16	17	11	15	7	13	3
Resp	3	1	16	3	-	1	3
Intg	8	7	5	2	2	4	5
Indc	13	14	13	10	12	18	16
Pow	2	5	4	1	1	17	5
Disc	7	9	3	9	4	6	1
Reso	15	19	9	15	-	-	9
Syst	5	11	2	6	3	16	7
Opp	12	11	11	12	7	6	8
Ext	14	13	15	-	-	11	12
Oth	16.1 3487 s	17.8 1680 s	14.6 1807 s	29.1 175 ns	11.8 153 ns	11.7 214 s	6.8 177 s

	Imns	Imr	Sps	Spr	Cos	Cor
Pers	1	6	5	10	2	9
Stat	4	13	-	17	9	-
Abil	7	15	6	18	5	11
Val	14	13	8	11	13	16
Use	-	-	10	11	-	-
Poss	12	1	4	1	15	2
Beha	2	3	3	2	3	10
Att	5	12	2	3	1	3
Nee	-	-	7	-	-	-
Demg	14	11	-	5	-	11
Resp	3	16	1	14	7	11
Intg	8	5	10	11	3	5
Indc	10	8	12	14	5	5
Pow	14	8	12	9	8	8
Disc	10	4	12	5	9	4
Reso	-	6	12	7	-	11
Syst	12	2	8	4	12	1
Opp	8	-	12	14	9	5
Ext	6	8	12	8	13	15
Oth	20.6 126 ns	31.0 174 ns	12.6 143 ns	10.0 219 ns	13.6 147 s	14.9 194 as

	Pas	Par	Pos	Por	Sas	Sar
Pers	13	7	2	5	3	15
Stat	3	11	3	11	5	11
Abil	5	3	8	9	3	4
Val	14	14	12	9	9	11
Use	14	12	12	-	-	-
Poss	11	10	4	4	15	9
Beha	4	17	1	3	2	6
Att	11	7	6	2	7	5
Nee	7	6	-	-	-	-
Demg	-	17	12	12	-	13
Resp	1	17	4	-	5	10
Intg	10	5	12	8	8	3
Indc	14	14	12	7	10	13
Pow	7	3	9	12	1	1
Disc	2	1	9	1	12	6
Reso	-	14	-	15	-	15
Syst	6	2	9	6	10	2
Opp	14	13	-	15	12	6
Ext	7	7	7	12	14	-
Oth	22.2 176 ns	13.3 158 as	15.8 133 ns	18.0 200 s	19.3 202 s	17.3 156 ns

	Ins	Inr	Eds	Edr
Pers	9	8	11	18
Stat	6	8	16	12
Abil	12	11	5	12
Val	4	15	19	9
Use	-	-	11	18
Poss	14	2	4	1
Beha	8	3	3	5
Att	2	5	11	11
Nee	-	-	5	14
Demg	-	10	15	10
Resp	3	17	1	14
Intg	4	4	5	6
Indc	10	13	16	14
Pow	1	7	5	3
Disc	11	5	9	4
Reso	-	13	16	2
Syst	6	1	14	8
Opp	14	11	2	6
Ext	13	16	10	14
Oth	13.4 157 ns	14.7 211 as	18.8 207 s	7.9 165 ns

EXPLANATIONS USED IN SECOND STUDY

Action vignettes: The categories Pers, Ideo, Soc, Sgo, Ago, Recp, Rel, Ext and Nrs were used.

(A) J.B. invited the stranger into the house to shelter from the storm.	
Explanations:	
1. (Pers)	J.B. is a kind-hearted person.
2. (Pers)	J.B. felt sorry for the stranger.
3. (Ideo)	J.B. is a religious person, so believes in helping others.
4. (Sgo)	J.B. was lonely and wanted company.
5. (Sgo)	J.B. intended to rob the stranger.
6. (Ago)	J.B. did not want the stranger to get wet and ill.
7. (Recp)	J.B. had recently been helped by a stranger, so felt that he should do someone else a good turn.
8. (Rel)	The stranger was a friend of J.B.'s next door neighbour.
9. (Ext)	The stranger knocked at J.B.'s door and asked for shelter.
10. (Nrs)	J.B. was drunk when he asked the stranger to come in.

Table C.4 Vignette A: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	5.45	0.90	2.62	1.64
2.	5.36	1.11	3.11	1.56
3.	3.77	1.48	5.35	1.64
4.	2.72	1.43	6.79	1.61
5.	1.79	1.41	8.91	1.96
6.	4.38	1.78	4.43	2.14
7.	3.49	1.53	5.53	1.88
8.	4.34	2.11	4.91	2.71
9.	4.98	1.81	3.78	2.54
10.	1.77	1.13	8.91	1.54

Table C.5 Vignette A: Results of Factor Analysis

Three factors with eigenvalues over 1.00 were produced:

	I	II	III	Communality
5.	.889	-	-	.974
10.	.709	-	-	.517
4.	.546	-	-	.419
8.	-	.791	-	.832
7.	-	.774	-	1.02
3.	.436	.677	.325	.775
1.	-	-	.776	.683
2.	-	-	.756	.842
9.	-	-	-	.205
6.	-	-	-	.191
Eigenvalues	2.53	1.25	1.08	
% Var	25.3	12.5	10.8	48.6

(Loadings <0.25 are replaced by "-")

The three factors explained approximately 49% of the variance.

(B) G.H. helped his neighbour to harvest his crop of mealies.

Explanations:	
1. (Pers)	G.H. is a good, helpful person.
2. (Pers)	G.H. was concerned about his neighbour, who was having difficulty.
3. (Ideo)	G.H. is a religious person, so believes in helping others.
4. (Soc)	G.H. was unemployed, so had nothing else to do at the time.
5. (Sgo)	G.H. was going to be paid for his help.
6. (Sgo)	G.H. expected to get some of the mealies for himself in return.
7. (Ago)	G.H. did not want his neighbour to lose his crop.
8. (Recp)	The neighbour had helped G.H. harvest his own crop.
9. (Rel)	The neighbour was a friend of G.H.
10. (Ext)	The neighbour had pleaded with G.H. for help.
11. (Nrs)	G.H. had been drunk when he agreed to help his neighbour.

Table C.6 Vignette B: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	5.13	1.14	3.78	2.29
2.	5.55	1.19	3.94	2.17
3.	3.83	1.57	6.54	2.42
4.	3.55	1.69	8.13	2.12
5.	5.23	1.76	5.32	3.09
6.	4.55	1.76	6.72	2.45
7.	4.96	1.41	4.80	2.60
8.	5.55	1.16	4.23	2.58
9.	5.72	1.12	4.23	2.42
10.	3.85	1.53	7.19	2.65
11.	1.75	1.01	10.56	1.55

Table C.7 Vignette B: Results of Factor Analysis

2 factors with eigenvalues greater than 1.00 were found:

	I	II	Communality
8.	.896	-	.841
9.	.626	-	.420
4.	.505	-	.312
10.	-	.686	.526
6.	-	.669	.551
5.	.387	.551	.470
11.	-	.474	.250
3.	-	.345	.132
2.	-	-	.587
1.	-	-	.456
7.	.450	-	.535
Eigenvalues	2.59	1.66	
% Var	23.6	15.1	38.7

(Loadings < 0.25 are replaced by "-")

The two factors explained approximately 39% of the variance.

(C) The customer brought the basket of shopping to the till. S.M. totalled the bill and overcharged the customer.

Explanations:

1. (Pers) S.M. is a dishonest person.
2. (Pers) S.M. was careless, and made a mistake.
3. (Pers) S.M. was new on the job, so was still learning how to use the till.
4. (Soc) S.M. is a thief.
5. (Sgo) S.M. was hoping to pocket the extra money for himself.
6. (Sgo) S.M. was trying to make up for a previous mistake which has left the till short.
7. (Recp) The customer had been rude to S.M., so S.M. overcharged him in revenge.
8. (Rel) S.M. detested this particular customer.
9. (Ext) The till was not working properly and had given the wrong total.
10. (Nrs) S.M. had been on drugs that morning so had made pressed the wrong keys.

Table C.8 Vignette C: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	3.20	1.83	5.86	2.36
2.	5.81	1.28	2.38	1.96
3.	5.60	1.48	2.53	1.74
4.	2.79	2.01	7.24	2.28
5.	3.06	1.93	6.24	1.82
6.	3.47	1.80	5.28	2.06
7.	2.68	1.66	6.24	1.90
8.	2.44	1.54	6.91	1.99
9.	5.28	1.93	3.33	2.60
10.	2.62	1.94	8.58	2.30

Table C.9 Vignette C: Results of Factor Analysis

	I	II	Communality
5.	.894	-	.831
7.	.841	-	.768
4.	.837	-	.710
1.	.794	-	.633
8.	.771	-	.636
6.	.616	-	.436
10.	.591	.308	.445
3.	-	.915	.858
2.	-	.735	.549
9.	.374	.437	.330
Eigenvalues	4.92	1.27	
% Var	49.2	12.7	62.0

(Loadings < 0.25 are replaced by "-")

Two factors emerged, which explained 62% of the variance.

(D) The car was standing empty by the side of the road. J.S. went up to it and slashed the tyres with a knife.

Explanations:

- 1. (Pers) D.S. is a bad, destructive person.
- 2. (Pers) D.S. was jealous because he did not have a car.
- 3. (Recp) D.S. was angry because the owner of this car had run over his pet dog.
- 4. (Soc) D.S. is a vandal.
- 5. (Sgo) D.S. needed some rubber.
- 6. (Sgo) D.S. was hoping to earn some money helping the owner of the car to change the tyre.
- 7. (Recp) The car belonged to someone who had slashed D.S.'s tyre the day before.
- 8. (Rel) The owner of the car was an enemy of D.S.
- 9. (Ext) This was the getaway car of a gang who were robbing a bank.
- 10. (Nrs) D.S. is mentally unbalanced.

Table C.10 Vignette D: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	5.09	1.64	4.28	2.72
2.	3.40	1.73	5.81	2.15
3.	5.00	1.83	4.24	1.97
4.	5.23	1.62	3.37	2.53
5.	1.50	0.91	8.61	2.18
6.	2.09	1.61	7.24	2.15
7.	4.89	1.91	3.93	2.36
8.	4.64	1.59	4.78	2.03
9.	4.51	2.25	5.20	3.22
10.	3.28	2.04	7.04	2.53

Table C.11 Vignette D: Results of Factor Analysis

	I		II		Communality
7.	.988	-			1.084
3.	.781	.292			.716
8.	.496	.363			.446
1.	-	1.075			1.188
4.	-	.512			.357
2.	-	.426			.315
6.	-	-	-		1.021
5.	-	-	-		.147
10.	-	-	-		.421
9.	.400	-	-		.416
Eigenvalues	2.88	1.83			
% Var	28.8	18.3			47.1

(Loadings < 0.25 are replaced by "-")

The two factors with eigenvalues over 1.00 explained approximately 47% of the variance.

Outcome vignettes: The categories Ab, Eff, Mot, Qul, Pat, Soc, Pc, Com, Thd, Ep, Ef, Tsk and Lck were used.

(E) H.D. wrote his Matric exams in November. He achieved a "B" aggregate and was admitted into university.

Explanations:

- 1. (Ab) H.D. is a clever student.
- 2. (Ef) H.D. worked very hard for his matric exams.
- 3. (Mot) H.D. is determined to go to university.
- 4. (Qul) H.D. had a good St. 9 pass.
- 5. (Pat) H.D. is a responsible person and took his studies seriously.
- 6. (Soc) H.D. comes from a wealthy background so had many advantages.
- 7. (Com) H.D. wrote a better paper than most the other students who took the exam.
- 8. (Thd) H.D. cheated on the exam.
- 9. (Ep) H.D. had good teachers.
- 10. (Ef) The exam was very similar to the one set two years previously, and H.D.'s class had practised that exam.
- 11. (Tsk) The exam was particularly easy that year.
- 12. (Lck) H.D. was lucky in spotting the right things to learn.

Table C.12 Vignette E: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	4.83	1.37	3.38	2.00
2.	5.79	1.02	2.26	1.98
3.	5.47	1.33	4.70	2.89
4.	3.23	1.58	8.02	2.79
5.	5.28	1.08	4.11	2.34
6.	3.53	1.86	8.33	3.13
7.	4.85	1.66	5.16	3.15
8.	2.96	2.10	0.61	2.14
9.	4.89	1.32	6.47	1.95
10.	4.34	1.72	7.43	2.08
11.	3.72	1.64	8.53	2.41
12.	4.53	1.54	7.87	2.37

Table C.13 Vignette E: Results of Factor Analysis

	I	II	III	Communality
12.	.877	-	-	.828
11.	.788	-	-	.627
10.	.755	-	-	.615
8.	.488	-	-	.377
2.	-	.902	-	.834
3.	-.313	.531	-	.710
5.	-	.479	-	.266
9.	-	-	-	.599
6.	-	-	-	.181
4.	-	-	.927	.884
1.	-	-	.490	.338
7.	-	-	-	.380
Eigenvalues	2.33	1.85	1.23	
%Var	19.4	15.4	10.2	45.0

(Loadings < 0.25 are replaced by "-")

The three factors with eigenvalues larger than 1.00 together explain 45% of the variance.

(F) K.M. entered a dancing competition and won first prize.

Explanations:	
1. (Ab)	K.M. is a talented dancer.
2. (Eff)	K.M. had practised a great deal before the competition.
3. (Mot)	K.M. wants to eventually enter the national dancing competition.
4. (Oul)	K.M. has had lots of experience dancing in competitions.
5. (Pat)	K.M. is good looking, and has natural grace.
6. (Com)	K.M. was better than the other people who entered the dancing competition.
7. (Thd)	K.M. had been taught some clever steps by a professional dancer.
8. (Ep)	One of the judges was K.M.'s brother-in-law.
9. (Ep)	K.M. had a very talented and attractive partner.
10. (Ef)	The costume that K.M. wore was of superior design.
11. (Tsk)	The standard of dancing in the competition was particularly low that year.
12. (Lck)	K.M. was lucky to win.

Table C.14 Vignette F: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	6.00	1.18	2.30	1.88
2.	6.06	0.82	2.40	1.77
3.	4.40	1.65	6.78	2.88
4.	5.22	1.07	3.92	1.59
5.	3.60	1.42	7.21	2.31
6.	5.92	1.02	3.55	2.20
7.	4.49	1.52	5.87	1.41
8.	2.94	1.48	9.53	2.38
9.	3.43	1.64	8.24	2.21
10.	2.55	1.36	9.82	2.16
11.	3.47	1.63	7.98	2.20
12.	2.72	1.50	9.82	2.27

Table C.15 Vignette F: Results of Factor Analysis

	I	II	Communality
10.	.724	-	.536
5.	.719	-	.615
9.	.605	-	.510
12.	.591	-	.420
11.	.517	-	.385
8.	.446	-	.332
3.	-	.892	.867
2.	-	.610	.539
4.	-	-	.468
7.	.497	-	.548
1.	-	-	.324
6.	-	-	.505
Eigenvalues	3.25	1.37	
%Var	27.1	11.4	38.5

(Loadings < 0.25 are replaced by "-")

The two factors explain approximately 39% of the variance.

(G) T.P. failed to receive promotion at work.

Explanations:	
1. (Ab)	T.P. is a not much good at his work.
2. (Eff)	T.P. is very lazy.
3. (Mot)	T.P. is not interested in the job.
4. (Oul)	T.P. does not have the qualifications necessary for a higher position.
5. (Pat)	T.P. did not have a dynamic personality.
6. (Pc)	T.P. has frequently been absent from work, due to illness.
7. (Com)	There was someone else in the office who deserved promotion more than T.P.
8. (Thd)	T.P. does not let his superiors see how well he is doing his job.
9. (Ep)	One of the bosses did not like T.P.
10. (Ef)	The company was in financial difficulty, so were reluctant to promote anyone at this time.
11. (Tsk)	It is difficult to get promotion in this company.
12. (Lck)	T.P. was unlucky.

Table C.16 Vignette G: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	4.81	1.42	5.49	3.42
2.	4.0	1.81	6.83	3.58
3.	4.68	1.76	5.66	3.13
4.	5.45	1.27	3.66	2.44
5.	4.21	1.47	6.92	2.41
6.	4.23	1.74	6.92	2.61
7.	5.51	1.44	3.55	2.71
8.	3.94	1.57	7.00	2.81
9.	4.19	1.50	7.84	2.75
10.	4.96	1.56	6.00	3.62
11.	4.21	1.50	7.33	3.43
12.	2.48	1.35	0.32	2.60

Table C.17 Vignette G: Results of Factor Analysis

	I	II	III	IV	Communality
2.	.984	-	-	-	.988
3.	.789	-	-	-	.693
1.	.691	.324	-	-	.616
5.	.253	.924	-	-	.573
8.	-	.745	-	-	.574
6.	.379	.530	.265	-	.503
4.	-	.335	.643	-	.573
7.	.255	-	.612	-	.505
12.	-	.257	-.470	-	.295
10.	-.251	-	.716	.733	1.136
11.	-	-	-	.646	.431
9.	.344	-	-	.538	.490
Eigenvalues	3.93	1.28	1.43	1.10	
%Var	32.7	10.7	11.9	9.1	64.5

(Loadings <0.25 are replaced by "-")

The four factors explain approximately 65% of the variance.

(H) L.S. was not selected for the school rugby team.

Explanations:	
1. (Ab)	L.S. is a not a talented rugby player.
2. (Eff)	L.S. did not train regularly.
3. (Mot)	L.S. is not particularly keen on rugby.
4. (Pat)	L.S. is not fit enough to play team rugby.
5. (Pat)	L.S. is not assertive enough.
6. (Pc)	L.S. has missed many of the practices because of family problems.
7. (Com)	Other players were better than L.S.
8. (Thd)	L.S. was not selected because he was very aggressive to other players.
9. (Oul)	L.S. had not had good coaching.
10. (Pc)	L.S. could not afford the required rugby kit.
11. (Tsk)	It is difficult to get into the school team.
12. (Lck)	L.S. was unlucky.

(G) T.P. failed to receive promotion at work.

Explanations:	
1. (Ab)	T.P. is a not much good at his work.
2. (Eff)	T.P. is very lazy.
3. (Mot)	T.P. is not interested in the job.
4. (Quil)	T.P. does not have the qualifications necessary for a higher position.
5. (Pat)	T.P. did not have a dynamic personality.
6. (Pc)	T.P. has frequently been absent from work, due to illness.
7. (Com)	There was someone else in the office who deserved promotion more than T.P.
8. (Thd)	T.P. does not let his superiors see how well he is doing his job.
9. (Ep)	One of the bosses did not like T.P.
10. (Ef)	The company was in financial difficulty, so were reluctant to promote anyone at this time.
11. (Tsk)	It is difficult to get promotion in this company.
12. (Lck)	T.P. was unlucky.

Table C.16 Vignette G: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	4.81	1.42	5.49	3.42
2.	4.0	1.81	6.83	3.58
3.	4.68	1.76	5.66	3.13
4.	5.45	1.27	3.66	2.44
5.	4.21	1.47	6.92	2.41
6.	4.23	1.74	6.92	2.61
7.	5.51	1.44	3.55	2.71
8.	3.94	1.57	7.00	2.81
9.	4.19	1.50	7.84	2.75
10.	4.96	1.56	6.00	3.62
11.	4.21	1.50	7.33	3.43
12.	2.48	1.35	0.32	2.60

Table C.17 Vignette G: Results of Factor Analysis

	I	II	III	IV	Communality
2.	.984	-	-	-	.988
3.	.789	-	-	-	.693
1.	.691	.324	-	-	.616
5.	.253	.924	-	-	.573
8.	.745	.745	-	-	.574
6.	.379	.530	.265	-	.503
4.	-	.335	.643	-	.573
7.	.255	-	.612	-	.505
12.	-	.257	-.470	-	.295
10.	-.251	-	.716	.733	1.136
11.	-	-	-	.646	.431
9.	.344	-	-	.538	.490
Eigenvalues	3.93	1.28	1.43	1.10	
%Var	32.7	10.7	11.9	9.1	64.5

(Loadings < 0.25 are replaced by "-")

The four factors explain approximately 65% of the variance.

(H) L.S. was not selected for the school rugby team.

Explanations:	
1. (Ab)	L.S. is a not a talented rugby player.
2. (Eff)	L.S. did not train regularly.
3. (Mot)	L.S. is not particularly keen on rugby.
4. (Pat)	L.S. is not fit enough to play team rugby.
5. (Pat)	L.S. is not assertive enough.
6. (Pc)	L.S. has missed many of the practices because of family problems.
7. (Com)	Other players were better than L.S.
8. (Thd)	L.S. was not selected because he was very aggressive to other players.
9. (Quil)	L.S. had not had good coaching.
10. (Pc)	L.S. could not afford the required rugby kit.
11. (Tsk)	It is difficult to get into the school team.
12. (Lck)	L.S. was unlucky.

Table C.18 Vignette H: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	5.49	1.25	3.87	2.86
2.	5.40	1.08	4.06	2.21
3.	5.17	1.61	4.89	2.74
4.	5.26	1.22	4.64	2.35
5.	3.98	1.60	7.57	2.29
6.	4.11	1.59	6.83	2.72
7.	5.92	1.08	3.46	2.58
8.	3.15	1.78	8.73	3.05
9.	4.06	1.48	6.87	2.25
10.	3.04	1.88	9.21	3.23
11.	3.98	1.61	6.81	2.89
12.	2.40	1.25	10.65	2.41

Table C.19 Vignette H: Results of Factor Analysis

	I	II	Communality
10.	.829	-	.717
12.	.664	-	.458
5.	.594	-	.392
9.	.530	-	.351
6.	.491	.382	.405
11.	.406	-	.194
3.	-	.758	.586
4.	-	.723	.620
2.	-	.624	.599
8.	-	.562	.326
7.	-	-	.719
1.	-	.481	.507
Eigenvalues	3.12	1.93	
%Var	26.0	16.0	42.0

(Loadings < 0.25 are replaced by "-")
42% of the variance is explained.

Social issue vignettes: Only the versions using the race groups were tested. The categories; Pers, Stat, Abil, Val, Use, Poss, Beha, Att, Nee, Demg, Resp, Intg, Indc, Pow, Disc, Reso, Syst, Opp and Ext

(I) Whites have more opportunity for education than do blacks.

