

2008

Middle class identification: the influence of interclass context on middle class evaluations of morality and success

Patrick Charles Archer
Iowa State University

Follow this and additional works at: <http://lib.dr.iastate.edu/rtd>



Part of the [Sociology Commons](#)

Recommended Citation

Archer, Patrick Charles, "Middle class identification: the influence of interclass context on middle class evaluations of morality and success" (2008). *Retrospective Theses and Dissertations*. 15836.
<http://lib.dr.iastate.edu/rtd/15836>

This Dissertation is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Middle class identification: the influence of interclass context on middle class evaluations of morality and success

by

Patrick Charles Archer

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Sociology

Program of Study Committee:
Wendy J. Harrod, Major Professor
Sharon R. Bird
Susan D. Stewart
Carl W. Roberts
Carolyn E. Cutrona

Iowa State University

Ames, Iowa

2008

Copyright © Patrick Charles Archer, 2008. All rights reserved.

UMI Number: 3316194

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.



UMI Microform 3316194
Copyright 2008 by ProQuest LLC
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

TABLE OF CONTENTS

LIST OF FIGURES	v
LIST OF TABLES	vi
ACKNOWLEDGMENTS	viii
ABSTRACT	ix
CHAPTER ONE: INTRODUCTION	1
CHAPTER TWO: LITERATURE REVIEW	7
Class Identities: A History of Research and Measurement	8
Centers and the Psychological Study of Social Class	9
The Meaning of Class Self-Placements	13
Class as a Position vs. Class as an Identity	15
The Locus of Class Structure and Identification	16
The Relevance of Class Identities	20
A Social Identity Theory Approach	22
The Positive Distinctiveness Hypothesis	25
Ingroup Bias	28
Differentiation	31
The Identity Maintenance Strategies of Low Status Groups	33
Limitations of Social Identity Theory	36
The Reluctance to Measure Identification Directly	36
The Relationship Between Identification and Bias	40
Social Identity and Class	43
Lamont and the Class Identified	45
The Working Class Identified	45
The Middle Class Identified	48
Sociostructural Characteristics of Intergroup Relations	49
Permeability	50
Legitimacy	51
Stability	52
The Plan of the Present Study	55
The Impact of Interclass Context on Class Identification	56
Interclass Context and the Sociostructural Characteristics of Interclass	
Relations	57
The Impact of Interclass Context on Ingroup Bias	58
The Mediating Effect of Class Identification	60
Effects of Sociostructural Characteristics on Class Identification	60
Effects of Sociostructural Characteristics on Ingroup Bias	61

CHAPTER THREE: METHODS	64
Participants	64
Procedures	65
Measures	66
Experimental Manipulation and Manipulation Check	67
Sociostructural Characteristics of Interclass Relations	68
Permeability	68
Legitimacy	69
Stability	71
Class Identification	75
Ingroup Bias	78
Moral and Success Bias	78
Warmth and Closeness Thermometers	81
Tajfel Matrices	82
Demographics and Family Background	85
Methods of Analysis	85
CHAPTER FOUR: RESULTS	87
A Brief Overview of the Sample	87
Experimental Manipulation Check	89
The Impact of Interclass Context on Class Identification	90
The Impact of Interclass Context on Perceptions of Interclass Relations	91
The Impact of Interclass Context on Ingroup Bias	93
The Mediating Effect of Class Identification	98
Effects of Sociostructural Characteristics on Class Identification	100
The Effects of Interclass Relations on Centrality	101
The Effects of Interclass Relations on Ingroup Affect	103
The Effects of Interclass Relations on Ingroup Ties	103
Effects of Sociostructural Characteristics on Ingroup Bias	105
The Effects of Interclass Relations on Moral Bias	106
The Effects of Interclass Relations on Success Bias	107
Class Identification as a Mediator	109
Mediation of Class Identification on Moral Bias	110
Mediation of Class Identification on Success Bias	112
A Structural Equation Modeling Approach to Mediation	112
Measurement Model	114
Structural Model	116
Centrality as a Mediator	117
Ingroup Affect as a Mediator	120
Ingroup Ties as a Mediator	122
The Influence of Experimental Condition	124
A Comparison of the Two Approaches to Mediation: Regression and SEM	125

CHAPTER FIVE: DISCUSSION	127
The Implications of Interclass Context for Class Identification	127
Sociostructural Characteristics and Interclass Context	129
Permeability and Interclass Context	129
Legitimacy and Interclass Context	130
Stability and Interclass Context	131
The Implications of Interclass Context for Ingroup Bias	131
Moral and Success Bias	132
Warmth and Closeness Bias	134
Bias in Allocations of Tax Rebates and Tax Increases	134
Sociostructural Characteristics and Class Identification	135
Effects of Permeability on Class Identification	135
Effects of Legitimacy on Class Identification	137
Effects of Stability on Class Identification	138
Sociostructural Characteristics and Moral and Success Bias	139
Effects of Permeability on Moral and Success Bias	139
Effects of Legitimacy on Moral and Success Bias	140
Effects of Stability on Moral and Success Bias	140
On the Absence of a Mediating Effect of Class Identification	141
Implications for Social Identity Theory	142
Implications for Class Analysis	144
Limitations of the Study	146
Suggestions for Future Research	147
Conclusion	148
APPENDIX A: SURVEY REQUEST EMAIL	150
APPENDIX B: INFORMED CONSENT DOCUMENT	151
APPENDIX C: SURVEY INSTRUMENT	152
REFERENCES	164