Explanations:

- 1. (Pers) Blacks are less intelligent than whites.
- 2. (Stat) Whites are superior to blacks.
- 3. (Abil) Blacks are less able to cope with schooling.
- 4. (Poss) Blacks cannot afford to send their children to school.
- 5. (Beha) Blacks are always boycotting their schools.
- 6. (Att) Whites see the necessity for education in their careers.
- 7. (Demg) There are fewer whites.
- 8. (Resp) Whites pay more taxes.
- 9. (Intg) Whites need education to keep the economy going and give Blacks jobs.
- 10. (Indc) Blacks are made to believe they are inferior so do not feel they can make use of education.
- 11. (Pow) Blacks have no political voice so cannot demand better education facilities.
- 12. (Disc) Blacks are discriminated against.
- 13. (Reso) The government provides free education for whites, but blacks have to pay.
- 14. (Syst) This is due to apartheid.
- 15. (Opp) Blacks do not have the opportunity to use education.
- 16. (Ext) Black families do not see the importance of sending children to school.

Table C.20 Vignette I: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	1.46	1.13	14.14	3.42
2.	1.50	1.33	14.05	3.47
3.	2.05	1.60	11.46	2.96
4.	5.52	1.81	6.27	3.28
5.	2.57	1.82	10.62	2.99
6.	2.65	1.92	10.00	2.82
7.	2.67	2.00	9.68	2.77
8.	2.63	2.09	9.32	2.67
9.	1.83	1.58	10.35	2.75
10.	4.24	2.01	6.36	2.86
11.	6.07	1.41	3.60	2.68
12.	6.52	1.15	3.40	2.81
13.	6.00	1.45	4.27	2.82
14.	6.33	1.30	3.38	3.63
15.	3.94	2.04	6.56	3.05
16.	1.80	1.42	9.39	2.96

Table C.21 Vignette I: Results of Factor Analysis

	I	II	Communality
1.	.894	-	.882
14.	-.881	-	.841
16.	.840	.258	.872
12.	-.790	-	.717
3.	.748	-	.681
2.	.696	.344	.607
11.	-.681	-	.697
13.	-.605	-	.463
9.	.557	.526	.617
8.	-	.873	.867
6.	.314	.617	.699
7.	.381	.466	.382
10.	-	.464	.232
5.	-	.364	.724
15.	-	-	.391
4.	-	-	.407
Eigenvalues	6.72	1.92	
%Var	42.0	12.0	54.0

(Loadings < 0.25 are replaced by "-")

The two factors explain 54% of the variance.

(J) Blacks are more likely to be made redundant, or to be unemployed than whites.

Explanations:

1. (Pers) Whites are more intelligent than blacks.
2. (Stat) Blacks are inferior to whites.
3. (Abil) Whites are more capable than blacks.
4. (Poss) Blacks are in menial labour, therefore are the first to go.
5. (Beha) Whites do not go on strike.
6. (Att) Blacks do not like to work.
7. (Demg) Most Blacks live in the rural areas where there are less jobs.
8. (Resp) Whites pay more taxes.
9. (Intg) Whites keep the economy going and give Blacks jobs.
10. (Ing) Whites look after each other at the expense of Blacks.
11. (Pow) Whites control the government.
12. (Disc) Blacks are discriminated against.
13. (Reso) The government provides protection for whites jobs, but blacks have none.
14. (Syst) This is due to apartheid.
15. (Opp) Blacks do not have the opportunity to enter many field of work due to job reservation.
16. (Ext) The employers and company bosses are white and are racist.

Table C.22 Vignette J: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	1.50	1.33	13.95	3.67
2.	1.80	1.86	13.65	3.85
3.	1.85	1.59	11.89	3.53
4.	5.41	1.77	6.58	3.53
5.	2.20	1.77	10.21	3.25
6.	1.48	1.32	12.05	3.04
7.	3.64	2.13	8.44	2.59
8.	1.89	1.57	10.23	1.99
9.	1.98	1.50	9.27	2.10
10.	1.67	1.78	7.30	2.32
11.	5.83	1.58	5.00	3.29
12.	6.33	1.30	3.49	3.00
13.	5.65	1.73	4.23	3.14
14.	5.83	1.78	3.91	3.56
15.	5.74	1.63	4.83	2.10
16.	4.91	1.72	7.16	3.25

Table C.23 Vignette I: Results of Factor Analysis

	I	II	Communality
1.	.863	-	.882
6.	.805	-	.803
3.	.792	-	.795
2.	.787	-.466	.860
5.	.710	-	.653
8.	.659	-	.537
9.	.577	-	.538
7.	.499	-	.280
13.	-	.758	.786
11.	-.276	.686	.774
14.	-	.672	.704
15.	-	-	.771
4.	-	-	.310
16.	-	-	.306
12.	-.340	.381	.825
10.	-	-	.197
Eigenvalues	6.84	1.61	
%Var	42.7	10.0	52.7

(Loadings < 0.25 are replaced by "-")

The two factors with eigenvalues of more than 1.00 explain approximately 53% of the variance.

(K) Blacks receive lower pay than whites, even when they are doing similar jobs.

Explanations:	
1. (Pers)	Whites are more responsible and trustworthy than blacks.
2. (Stat)	Whites are superior to blacks.
3. (Abil)	Whites are better at their jobs than blacks.
4. (Abil)	Blacks are less experienced than whites.
5. (Beha)	Whites work harder than blacks.
6. (Val)	Blacks do not have ambition.
7. (Demg)	There are more Blacks than whites.
8. (Nee)	Whites have a higher living standard to upkeep.
9. (Intg)	Whites give Blacks their jobs.
10. (Intg)	Whites try to keep Blacks down.
11. (Pow)	Blacks do not have the vote so cannot influence the situation.
12. (Disc)	Blacks are discriminated against.
13. (Reso)	The government refuses to introduce laws to ensure equal pay for equal work.
14. (Syst)	This is due to apartheid.
15. (Opp)	Blacks do not have the as many jobs to choose from, so have to accept the offered pay.
16. (Ext)	The employers and company bosses exploit Blacks.

Table C.24 Vignette K: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	1.61	1.37	11.97	4.43
2.	1.57	1.46	13.86	4.05
3.	1.80	1.59	11.16	3.90
4.	2.61	1.78	9.57	2.79
5.	1.67	1.43	11.34	3.43
6.	1.63	1.34	12.14	2.93
7.	2.34	1.94	9.26	2.75
8.	2.35	1.95	9.47	2.46
9.	1.83	1.34	9.49	2.64
10.	4.68	1.76	7.04	2.83
11.	5.94	1.54	4.92	3.03
12.	6.38	1.15	3.51	2.90
13.	6.28	1.19	3.77	2.96
14.	6.13	1.19	3.74	3.17
15.	5.74	1.42	5.70	2.40
16.	5.85	1.43	5.44	3.38

Table C.25 Vignette 7: Results of Factor Analysis

	I	II	Communality
3.	.904	-	.967
5.	.887	-	.883
2.	.854	-	.782
1.	.796	-.364	.849
6.	.701	-.374	.847
12.	-.278	.878	.856
14.	-.333	.761	.725
13.	-.389	.741	.812
11.	-	.736	.640
15.	-	.693	.522
16.	-.264	.621	.546
10.	-	.539	.322
7.	-	-	.645
8.	.308	-	.564
9.	-	-	.448
4.	.619	-	.804
Eigenvalues	8.01	2.20	
%Var	50.0	13.8	63.8

(Loadings < 0.25 are replaced by "-")

The two factors explain approximately 64% of the variance.

(L) Whites have more facilities for recreation, e.g. sports, than do blacks.

Explanations:	
1. (Pers)	Blacks are less civilized than Whites.
2. (Stat)	Whites are more important than Blacks.
3. (Abil)	Blacks have less sporting ability than whites.
4. (Poss)	Blacks are poor they have no money to spend on recreation.
5. (Att)	Blacks do not know anything about sports, so are not interested in having facilities.
6. (Beha)	Blacks destroy their facilities.
7. (Demg)	Most Whites live in the urban areas, where there are facilities.
8. (Resp)	It is up to the Whites to maintain the Western tradition of sport.
9. (Intg)	Whites want to prevent competition from Blacks.
10. (Pow)	Whites are in power.
11. (Reso)	The government allocates funds for such things as sporting facilities, and they favour the Whites.
12. (Syst)	This is due to apartheid.
13. (Opp)	Blacks are allowed to experience very few sports.
14. (Ext)	Blacks schools do not provide coaching, so interest in sports is not developed amongst Blacks.

Table C.26 Vignette L: Mean and Standard Deviations of Ratings and Rankings

Expl.	Rating		Rank	
	Mean	St. Dev	Mean	St. Dev
1.	1.41	1.19	11.86	3.46
2.	1.49	1.36	11.69	3.95
3.	1.61	1.54	10.72	2.82
4.	4.04	2.00	6.24	2.62
5.	1.63	1.45	9.89	2.01
6.	1.94	1.72	9.22	3.11
7.	3.78	2.32	5.93	2.08
8.	1.74	1.39	9.66	2.45
9.	3.24	1.85	4.54	2.50
10.	5.91	1.61	3.43	2.62
11.	6.30	1.19	2.72	3.24
12.	6.11	1.34	3.02	3.19
13.	4.38	2.09	5.84	2.45
14.	4.16	2.09	5.95	2.30

Table C.27 Vignette L: Results of Factor Analysis

	I	II	Communality
6.	.853	-	.801
5.	.812	.330	.816
8.	.706	.617	.884
3.	.642	.619	.806
1.	.621	.428	.815
2.	.612	.359	.680
9.	.437	-	.292
7.	.435	-	.215
4.	.420	-	.265
11.	-	-.861	.828
10.	-	-.520	.408
13.	-	-	.587
12.	-.380	-.330	.611
14.	-	-	.286
Eigenvalues	5.62	1.88	
%Var	40.1	13.4	59.2

(Loadings < 0.25 are replaced by "-")

The two factors with eigenvalues over 1.00 explain approximately 59% of the variance.

APPENDIX D

Contents

1. Study 4: Questionnaire booklet. Only one version is provided, as the content of the other version is identical, except that the names of the actor differed to reverse the races for each vignette.
2. Study 4: SAS GLM ANOVA results for the individual action and outcome vignettes.
3. Study 4: SAS GLM MANOVA results for the social issue vignettes together with the weighted room bias and integration scores.
4. Study 5: Questionnaire booklet. Again, only one version is provided. In the other version the names are changed to reverse the gender of the actors.
5. Study 5: SAS GLM ANOVA results for the individual action and outcome vignettes.
6. Study 5: SAS GLM MANOVA results for the social issue vignettes together with the funding bias scores.

PROJECT ON INTERPERSONAL PERCEPTION

This project is part of the research I am doing towards a D.Phil. degree. In this research, I am investigating two different aspects of interpersonal perception. The first concerns how people explain other people's actions and situations; and the second concerns how people see others fitting into society. To do this, I am asking a wide range of Durban residents to take part in this study.

I would be very grateful if you would help me by filling in this questionnaire, which should take no more than half an hour. Please note that there are no right or wrong answers, it is not a test of any sort, but a survey of opinions. Your responses are completely anonymous and will be put together with several hundred others. So there will be no way that your particular replies can be picked out.

Once I have finished the study, the thesis will be available for inspection through the University of Natal library. Anyone will be welcome to read it.

To keep the questionnaire anonymous, I am not asking for names (unless you wish to give it), but I would be grateful if you would fill in the other personal details.

THANK YOU FOR YOUR KIND ASSISTANCE.

G. Finchilescu

G Finchilescu

Sex

Age

Occupation

Highest level of schooling

Residential suburb

INSTRUCTIONS FOR EXPLANATION STUDY

In the following pages, there are 12 situations presented. After each, there are four or five explanations which have been provided to explain the situation or event. I would like you to consider each explanation independently, and indicate the extent to which (you think) that action or situation was influenced by the factor in the statement. Another way of putting this is, to what extent do you think that the reason given explains the situation or event? Please indicate your opinion by marking a cross in the appropriate square of the scale. The seven-point scale ranges from 1 (Not at all) to 7 (Very much). You should not feel that you must use only the ends of the scale, but should express the strength of your feeling by choosing any of the numbers between 1 and 7.

For example, if the situation or event to be explained is:

JACK KICKED THE DOG

and the following statements are given as explanations

a. The dog was trying to bite Jack.

Not at all

1	2	3	4	5	6	7
					X	

Very much

b. Jack does not like dogs.

Not at all

1	2	3	4	5	6	7
		X				

Very much

c. Jack had never seen this dog before.

Not at all

1	2	3	4	5	6	7
	X					

Very much

You may feel that the first (a) is an important reason for Jack's actions. You would then put a cross in square 5, 6 or 7, depending on how strongly you felt this.

On the other hand, you may think that the fact that Jack does not like dogs (b) is a fairly weak reason for his actions. Then you would put a cross in square 3 or 4.

However, in the case of statement (c), you may think this is hardly likely to be a reason for Jack's actions, so you would put a cross in square 1 or 2.

Please note, the explanations are independent, so you should not feel that if you have put a 5 or 6 for one reason, that you cannot put another 6 for another reason.

1. SIPHO DLAMINI HELPED HIS NEIGHBOUR TO HARVEST HIS CROP OF MEALIES.

a. Siphho did not want his neighbour to lose his crop.

Not at all

1	2	3	4	5	6	7

Very much

b. Siphho was going to be paid for his help.

Not at all

1	2	3	4	5	6	7

Very much

c. The neighbour had helped Siphho harvest his own crop.

Not at all

1	2	3	4	5	6	7

Very much

d. Siphho is a good, helpful person.

Not at all

1	2	3	4	5	6	7

Very much

2. ALAN JAMES FAILED TO RECEIVE PROMOTION AT WORK.

a. Alan is not much good at his work.

Not at all

1	2	3	4	5	6	7

Very much

b. The company was in financial difficulty, so the bosses were reluctant to promote anyone at this time.

Not at all

1	2	3	4	5	6	7

Very much

c. Alan is very lazy.

Not at all

1	2	3	4	5	6	7

Very much

d. Alan does not have the qualifications necessary for a higher position.

Not at all

1	2	3	4	5	6	7

Very much

3. ZAMINI MULONGO ENTERED A DANCING COMPETITION AND WON FIRST PRIZE.

a. Zamini is a talented dancer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Zamini practised a great deal before the competition.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. One of the judges was Zamini's brother-in-law.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Zamini had been taught some clever steps by a professional dancer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

4. THE CUSTOMER BROUGHT THE BASKET OF SHOPPING TO THE TILL. STEVEN NASH TOTALLED THE BILL AND OVER-CHARGED THE CUSTOMER.

a. Steven was careless and made a mistake.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. The till was not working properly and had given the wrong total.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Steven was hoping to pocket the extra money for himself.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Steven detested this particular customer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

5. JOHN BENNETT INVITED THE STRANGER INTO THE HOUSE TO SHELTER FROM THE STORM.

a. The stranger was a friend of John's next door neighbour.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. John is a kind-hearted person.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. John was lonely and wanted company.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. John did not want the stranger to get wet and ill.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

6. THEMBA GUMEDE WAS NOT SELECTED FOR THE SCHOOL RUGBY TEAM.

a. Themba is not a talented player.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Themba has missed many of the practices because of family problems.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Themba did not train regularly.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. It is difficult to get into the school team.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

7. THE CAR WAS STANDING EMPTY BY THE SIDE OF THE ROAD. MSEBENZI
SOSIBO WENT UP TO IT AND SLASHED THE TYRES WITH A KNIFE.

a. The car belonged to someone who had slashed msebenzi's tyre the
day before.

Not at all

--	--	--	--	--	--	--	--

 Very much

b. Msebenzi was hoping to earn some money helping the owner to
change the tyre.

Not at all

--	--	--	--	--	--	--	--

 Very much

c. Msebenzi is a bad, destructive person.

Not at all

--	--	--	--	--	--	--	--

 Very much

d. This was the getaway car of a gang who were robbing a bank.

Not at all

--	--	--	--	--	--	--	--

 Very much

8. PAUL DICKSON WROTE HIS MATRIC EXAMS IN NOVEMBER. HE ACHIEVED A
"B" AGGREGATE AND WAS ADMITTED INTO UNIVERSITY.

a. Paul is a clever student.

Not at all

--	--	--	--	--	--	--	--

 Very much

b. Paul had good teachers.

Not at all

--	--	--	--	--	--	--	--

 Very much

c. Paul was determined to go to university.

Not at all

--	--	--	--	--	--	--	--

 Very much

d. The exam was particularly easy that year.

Not at all

--	--	--	--	--	--	--	--

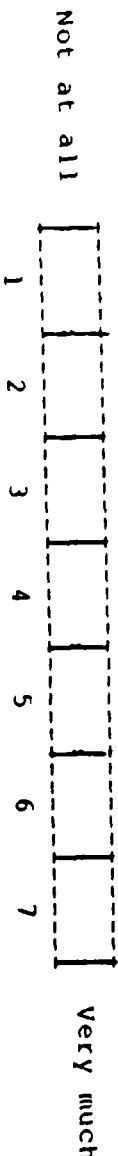
 Very much

9. **BLACKS ARE MORE LIKELY TO BE MADE REDUNDANT, OR TO BE UNEMPLOYED THAN WHITES.**

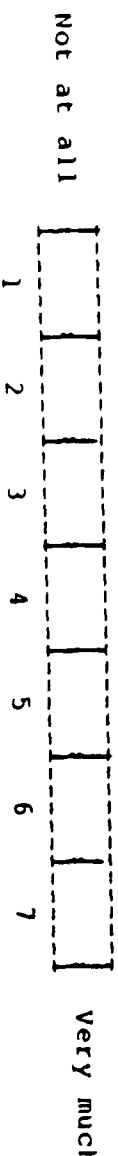
a. Most blacks live in the rural areas.



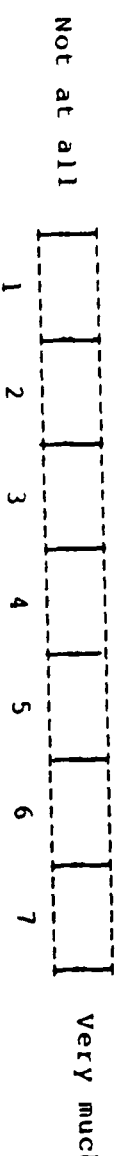
b. Blacks do not have the opportunity to enter many fields of work due to job reservation.



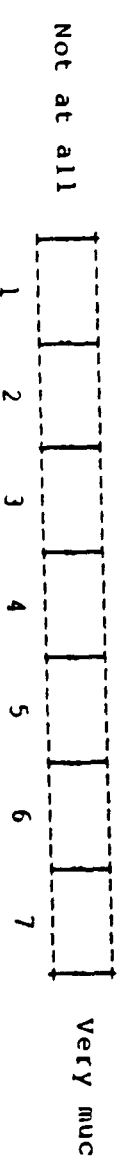
c. Whites are more capable than blacks.



d. Blacks do not like to work.



e. Whites control the government.

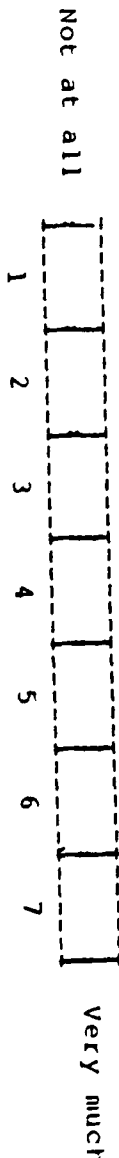


10. **WHITES HAVE MORE OPPORTUNITES FOR EDUCATION THAN DO BLACKS.**

a. Blacks are less intelligent than whites.



b. The government provides free education for whites.



c. There are fewer whites.



d. Blacks do not have the opportunity to use education.



e. Whites need education to keep the economy going and give blacks jobs.



11. BLACKS RECEIVE LOWER PAY THAN WHITES, EVEN WHEN THEY ARE DOING SIMILAR JOBS.

a. The government refuses to introduce laws to ensure equal pay for equal work.

Not at all  Very much

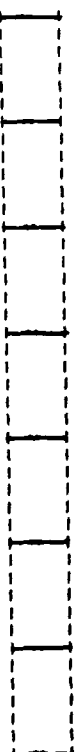
1 2 3 4 5 6 7

b. Whites are better at their jobs than blacks.

Not at all  Very much

1 2 3 4 5 6 7

c. Blacks do not have as many jobs to choose from, so have to accept the offered pay.

Not at all  Very much

1 2 3 4 5 6 7

d. Blacks do not have ambition.

Not at all  Very much

1 2 3 4 5 6 7

e. There are more blacks than whites.

Not at all  Very much

1 2 3 4 5 6 7

12. WHITES HAVE MORE FACILITIES FOR RECREATION, E.G. SPORTS THAN DO BLACKS.

a. The government allocates funds for such things as sporting facilities, and they favour the whites.

Not at all  Very much

1 2 3 4 5 6 7

b. Most Whites live in the urban areas where there are facilities.

Not at all  Very much

1 2 3 4 5 6 7

c. Blacks have less sporting ability than whites.

Not at all  Very much

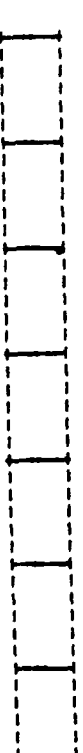
1 2 3 4 5 6 7

d. Blacks do not know anything about sports, so are not interested in having facilities.

Not at all  Very much

1 2 3 4 5 6 7

e. Black schools do not provide coaching, so interest in sports is not developed amongst blacks.

Not at all  Very much

1 2 3 4 5 6 7

ROOM ALLOCATION TASK

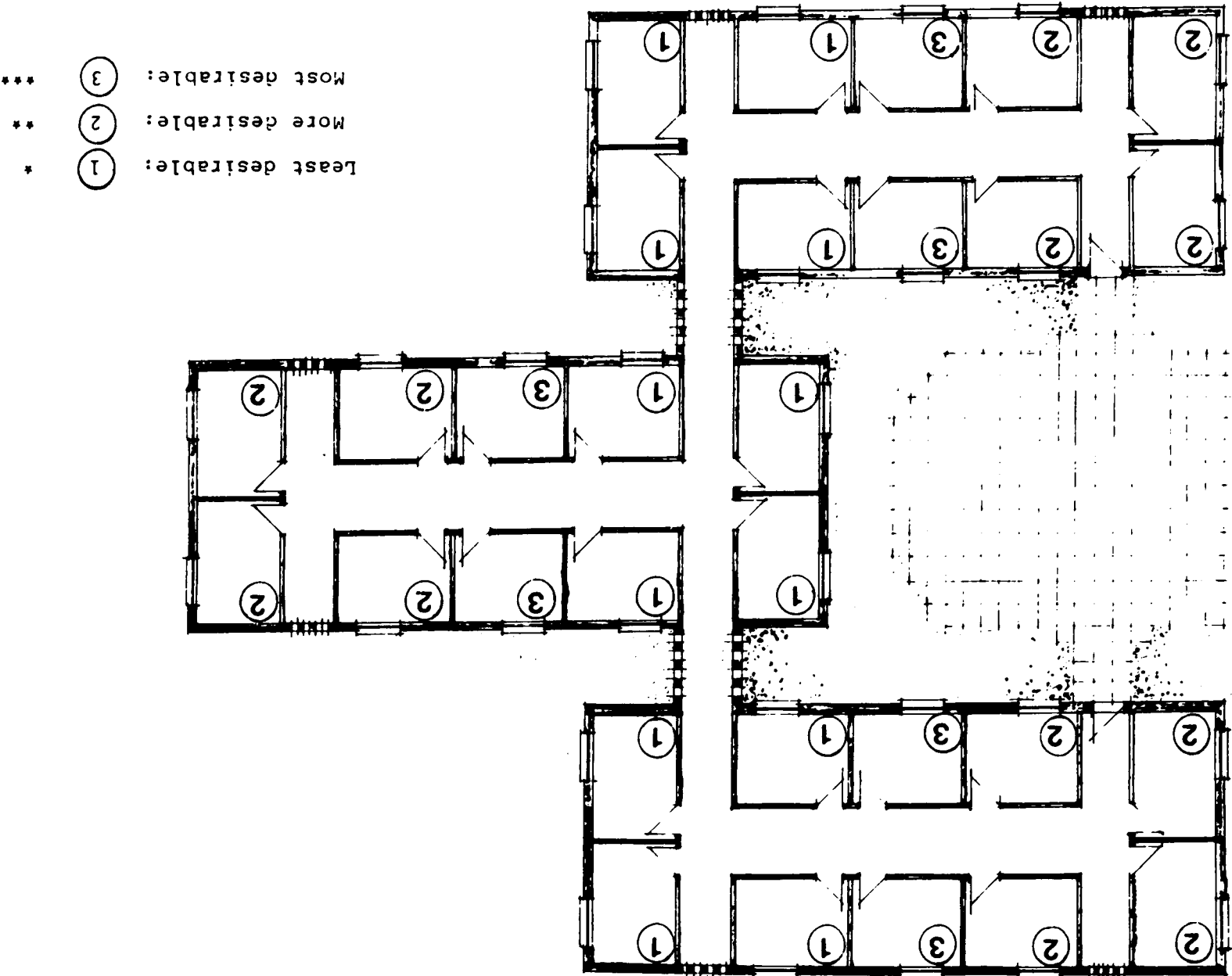
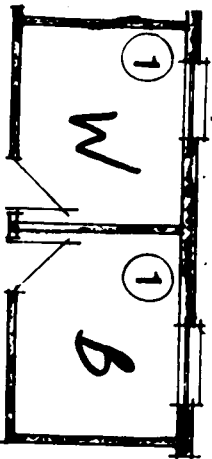
Recently there has been much talk about the racial integration of student residences on some university campuses. On the following page is a sketch plan of the room layout of one floor of a proposed residence block. It is known that certain rooms are more desirable than others in terms of their access to facilities, noise level, lighting, etc. Hence, they have been graded as follows:

- Least desirable: ① *
- More desirable: ② **
- Most desirable: ③ ***

Assume that this residence is going to be made available to students of the University of Natal next year. The shortage of accommodation is such that there are more than enough white and black students applying for places to fill two such residences. So many students will have to be turned away. This is rather sad, since it is known that living in a residence is to the advantage of the student - it is in general cheaper than other board, it is more convenient in terms of transport, and makes studies easier since one is closer to lectures and libraries.

35 black and 35 white students have applied for these rooms. All 70 students meet the criteria for entrance. Imagine that you have been given the task of assigning students to rooms. In the case of each room, please mark off either W (white) or B (black) on the diagram according to the race of the student to whom you would allocate the room.

Example. Indicate your decision (W or B) as follows:



SOCIAL LADDER

At the side of the page is a picture of a ladder. Assume the ladder represents life circumstances in South Africa. Imagine that the top represents the best possible life that you could hope for in this country, while the bottom represents your idea of the worst possible life in this country.

I would like you to consider the position of blacks and whites in relation to this ladder. When thinking about these social groups, I would like you to try and think about members of the group of whom you have a clear mental image - for example your friends, community, neighbours, co-workers, acquaintances, people you frequently see. This generally makes the task easier.

10	<u>At the present time</u> , where do you think these groups stand?	
9	(i) Blacks	Step
	(ii) Whites	Step
8	Where do you think these groups stood <u>5 years ago</u> ?	
7	(i) Blacks	Step
	(ii) Whites	Step
6	<u>Where do you think these groups will stand in 5 years time?</u>	
5	(i) Blacks	Step
	(ii) Whites	Step
4	Where do you think these groups <u>should</u> stand?	
3	(i) Blacks	Step
	(ii) Whites	Step
2		
1		
0		

STUDY 4: RACE STUDY
ACTION VIGNETTES

Dependent Variable: Vignette A

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	499.2742030	33.2849469	2.36	0.0029
Error	402	5670.7449357	14.1063307		
Corrected Total	417	6170.0191388			
R-Square					
		C.V.	Root MSE	Mean	
		0.080919	76.95789	3.755840	4.88038278

Source	DF	Type III SS	Mean Square	F Value	Pr > F
T	1	84.25060699	84.25060699	5.97	0.0150
B	1	12.22321432	12.22321432	0.87	0.3525
T*SB	1	48.96609518	48.96609518	3.47	0.0632
LEG	1	21.40136109	21.40136109	1.52	0.2188
T*LEG	1	10.89354921	10.89354921	0.77	0.3800
B*LEG	1	11.90685727	11.90685727	0.84	0.3588
T*SB*LEG	1	7.12425085	7.12425085	0.51	0.4777
AB	1	9.27066817	9.27066817	0.66	0.4180
T*RAA	1	0.07160784	0.07160784	0.01	0.9432
B*RAA	1	9.41259852	9.41259852	0.67	0.4145
T*SB*RAA	1	29.90022884	29.90022884	2.12	0.1462
LEG*RAA	1	10.72723014	10.72723014	0.76	0.3837
T*LEG*RAA	1	15.82808231	15.82808231	1.12	0.2901
B*LEG*RAA	1	0.07336780	0.07336780	0.01	0.9425
T*SB*LEG*RAA	1	7.98842316	7.98842316	0.57	0.4522

Dependent Variable: Vignette B

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	1292.130355	86.142024	5.75	0.0001
Error	402	6025.257205	14.988202		
Corrected Total	417	7317.387560			
R-Square					
		C.V.	Root MSE	Mean	
		0.176584	197.3500	3.871460	1.96172249

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	395.4459376	395.4459376	26.38	0.0001
SB	1	0.0248478	0.0248478	0.00	0.9675
ST*SB	1	2.9391523	2.9391523	0.20	0.6581
LEG	1	6.0492645	6.0492645	0.40	0.5256
ST*LEG	1	0.5767643	0.5767643	0.04	0.8446
SB*LEG	1	65.7762030	65.7762030	4.39	0.0368
ST*SB*LEG	1	9.2247869	9.2247869	0.62	0.4332
RAA	1	1.0314969	1.0314969	0.07	0.7932
ST*RAA	1	33.6264324	33.6264324	2.24	0.1350
SB*RAA	1	13.0016522	13.0016522	0.87	0.3522
ST*SB*RAA	1	11.3853420	11.3853420	0.76	0.3840
LEG*RAA	1	7.7874722	7.7874722	0.52	0.4714
ST*LEG*RAA	1	0.2100163	0.2100163	0.01	0.9058
SB*LEG*RAA	1	0.0040234	0.0040234	0.00	0.9869
ST*SB*LEG*RAA	1	57.0292501	57.0292501	3.80	0.0518

Dependent Variable: Vignette C

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	534.0464681	35.6030979	2.27	0.0043
Error	401	6277.3108461	15.6541418		
Corrected Total	416	6811.3573141			
R-Square					
		C.V.	Root MSE	BAD Mean	
		0.078405	122.5761	3.956532	3.22781775

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	10.39574597	10.39574597	0.66	0.4156
SB	1	9.39346681	9.39346681	0.60	0.4390
ST*SB	1	16.95164644	16.95164644	1.08	0.2987
LEG	1	4.15272528	4.15272528	0.27	0.6068
ST*LEG	1	40.84429103	40.84429103	2.61	0.1070
SB*LEG	1	73.97177500	73.97177500	4.73	0.0303
ST*SB*LEG	1	0.31517881	0.31517881	0.02	0.8872
RAD	1	23.48166855	23.48166855	1.50	0.2214
ST*RAD	1	2.97153350	2.97153350	0.19	0.6633
SB*RAD	1	55.13519465	55.13519465	3.52	0.0613
ST*SB*RAD	1	20.97545141	20.97545141	1.34	0.2477
LEG*RAD	1	0.75107437	0.75107437	0.05	0.8267
ST*LEG*RAD	1	32.44364547	32.44364547	2.07	0.1508
SB*LEG*RAD	1	9.54155608	9.54155608	0.61	0.4354
ST*SB*LEG*RAD	1	0.23529783	0.23529783	0.02	0.9025

Dependent Variable: Vignette D

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	628.5724653	41.9048310	2.18	0.0066
Error	401	7718.3531942	19.2477636		
Corrected Total	416	8346.9256595			
R-Square	C.V.	Root MSE	BAC Mean		
	0.075306	-303.8993	4.387227	-1.4436451	
Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	129.4763408	129.4763408	6.73	0.0098
SB	1	18.1466948	18.1466948	0.94	0.3321
ST*SB	1	4.7485072	4.7485072	0.25	0.6197
LEG	1	49.9163074	49.9163074	2.59	0.1081
ST*LEG	1	14.5091579	14.5091579	0.75	0.3858
SB*LEG	1	2.2755619	2.2755619	0.12	0.7311
ST*SB*LEG	1	3.5453965	3.5453965	0.18	0.6680
RAC	1	77.5654005	77.5654005	4.03	0.0454
ST*RAC	1	21.6000160	21.6000160	1.12	0.2901
SB*RAC	1	14.8209152	14.8209152	0.77	0.3807
ST*SB*RAC	1	31.1875626	31.1875626	1.62	0.2038
LEG*RAC	1	148.8557072	148.8557072	7.73	0.0057
ST*LEG*RAC	1	12.7169612	12.7169612	0.66	0.4168
SB*LEG*RAC	1	187.4688340	187.4688340	9.74	0.0019
ST*SB*LEG*RAC	1	71.2568328	71.2568328	3.70	0.0551

Differences in Scores Allocated for Black and White Actors in the Action Vignettes

Condition	Vignette A Directionp	Vignette B Direction	p	Vignette C Direction	p	Vignette D Direction	p	
White								
Legitimate-Stable	W>B	0.8007	W<B	0.5770	W>B	0.5229	W>B	0.4864
Legitimate-Unstable	W<B	0.5090	W>B	0.0396	W>B	0.0989	W>B	0.1896
Illegitimate-Stable	W<B	0.6067	W>B	0.7656	W=B	0.9748	W>B	0.7638
Illegitimate-Unstable	W<B	0.4818	W>B	0.8527	W=B	0.9599	W<B	0.0371
Black								
Legitimate-Stable	W<B	0.0746	W>B	0.8285	W<B	0.1871	W<B	0.8715
Legitimate-Unstable	W>B	0.9567	W<B	0.5623	W>B	0.5028	W>B	0.0083
Illegitimate-Stable	W<B	0.7409	W<B	0.0003	W<B	0.9202	W>B	0.0511
Illegitimate-Unstable	W>B	0.0725	W<B	0.7920	W>B	0.0032	W<B	0.0140

STUDY 4: OUTCOME VIGNETTES

Dependent Variable: Vignette E

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	191.1604904	12.7440327	1.16	0.2982
Error	401	4393.7507805	10.9569845		
Corrected Total	416	4584.9112710			
R-Square	C.V.	Root MSE	BOB Mean		
	0.041693	104.4119	3.310134	3.17026379	
Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	4.40993883	4.40993883	0.40	0.5262
SB	1	0.15377740	0.15377740	0.01	0.9058
ST*SB	1	3.23886622	3.23886622	0.30	0.5870
LEG	1	5.63337284	5.63337284	0.51	0.4738
ST*LEG	1	6.41738875	6.41738875	0.59	0.4445
SB*LEG	1	21.66203017	21.66203017	1.98	0.1605
ST*SB*LEG	1	0.18911246	0.18911246	0.02	0.8955
ROB	1	0.24825119	0.24825119	0.02	0.8804
ST*ROB	1	3.14756295	3.14756295	0.29	0.5923
SB*ROB	1	1.21012166	1.21012166	0.11	0.7398
ST*SB*ROB	1	0.04177356	0.04177356	0.00	0.9508
LEG*ROB	1	3.24168692	3.24168692	0.30	0.5868
ST*LEG*ROB	1	16.29555470	16.29555470	1.49	0.2234
SB*LEG*ROB	1	6.82901613	6.82901613	0.62	0.4303
ST*SB*LEG*ROB	1	6.71751838	6.71751838	0.61	0.4341

Dependent Variable: Vignette F

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	417.2783223	27.8185548	2.66	0.0007
Error	402	4198.7527782	10.4446587		
Corrected Total	417	4616.0311005			
R-Square	C.V.	Root MSE	BOA Mean		
	0.090398	91.46247	3.231820	3.53349282	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	6.67696243	6.67696243	0.64	0.4244
SB	1	45.17515956	45.17515956	4.33	0.0382
ST*SB	1	0.53577201	0.53577201	0.05	0.8209
LEG	1	2.70703990	2.70703990	0.26	0.6110
ST*LEG	1	45.25919343	45.25919343	4.33	0.0380
SB*LEG	1	31.94188674	31.94188674	3.06	0.0811
ST*SB*LEG	1	2.89088016	2.89088016	0.28	0.5991
ROA	1	1.10164560	1.10164560	0.11	0.7455
ST*ROA	1	0.20751156	0.20751156	0.02	0.8880
SB*ROA	1	34.77420377	34.77420377	3.33	0.0688
ST*SB*ROA	1	54.97249786	54.97249786	5.26	0.0223
LEG*ROA	1	0.56004499	0.56004499	0.05	0.8170
ST*LEG*ROA	1	16.37081583	16.37081583	1.57	0.2113
SB*LEG*ROA	1	10.13029697	10.13029697	0.97	0.3253
ST*SB*LEG*ROA	1	4.76826975	4.76826975	0.46	0.4996

Dependent Variable: Vignette G					
Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	341.0659211	22.7377281	2.05	0.0116
Error	402	4461.3479545	11.0978805		
Corrected Total	417	4802.4138756			
R-Square	C.V.		Root MSE	BOC Mean	
	0.071020	1096.459	3.331348	0.30382775	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	12.16923858	12.16923858	1.10	0.2957
SB	1	9.73491887	9.73491887	0.88	0.3495
ST*SB	1	0.51097389	0.51097389	0.05	0.8302
LEG	1	7.32828733	7.32828733	0.66	0.4169
ST*LEG	1	2.59941189	2.59941189	0.23	0.6287
SB*LEG	1	15.96759168	15.96759168	1.44	0.2310
ST*SB*LEG	1	12.77577013	12.77577013	1.15	0.2839
ROC	1	26.88188103	26.88188103	2.42	0.1204
ST*ROC	1	0.46272333	0.46272333	0.04	0.8383
SB*ROC	1	0.18738457	0.18738457	0.02	0.8967
ST*SB*ROC	1	1.32699660	1.32699660	0.12	0.7297
LEG*ROC	1	8.17095326	8.17095326	0.74	0.3914
ST*LEG*ROC	1	2.22956344	2.22956344	0.20	0.6542
SB*LEG*ROC	1	0.06070629	0.06070629	0.01	0.9411
ST*SB*LEG*ROC	1	30.98680782	30.98680782	2.79	0.0955

Dependent Variable: Vignette H					
Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	15	390.6541315	26.0436088	2.36	0.0029
Error	399	4399.6832179	11.0267750		
Corrected Total	414	4790.3373494			
R-Square	C.V.		Root MSE	BOD Mean	
	0.081550	-246.0845	3.320659	-1.3493976	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	19.11174726	19.11174726	1.73	0.1888
SB	1	20.09403717	20.09403717	1.82	0.1778
ST*SB	1	18.47940577	18.47940577	1.68	0.1962
LEG	1	5.52470606	5.52470606	0.50	0.4795
ST*LEG	1	0.00004333	0.00004333	0.00	0.9984
SB*LEG	1	2.75462355	2.75462355	0.25	0.6175
ST*SB*LEG	1	18.43462269	18.43462269	1.67	0.1968
ROD	1	57.05520644	57.05520644	5.17	0.0235
ST*ROD	1	6.59294317	6.59294317	0.60	0.4398
SB*ROD	1	40.07435764	40.07435764	3.63	0.0573
ST*SB*ROD	1	0.00488176	0.00488176	0.00	0.9832
LEG*ROD	1	1.08475572	1.08475572	0.10	0.7540
ST*LEG*ROD	1	2.92404681	2.92404681	0.27	0.6069
SB*LEG*ROD	1	41.14158803	41.14158803	3.73	0.0541
ST*SB*LEG*ROD	1	0.38361832	0.38361832	0.03	0.8521

Differences in Scores Allocated for Black and White Actors in the Outcome Vignettes

Condition	Vignette E Directionp	Vignette F Direction	p	Vignette G Direction	p	Vignette H Direction	p
White							
Legitimate-Stable	W>B 0.6560	W>B 0.7078	W>B 0.6129	W<B 0.0397			
Legitimate-Unstable	W>B 0.7777	W>B 0.6064	W>B 0.1053	W>B 0.5191			
Illegitimate-Stable	W<B 0.2453	W<B 0.1937	W>B 0.1994	W<B 0.0504			
Illegitimate-Unstable	W<B 0.0305	W<B 0.4775	W<B 0.2288	W<B 0.0012			
Black							
Legitimate-Stable	W>B 0.6124	W>B 0.1949	W>B 0.3838	W<B 0.1074			
Legitimate-Unstable	W<B 0.6662	W<B 0.1654	W>B 0.9025	W>B 0.7125			
Illegitimate-Stable	W<B 0.9228	W>B 0.0132	W<B 0.3488	W<B 0.2370			
Illegitimate-Unstable	W>B 0.1089	W<B 0.1702	W>B 0.0311	W<B 0.4080			

STUDY 4: SOCIAL ISSUE AND DISCRIMINATION TASK RESULTS

Dependent Variable: Vignette I

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	1278.807451	182.686779	7.88	0.0001
Error	377	8738.636705	23.179408		
Corrected Total	384	10017.444156			
R-Square	C.V.	Root MSE	Mean		
0.127658	-145.7219	4.814500	-3.3038961		
Source	DF	Type III SS	Mean Square	F Value	Pr > F
T	1	607.1241131	607.1241131	26.19	0.0001
B	1	0.2667912	0.2667912	0.01	0.9146
T*SB	1	0.0915293	0.0915293	0.00	0.9499
G	1	299.3522440	299.3522440	12.91	0.0004
T*LG	1	195.0391501	195.0391501	8.41	0.0039
B*LG	1	3.1864291	3.1864291	0.14	0.7110
T*SB*LG	1	12.1319939	12.1319939	0.52	0.4698

Dependent Variable: Vignette J

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	1784.274987	254.896427	12.89	0.0001
Error	377	7453.714623	19.771126		
Corrected Total	384	9237.989610			
R-Square		C.V.	Root MSE	Mean	
0.193145		-88.83717	4.446473	-5.0051948	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
T	1	1200.917119	1200.917119	60.74	0.0001
T*SB	1	26.197982	26.197982	1.33	0.2504
B	1	35.994618	35.994618	1.82	0.1781
T*LG	1	156.017289	156.017289	7.89	0.0052
B*LG	1	387.033592	387.033592	19.58	0.0001
T*SB*LG	1	6.983671	6.983671	0.35	0.5526
T	1	46.181670	46.181670	2.34	0.1273

Dependent Variable: Vignette K

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	2020.205035	288.600719	16.40	0.0001
Error	377	6632.356004	17.592456		
Corrected Total	384	8652.561039			

R-Square		C.V.	Root MSE	Mean	
0.233481		-83.32402	4.194336	-5.0337662	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	1050.535143	1050.535143	59.72	0.0001
SB	1	18.072638	18.072638	1.03	0.3114
ST*SB	1	0.646906	0.646906	0.04	0.8480
LG	1	352.979273	352.979273	20.06	0.0001
ST*LG	1	357.547399	357.547399	20.32	0.0001
SB*LG	1	74.200790	74.200790	4.22	0.0407
ST*SB*LG	1	27.131273	27.131273	1.54	0.2151

Dependent Variable: Vignette L

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	427.6410872	61.0915839	4.50	0.0001
Error	373	5064.1751858	13.5768772		
Corrected Total	380	5491.8162730			

R-Square		C.V.	Root MSE	Mean	
0.077869		-85.96838	3.684681	-4.2860892	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ST	1	10.0775807	10.0775807	0.74	0.3895
SB	1	15.7738342	15.7738342	1.16	0.2818
ST*SB	1	6.7675604	6.7675604	0.50	0.4806
LG	1	131.4797973	131.4797973	9.68	0.0020
ST*LG	1	25.1688929	25.1688929	1.85	0.1742
SB*LG	1	55.9442399	55.9442399	4.12	0.0431
ST*SB*LG	1	33.3818573	33.3818573	2.46	0.1177

Dependent Variable: Integration Score

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	679.8631235	97.1233034	3.82	0.0005
Error	377	9580.9264868	25.4135981		
Corrected Total	384	10260.7896104			
R-Square					
		C.V.	Root MSE	Mean	
		0.066258	46.70015	5.041190 10.7948052	
Source	DF	Type III SS	Mean Square	F Value	Pr > F
T	1	0.2551112	0.2551112	0.01	0.9202
B	1	113.3475445	113.3475445	4.46	0.0354
T*SB	1	0.1688488	0.1688488	0.01	0.9351
G	1	402.3468715	402.3468715	15.83	0.0001
T*LG	1	76.8118573	76.8118573	3.02	0.0829
B*LG	1	24.1630616	24.1630616	0.95	0.3301
T*SB*LG	1	62.7622021	62.7622021	2.47	0.1169

Dependent Variable: Weighted Room Bias

Source	DF	SUM of Squares	Mean Square	F Value	Pr > F
Model	7	0.71727222	0.10246746	3.86	0.0005
Error	377	10.01300863	0.02655970		
Corrected Total	384	10.73028086			
R-Square					
		C.V.	Root MSE	Mean	
		0.066846	412.5994	0.162971 0.03949872	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
T	1	0.05479862	0.05479862	2.06	0.1517
B	1	0.02778232	0.02778232	1.05	0.3071
T*SB	1	0.01744126	0.01744126	0.66	0.4182
G	1	0.30896286	0.30896286	11.63	0.0007
T*LG	1	0.19771795	0.19771795	7.44	0.0067
B*LG	1	0.03439544	0.03439544	1.30	0.2558
T*SB*LG	1	0.08175291	0.08175291	3.08	0.0802

STUDY 4: MANOVA RESULTS

Manova Test Criteria and Exact F Statistics for the Hypothesis of no Overall ST Effect
H = Type III SS&CP Matrix for ST E = Error SS&CP Matrix
S=1 M=2 N=183

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.77097967	18.2191	6	368	0.0001
Pillai's Trace	0.22902033	18.2191	6	368	0.0001
Hotelling-Lawley Trace	0.29705107	18.2191	6	368	0.0001
Roy's Greatest Root	0.29705107	18.2191	6	368	0.0001

Manova Test Criteria and Exact F Statistics for the Hypothesis of no Overall SB Effect
H = Type III SS&CP Matrix for SB E = Error SS&CP Matrix
S=1 M=2 N=183

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.97976182	1.2669	6	368	0.2718
Pillai's Trace	0.02023818	1.2669	6	368	0.2718
Hotelling-Lawley Trace	0.02065622	1.2669	6	368	0.2718
Roy's Greatest Root	0.02065622	1.2669	6	368	0.2718

Manova Test Criteria and Exact F Statistics for the Hypothesis of no Overall ST*SB Effect
H = Type III SS&CP Matrix for ST*SB E = Error SS&CP Matrix
S=1 M=2 N=183

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98355368	1.0256	6	368	0.4082
Pillai's Trace	0.01644632	1.0256	6	368	0.4082
Hotelling-Lawley Trace	0.01672133	1.0256	6	368	0.4082
Roy's Greatest Root	0.01672133	1.0256	6	368	0.4082

Manova Test Criteria and Exact F Statistics for the Hypothesis of no Overall LG Effect
H = Type III SS&CP Matrix for LG E = Error SS&CP Matrix
S=1 M=2 N=183

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.90833704	6.1893	6	368	0.0001
Pillai's Trace	0.09166296	6.1893	6	368	0.0001
Hotelling-Lawley Trace	0.10091293	6.1893	6	368	0.0001
Roy's Greatest Root	0.10091293	6.1893	6	368	0.0001

PROJECT ON INTERPERSONAL PERCEPTION

This project is part of the research I am doing towards a D.Phil. degree. In this research, I am investigating two different aspects of interpersonal perception. The first concerns how people explain other people's actions and situations; and the second concerns how people see others fitting into society. To do this, I am asking a wide range of Durban residents to take part in this study.

I would be very grateful if you would help me by filling in this questionnaire, which should take no more than half an hour. Please note that there are no right or wrong answers, it is not a test of any sort, but a survey of opinions. Your responses are completely anonymous and will be put together with several hundred others. So there will be no way that your particular replies can be picked out.

Once I have finished the study, the thesis will be available for inspection through the University of Natal library. Anyone will be welcome to read it.

To keep the questionnaire anonymous, I am not asking for names (unless you wish to give it), but I would be grateful if you would fill in the other personal details.

THANK YOU FOR YOUR KIND ASSISTANCE.

G Finchilescu

G Finchilescu

Sex

Age

Occupation

Highest level of schooling

Residential suburb

INSTRUCTIONS FOR EXPLANATION STUDY

In the following pages, there are 12 situations presented. After each, there are four or five explanations which have been provided to explain the situation or event. I would like you to consider each explanation independently, and indicate the extent to which (you think) that action or situation was influenced by the factor in the statement. Another way of putting this is, to what extent do you think that the reason given explains this is, to what or event? Please indicate your opinion by marking a cross in the appropriate square of the scale. The seven-point scale ranges from 1 (Not at all) to 7 (very much). You should not feel that you must use only the ends of the scale, but should express the strength of your feeling by choosing any of the numbers between 1 and 7.

For example, if the situation or event to be explained is:

JACK KICKED THE DOG

and the following statements are given as explanations

a. The dog was trying to bite Jack.

Not at all

--	--	--	--	--	--	--	--

 Very much

b. Jack does not like dogs.

Not at all

--	--	--	--	--	--	--	--

 Very much

c. Jack had never seen this dog before.

Not at all

--	--	--	--	--	--	--	--

 Very much

You may feel that the first (a) is an important reason for Jack's actions. You would then put a cross in square 5, 6 or 7, depending on how strongly you felt this.

On the other hand, you may think that the fact that Jack does not like dogs (b) is a fairly weak reason for his actions. Then you would put a cross in square 3 or 4.

However, in the case of statement (c), you may think this is hardly likely to be a reason for Jack's actions, so you would put a cross in square 1 or 2.

Please note, the explanations are independent, so you should not feel that if you have put a 5 or 6 for one reason, that you cannot put another 6 for another reason.

11. **WOMEN RECEIVE LOWER PAY THAN MEN, EVEN WHEN THEY ARE DOING SIMILAR JOBS.**

a. Women usually have husbands to support them.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Women do not have as many jobs to choose from, so have to accept the offered pay.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Men are better at their jobs than women.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. The government refuses to introduce laws to ensure equal pay for equal work.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

e. Women do not have ambition.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

12. **MEN HAVE MORE FACILITIES FOR RECREATION, E.G. SPORTS THAN DO WOMEN.**

a. Female schools do not provide sports coaching, so interest in sports is not developed amongst women.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Women have less sporting ability than men.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. The government allocates funds for such things as sporting facilities, and they favour men.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Women do not know anything about sports, so are not interested in having facilities.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

e. Most women have families to care for

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

9. MEN HAVE MORE OPPORTUNITES FOR EDUCATION THAN DO WOMEN.

a. Women are less intelligent than men.

Not at all

1	2	3	4	5	6	7	

 Very much

b. The government provides better facilities for male schools (eg. many female schools do not have science laboratories).

Not at all

1	2	3	4	5	6	7	

 Very much

c. Men will be the bread-winners of the family.

Not at all

1	2	3	4	5	6	7	

 Very much

d. Women do not have the opportunity to use education.

Not at all

1	2	3	4	5	6	7	

 Very much

e. Men need education to keep the economy going, to provide for women.

Not at all

1	2	3	4	5	6	7	

 Very much

10. WOMEN ARE MORE LIKELY TO BE MADE REDUNDANT, OR TO BE UNEMPLOYED THAN MEN.

a. Women do not like to work.

Not at all

1	2	3	4	5	6	7	

 Very much

b. Men control the government.

Not at all

1	2	3	4	5	6	7	

 Very much

c. Most women are married and have families.

Not at all

1	2	3	4	5	6	7	

 Very much

d. Men are more capable than women.

Not at all

1	2	3	4	5	6	7	

 Very much

e. Women do not have the opportunity to enter many fields of work due to job reservation.

Not at all

1	2	3	4	5	6	7	

 Very much

7. THE CAR WAS STANDING EMPTY BY THE SIDE OF THE ROAD. JENNY SMITH WENT UP TO IT AND SLASHED THE TYRES WITH A KNIFE.

a. Jenny is a bad, destructive person.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. This was the getaway car of a gang who were robbing a bank.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Jenny was hoping to earn some money, helping the owner to change the tyre.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. The car belonged to someone who had slashed Jenny's tyre the day before.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

8. HAROLD DE VILLIERS WROTE HIS MATRIC EXAMS IN NOVEMBER. HE ACHIEVED A "B" AGGREGATE AND WAS ADMITTED INTO UNIVERSITY.

a. Harold is a clever student.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Harold was determined to go to university.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. The exam was particularly easy that year.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Harold had good teachers.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

5. GLENDA HICKS HELPED HER NEIGHBOUR TO HARVEST HIS CROP OF MEALIES.

a. Glenda was going to be paid for her help.

Not at all

1	2	3	4	5	6	7

Very much

b. The neighbour had helped Glenda harvest her own crop.

Not at all

1	2	3	4	5	6	7

Very much

c. Glenda did not want her neighbour to lose his crop.

Not at all

1	2	3	4	5	6	7

Very much

d. Glenda is a good, helpful person.

Not at all

1	2	3	4	5	6	7

Very much

6. TREVOR POTTER FAILED TO RECEIVE PROMOTION AT WORK.

a. Trevor is not much good at his work

Not at all

1	2	3	4	5	6	7

Very much

b. Trevor does not have the qualifications necessary for a higher position.

Not at all

1	2	3	4	5	6	7

Very much

c. The company was in financial difficulty, so the bosses were reluctant to promote anyone at this time.

Not at all

1	2	3	4	5	6	7

Very much

d. Trevor is very lazy

Not at all

1	2	3	4	5	6	7

Very much

3. KAREN GROVE ENTERED A DANCING COMPETITION AND WON FIRST PRIZE.

a. One of the judges was Karen's brother-in-law.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Karen is a talented dancer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Karen practised a great deal before the competition.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Karen had been taught some clever steps by a professional dancer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

4. THE CUSTOMER BROUGHT THE BASKET OF SHOPPING TO THE TILL. STANLEY MOORE TOTALLED THE BILL AND OVERCHARGED THE CUSTOMER.

a. The till was not working properly and had given the wrong total.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. Stanley was hoping to pocket the extra money for himself.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Stanley was careless and made a mistake.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Stanley detested this particular customer.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

1. JOHN BAKER INVITED THE STRANGER INTO THE HOUSE TO SHELTER FROM THE STORM.

a. John is a kind-hearted person.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. John was lonely and wanted company.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. The stranger was a friend of John's next door neighbour.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. John did not want the stranger to get wet and ill.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

2. LINDA TURNER WAS NOT SELECTED FOR THE SCHOOL HOCKEY TEAM.

a. Linda did not train regularly.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

b. It is difficult to get into the school team.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

c. Linda is not a talented player.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

d. Linda had missed many of the practices because of family problems.

Not at all

--	--	--	--	--	--	--	--

 Very much

1 2 3 4 5 6 7

SOCIAL LADDER

At the side of the page is a picture of a ladder. Assume the ladder represents life circumstances in South Africa. Imagine that the top represents the best possible life you could hope for in this country, while the bottom represents your idea of the worst possible life in this country.

I would like you to consider the position of men and women in relation to this ladder. When thinking about these social groups, I would like you to try to think about members of the group of whom you have a clear mental image - for example your friends, community, neighbours, co-workers, acquaintances, people you frequently see. This generally makes the task easier.

10	<u>At the present time</u> , where do you think these groups stand?	
9	(i) Men	Step
	(ii) Women	Step
8	Where do you think these groups stood <u>5 years ago</u> ?	
7	(i) Men	Step
	(ii) Women	Step
6	Where do you think these groups will stand <u>in 5 years time</u> ?	
5	(i) Men	Step
	(ii) Women	Step
4	Where do you think these groups <u>should</u> stand?	
3	(i) Men	Step
	(ii) Women	Step
2		
1		
0		

RESOURCE ALLOCATION

Universities have various funds to provide resources to students, either directly to individual students through bursaries or grants, or through funding clubs to which the students belong. With the tightening economic situation, the universities have had to be more restrictive in their allocation of resources.

Although there are roughly the same number of male and female students in most universities, their relative proportions in various subjects and activities differ.

In this task, I would like you to give your opinion as to how the funds for various resources should be distributed between female and male students. Please select one of the presented boxes. The top and bottom number of each box adds up to 100% (of the funds available), but the top percentage is to be given to men and the bottom percentage to be given to women. Choose the box which best represents the relative amounts you think should be distributed to male and female students, by ticking the empty box below your selected distribution.

For example, if you were asked to distribute funds for entertainment, and you felt more should be spent on men than women, then you might decide the following box best represents your choice:

Entertainment fund.

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100
			X								

If, on the other hand you think more should be spent on female students:

Entertainment fund.

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100
										X	

Note! Only one box should be marked.

1 Fee Assistance Fund

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100

2. Book Grants Fund

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100

3. Sports Fund

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100

4. Residence Accommodation

Men	100	90	80	70	60	50	40	30	20	10	0
Women	0	10	20	30	40	50	60	70	80	90	100

STUDY 5: GENDER STUDY
ACTION VIGNETTES

DEPENDENT VARIABLE: Vignette A					
SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	965.56429340	31.14723527		
ERROR	396	5786.27449165	14.61180427	2.13	0.0005
CORRECTED TOTAL	427	6751.83878505			
R-SQUARE C.V.Root MSE BXAB MEAN					
0.143008 78.1675 3.82253898 4.89018692					
SOURCE	DF	Type III SS	F VALUE	Pr > F	
RC	1	30.69526180	2.10	0.1480	
ST	1	41.33621146	2.83	0.0934	
RC*ST	1	22.55024071	1.54	0.2149	
SB	1	0.07464700	0.01	0.9431	
RC*SB	1	0.02767096	0.00	0.9653	
ST*SB	1	6.19084437	0.42	0.5155	
RC*ST*SB	1	30.47817214	2.09	0.1495	
LEG	1	28.52063577	1.95	0.1632	
RC*LEG	1	64.58001652	4.42	0.0362	
ST*LEG	1	4.07917043	0.28	0.5975	
RC*ST*LEG	1	0.00560909	0.00	0.9844	
SB*LEG	1	68.92632531	4.72	0.0305	
RC*SB*LEG	1	9.57400153	0.66	0.4187	
ST*SB*LEG	1	0.04503326	0.00	0.9558	
RC*ST*SB*LEG	1	11.84351011	0.81	0.3685	
XAB	1	9.30373617	0.64	0.4254	
RC*XAB	1	1.90549007	0.13	0.7182	
ST*XAB	1	2.04807737	0.14	0.7083	
RC*ST*XAB	1	14.25966016	0.98	0.3238	
SB*XAB	1	0.50577728	0.03	0.8525	
RC*SB*XAB	1	8.11442521	0.56	0.4566	
ST*SB*XAB	1	47.58370417	3.26	0.0719	
RC*ST*SB*XAB	1	28.99797089	1.98	0.1597	
LEG*XAB	1	1.93752626	0.13	0.7159	
RC*LEG*XAB	1	0.91194218	0.06	0.8029	
ST*LEG*XAB	1	12.30660056	0.84	0.3593	
RC*ST*LEG*XAB	1	0.65974086	0.05	0.8318	
SB*LEG*XAB	1	0.46691511	0.03	0.8582	
RC*SB*LEG*XAB	1	36.66810569	2.51	0.1140	
ST*SB*LEG*XAB	1	6.60075943	0.45	0.5019	
RC*ST*SB*LEG*XAB	1	3.20184550	0.22	0.6400	

DEPENDENT VARIABLE: Vignette B					
SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	1077.29831636	34.75155859	2.27	0.0002
ERROR	393	6024.33933070	15.32910771		
CORRECTED TOTAL	424	7101.63764706			
R-SQUARE C.V. Root MSE MEAN					
0.151697 238.3921 3.91524044 1.64235294					
SOURCE	DF	Type III SS	F VALUE	Pr > F	
RC	1	15.78718275	1.03	0.3108	
ST	1	59.25931991	3.87	0.0500	
RC*ST	1	2.96418158	0.19	0.6604	
SB	1	1.40294174	0.09	0.7624	
RC*SB	1	11.82864638	0.77	0.3802	
ST*SB	1	30.91217478	2.02	0.1564	
RC*ST*SB	1	27.90514325	1.82	0.1780	
LEG	1	20.41756497	1.33	0.2492	
RC*LEG	1	176.72984935	11.53	0.0008	
ST*LEG	1	1.01724634	0.07	0.7968	
RC*ST*LEG	1	2.82511188	0.18	0.6679	
SB*LEG	1	37.35876749	2.44	0.1193	
RC*SB*LEG	1	11.34472297	0.74	0.3902	
ST*SB*LEG	1	2.79898622	0.18	0.6694	
RC*ST*SB*LEG	1	1.22751231	0.08	0.7773	
XAA	1	12.16435610	0.79	0.3736	
RC*XAA	1	0.20333181	0.01	0.9084	
ST*XAA	1	11.59393035	0.76	0.3850	
RC*ST*XAA	1	16.57127113	1.08	0.2991	
SB*XAA	1	38.00331730	2.48	0.1162	
RC*SB*XAA	1	4.61039786	0.30	0.5837	
ST*SB*XAA	1	11.44600584	0.75	0.3881	
RC*ST*SB*XAA	1	10.86681546	0.71	0.4003	
LEG*XAA	1	17.60954000	1.15	0.2845	
RC*LEG*XAA	1	32.58287230	2.13	0.1457	
ST*LEG*XAA	1	0.02177835	0.00	0.9700	
RC*ST*LEG*XAA	1	2.21591066	0.14	0.7040	
SB*LEG*XAA	1	0.20032826	0.01	0.9090	
RC*SB*LEG*XAA	1	81.93882258	5.35	0.0213	
ST*SB*LEG*XAA	1	0.99244218	0.06	0.7993	
RC*ST*SB*LEG*XAA	1	7.08175611	0.46	0.4971	

DEPENDENT VARIABLE: Vignette C

SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	403.30523654	13.00984634	0.86	0.6796
ERROR	395	5948.45588758	15.05938199		
CORRECTED TOTAL		426	6351.76112412		
R-SQUARE		C.V.	Root MSE	MEAN	
0.063495		1142.7821	3.88064196	-0.33957845	
SOURCE	DF	Type III SS	F VALUE	Pr > F	
RC	1	3.23171469	0.21	0.6434	
ST	1	13.75702462	0.91	0.3398	
RC*ST	1	10.73274329	0.71	0.3991	
SB	1	8.13010500	0.54	0.4629	
RC*SB	1	2.05618810	0.14	0.7119	
ST*SB	1	1.62769266	0.11	0.7425	
RC*ST*SB	1	4.21450100	0.28	0.5971	
LEG	1	27.51569358	1.83	0.1772	
RC*LEG	1	37.91396014	2.52	0.1134	
ST*LEG	1	1.74802818	0.12	0.7335	
RC*ST*LEG	1	12.62674749	0.84	0.3604	
SB*LEG	1	123.57988948	8.21	0.0044	
RC*SB*LEG	1	40.06553810	2.66	0.1037	
ST*SB*LEG	1	1.89826742	0.13	0.7228	
RC*ST*SB*LEG	1	16.48805458	1.09	0.2960	
XAC	1	8.24343451	0.55	0.4598	
RC*XAC	1	0.54156346	0.04	0.8497	
ST*XAC	1	1.77523182	0.12	0.7315	
RC*ST*XAC	1	0.05221656	0.00	0.9531	
SB*XAC	1	0.89561218	0.06	0.8075	
RC*SB*XAC	1	6.19968415	0.41	0.5215	
ST*SB*XAC	1	0.58060376	0.04	0.8444	
RC*ST*SB*XAC	1	0.00019245	0.00	0.9971	
LEG*XAC	1	0.30783221	0.02	0.8864	
RC*LEG*XAC	1	24.04654307	1.60	0.2071	
ST*LEG*XAC	1	0.14919716	0.01	0.9208	
RC*ST*LEG*XAC	1	3.35459097	0.22	0.6372	
SB*LEG*XAC	1	2.26046612	0.15	0.6986	
RC*SB*LEG*XAC	1	0.07633740	0.01	0.9433	
ST*SB*LEG*XAC	1	7.42169657	0.49	0.4831	
RC*ST*SB*LEG*XAC	1	3.17062443	0.21	0.6466	

DEPENDENT VARIABLE: Vignette D

SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	606.69381241	19.57076814	1.11	0.3195
ERROR	394	6958.53858196	17.66126544		
CORRECTED TOTAL		425	7565.23239437		
R-SQUARE	C.V.	Root MSE	MEAN		
0.080195	131.1559	4.20253084	3.20422535		
SOURCE	F	Type III SS	F VALUE	Pr > F	
RC	1	151.43163921	8.57	0.0036	
ST	1	85.61456412	4.85	0.0283	
RC*ST	1	14.86445235	0.84	0.3595	
SB	1	3.93289729	0.22	0.6373	
RC*SB	1	59.62810316	3.38	0.0669	
ST*SB	1	3.45708005	0.20	0.6584	
RC*ST*SB	1	5.06623892	0.29	0.5925	
LEG	1	9.54104176	0.54	0.4628	
RC*LEG	1	0.28743280	0.02	0.8986	
ST*LEG	1	24.85692868	1.41	0.2362	
RC*ST*LEG	1	0.00249741	0.00	0.9905	
SB*LEG	1	1.58656875	0.09	0.7645	
RC*SB*LEG	1	37.98134995	2.15	0.1433	
ST*SB*LEG	1	0.49887896	0.03	0.8666	
RC*ST*SB*LEG	1	0.90910549	0.05	0.8206	
XAD	1	1.39268378	0.08	0.7790	
RC*XAD	1	0.04025370	0.00	0.9619	
ST*XAD	1	30.12793755	1.71	0.1923	
RC*ST*XAD	1	5.20866109	0.29	0.5874	
SB*XAD	1	7.95864634	0.45	0.5024	
RC*SB*XAD	1	0.16202659	0.01	0.9237	
ST*SB*XAD	1	6.45617238	0.37	0.5458	
RC*ST*SB*XAD	1	0.76203556	0.04	0.8356	
LEG*XAD	1	10.11942317	0.57	0.4495	
RC*LEG*XAD	1	24.94225213	1.41	0.2354	
ST*LEG*XAD	1	11.86575649	0.67	0.4129	
RC*ST*LEG*XAD	1	4.75249308	0.27	0.6042	
SB*LEG*XAD	1	1.61577507	0.09	0.7625	
RC*SB*LEG*XAD	1	56.02190537	3.17	0.0757	
ST*SB*LEG*XAD	1	10.30223230	0.58	0.4455	
RC*ST*SB*LEG*XAD	1	1.54467014	0.09	0.7676	

Differences in Scores Allocated for Black and White Actors in the Action Vignettes

Condition	Vignette A Direction	p	Vignette B Direction	p	Vignette C Direction	p	Vignette D Direction	p
White Males								
Legitimate-Stable	M > F	0.7938	M < F	0.3719	M < F	0.4054	M < F	0.8975
Legitimate-Unstable	M < F	0.6915	M > F	0.1700	M < F	0.3332	M < F	0.8869
Illegitimate-Stable	M > F	0.5824	M < F	0.4741	M > F	0.6948	M > F	0.2298
Illegitimate-Unstable	M > F	0.8169	M < F	0.8176	M > F	0.6452	M > F	0.4446
White Females								
Legitimate-Stable	M > F	0.3647	M < F	0.6083	M < F	0.6960	M > F	0.8878
Legitimate-Unstable	M < F	0.8616	M > F	0.7659	M > F	0.3622	M < F	0.5769
Illegitimate-Stable	M < F	0.6714	M > F	0.8401	M > F	0.2681	M < F	0.9445
Illegitimate-Unstable	M > F	0.0321	M < F	0.1052	M < F	0.7160	M > F	0.0936
Black Males								
Legitimate-Stable	M > F	0.4980	M < F	0.2436	M > F	0.6140	M > F	0.5044
Legitimate-Unstable	M > F	0.9479	M < F	0.0305	M < F	0.3418	M > F	0.3345
Illegitimate-Stable	M > F	0.0310	M < F	0.1637	M < F	0.2323	M < F	0.6843
Illegitimate-Unstable	M < F	0.4835	M > F	0.1357	M > F	0.6195	M < F	0.9197
Black Females								
Legitimate-Stable	M < F	0.1815	M < F	0.7353	M > F	0.6692	M < F	0.8261
Legitimate-Unstable	M < F	0.1414	M < F	0.7022	M > F	0.7551	M > F	0.6621
Illegitimate-Stable	M < F	0.1043	M > F	0.8098	M < F	0.2914	M < F	0.6333
Illegitimate-Unstable	M = F	0.9629	M > F	0.0114	M > F	0.1680	M < F	0.4114
STUDY 5: OUTCOME VIGNETTES								
DEPENDENT VARIABLE: Vignette E								
SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUEPr > F				
MODEL	31	500.70643702	16.15182055					
ERROR	394	2693.93206063	6.83739102					
CORRECTED TOTAL	425	3194.63849765						
R-SQUARE C.V. Root MSE MEAN								
0.156733	68.8456		2.61484053	3.79812207				

SOURCE	DF	Type III SS	F VALUE	Pr > F
RC	1	31.70136493	4.64	0.0319
ST	1	134.57615835	19.68	0.0001
RC*ST	1	1.21605146	0.18	0.6735
SB	1	0.54739441	0.08	0.7774
RC*SB	1	3.00060259	0.44	0.5081
ST*SB	1	26.31717230	3.85	0.0505
RC*ST*SB	1	0.27040928	0.04	0.8425
LEG	1	12.90769232	1.89	0.1702
RC*LEG	1	3.74450213	0.55	0.4597
ST*LEG	1	23.85144814	3.49	0.0625
RC*ST*LEG	1	3.42216479	0.50	0.4797
SB*LEG	1	0.03391696	0.00	0.9439
RC*SB*LEG	1	0.18732647	0.03	0.8686
ST*SB*LEG	1	1.50372854	0.22	0.6394
RC*ST*SB*LEG	1	16.54568677	2.42	0.1206
XOB	1	6.06463821	0.89	0.3469
RC*XOB	1	7.49490762	1.10	0.2958
ST*XOB	1	2.10054671	0.31	0.5797
RC*ST*XOB	1	0.53934411	0.08	0.7790
SB*XOB	1	25.60457560	3.74	0.0537
RC*SB*XOB	1	21.47612891	3.14	0.0771
ST*SB*XOB	1	6.30871743	0.92	0.3374
RC*ST*SB*XOB	1	6.45587194	0.94	0.3318
LEG*XOB	1	0.32486588	0.05	0.8276
RC*LEG*XOB	1	20.34738290	2.98	0.0853
ST*LEG*XOB	1	7.61883358	1.11	0.2918
RC*ST*LEG*XOB	1	4.08156476	0.60	0.4402
SB*LEG*XOB	1	13.72239445	2.01	0.1574
RC*SB*LEG*XOB	1	43.34076352	6.34	0.0122
ST*SB*LEG*XOB	1	0.75700323	0.11	0.7395
RC*ST*SB*LEG*XOB	1	0.19152501	0.03	0.8672

DEPENDENT VARIABLE: Vignette F					
SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUEPr > F	
MODEL	31	750.41676889	24.20699254	3.10	0.0001
ERROR	396	3088.37528718	7.79892749		
CORRECTED TOTAL	427	3838.79205607			
R-SQUARE	C.V.	Root MSE	MEAN		
0.195483	65.2077	2.79265599	4.28271028		

SOURCE	DF	Type III SS	F VALUE	Pr > F
RC	1	85.04389966	10.90	0.0010
ST	1	76.09983613	9.76	0.0019
RC*ST	1	7.41402518	0.95	0.3301
SB	1	0.75870651	0.10	0.7553
RC*SB	1	0.16373805	0.02	0.8849
ST*SB	1	19.70292821	2.53	0.1128
RC*ST*SB	1	3.97578313	0.51	0.4757
LEG	1	67.76446903	8.69	0.0034
RC*LEG	1	13.43550798	1.72	0.1901
ST*LEG	1	23.98103502	3.07	0.0803
RC*ST*LEG	1	0.63769257	0.08	0.7751
SB*LEG	1	27.16458216	3.48	0.0627
RC*SB*LEG	1	1.17071265	0.15	0.6986
ST*SB*LEG	1	13.87954437	1.78	0.1830
RC*ST*SB*LEG	1	9.31682580	1.19	0.2751
XOA	1	21.56588207	2.77	0.0971
RC*XOA	1	0.00236301	0.00	0.9861
ST*XOA	1	33.53450485	4.30	0.0388
RC*ST*XOA	1	0.43985296	0.06	0.8124
SB*XOA	1	44.38630065	5.69	0.0175
RC*SB*XOA	1	17.11117952	2.19	0.1393
ST*SB*XOA	1	20.25957858	2.60	0.1078
RC*ST*SB*XOA	1	11.14303985	1.43	0.2327
LEG*XOA	1	6.15596135	0.79	0.3748
RC*LEG*XOA	1	3.05858839	0.39	0.5315
ST*LEG*XOA	1	25.54869904	3.28	0.0711
RC*ST*LEG*XOA	1	0.27450660	0.04	0.8513
SB*LEG*XOA	1	30.35584835	3.89	0.0492
RC*SB*LEG*XOA	1	7.04724149	0.90	0.3424
ST*SB*LEG*XOA	1	0.29457034	0.04	0.8460
RC*ST*SB*LEG*XOA	1	3.58011859	0.46	0.4985

DEPENDENT VARIABLE: Vignette G

SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	364.95535767	11.77275347	1.02	0.4379
ERROR	393	4528.95993645	11.52407109		
CORRECTED TOTAL	424	4893.91529412			
R-SQUARE	C.V.	Root MSE	MEAN		
0.074573	334.7454	3.39471222	1.01411765		

SOURCE	DF	Type III SS	F VALUE	Pr > F
RC	1	1.49005533	0.13	0.7194
ST	1	33.73520003	2.93	0.0879
RC*ST	1	10.11531954	0.88	0.3494
SB	1	4.41720535	0.38	0.5362
RC*SB	1	3.79810567	0.33	0.5662
ST*SB	1	0.16823134	0.01	0.9039
RC*ST*SB	1	13.43315978	1.17	0.2810
LEG	1	4.07844709	0.35	0.5523
RC*LEG	1	1.55396691	0.13	0.7137
ST*LEG	1	3.29408912	0.29	0.5932
RC*ST*LEG	1	6.62925388	0.58	0.4486
SB*LEG	1	0.33551301	0.03	0.8646
RC*SB*LEG	1	18.58512031	1.61	0.2049
ST*SB*LEG	1	1.03457964	0.09	0.7646
RC*ST*SB*LEG	1	18.19003301	1.58	0.2097
XOC	1	0.00067493	0.00	0.9939
RC*XOC	1	6.84441584	0.59	0.4414
ST*XOC	1	40.31535012	3.50	0.0622
RC*ST*XOC	1	5.83577528	0.51	0.4771
SB*XOC	1	39.56692875	3.43	0.0646
RC*SB*XOC	1	0.10257155	0.01	0.9249
ST*SB*XOC	1	8.78148095	0.76	0.3832
RC*ST*SB*XOC	1	26.51760717	2.30	0.1301
LEG*XOC	1	0.95855905	0.08	0.7732
RC*LEG*XOC	1	23.54634248	2.04	0.1537
ST*LEG*XOC	1	0.51558805	0.04	0.8326
RC*ST*LEG*XOC	1	18.51603748	1.61	0.2057
SB*LEG*XOC	1	16.87937335	1.46	0.2269
RC*SB*LEG*XOC	1	20.38881062	1.77	0.1842
ST*SB*LEG*XOC	1	0.84114224	0.07	0.7872
RC*ST*SB*LEG*XOC	1	0.03970641	0.00	0.9532

DEPENDENT VARIABLE: Vignette H

SOURCE	DF	Sum OF SQUARES	Mean SQUARE	F VALUE	Pr > F
MODEL	31	346.26941593	11.16998116	0.92	0.5977
ERROR	394	4797.94654651	12.17752931		
CORRECTED TOTAL	425	5144.21596244			
R-SQUARE	C.V.	Root MSE	MEAN		
0.067312	193.0627	3.48963169	-1.80751174		

SOURCE	DF	Type III SS	F VALUE	Pr > F
RC	1	0.42016520	0.03	0.8527
ST	1	14.00280486	1.15	0.2842
RC*ST	1	25.36877374	2.08	0.1497
SB	1	13.12510727	1.08	0.2998
RC*SB	1	50.31181307	4.13	0.0428
ST*SB	1	0.02595454	0.00	0.9632
RC*ST*SB	1	0.42840005	0.04	0.8513
LEG	1	3.29562276	0.27	0.6032
RC*LEG	1	11.62242400	0.95	0.3292
ST*LEG	1	7.69200270	0.63	0.4272
RC*ST*LEG	1	10.36853045	0.85	0.3567
SB*LEG	1	21.10681651	1.73	0.1888
RC*SB*LEG	1	9.37474695	0.77	0.3808
ST*SB*LEG	1	7.92398914	0.65	0.4203
RC*ST*SB*LEG	1	2.26313716	0.19	0.6666
XOD	1	0.58556400	0.05	0.8265
RC*XOD	1	4.95174860	0.41	0.5241
ST*XOD	1	5.00976621	0.41	0.5216
RC*ST*XOD	1	15.20636948	1.25	0.2645
SB*XOD	1	1.15997319	0.10	0.7578
RC*SB*XOD	1	15.71275364	1.29	0.2567
ST*SB*XOD	1	32.66332527	2.68	0.1023
RC*ST*SB*XOD	1	5.19985548	0.43	0.5138
LEG*XOD	1	3.78704281	0.31	0.5774
RC*LEG*XOD	1	0.01035829	0.00	0.9767
ST*LEG*XOD	1	4.33681894	0.36	0.5510
RC*ST*LEG*XOD	1	2.51169658	0.21	0.6500
SB*LEG*XOD	1	0.79385236	0.07	0.7986
RC*SB*LEG*XOD	1	3.85095796	0.32	0.5742
ST*SB*LEG*XOD	1	2.50287088	0.21	0.6505
RC*ST*SB*LEG*XOD	1	18.57216696	1.53	0.2176

Differences in Scores Allocated for Male and Female Actors in the Outcome Vignettes

Condition	Vignette E Direction	p	Vignette F Direction	p
White Males				
Legitimate-Stable	M>F	0.2520	M<F	0.1528
Legitimate-Unstable	M<F	0.0377	M>F	0.6567
Illegitimate-Stable	M>F	0.1899	M<F	0.0684
Illegitimate-Unstable	M>F	0.7298	M<F	0.3803
White Females				
Legitimate-Stable	M>F	0.5768	M<F	0.6013
Legitimate-Unstable	M<F	0.0983	M>F	0.0239
Illegitimate-Stable	M<F	0.5404	M<F	0.5172
Illegitimate-Unstable	M>F	0.0918	M<F	0.0658
Black Males				
Legitimate-Stable	M>F	0.7870	M<F	0.0025
Legitimate-Unstable	M>F	0.2936	M=F	1.000
Illegitimate-Stable	M>F	0.1999	M<F	0.1944
Illegitimate-Unstable	M>F	0.8871	M>F	0.8687
Black Females				
Legitimate-Stable	M>F	0.1038	M>F	0.2105
Legitimate-Unstable	M>F	0.1332	M>F	0.7825
Illegitimate-Stable	M<F	0.6929	M>F	0.9080
Illegitimate-Unstable	M<F	0.1815	M<F	0.0338

STUDY 5: SOCIAL ISSUE VIGNETTES AND DISCRIMINATION TASK RESULTS

Dependent Variable: Vignette I						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	15	852.0527717	56.8035181	4.48	0.0001	
Error	391	4963.1364175	12.6934435			
Corrected Total	406	5815.1891892				
R-Square						
		C.V.	Root MSE	Mean		
	0.146522	-269.0267	3.562786	-1.3243243		
Source						
	DF	Type III SS	Mean Square	F Value	Pr > F	
RC	1	80.2654938	80.2654938	6.32	0.0123	
ST	1	116.3861824	116.3861824	9.17	0.0026	
RC*ST	1	3.2898435	3.2898435	0.26	0.6110	
SB	1	4.1061780	4.1061780	0.32	0.5698	
RC*SB	1	32.5456900	32.5456900	2.56	0.1101	
ST*SB	1	8.6205546	8.6205546	0.68	0.4104	
RC*ST*SB	1	34.5015528	34.5015528	2.72	0.1000	
LG	1	161.9166292	161.9166292	12.76	0.0004	
RC*LG	1	37.7358908	37.7358908	2.97	0.0855	
ST*LG	1	1.5048604	1.5048604	0.12	0.7308	
RC*ST*LG	1	0.3146669	0.3146669	0.02	0.8750	
SB*LG	1	2.6878794	2.6878794	0.21	0.6457	
RC*SB*LG	1	0.2228396	0.2228396	0.02	0.8947	
ST*SB*LG	1	12.2624232	12.2624232	0.97	0.3263	
RC*ST*SB*LG	1	3.1609513	3.1609513	0.25	0.6180	

Dependent Variable: Vignette J

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	1705.120312	113.674687	7.25	0.0001
Error	391	6130.083620	15.677963		
Corrected Total	406	7835.203931			
R-Square					
		C.V.	Root MSE	Mean	
	0.217623	-97.90602	3.959541	-4.0442260	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
RC	1	211.6815135	211.6815135	13.50	0.0003
ST	1	251.1080803	251.1080803	16.02	0.0001
RC*ST	1	1.1379986	1.1379986	0.07	0.7878
SB	1	33.9591595	33.9591595	2.17	0.1419
RC*SB	1	1.5830105	1.5830105	0.10	0.7508
ST*SB	1	18.5404331	18.5404331	1.18	0.2775
RC*ST*SB	1	10.8995870	10.8995870	0.70	0.4049
LG	1	191.4082963	191.4082963	12.21	0.0005
RC*LG	1	27.8766125	27.8766125	1.78	0.1832
ST*LG	1	1.9454204	1.9454204	0.12	0.7248
RC*ST*LG	1	0.1733403	0.1733403	0.01	0.9163
SB*LG	1	9.9685105	9.9685105	0.64	0.4257
RC*SB*LG	1	4.4060059	4.4060059	0.28	0.5963
ST*SB*LG	1	6.9906339	6.9906339	0.45	0.5047
RC*ST*SB*LG	1	5.0786929	5.0786929	0.32	0.5696

Dependent Variable: Vignette K					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	1211.441956	80.762797	5.90	0.0001
Error	391	5352.469592	13.689181		
Corrected Total	406	6563.911548			
R-Square					
		C.V.	Root MSE	Mean	
		-86.89296	3.699889	-4.2579853	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
RC	1	16.1732181	16.1732181	1.18	0.2777
ST	1	215.0607380	215.0607380	15.71	0.0001
RC*ST	1	7.4410031	7.4410031	0.54	0.4614
SB	1	0.0788126	0.0788126	0.01	0.9396
RC*SB	1	21.6844139	21.6844139	1.58	0.2089
ST*SB	1	1.3607208	1.3607208	0.10	0.7527
RC*ST*SB	1	58.0645333	58.0645333	4.24	0.0401
LG	1	328.5169599	328.5169599	24.00	0.0001
RC*LG	1	64.3493108	64.3493108	4.70	0.0308
ST*LG	1	6.0099894	6.0099894	0.44	0.5080
RC*ST*LG	1	0.4487310	0.4487310	0.03	0.8564
SB*LG	1	4.8777387	4.8777387	0.36	0.5509
RC*SB*LG	1	0.2118792	0.2118792	0.02	0.9011
ST*SB*LG	1	0.0304320	0.0304320	0.00	0.9624
RC*ST*SB*LG	1	53.7492836	53.7492836	3.93	0.0482

Dependent Variable: Vignette L					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	816.9802459	54.4653497	4.35	0.0001
Error	391	4893.8354789	12.5162033		
Corrected Total	406	5710.8157248			

Dependent Variable: Funding Bias					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
RC	1	3.1634786	3.1634786	0.25	0.6154
ST	1	81.2431320	81.2431320	6.49	0.0112
RC*ST	1	32.3390950	32.3390950	2.58	0.1088
SB	1	39.4248552	39.4248552	3.15	0.0767
RC*SB	1	0.2261697	0.2261697	0.02	0.8931
ST*SB	1	34.7039218	34.7039218	2.77	0.0967
RC*ST*SB	1	12.1349242	12.1349242	0.97	0.3254
LG	1	335.5554729	335.5554729	26.81	0.0001
RC*LG	1	18.5331111	18.5331111	1.48	0.2244
ST*LG	1	21.3881278	21.3881278	1.71	0.1919
RC*ST*LG	1	0.1064426	0.1064426	0.01	0.9266
SB*LG	1	23.9951844	23.9951844	1.92	0.1670
RC*SB*LG	1	2.3526500	2.3526500	0.19	0.6649
ST*SB*LG	1	0.0550169	0.0550169	0.00	0.9472
RC*ST*SB*LG	1	0.1615412	0.1615412	0.01	0.9096

Dependent Variable: Vignette K					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	19537.33058	1302.48871	7.30	0.0001
Error	391	69723.60308	178.32124		
Corrected Total	406	89260.93366			
R-Square					
		C.V.	Root MSE	Mean	
		692.3509	13.35370	1.92874693	

Source	DF	Type III SS	Mean Square	F Value	Pr > F
RC	1	34.44124	34.44124	0.19	0.6606
ST	1	10029.21963	10029.21963	56.24	0.0001
RC*ST	1	225.12095	225.12095	1.26	0.2619
SB	1	47.32955	47.32955	0.27	0.6067
RC*SB	1	386.21393	386.21393	2.17	0.1419
ST*SB	1	230.72233	230.72233	1.29	0.2560
RC*ST*SB	1	837.63278	837.63278	4.70	0.0308
LG	1	1726.86222	1726.86222	9.68	0.0020
RC*LG	1	1.63349	1.63349	0.01	0.9238
ST*LG	1	2783.17036	2783.17036	15.61	0.0001
RC*ST*LG	1	0.50394	0.50394	0.00	0.9576
SB*LG	1	9.65394	9.65394	0.05	0.8161
RC*SB*LG	1	674.83754	674.83754	3.78	0.0524
ST*SB*LG	1	12.98273	12.98273	0.07	0.7874
RC*ST*SB*LG	1	539.20691	539.20691	3.02	0.0828

STUDY 5: MANOVA RESULTS

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC Effect
H = Type III SS&CP Matrix for RC E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	Value	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.94650407	4.3746	5	387	0.0007
Pillai's Trace	0.05349593	4.3746	5	387	0.0007
Hotelling-Lawley Trace	0.05651950	4.3746	5	387	0.0007
Roy's Greatest Root	0.05651950	4.3746	5	387	0.0007

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall ST Effect
H = Type III SS&CP Matrix for ST E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.83358066	15.4524	5	387	0.0001
Pillai's Trace	0.16641934	15.4524	5	387	0.0001
Hotelling-Lawley Trace	0.19964396	15.4524	5	387	0.0001
Roy's Greatest Root	0.19964396	15.4524	5	387	0.0001

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*ST Effect
H = Type III SS&CP Matrix for RC*ST E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98304905	1.3346	5	387	0.2487
Pillai's Trace	0.01695095	1.3346	5	387	0.2487
Hotelling-Lawley Trace	0.01724324	1.3346	5	387	0.2487
Roy's Greatest Root	0.01724324	1.3346	5	387	0.2487

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall SB Effect
H = Type III SS&CP Matrix for SB E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98151626	1.4576	5	387	0.2028
Pillai's Trace	0.01848374	1.4576	5	387	0.2028
Hotelling-Lawley Trace	0.01883182	1.4576	5	387	0.2028
Roy's Greatest Root	0.01883182	1.4576	5	387	0.2028

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*SB Effect
H = Type III SS&CP Matrix for RC*SB E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98592872	1.1047	5	387	0.3573
Pillai's Trace	0.01407128	1.1047	5	387	0.3573
Hotelling-Lawley Trace	0.01427211	1.1047	5	387	0.3573
Roy's Greatest Root	0.01427211	1.1047	5	387	0.3573

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall ST*SB Effect
H = Type III SS&CP Matrix for ST*SB E = Error SS&CP Matrix
S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98794122	0.9447	5	387	0.451
Pillai's Trace	0.01205878	0.9447	5	387	0.451
Hotelling-Lawley Trace	0.01220597	0.9447	5	387	0.451
Roy's Greatest Root	0.01220597	0.9447	5	387	0.451

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*ST*SB Effect
H = Type III SS&CP Matrix for RC*ST*SB E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.96437430	2.8593	5	387	0.0150
Pillai's Trace	0.03562570	2.8593	5	387	0.0150
Hotelling-Lawley Trace	0.03694177	2.8593	5	387	0.0150
Roy's Greatest Root	0.03694177	2.8593	5	387	0.0150

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall LG Effect
H = Type III SS&CP Matrix for LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.89548532	9.0336	5	387	0.0001
Pillai's Trace	0.10451468	9.0336	5	387	0.0001
Hotelling-Lawley Trace	0.11671288	9.0336	5	387	0.0001
Roy's Greatest Root	0.11671288	9.0336	5	387	0.0001

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*LG Effect
H = Type III SS&CP Matrix for RC*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98623087	1.0806	5	387	0.3706
Pillai's Trace	0.01376913	1.0806	5	387	0.3706
Hotelling-Lawley Trace	0.01396137	1.0806	5	387	0.3706
Roy's Greatest Root	0.01396137	1.0806	5	387	0.3706

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall ST*LG Effect
H = Type III SS&CP Matrix for ST*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.95755799	3.4306	5	387	0.0048
Pillai's Trace	0.04244201	3.4306	5	387	0.0048
Hotelling-Lawley Trace	0.04432317	3.4306	5	387	0.0048
Roy's Greatest Root	0.04432317	3.4306	5	387	0.0048

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*ST*LG Effect
H = Type III SS&CP Matrix for RC*ST*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.99966707	0.0258	5	387	0.9997
Pillai's Trace	0.00033293	0.0258	5	387	0.9997
Hotelling-Lawley Trace	0.00033304	0.0258	5	387	0.9997
Roy's Greatest Root	0.00033304	0.0258	5	387	0.9997

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall SB*LG Effect
H = Type III SS&CP Matrix for SB*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98729129	0.9963	5	387	0.4197
Pillai's Trace	0.01270871	0.9963	5	387	0.4197
Hotelling-Lawley Trace	0.01287230	0.9963	5	387	0.4197
Roy's Greatest Root	0.01287230	0.9963	5	387	0.4197

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall RC*SB*LG Effect
H = Type III SS&CP Matrix for RC*SB*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.98909924	0.8530	5	387	0.5129
Pillai's Trace	0.01090076	0.8530	5	387	0.5129
Hotelling-Lawley Trace	0.01102090	0.8530	5	387	0.5129
Roy's Greatest Root	0.01102090	0.8530	5	387	0.5129

Manova Test Criteria and Exact F Statistics for
the Hypothesis of no Overall ST*SB*LG Effect
H = Type III SS&CP Matrix for ST*SB*LG E = Error SS&CP Matrix

S=1 M=1.5 N=192.5

Statistic	VALUE	F	Num DF	Den DF	Pr >
Wilks' Lambda	0.99404425	0.4637	5	387	0.8032
Pillai's Trace	0.00595575	0.4637	5	387	0.8032
Hotelling-Lawley Trace	0.00599143	0.4637	5	387	0.8032
Roy's Greatest Root	0.00599143	0.4637	5	387	0.8032

APPENDIX E

Contents

1. Questionnaire booklet for Study 6 and 7.
2. SAS GLM MANOVA Results for Study 6.
3. Zulu translation of the questionnaire booklet.
4. SAS GLM MANOVA Results for Study 7.

DEPARTMENT OF PSYCHOLOGY
UNIVERSITY OF NATAL, DURBAN

PROJECT ON CRIME PERCEPTION

In this project, we are trying to find out what impression the general public gets about criminal events on the basis of the short reports, such as one finds in newspapers.

On the next page, there is a short description of a crime that has been reported to the police, followed by some questions about the people and events in the report. We would like you to read the report and give us your perception of the crime by responding to the questions. There are no right or wrong answers, and your responses will be kept confidential. If this study is published, your answers will appear as a statistic in combination with the responses of the numerous other people taking part in the study.

Thank you for helping with this project.

Personal Details

Name

Address

.....

.....

Occupation

Sex

Age

Signature

D3

Below is the report of a crime that has taken place, as it would be told in court. Please read it carefully, then answer the questions on the next page.

At approximately 7.30 on the evening of Wednesday 5th March, Jane Lewis, a nurse at -- Hospital, left the hospital and walked down a deserted side street to the road where she usually caught the bus home. The defendant, Siphwe Zulu was walking down the road in the same direction as the victim and began following her.

Several metres from the end of the road, the defendant grabbed the victim and pulled her into a dark alley between two blocks of flats. A struggle took place during which the victim was thrown to the ground, stripped and raped.

The defendant then ran away. The victim staggered to the road where she was helped by a passer-by who called the police. The victim was treated for shock and minor injuries, then released after giving her statement to the police.

Shortly after the attack, the police caught the defendant, who was identified as the assailant by the victim. Zulu, who lives in Kwa Mashu, was released on bail until the day of the trial.

The following questions ask you to give your opinion by marking one of the boxes labelled 0 to 10. These numbers allow you express a graduation of feeling from 0 = not at all to 10 = very much so. For example, if a question asked:

Do you think that the passer-by did the best thing possible in the circumstances?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

and you did not think this was the case, you would mark one of the blocks from 0 to 4, depending how strongly you feel this. If you felt very strongly you might tick 0 or 1, or if you felt less strongly, 3 or 4. If, on the other hand, you think that the passer-by's actions were the best possible, you would mark one of the blocks from 6 to 10, 6 implying a less strong feeling than 10. Ticking the mid-point, 5, indicates that you are not sure, one way or the other.

Please answer all the following questions.

1. How serious do you think this crime is?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

2. How common do you think this type of crime is?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

3. What prison sentence do you think the defendant should get? (Give the answer as the number of years).

..... years

4. How much do you think that the victim is to blame for the events that took place?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

5. How much do you think that the defendant is to blame for the events that took place?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

6. How much do you think that the society in which we live is to blame for the events that took place?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

How much do you think the following factors are to blame:

7. The defendant's upbringing?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

8. The defendant's need for sex?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

9. The defendant's mental condition?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

10. The defendant's need to dominate?

Not at all 0 1 2 3 4 5 6 7 8 9 10 Very much so

11. The defendant seeing the victim as vulnerable?

[illegible]

12. The defendant's aggressiveness?

Not at all											Very much so
0	1	2	3	4	5	6	7	8	9	10	

13. The defendant's desire to harm someone?

	Not at all	Very much so
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

14. The victim's poor judgement?

	Not at all	Very much so
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

15. The victim's trusting nature?

Not at all											Very much so	
	0	1	2	3	4	5	6	7	8	9	10	

16. The victim not fighting back?

[illegible]

17. The victim looking scared?

No:	
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Please turn to page 6

5

18. The victim's carelessness?

Not at all	0 1 2 3 4 5 6 7 8 9 10	Very much so
------------------	--	--------------------

19. The victim not trying to escape?

	Very much so
10	
9	
8	
7	
6	
5	
4	
3	
2	
1	
0	
Not at all	

20. The victim being alone?

	Not at all	Very much so
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

21. The lack of morality and values in our present society?

	Not at all	Very much
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

22. The lack of religion?

	Not at all	Very much so
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

23. The lack of good discipline given to children from parents and teachers?

	Not at all	0	1	2	3	4	5	6	7	8	9	10	Very much so
--	---------------	---	---	---	---	---	---	---	---	---	---	----	-----------------

24. The economic situation in the country?

	Not at all	Very much
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
so		

Please turn to page 7

25. The way crime is shown in films and on television?

Not at all

Very much so

26. The political situation in the country?

Not at all

Very much so

27. How believable do you think the events in the report are?

Not at all

Very much so

PLEASE NOTE THAT THIS REPORT HAS BEEN CONSTRUCTED FOR THE PURPOSE OF THIS STUDY. THE NAMES ARE MADE UP, AND DO NOT REFER TO ANY LIVING PERSON.

Please turn to page 8

This final section does not refer to the reported crime. For this set of questions, we would like you to imagine that the ladder drawn at the side of the page represents what South Africa has to offer its citizens.
The top step (position 10) represents the very best that the country has to offer, and the bottom step (position 0) represents the very worse.

10	At the present time, where do you think the following groups stand?
9	(i) Blacks ("Africans"), as a whole? Step
	(ii) Whites, as a whole? Step
	(iii) Men, as a whole? Step
	(iv) Women, as a whole? Step
8	
7	Where do you think these groups stood 5 years ago?
6	(i) Blacks Step
	(ii) Whites Step
	(iii) Men Step
	(iv) Women Step
5	
4	Where do you think these groups will stand in 5 years time?
3	(i) Blacks Step
	(ii) Whites Step
	(iii) Men Step
	(iv) Women Step
2	
1	Imagine an ideal world. Where do you think the various groups should stand?
0	(i) Blacks Step
	(ii) Whites Step
	(iii) Men Step
	(iv) Women Step

STUDY 6 : GENDER STUDY
SAS GLM MANOVA RESULTS

DEPENDENT VARIABLE: Sentence

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR >
MODEL	31	23.74807971	0.76606709	5.66	0.0001
ERROR	307	41.54682566	0.13533168		
CORRECTED TOTAL	338	65.29490537			

R-SQUARE	C.V.ROOT MSE	Q3 MEAN
0.363705	12.8705	0.36787454
		2.85828316

SOURCE	F	TYPE III SS	F VALUE	PR > F
SX	1	0.31549284	2.33	0.1278
SB	1	0.00019754	0.00	0.9695
SX*SB	1	0.03616235	0.27	0.6056
LG	1	0.57718003	4.26	0.0397
SX*LG	1	0.09581949	0.71	0.4008
SB*LG	1	0.00615490	0.05	0.8313
SX*SB*LG	1	0.11096243	0.82	0.3659
CR	1	6.24645393	46.16	0.0001
SX*CR	1	0.05006819	0.37	0.5435
SB*CR	1	0.00871847	0.06	0.7998
SX*SB*CR	1	0.00687767	0.05	0.8218
LG*CR	1	0.11448603	0.85	0.3584
SX*LG*CR	1	0.03001195	0.22	0.6380
SB*LG*CR	1	0.05063954	0.37	0.5412
SX*SB*LG*CR	1	0.00850459	0.06	0.8022
RC	1	0.03753921	0.28	0.5988
SX*RC	1	0.02105269	0.16	0.6935
SB*RC	1	0.02022868	0.15	0.6993
SX*SB*RC	1	0.07008109	0.52	0.4723
LG*RC	1	0.02926760	0.22	0.6422
SX*LG*RC	1	0.02716939	0.20	0.6544
SB*LG*RC	1	0.02981249	0.22	0.6392
SX*SB*LG*RC	1	0.19065550	1.41	0.2362
CR*RC	1	1.72295983	12.73	0.0004
SX*CR*RC	1	0.27996004	2.07	0.1514
SB*CR*RC	1	0.00209877	0.02	0.9010
SX*SB*CR*RC	1	0.01921339	0.14	0.7066
LG*CR*RC	1	0.00014396	0.00	0.9740
SX*LG*CR*RC	1	0.01878119	0.14	0.7098
SB*LG*CR*RC	1	0.04848475	0.36	0.5499
SX*SB*LG*CR*RC	1	0.38077890	2.81	0.0945

DEPENDENT VARIABLE: F1: Social Conditions

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	95.97859737	3.09608379	5.74	0.0001
ERROR	307	165.56706401	0.53930640		
CORRECTED TOTAL	338	261.54566138			

R-SQUARE	C.V.	ROOT MSE	F1 MEAN
0.366967	10145.9858	0.73437483	-0.00723808

SOURCE	DF	TYPE III SS	F VALUE	PR > F
SX	1	0.73476383	1.36	0.2440
SB	1	0.00067541	0.00	0.9718
SX*SB	1	0.05583080	0.10	0.7479
LG	1	1.36181040	2.53	0.1131
SX*LG	1	0.25088778	0.47	0.4957
SB*LG	1	3.46540073	6.43	0.0117
SX*SB*LG	1	0.00068305	0.00	0.9716
CR	1	5.66847880	10.51	0.0013
SX*CR	1	0.00625114	0.01	0.9143
SB*CR	1	0.00498357	0.01	0.9235
SX*SB*CR	1	0.81025997	1.50	0.2212
LG*CR	1	0.54810664	1.02	0.3142
SX*LG*CR	1	0.12054238	0.22	0.6367
SB*LG*CR	1	0.77562608	1.44	0.2314
SX*SB*LG*CR	1	1.62054719	3.00	0.0840
RC	1	29.77386599	55.21	0.0001
SX*RC	1	1.86247689	3.45	0.0641
SB*RC	1	0.34662583	0.64	0.4233
SX*SB*RC	1	0.61846940	1.15	0.2851
LG*RC	1	1.50914453	2.80	0.0954
SX*LG*RC	1	0.00004545	0.00	0.9927
SB*LG*RC	1	0.00116441	0.00	0.9630
SX*SB*LG*RC	1	0.08745989	0.16	0.6874
CR*RC	1	0.51750772	0.96	0.3281
SX*CR*RC	1	0.35874910	0.67	0.4154
SB*CR*RC	1	0.93843176	1.74	0.1881
SX*SB*CR*RC	1	0.05535553	0.10	0.7489
LG*CR*RC	1	0.17947148	0.33	0.5644
SX*LG*CR*RC	1	0.08893808	0.16	0.6850
SB*LG*CR*RC	1	0.51011537	0.95	0.3315
SX*SB*LG*CR*RC	1	1.10662895	2.05	0.1530

DEPENDENT VARIABLE: F2: Victim Passivity

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	129.97451133	4.19272617	7.58	0.0001
ERROR	307	169.87213021	0.55332941		
CORRECTED TOTAL	338	299.84664154			
R-SQUARE					
C.V.		ROOT MSE		F2 MEAN	
0.433470	532.67320.74386115			-0.13964681	

SOURCE	F	TYPE III SS	F VALUE	PR > F
SX	1	0.12229541	0.22	0.6386
SB	1	0.39001014	0.70	0.4018
SX*SB	1	0.01033618	0.02	0.8914
LG	1	2.68679109	4.86	0.0283
SX*LG	1	0.00340083	0.01	0.9376
SB*LG	1	0.56800803	1.03	0.3118
SX*SB*LG	1	0.00173344	0.00	0.9554
CR	1	0.08048133	0.15	0.7032
SX*CR	1	0.03457870	0.06	0.8028
SB*CR	1	0.10097217	0.18	0.6695
SX*SB*CR	1	0.05064192	0.09	0.7625
LG*CR	1	0.28147836	0.51	0.4762
SX*LG*CR	1	0.18231252	0.33	0.5664
SB*LG*CR	1	0.03126983	0.06	0.8123
SX*SB*LG*CR	1	0.00529856	0.01	0.9221
RC	1	47.76310226	86.32	0.0001
SX*RC	1	2.34135977	4.23	0.0405
SB*RC	1	0.06356479	0.11	0.7349
SX*SB*RC	1	0.14739418	0.27	0.6061
LG*RC	1	1.19280981	2.16	0.1431
SX*LG*RC	1	0.02437777	0.04	0.8339
SB*LG*RC	1	0.83766946	1.51	0.2195
SX*SB*LG*RC	1	1.18502925	2.14	0.1444
CR*RC	1	0.00008685	0.00	0.9900
SX*CR*RC	1	0.16150323	0.29	0.5894
SB*CR*RC	1	1.55175242	2.80	0.0950
SX*SB*CR*RC	1	0.04328663	0.08	0.7799
LG*CR*RC	1	0.09051887	0.16	0.6862
SX*LG*CR*RC	1	0.00200259	0.00	0.9521
SB*LG*CR*RC	1	0.01927202	0.03	0.8521
SX*SB*LG*CR*RC	1	1.09769075	1.98	0.1600

DEPENDENT VARIABLE: F3: Victim's Actions

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	63.90777130	2.06154101	3.35	0.0001
ERROR	307	188.70691936	0.61468052		
CORRECTED TOTAL	338	252.61469066			
R-SQUARE					
		C.V.	ROOT MSE	F3 MEAN	
0.252985		1294.2560	0.78401564	0.06057655	

SOURCE	F	TYPE III SS	F VALUE	PR > F
SX	1	0.59350141	0.97	0.3266
SB	1	0.07706778	0.13	0.7235
SX*SB	1	1.08609318	1.77	0.1848
LG	1	1.11125040	1.81	0.1798
SX*LG	1	0.06288162	0.10	0.7493
SB*LG	1	0.00001416	0.00	0.9962
SX*SB*LG	1	0.02039904	0.03	0.8556
CR	1	0.16733280	0.27	0.6022
SX*CR	1	0.30850522	0.50	0.4792
SB*CR	1	0.52613217	0.86	0.3556
SX*SB*CR	1	0.00992532	0.02	0.8990
LG*CR	1	0.00950977	0.02	0.9011
SX*LG*CR	1	0.25498800	0.41	0.5200
SB*LG*CR	1	1.95210258	3.18	0.0757
SX*SB*LG*CR	1	1.96188101	3.19	0.0750
RC	1	17.78982570	28.94	0.0001
SX*RC	1	0.51673418	0.84	0.3599
SB*RC	1	0.06128575	0.10	0.7524
SX*SB*RC	1	0.28570472	0.46	0.4959
LG*RC	1	1.90734040	3.10	0.0791
SX*LG*RC	1	2.85068159	4.64	0.0321
SB*LG*RC	1	1.03198557	1.68	0.1960
SX*SB*LG*RC	1	1.11620017	1.82	0.1788
CR*RC	1	2.83580863	4.61	0.0325
SX*CR*RC	1	1.27199900	2.07	0.1513
SB*CR*RC	1	1.70598373	2.78	0.0967
SX*SB*CR*RC	1	0.19141336	0.31	0.5772
LG*CR*RC	1	0.49514970	0.81	0.3701
SX*LG*CR*RC	1	0.17976275	0.29	0.5890
SB*LG*CR*RC	1	0.09536826	0.16	0.6939
SX*SB*LG*CR*RC	1	0.23356969	0.38	0.5381

DEPENDENT VARIABLE: F4: Assailant's Aggression

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	69.59829529	2.24510630	4.08	0.0001
ERROR	307	169.10762185	0.55083916		
CORRECTED TOTAL	338	238.70591714			
R-SQUARE					
		C.V.	ROOT MSE	F4 MEAN	
0.291565	1677.79090.74218539			-0.04423587	

SOURCE	F	TYPE III SS	F VALUE	PR > F
SX	1	1.13311148	2.06	0.1525
SB	1	0.10976585	0.20	0.6556
SX*SB	1	0.46486863	0.84	0.3590
LG	1	0.30094263	0.55	0.4604
SX*LG	1	0.19225297	0.35	0.5551
SB*LG	1	0.53430726	0.97	0.3255
SX*SB*LG	1	0.26750741	0.49	0.4864
CR	1	9.85690265	17.89	0.0001
SX*CR	1	0.56404699	1.02	0.3124
SB*CR	1	0.60530020	1.10	0.2953
SX*SB*CR	1	0.00578663	0.01	0.9184
LG*CR	1	0.86809778	1.58	0.2103
SX*LG*CR	1	0.40247074	0.73	0.3933
SB*LG*CR	1	2.85123681	5.18	0.0236
SX*SB*LG*CR	1	0.04442495	0.08	0.7766
RC	1	10.49103463	19.05	0.0001
SX*RC	1	0.03109147	0.06	0.8124
SB*RC	1	0.00086227	0.00	0.9685
SX*SB*RC	1	0.09192176	0.17	0.6832
LG*RC	1	1.10328716	2.00	0.1580
SX*LG*RC	1	1.21124505	2.20	0.1391
SB*LG*RC	1	0.27980767	0.51	0.4766
SX*SB*LG*RC	1	0.33947356	0.62	0.4330
CR*RC	1	9.55865276	17.35	0.0001
SX*CR*RC	1	0.07674546	0.14	0.7092
SB*CR*RC	1	0.98753438	1.79	0.1816
SX*SB*CR*RC	1	0.21792617	0.40	0.5298
LG*CR*RC	1	0.41455644	0.75	0.3863
SX*LG*CR*RC	1	0.28759314	0.52	0.4705
SB*LG*CR*RC	1	1.23235652	2.24	0.1357
SX*SB*LG*CR*RC	1	0.18726801	0.34	0.5603

DEPENDENT VARIABLE: F5: Social Values

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	25.42046640	0.82001505	1.46	0.0582
ERROR	307	172.14790448	0.56074236		
CORRECTED TOTAL	338	197.56837088			
R-SQUARE					
		C.V.	ROOT MSE	F5 MEAN	
0.128667		1066.2602	0.74882732	0.07022932	

SOURCE	DF	TYPE III SS	F VALUE	PR > F
SX	1	1.30852934	0.82	0.1276
SB	1	0.45923652	0.30	0.5832
SX*SB	1	0.16917613	0.41	0.5224
LG	1	0.22990667	0.01	0.9210
SX*LG	1	0.00553051	0.03	0.8734
SB*LG	1	0.01426401	0.01	0.9405
SX*SB*LG	1	0.00313439	0.91	0.3421
CR	1	0.50777082	1.64	0.2009
SX*CR	1	0.92118266	0.46	0.4960
SB*CR	1	0.26054629	0.14	0.7048
SX*SB*CR	1	0.08061830	1.23	0.2691
LG*CR	1	0.68740948	0.00	0.9584
SX*LG*CR	1	0.00152820	0.51	0.4776
SB*LG*CR	1	0.28350018	0.68	0.4094
SX*SB*LG*CR	1	0.38263400	0.73	0.3932
RC	1	0.40990336	0.58	0.4460
SX*RC	1	0.32654340	1.72	0.1910
SB*RC	1	0.26506765	0.47	0.4923
SX*SB*RC	1	4.69873854	8.38	0.0041
LG*RC	1	0.00355912	0.01	0.9366
SX*LG*RC	1	0.42710714	0.76	0.3835
SB*LG*RC	1	0.43008803	0.77	0.3818
SX*SB*LG*RC	1	0.97008235	1.73	0.1894
CR*RC	1	0.20533643	0.37	0.5455
SX*CR*RC	1	0.89982459	1.60	0.2062
SB*CR*RC	1	0.19929277	0.36	0.5515
SX*SB*CR*RC	1	0.37738521	0.67	0.4126
LG*CR*RC	1	0.01105432	0.02	0.8884
SX*LG*CR*RC	1	0.02365190	0.04	0.8374
SB*LG*CR*RC	1	0.21521537	0.38	0.5360
SX*SB*LG*CR*RC	1			

DEPENDENT VARIABLE: F6: Victim's Vulnerability

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	31	34.43145492	1.11069209	1.97	0.0021
ERROR	307	172.84983837	0.56302879		
CORRECTED TOTAL	338	207.28129329			
R-SQUARE	C.V.	ROOT MSE	F6 MEAN		
	0.166110	6597.2834	0.75035244	-0.01137366	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	
SX	1	0.93871486	1.67	0.1976	
SB	1	0.02819897	0.05	0.8231	
SX*SB	1	0.66832381	1.19	0.2768	
LG	1	2.07814991	3.69	0.0556	
SX*LG	1	0.16968381	0.30	0.5834	
SB*LG	1	1.20441675	2.14	0.1446	
SX*SB*LG	1	0.09613067	0.17	0.6797	
CR	1	0.00867337	0.02	0.9013	
SX*CR	1	0.76655511	1.36	0.2442	
SB*CR	1	4.61946449	8.20	0.0045	
SX*SB*CR	1	0.52960005	0.94	0.3329	
LG*CR	1	0.74559145	1.32	0.2507	
SX*LG*CR	1	0.01656863	0.03	0.8639	
SB*LG*CR	1	2.39066487	4.25	0.0402	
SX*SB*LG*CR	1	1.08891741	1.93	0.1653	
RC	1	1.26856280	2.25	0.1344	
SX*RC	1	5.00813849	8.89	0.0031	
SB*RC	1	1.25384904	2.23	0.1366	
SX*SB*RC	1	0.60933230	1.08	0.2990	
LG*RC	1	0.60789197	1.08	0.2996	
SX*LG*RC	1	0.20924297	0.37	0.5426	
SB*LG*RC	1	0.76561822	1.36	0.2445	
SX*SB*LG*RC	1	0.31130887	0.55	0.4577	
CR*RC	1	11.87159207	21.09	0.0001	
SX*CR*RC	1	0.05860258	0.10	0.7472	
SB*CR*RC	1	1.07891940	1.92	0.1673	
SX*SB*CR*RC	1	2.36643699	4.20	0.0412	
LG*CR*RC	1	2.99635496	5.32	0.0217	
SX*LG*CR*RC	1	0.01430807	0.03	0.8734	
SB*LG*CR*RC	1	0.03822406	0.07	0.7946	
SX*SB*LG*CR*RC	1	0.59070925	1.05	0.3065	

STUDY 6: MANOVA RESULTS

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97045566	1.31	7	301	0.2454
Pillai's Trace	0.02954467	1.31	7	301	0.2454
Hotelling-Lawley Trace	0.03044413	1.31	7	301	0.2454
Roy's Greatest Root	0.03044413	1.31	7	301	0.2454

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99350733	0.28	7	301	0.9611
Pillai's Trace	0.0064926	0.28	7	301	0.9611
Hotelling-Lawley Trace	0.00653510	0.28	7	301	0.9611
Roy's Greatest Root	0.00653510	0.28	7	301	0.9611

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98488820	0.66	7	301	0.7061
Pillai's Trace	0.01511800	0.66	7	301	0.7061
Hotelling-Lawley Trace	0.01534367	0.66	7	301	0.7061
Roy's Greatest Root	0.01534367	0.66	7	301	0.7061

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.95064764	2.23	7	301	0.0317
Pillai's Trace	0.04935236	2.23	7	301	0.0317
Hotelling-Lawley Trace	0.05191446	2.23	7	301	0.0317
Roy's Greatest Root	0.05191446	2.23	7	301	0.0317

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*LG EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99453986	0.24	7	301	0.9762
Pillai's Trace	0.00546014	0.24	7	301	0.9762
Hotelling-Lawley Trace	0.00549012	0.24	7	301	0.9762
Roy's Greatest Root	0.00549012	0.24	7	301	0.9762

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97045176	1.31	7	301	0.2454
Pillai's Trace	0.02954824	1.31	7	301	0.2454
Hotelling-Lawley Trace	0.03044792	1.31	7	301	0.2454
Roy's Greatest Root	0.03044792	1.31	7	301	0.2454

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*LG EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99371400	0.27	7	301	0.9645
Pillai's Trace	0.00628600	0.27	7	301	0.9645
Hotelling-Lawley Trace	0.00632576	0.27	7	301	0.9645
Roy's Greatest Root	0.00632576	0.27	7	301	0.9645

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.80760075	10.24	7	301	0.0001
Pillai's Trace	0.19239925	10.24	7	301	0.0001
Hotelling-Lawley Trace	0.23823559	10.24	7	301	0.0001
Roy's Greatest Root	0.23823559	10.24	7	301	0.0001

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98382042	0.71	7	301	0.6660
Pillai's Trace	0.01617958	0.71	7	301	0.6660
Hotelling-Lawley Trace	0.01644566	0.71	7	301	0.6660
Roy's Greatest Root	0.01644566	0.71	7	301	0.6660

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.96223680	1.69	7	301	0.1115
Pillai's Trace	0.03776320	1.69	7	301	0.1115
Hotelling-Lawley Trace	0.03924522	1.69	7	301	0.1115
Roy's Greatest Root	0.03924522	1.69	7	301	0.1115

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98970127	0.45	7	301	0.8716
Pillai's Trace	0.01029873	0.45	7	301	0.8716
Hotelling-Lawley Trace	0.01040590	0.45	7	301	0.8716
Roy's Greatest Root	0.01040590	0.45	7	301	0.8716

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98017809	0.87	7	301	0.5309
Pillai's Trace	0.01982191	0.87	7	301	0.5309
Hotelling-Lawley Trace	0.02022277	0.87	7	301	0.5309
Roy's Greatest Root	0.02022277	0.87	7	301	0.5309

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99154920	0.37	7	301	0.9213
Pillai's Trace	0.00845080	0.37	7	301	0.9213
Hotelling-Lawley Trace	0.00852282	0.37	7	301	0.9213
Roy's Greatest Root	0.00852282	0.37	7	301	0.9213

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.94925971	2.30	7	301	0.0270
Pillai's Trace	0.05074029	2.30	7	301	0.0270
Hotelling-Lawley Trace	0.05345249	2.30	7	301	0.0270
Roy's Greatest Root	0.05345249	2.30	7	301	0.0270

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.95352808	2.10	7	301	0.0439
Pillai's Trace	0.04647192	2.10	7	301	0.0439
Hotelling-Lawley Trace	0.04873681	2.10	7	301	0.0439
Roy's Greatest Root	0.04873681	2.10	7	301	0.0439

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.39586258	65.62	7	301	0.0001
Pillai's Trace	0.60413742	65.62	7	301	0.0001
Hotelling-Lawley Trace	1.52612915	65.62	7	301	0.0001
Roy's Greatest Root	1.52612915	65.62	7	301	0.0001

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.94226484	2.63	7	301	0.0118
Pillai's Trace	0.05773516	2.63	7	301	0.0118
Hotelling-Lawley Trace	0.06127275	2.63	7	301	0.0118
Roy's Greatest Root	0.06127275	2.63	7	301	0.0118

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98423266	0.69	7	301	0.6815
Pillai's Trace	0.01576734	0.69	7	301	0.6815
Hotelling-Lawley Trace	0.01601993	0.69	7	301	0.6815
Roy's Greatest Root	0.01601993	0.69	7	301	0.6815

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98649853	0.59	7	301	0.7652
Pillai's Trace	0.01350147	0.59	7	301	0.7652
Hotelling-Lawley Trace	0.01368626	0.59	7	301	0.7652
Roy's Greatest Root	0.01368626	0.59	7	301	0.7652

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.94044991	2.72	7	301	0.0094
Pillai's Trace	0.05955009	2.72	7	301	0.0094
Hotelling-Lawley Trace	0.06332085	2.72	7	301	0.0094
Roy's Greatest Root	0.06332085	2.72	7	301	0.0094

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*LG*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.96822439	1.41	7	301	0.2002
Pillai's Trace	0.03177561	1.41	7	301	0.2002
Hotelling-Lawley Trace	0.03281844	1.41	7	301	0.2002
Roy's Greatest Root	0.03281844	1.41	7	301	0.2002

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98364380	0.72	7	301	0.6594
Pillai's Trace	0.01635620	0.72	7	301	0.6594
Hotelling-Lawley Trace	0.01662817	0.72	7	301	0.6594
Roy's Greatest Root	0.01662817	0.72	7	301	0.6594

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*LG*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97683732	1.02	7	301	0.4173
Pillai's Trace	0.02316268	1.02	7	301	0.4173
Hotelling-Lawley Trace	0.02371192	1.02	7	301	0.4173
Roy's Greatest Root	0.02371192	1.02	7	301	0.4173

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.81674522	9.65	7	301	0.0001
Pillai's Trace	0.18325478	9.65	7	301	0.0001
Hotelling-Lawley Trace	0.22437202	9.65	7	301	0.0001
Roy's Greatest Root	0.22437202	9.65	7	301	0.0001

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98443571	0.68	7	301	0.6891
Pillai's Trace	0.01556429	0.68	7	301	0.6891
Hotelling-Lawley Trace	0.01581036	0.68	7	301	0.6891
Roy's Greatest Root	0.01581036	0.68	7	301	0.6891

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.96118011	0.68	7	301	0.1000
Pillai's Trace	0.03881989	0.68	7	301	0.1000
Hotelling-Lawley Trace	0.04038774	0.68	7	301	0.1000
Roy's Greatest Root	0.04038774	0.68	7	301	0.1000

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98120638	0.82	7	301	0.5683
Pillai's Trace	0.01879362	0.82	7	301	0.5683
Hotelling-Lawley Trace	0.01915359	0.82	7	301	0.5683
Roy's Greatest Root	0.01915359	0.82	7	301	0.5683

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97237996	1.22	7	301	0.2905
Pillai's Trace	0.02762004	1.22	7	301	0.2905
Hotelling-Lawley Trace	0.02840457	1.22	7	301	0.2905
Roy's Greatest Root	0.02840457	1.22	7	301	0.2905

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*LG*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99654532	0.15	7	301	0.9940
Pillai's Trace	0.00345468	0.15	7	301	0.9940
Hotelling-Lawley Trace	0.00346665	0.15	7	301	0.9940
Roy's Greatest Root	0.00346665	0.15	7	301	0.9940

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*CR*RC EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98928185	0.47	7	301	0.8589
Pillai's Trace	0.01071815	0.47	7	301	0.8589
Hotelling-Lawley Trace	0.01083427	0.47	7	301	0.8589
Roy's Greatest Root	0.01083427	0.47	7	301	0.8589

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SX*SB*LG*CR*RC EFFEC					
Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.96892832	1.38	7	301	0.2137
Pillai's Trace	0.03107168	1.38	7	301	0.2137
Hotelling-Lawley Trace	0.03206809	1.38	7	301	0.2137
Roy's Greatest Root	0.03206809	1.38	7	301	0.2137

IMIBONO NGAMACALA

Kulembuzo sizama ukuthola imibono yabantu ngamacala nangendlela abikwa ngayo ezindabeni nakumaphephandaba

Ephepheni elilandelayo kukhona indaba emfushane eyabikwa kwabo mthetho. Elandelwa incazelo yabantu nezenhlakalo embikweni. Siyacela ukuba ufunde lombiko bese usinikeza eyakho imibono yalelicala ngokuphendula imibuzo. Azikho izimpendulo ezilungile nezingalungile. Izimpendulo zakho zogcinakala zifihlekile. Uma kwenzeka iesisifundo sisakazwa izimpendulo ziyovele sezididi yelwe kanye nezinye izimpendulo zabanye abantu abaningi abazothatha inxaxheba kulesisifundo.

Siyabonga ngokusizana nathi kulesisifundo

Imininingwane Yakho

Igama

Ikheli

.....

.....

Umsebenzi

Ubulili

Iminyaka

Okusayinde

Ngezansi umbiko wecala njengaloku lingaxoxwa enkantolo. Funda ngokuco phelela bese uphendula imibuzo ekhasini elilandelayo.

Ezithubeni, ligamenxe elesikhombisa kusihlwa ngolwesithathu zinhlanu enyangeni ka Mashu, UJane Lewis, ongumhlengikazi esibhedlela sase ---, waphuma esibhedlela wehlela ngomgwaqana avamise ukuhamba ngawo uma eyogibela ibhasi eya ekhaya. Umangalelwa usiphiwe zulu wayehamba ehlixa umgwaqo ngendlela efanayo neyayithathwe umhlaselwa, wabe eseqala ukumlandela.

Kumagxathi angemangaki kusuka emgwaqeni, umbosha wabamba umhlaselwa wamdonsele emhubheni omnyama phakathi kwezindlu zamafuladi. Kwabakhona umzabalazo ngesikhathi umhlaselwa ethathwa eshaywa phansi, wakhunyulwa wadlengulwa.

Umbosha wayesebaleka. Umhlaselwa wantenga eya emgwaqeni lapho wasizwa odlulayo wambizela amaphoyisa. Umhlaselwa welashelwa ukwethuka nemihuzwana emncane, wasededelwa emva kokunika amaphoyisa yonke imininingwane.

Emva kokuhlaselwa, amaphoyisa ambamba umbosha owaziwa njengesigelekege. Uzulu, ohlala Kwa-Mashu, wadadelwa ngebheyili kwaze kwafika ilanga lecala.

Lemibuzo elandelayo icela umbono wakho ngokuba umake elilodwa ibokisi kulawa amezinumbolo ezisuka egandeni kuya eshumini. Lezinombolo zifuna ucacise kahle ukuthi uza kanjani uma kusuka egandeni 0 = kodwa kungafiki eshumini 10 = kodwa cishe kube kanjalo.

Nasi isiboniso: ucabanga ukuthi lomuntu odlulayo wenza into efamele ngempela?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Uma ucabanga ukuthi kwakunjalo impela beka umaka kwesimye sezikwele kusuka kuegandeni kuye esikweleni sesine kuye nokuthi uqiniseke kangakanani kulokho. Uma uqinisekile ngempela maka iqanda noma uwani noma uma unganisekile kakhulu maka isikwele sesithathu noma esesine. Kokumye uma ubona ukuthi owedlulayo wenza konke okwakusemandleni nokwakudingekile ungamaka esinye sezikwele kusukela kwesesithupha kuye kweseshumi. Esesithupha sikhombisa ukuthi awuqinisekile kakhulu. Uma umaka esikweleni esiphakathi nendawo esesihlanu kusho ukuthi awuqinisekile ndawo zonke.

Phendula yonke imibuzo elandelayo.

1. Ugabanga ukuthi libi kangakananilelicalaz?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

2. Avamise kangakanani amacala aloluhlobo?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

3. Ucabanga ukuuthi umboshwa ungamqweba isikathi esingakanami? (Phendula ngokwe minyaka)

..... iminyaka

4. Ucabanga ukuthi umenziwa wabanalo iphutha naye kulokhu okwenzeka?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Phenya ekhasini 4

5. Ucabanga ukuthi ummangalelwa unephutha kangakanani.

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

6. Ucabanga ukuthi umphakathi esiphila kuwo unephutha kangakanami ngokwenzeka?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Ucabanga ukuthi iyiphi imbangela kulokhu okulandelayo?

7. Wacabanga kabi ngalesisimo?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

8. Ukwethemba imvelo kuka menziwa?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

9. Umenziwa akazi phindeselanganga ngokulwa?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

10. Umenziwa ubukeka esaba?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Phenya ekhasini 5

11. Ukunganakekeli kuka menziwa? 2(1-4)

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

12. Ukungazami kuka menziwa ukuphunyuka?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

13. Ukuba yedwa kuka?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

14. Indlela akhuliswa ngayo umenzi?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

15. Umenzi udinga owesifazane ngale sosikhathi?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

16. Isimo sengondo kamenzi?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

17. Umenzi udinga ukugqwa?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Phenya ekhasini 6

18. Umbosha ubona umenziwa engahlaseleka kalula? 2

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

19. Isihluku somenzi?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

20. Umenzi uno gqozi lokona omunye umutu?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

21. Ukusweleka kwenhlonipho emphakthini wabantu?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

22. Ukusweleka kwenkolo?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

23. Ukusweleka kokuge qeshwa kubantwana abazali nothisha?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

24. Isimo somnotho ezweni?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

Phenya ekhasini 7

25. Indlela kumbe amacala akhonjiswa ngayo emahayisikobho noma komaboma kude?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

26. Kumbe isimo sezombangazwe kuleli?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

27. Ukholwa noma ucabanga ukuthi lizehlakalo kulombiko zinjani?

Akunjalo

0	1	2	3	4	5	6	7	8	9	10

Kunjalo
impela

QAPHA UKUTHI LOMBIKO UBUNJELWE UKUBA KUFUMDWE NGAWO. AMAGAMA AKHWE NJE AKUMOMA AWABANTU ABATHIZE.

Phenya ekhasini 8

Lesisigaba sokugcina asiqomdene necala elimangelwe loluhlobo lwemibuzo sicele wenze sengathi leliladi uzinikele kanjani ekusizeni izakhamizi zalelizwe.

Lelizwe isitebhiso sokgala esiphezulu simele okuhle kakhulu lelizwe isitebhiso sokugala esiphelzulu simele okuhle kakhulu lelizwe elingase likwenze esingenzansi sokugcina simele okubi kakhulu lelizwe elingase likwenze.

10	Esikhathini samanje lezizizwe zimiphi ngokwakho?
9	(i) Abamhlophe bebonke Isitebhiso (ii) Abansundu bebonke Isitebhiso (iii) Abesifazane bebonke Isitebhiso (iv) Abesilisa bebonke Isitebhiso
8	Eminyakeni emihlanu eyedlule zazimikuphi ngokwakho?
7	(i) Abamhlophe Isitebhiso (ii) Abansundu Isitebhiso (iii) Abesifazane Isitebhiso (iv) Abesilisa Isitebhiso
6	Ngokwakho ucabangaukuthi ziyobe zimiphi eminyakeni emihlanuezayo?
5	(i) Abamhlophe Isitebhiso (ii) Abansundu Isitebhiso (iii) Abesifazane Isitebhiso (iv) Abesilisa Isitebhiso
4	Uma ucabanga kulomhlaba zifamele zime kuphi?
3	(i) Abamhlophe Isitebhiso (ii) Abansundu Isitebhiso (iii) Abesifazane Isitebhiso (iv) Abesilisa Isitebhiso
2	
1	
0	

STUDY 7 : RACE STUDY
SAS GLM MANOVA RESULTS

DEPENDENT VARIABLE: Q3 (Recommended Prison Sentence)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	24.75459601	0.82515320	7.64	0.0001
ERROR	447	48.26927258	0.10798495		
CORRECTED TOTAL	477	73.02386859			

R-SQUARE	C.V.	ROOT MSE	Q3 MEAN
0.338993	11.6012	0.32861064	2.83254799

SOURCE	DF	TYPE III SS	F VALUE	PR > F
RC	1	0.00009764	0.00	0.9760
SB	1	0.14093090	1.31	0.2539
RC*SB	1	0.45113132	4.18	0.0415
LG	1	0.34601543	3.20	0.0741
RC*LG	1	0.00220600	0.02	0.8864
SB*LG	1	0.01982767	0.18	0.6685
RC*SB*LG	1	0.01628435	0.15	0.6980
CR	1	4.49644819	41.64	0.0001
RC*CR	1	0.89146739	8.26	0.0043
SB*CR	1	0.07697467	0.71	0.3990
RC*SB*CR	1	0.01437015	0.13	0.7154
LG*CR	1	0.04250300	0.39	0.5307
RC*LG*CR	1	0.00020316	0.00	0.9654
SB*LG*CR	1	0.00372247	0.03	0.8528
RC*SB*LG*CR	1	0.15551595	1.44	0.2307
RA	1	0.08255166	0.76	0.3824
RC*RA	1	0.03739969	0.35	0.5565
SB*RA	1	0.17236777	1.60	0.2071
RC*SB*RA	1	0.06977471	0.65	0.4219
LG*RA	1	0.15003560	1.39	0.2391
RC*LG*RA	1	0.00223672	0.02	0.8856
SB*LG*RA	1	0.25830106	2.39	0.1227
RC*SB*LG*RA	1	0.08386253	0.78	0.3787
CR*RA	1	0.23319883	2.16	0.1424
RC*CR*RA	1	0.33211947	3.08	0.0802
SB*CR*RA	1	0.00094867	0.01	0.9254
RC*SB*CR*RA	1	0.01236533	0.11	0.7352
LG*CR*RA	1	0.06923574	0.64	0.4237
RC*LG*CR*RA	1	0.28747639	2.66	0.1035
SB*LG*CR*RA	1	0.00267084	0.02	0.8751
RC*SB*LG*CR*RA	0	0.00000000	.	.

DEPENDENT VARIABLE: F1 (Social Conditions)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	131.80610142	4.39353671	8.80	0.0001
ERROR	447	223.15137968	0.49922009		
CORRECTED TOTAL	477	354.95748110			

R-SQUARE	C.V.	ROOT MSE	F1 MEAN
0.371329	1295.7092	0.70655509	-0.05453038

SOURCE	DF	TYPE III SS	F VALUE	PR > F
RC	1	21.23198012	42.53	0.0001
SB	1	0.13249545	0.27	0.6067
RC*SB	1	0.07802563	0.16	0.6928
LG	1	0.47657624	0.95	0.3291
RC*LG	1	0.12197179	0.24	0.6213
SB*LG	1	0.31665529	0.63	0.4262
RC*SB*LG	1	0.35277806	0.71	0.4010
CR	1	2.99283658	6.00	0.0147
RC*CR	1	0.02023286	0.04	0.8405
SB*CR	1	0.58541124	1.17	0.2794
RC*SB*CR	1	0.02089248	0.04	0.8380
LG*CR	1	0.55441063	1.11	0.2925
RC*LG*CR	1	0.55067826	1.10	0.2942
SB*LG*CR	1	0.01133350	0.02	0.8803
RC*SB*LG*CR	1	0.14734444	0.30	0.5872
RA	1	0.06311045	0.13	0.7223
RC*RA	1	0.00005318	0.00	0.9918
SB*RA	1	0.19239173	0.39	0.5351
RC*SB*RA	1	0.29994730	0.60	0.4387
LG*RA	1	0.34769847	0.70	0.4044
RC*LG*RA	1	0.11607801	0.23	0.6299
SB*LG*RA	1	0.01879964	0.04	0.8462
RC*SB*LG*RA	1	0.17362299	0.35	0.5557
CR*RA	1	0.27433728	0.55	0.4589
RC*CR*RA	1	0.12110656	0.24	0.6226
SB*CR*RA	1	0.01444263	0.03	0.8650
RC*SB*CR*RA	1	0.17564081	0.35	0.5534
LG*CR*RA	1	0.00204934	0.00	0.9489
RC*LG*CR*RA	1	0.15825390	0.32	0.5737
SB*LG*CR*RA	1	0.08460466	0.17	0.6808
RC*SB*LG*CR*RA	0	0.00000000	.	.

DEPENDENT VARIABLE: F2 (Victim's Passivity)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	153.96069708	5.13202324	10.21	0.0001
ERROR	447	224.74676401	0.50278918		
CORRECTED TOTAL	477	378.70746109			
R-SQUARE					
		C.V.	ROOT MSE	F2 MEAN	
0.406543		966.7163	0.70907629	0.07334895	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	
RC	1	24.86792866	49.46	0.0001	
SB	1	1.04751790	2.08	0.1496	
RC*SB	1	0.77477030	1.54	0.2151	
LG	1	0.10050634	0.20	0.6550	
RC*LG	1	0.00836991	0.02	0.8974	
SB*LG	1	0.55029319	1.09	0.2960	
RC*SB*LG	1	1.39260344	2.77	0.0968	
CR	1	2.93029246	5.83	0.0162	
RC*CR	1	1.84691561	3.67	0.0559	
SB*CR	1	0.05086182	0.10	0.7506	
RC*SB*CR	1	0.02664025	0.05	0.8181	
LG*CR	1	0.25970712	0.52	0.4727	
RC*LG*CR	1	0.41846850	0.83	0.3621	
SB*LG*CR	1	0.50433139	1.00	0.3171	
RC*SB*LG*CR	1	0.00125460	0.00	0.9602	
RA	1	0.22408988	0.45	0.5047	
RC*RA	1	0.06750748	0.13	0.7142	
SB*RA	1	0.10909654	0.22	0.6416	
RC*SB*RA	1	0.03330690	0.07	0.7970	
LG*RA	1	0.00720587	0.01	0.9048	
RC*LG*RA	1	0.05621660	0.11	0.7383	
SB*LG*RA	1	0.00239423	0.00	0.9450	
RC*SB*LG*RA	1	0.02927791	0.06	0.8094	
CR*RA	1	0.07029256	0.14	0.7087	
RC*CR*RA	1	0.06001145	0.12	0.7299	
SB*CR*RA	1	0.12147549	0.24	0.6233	
RC*SB*CR*RA	1	0.04217295	0.08	0.7722	
LG*CR*RA	1	0.00712873	0.01	0.9053	
RC*LG*CR*RA	1	0.01488506	0.03	0.8635	
SB*LG*CR*RA	1	0.00333251	0.01	0.9352	
RC*SB*LG*CR*RA	0	0.00000000	.	.	

DEPENDENT VARIABLE: F3 (Victim's Actions)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	98.89294560	3.29643152	6.60	0.0001
ERROR	447	223.19835974	0.49932519		
CORRECTED TOTAL	477	322.09130534			
R-SQUARE					
		C.V.	ROOT MSE	F3 MEAN	
0.307034		1156.7645	0.70662946	-0.06108672	
SOURCE	DF	TYPE III SS	F VALUE	PR > F	
RC	1	12.65808877	25.35	0.0001	
SB	1	2.37547458	4.76	0.0297	
RC*SB	1	1.46980560	2.94	0.0869	
LG	1	2.68404961	5.38	0.0209	
RC*LG	1	0.07187410	0.14	0.7046	
SB*LG	1	4.53952198	9.09	0.0027	
RC*SB*LG	1	0.27600315	0.55	0.4576	
CR	1	0.00054568	0.00	0.9736	
RC*CR	1	0.00070476	0.00	0.9700	
SB*CR	1	0.00554517	0.01	0.9161	
RC*SB*CR	1	0.00158797	0.00	0.9551	
LG*CR	1	0.39532398	0.79	0.3741	
RC*LG*CR	1	0.00000367	0.00	0.9978	
SB*LG*CR	1	0.93408866	1.87	0.1721	
RC*SB*LG*CR	1	0.01545143	0.03	0.8604	
RA	1	0.01356423	0.03	0.8692	
RC*RA	1	0.61787864	1.24	0.2666	
SB*RA	1	0.23352526	0.47	0.4944	
RC*SB*RA	1	0.04129215	0.08	0.7738	
LG*RA	1	0.09034039	0.18	0.6708	
RC*LG*RA	1	0.09625398	0.19	0.6608	
SB*LG*RA	1	0.11273117	0.23	0.6349	
RC*SB*LG*RA	1	0.00088375	0.00	0.9665	
CR*RA	1	0.06807322	0.14	0.7121	
RC*CR*RA	1	0.29731566	0.60	0.4407	
SB*CR*RA	1	0.04584933	0.09	0.7620	
RC*SB*CR*RA	1	0.01216370	0.02	0.8760	
LG*CR*RA	1	0.10743071	0.22	0.6430	
RC*LG*CR*RA	1	0.06228126	0.12	0.7241	
SB*LG*CR*RA	1	0.28936812	0.58	0.4469	
RC*SB*LG*CR*RA	0	0.00000000	.	.	

F4
DEPENDENT VARIABLE: F4 (Assailant's Aggressiveness)

SOURCE	DFSUM OF SQUARESMEAN SQUARE	F VALUE	PR > F
MODEL	30 105.89843927	3.52994798	6.48
ERROR	447 243.56985955	0.54489901	0.0001
CORRECTED TOTAL	477 349.46829883		

R-SQUARE		C.V.	ROOT MSE	F4 MEAN
0.303027		4244.1479	0.73817275	-0.01739272

SOURCE	DF	TYPE III SS	F VALUE	PR > F
RC	1	7.96401601	14.62	0.0002
SB	1	1.63748026	3.01	0.0837
RC*SB	1	0.00414673	0.01	0.9305
LG	1	0.21984241	0.40	0.5256
RC*LG	1	0.47849386	0.88	0.3492
SB*LG	1	0.02998421	0.06	0.8146
RC*SB*LG	1	2.19892201	4.04	0.0452
CR	1	8.91771564	16.37	0.0001
RC*CR	1	1.47642000	2.71	0.1005
SB*CR	1	0.05238525	0.10	0.7567
RC*SB*CR	1	0.17495309	0.32	0.5712
LG*CR	1	0.45969483	0.84	0.3589
RC*LG*CR	1	0.20313144	0.37	0.5418
SB*LG*CR	1	0.04687720	0.09	0.7694
RC*SB*LG*CR	1	0.00520875	0.01	0.9222
RA	1	0.19318388	0.35	0.5519
RC*RA	1	1.32867735	2.44	0.1191
SB*RA	1	1.51710303	2.78	0.0959
RC*SB*RA	1	0.72744101	1.34	0.2485
LG*RA	1	0.51664096	0.95	0.3307
RC*LG*RA	1	0.23591038	0.43	0.5109
SB*LG*RA	1	2.90970817	5.34	0.0213
RC*SB*LG*RA	1	0.96647612	1.77	0.1836
CR*RA	1	0.10151250	0.19	0.6662
RC*CR*RA	1	0.19844755	0.36	0.5465
SB*CR*RA	1	0.35667044	0.65	0.4189
RC*SB*CR*RA	1	0.27042843	0.50	0.4815
LG*CR*RA	1	0.00993940	0.02	0.8926
RC*LG*CR*RA	1	0.12151643	0.22	0.6370
SB*LG*CR*RA	1	1.26472039	2.32	0.1283
RC*SB*LG*CR*RA	0	0.00000000	.	.

F5
DEPENDENT VARIABLE: F5 (Social Values)

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	20.29566157	0.67652205	0.91	0.6011
ERROR	447	331.06068643	0.74062793		
CORRECTED TOTAL	477	351.35634800			

R-SQUARE		C.V.	ROOT MSE	F5 MEAN
0.057764		2005.5558	0.86059743	-0.04291067

SOURCE	DF	TYPE III SS	F VALUE	PR > F
RC	1	3.46294438	4.68	0.0311
SB	1	0.67375009	0.91	0.3407
RC*SB	1	0.24009532	0.32	0.5694
LG	1	0.50022474	0.68	0.4116
RC*LG	1	1.68525393	2.28	0.1321
SB*LG	1	0.16490980	0.22	0.6372
RC*SB*LG	1	0.12765129	0.17	0.6782
CR	1	0.86041711	1.16	0.2817
RC*CR	1	0.20560250	0.28	0.5985
SB*CR	1	0.00001899	0.00	0.9960
RC*SB*CR	1	0.00044986	0.00	0.9803
LG*CR	1	2.38021251	3.21	0.0737
RC*LG*CR	1	0.13364140	0.18	0.6712
SB*LG*CR	1	0.03094597	0.04	0.8381
RC*SB*LG*CR	1	0.00045440	0.00	0.9802
RA	1	0.00212586	0.00	0.9573
RC*RA	1	0.06862367	0.09	0.7610
SB*RA	1	0.88854906	1.20	0.2740
RC*SB*RA	1	0.08201724	0.11	0.7395
LG*RA	1	0.31829294	0.43	0.5124
RC*LG*RA	1	0.00125760	0.00	0.9671
SB*LG*RA	1	0.81330239	1.10	0.2952
RC*SB*LG*RA	1	0.01785172	0.02	0.8767
CR*RA	1	0.05218786	0.07	0.7908
RC*CR*RA	1	0.13041277	0.18	0.6750
SB*CR*RA	1	0.00369887	0.00	0.9437
RC*SB*CR*RA	1	0.09397821	0.13	0.7218
LG*CR*RA	1	0.00004936	0.00	0.9935
RC*LG*CR*RA	1	0.17074584	0.23	0.6314
SB*LG*CR*RA	1	0.15997265	0.22	0.6423
RC*SB*LG*CR*RA	0	0.00000000	.	.

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F
MODEL	30	42.97548571	1.43251619	2.75	0.0001
ERROR	447	232.66741264	0.52050875		
CORRECTED TOTAL	477	275.64289835			

R-SQUARE	C.V.	ROOT MSE	F6 MEAN
0.155910	3691.4100	0.72146293	0.01954437

SOURCE	DF	TYPE III SS	F VALUE	PR > F
RC	1	5.38473193	10.35	0.0014
SB	1	0.20818068	0.40	0.5274
RC*SB	1	1.96778758	3.78	0.0525
LG	1	0.29548555	0.57	0.4516
RC*LG	1	6.62818468	12.73	0.0004
SB*LG	1	0.29254142	0.56	0.4538
RC*SB*LG	1	0.18379471	0.35	0.5527
CR	1	2.43274873	4.67	0.0312
RC*CR	1	3.17437690	6.10	0.0139
SB*CR	1	0.13209729	0.25	0.6147
RC*SB*CR	1	0.78542325	1.51	0.2199
LG*CR	1	0.05100471	0.10	0.7544
RC*LG*CR	1	0.09294777	0.18	0.6728
SB*LG*CR	1	0.02707158	0.05	0.8197
RC*SB*LG*CR	1	1.02676250	1.97	0.1609
RA	1	0.04632338	0.09	0.7656
RC*RA	1	2.78422455	5.35	0.0212
SB*RA	1	1.33624371	2.57	0.1098
RC*SB*RA	1	0.03706925	0.07	0.7897
LG*RA	1	0.00626752	0.01	0.9127
RC*LG*RA	1	1.83577802	3.53	0.0610
SB*LG*RA	1	1.25932678	2.42	0.1205
RC*SB*LG*RA	1	0.04619975	0.09	0.7659
CR*RA	1	0.57352152	1.10	0.2944
RC*CR*RA	1	0.23787673	0.46	0.4994
SB*CR*RA	1	0.01574985	0.03	0.8620
RC*SB*CR*RA	1	0.15046089	0.29	0.5911
LG*CR*RA	1	0.17499194	0.34	0.5623
RC*LG*CR*RA	1	0.08574847	0.16	0.6850
SB*LG*CR*RA	1	0.38878308	0.75	0.3879
RC*SB*LG*CR*RA	0	0.00000000	.	.

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC EFF

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.56246126	49.01	7	441	0.0001
Pillai's Trace	0.43753874	49.01	7	441	0.0001
Hotelling-Lawley Trace	0.77790023	49.01	7	441	0.0001
Roy's Greatest Root	0.77790023	49.01	7	441	0.0001

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97575647	1.57	7	441	0.1437
Pillai's Trace	0.02424353	1.57	7	441	0.1437
Hotelling-Lawley Trace	0.02484588	1.57	7	441	0.1437
Roy's Greatest Root	0.02484588	1.57	7	441	0.1437

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB EFFECT					
Statistic	Value	F	Num DF	Den DF	Pr > F

Wilks' Lambda	0.97883577	1.36	7	441	0.2196
Pillai's Trace	0.02116423	1.36	7	441	0.2196
Hotelling-Lawley Trace	0.02162184	1.36	7	441	0.2196
Roy's Greatest Root	0.02162184	1.36	7	441	0.2196

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG EFFECT					
Statistic	Value	F	Num DF	Den DF	Pr > F

Wilks' Lambda	0.97402713	1.68	7	441	0.1119
Pillai's Trace	0.02597287	1.68	7	441	0.1119
Hotelling-Lawley Trace	0.02666545	1.68	7	441	0.1119
Roy's Greatest Root	0.02666545	1.68	7	441	0.1119

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*LG EFFECT					
Statistic	Value	F	Num DF	Den DF	Pr > F

Wilks' Lambda	0.96185218	2.50	7	441	0.0159
Pillai's Trace	0.03814782	2.50	7	441	0.0159
Hotelling-Lawley Trace	0.03966080	2.50	7	441	0.0159
Roy's Greatest Root	0.03966080	2.50	7	441	0.0159

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG EFFECT					
Statistic	Value	F	Num DF	Den DF	Pr > F

Wilks' Lambda	0.97472123	1.63	7	441	0.1239
Pillai's Trace	0.02527877	1.63	7	441	0.1239
Hotelling-Lawley Trace	0.02593436	1.63	7	441	0.1239
Roy's Greatest Root	0.02593436	1.63	7	441	0.1239

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*LG EFFECT					
Statistic	Value	F	Num DF	Den DF	Pr > F

Wilks' Lambda	0.98330912	1.07	7	441	0.3821
Pillai's Trace	0.01669088	1.07	7	441	0.3821
Hotelling-Lawley Trace	0.01697420	1.07	7	441	0.3821
Roy's Greatest Root	0.01697420	1.07	7	441	0.3821

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.83527255	12.42	7	441	0.0001
Pillai's Trace	0.16472745	12.42	7	441	0.0001
Hotelling-Lawley Trace	0.19721401	12.42	7	441	0.0001
Roy's Greatest Root	0.19721401	12.42	7	441	0.0001

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.95899715	2.69	7	441	0.0097
Pillai's Trace	0.04100485	2.69	7	441	0.0097
Hotelling-Lawley Trace	0.04275597	2.69	7	441	0.0097
Roy's Greatest Root	0.04275597	2.69	7	441	0.0097

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99586623	0.26	7	441	0.9683
Pillai's Trace	0.00413377	0.26	7	441	0.9683
Hotelling-Lawley Trace	0.00415093	0.26	7	441	0.9683
Roy's Greatest Root	0.00415093	0.26	7	441	0.9683

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99375081	0.40	7	441	0.9046
Pillai's Trace	0.00624919	0.40	7	441	0.9046
Hotelling-Lawley Trace	0.00628848	0.40	7	441	0.9046
Roy's Greatest Root	0.00628848	0.40	7	441	0.9046

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97876983	1.37	7	441	0.2177
Pillai's Trace	0.02123017	1.37	7	441	0.2177
Hotelling-Lawley Trace	0.02169067	1.37	7	441	0.2177
Roy's Greatest Root	0.02169067	1.37	7	441	0.2177

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99502407	0.32	7	441	0.9472
Pillai's Trace	0.00498593	0.32	7	441	0.9472
Hotelling-Lawley Trace	0.00500081	0.32	7	441	0.9472
Roy's Greatest Root	0.00500081	0.32	7	441	0.9472

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99474699	0.33	7	441	0.9389
Pillai's Trace	0.00525301	0.33	7	441	0.9389
Hotelling-Lawley Trace	0.00528075	0.33	7	441	0.9389
Roy's Greatest Root	0.00528075	0.33	7	441	0.9389

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*LG*CR EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99277071	0.46	7	441	0.8642
Pillai's Trace	0.00722929	0.46	7	441	0.8642
Hotelling-Lawley Trace	0.00728193	0.46	7	441	0.8642
Roy's Greatest Root	0.00728193	0.46	7	441	0.8642

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RA EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99610923	0.25	7	441	0.9733
Pillai's Trace	0.00389077	0.25	7	441	0.9733
Hotelling-Lawley Trace	0.00390597	0.25	7	441	0.9733
Roy's Greatest Root	0.00390597	0.25	7	441	0.9733

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*RA EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.97694907	1.49	7	441	0.1700
Pillai's Trace	0.02305093	1.49	7	441	0.1700
Hotelling-Lawley Trace	0.02359481	1.49	7	441	0.1700
Roy's Greatest Root	0.02359481	1.49	7	441	0.1700

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*RA EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.98247306	1.12	7	441	0.3467
Pillai's Trace	0.01752694	1.12	7	441	0.3467
Hotelling-Lawley Trace	0.01783962	1.12	7	441	0.3467
Roy's Greatest Root	0.01783962	1.12	7	441	0.3467

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*RA EFFECT

Statistic	Value	F	Num DF	Den DF	Pr > F
Wilks' Lambda	0.99445241	0.35	7	441	0.9295
Pillai's Trace	0.00554759	0.35	7	441	0.9295
Hotelling-Lawley Trace	0.00557854	0.35	7	441	0.9295
Roy's Greatest Root	0.00557854	0.35	7	441	0.9295

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*RA EFFECT						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99430773	0.55	7	441	0.7944	
Pillai's Trace	0.00869227	0.55	7	441	0.7944	
Hotelling-Lawley Trace	0.00876849	0.55	7	441	0.7944	
Roy's Greatest Root	0.00876849	0.55	7	441	0.7944	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*LG*RA EFFECT						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.98827132	0.75	7	441	0.6316	
Pillai's Trace	0.01172868	0.75	7	441	0.6316	
Hotelling-Lawley Trace	0.01186787	0.75	7	441	0.6316	
Roy's Greatest Root	0.01186787	0.75	7	441	0.6316	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*RA EFFEC						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.97909002	1.35	7	441	0.2271	
Pillai's Trace	0.02090998	1.35	7	441	0.2271	
Hotelling-Lawley Trace	0.02135654	1.35	7	441	0.2271	
Roy's Greatest Root	0.02135654	1.35	7	441	0.2271	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*LG*RA EFFEC						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99388297	0.39	7	441	0.9095	
Pillai's Trace	0.00611703	0.39	7	441	0.9095	
Hotelling-Lawley Trace	0.00615468	0.39	7	441	0.9095	
Roy's Greatest Root	0.00615468	0.39	7	441	0.9095	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL CR*RA EFFECT						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99112244	0.56	7	441	0.7850	
Pillai's Trace	0.00887756	0.56	7	441	0.7850	
Hotelling-Lawley Trace	0.00895707	0.56	7	441	0.7850	
Roy's Greatest Root	0.00895707	0.56	7	441	0.7850	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*CR*RA EFFECT						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.98864293	0.72	4	441	0.6520	
Pillai's Trace	0.01135707	0.72	4	441	0.6520	
Hotelling-Lawley Trace	0.01148753	0.72	4	441	0.6520	
Roy's Greatest Root	0.01148753	0.72	4	441	0.6520	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*CR*RA EFFE						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99761610	0.15	7	441	0.9938	
Pillai's Trace	0.00238390	0.15	7	441	0.9938	
Hotelling-Lawley Trace	0.00238960	0.15	7	441	0.9938	
Roy's Greatest Root	0.00238960	0.15	7	441	0.9938	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*SB*CR*RA EFFEC						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99547932	0.29	7	441	0.9593	
Pillai's Trace	0.00452068	0.29	7	441	0.9593	
Hotelling-Lawley Trace	0.00454121	0.29	7	441	0.9593	
Roy's Greatest Root	0.00454121	0.29	7	441	0.9593	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL LG*CR*RA EFFEC						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99593465	0.19	7	441	0.9867	
Pillai's Trace	0.00306535	0.19	7	441	0.9867	
Hotelling-Lawley Trace	0.00307477	0.19	7	441	0.9867	
Roy's Greatest Root	0.00307477	0.19	7	441	0.9867	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL RC*LG*CR*RA EFFE						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99291196	0.45	7	441	0.8703	
Pillai's Trace	0.00708804	0.45	7	441	0.8703	
Hotelling-Lawley Trace	0.00713863	0.45	7	441	0.8703	
Roy's Greatest Root	0.00713863	0.45	7	441	0.8703	

MANOVA TEST CRITERIA FOR THE HYPOTHESIS OF NO OVERALL SB*LG*CR*RA EFFE						
Statistic	Value	F	Num DF	Den DF	Pr > F	
Wilks' Lambda	0.99116711	0.56	7	441	0.7873	
Pillai's Trace	0.00883289	0.56	7	441	0.7873	
Hotelling-Lawley Trace	0.00891161	0.56	7	441	0.7873	
Roy's Greatest Root	0.00891161	0.56	7	441	0.7873	