LIST OF FIGURES

Figure 2.1	Distribution of Reward Choices in Tajfel's Dot Experiment	27
Figure 2.2	Evans, Kelley, and Kolosi's (1992) Depiction of Social Class	53
Figure 3.1	Example of Allocation Task and Tajfel Matrices	83
Figure 4.1	The Interaction of Experimental Condition (Middle-to-Working, Middle-to-Upper) and Evaluative Dimension (Moral, Success) on Ingroup Bias	95
Figure 4.2	Three-Way Interaction of Experimental Condition (Middle-to-Working, Middle-to-Upper), Dimension (Moral, Success), and Target (Ingroup, Outgroup) on Evaluation	96
Figure 4.3	Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Centrality, and Moderation by Experimental Condition	117
Figure 4.4	Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Ingroup Affect, and Moderation by Experimental Condition	121
Figure 4.5	Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Ingroup Ties, and Moderation by Experimental Condition	123
Figure 4.6	Standardized Coefficients from the Structural Equation Model Showing the Influence of Experimental Condition on the Sociostructural Characteristics of Interclass Relations, Class Identification, and Ingroup Bias	126

LIST OF TABLES

Table 3.1	Item Loadings for Interclass Permeability from a Principal Factor Analysis by Experimental Condition	70
Table 3.2	Item Loadings for Interclass Legitimacy from a Principal Factor Analysis by Experimental Condition	72
Table 3.3	Distribution of Responses to Questions about Class Structure 30 Years Ago and Today ($N = 657$)	74
Table 3.4	Distribution of Responses to Questions about Class Structure Today and 30 Years in the Future ($N = 648$)	75
Table 3.5	Item Loadings for Class Identification from Principal Factor Analysis with Oblimin Rotation by Experimental Condition	77
Table 3.6	Item Loadings for Morality and Success Evaluations from a Principal Factor Analysis with Oblimin Rotation by Experimental Condition	80
Table 4.1	Demographic Characteristics of Participants ($N = 676$)	88
Table 4.2	Class Identification by Experimental Condition	91
Table 4.3	Permeability, Legitimacy, and Stability Measures by Experimental Condition	92
Table 4.4	Means and Standard Deviations of Ingroup/Outgroup Evaluations and Bias by Condition	94
Table 4.5	Frequency Distribution of Tajfel Pull Score Values for the Allocation of Tax Rebates and Tax Increases by Experimental Condition	99
Table 4.6	Intercorrelations of Bias, Sociostructural Characteristics, and Class Identification by Experimental Condition	100
Table 4.7	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Centrality ($N = 476$)	102
Table 4.8	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Ingroup Affect ($N = 476$)	104

Table 4.9	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Ingroup Ties ($N = 476$)	105
Table 4.10	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Moral Bias ($N = 476$)	107
Table 4.11	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Success Bias ($N = 476$)	108
Table 4.12	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, Stability, and Class Identification as Predictors of Moral Bias ($N = 476$)	111
Table 4.13	Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, Stability, and Class Identification as Predictors of Success Bias ($N = 476$)	113

ACKNOWLEDGMENTS

I wish to thank my major professor, Dr. Wendy Harrod, for her encouragement, suggestions, and guidance throughout my graduate career. Our conversations have made me a better scholar. I would also like to thank the members of my dissertation committee, Drs. Sharon Bird, Susan Stewart, Carl Roberts, and Carolyn Cutrona, and everyone else who played a part in the completion of this research. Your time and advice were indispensable.

I am very grateful to my mother for her constant support and for showing, through her example, that finishing was indeed possible. I would also like to thank my father for listening to my ramblings on social class as I was figuring out exactly what it was I wanted to do.

Finally, I would like to thank my wife Lindsay for being patient and understanding throughout the many years it has taken to finish this degree. You are the love of my life and my best friend. William, you were my motivation.

Thank you all.

ABSTRACT

This study explored the influence of interclass context on how people identify themselves as middle class. Data were collected from 676 employees of Iowa State University who categorized themselves as being in the middle class. Using an online survey design, all participants were randomly selected into an experimental condition in which they were asked to compare their own social class (i.e., the middle class) with either the working class or the upper class. In agreement with social identity theory, participants evaluated members of the upper class to be more successful, but less moral, than members of the middle class. On the other hand, while members of the working class were seen as less successful than members of the middle class, they were rated higher on morality. Results also show that participants perceived the relations between the middle class and the working class to be more permeable and less legitimate than the relations between the middle class and the upper class. Thus, results indicate that the middle class participants found themselves to be more similar to, and less distinct from, the working class in comparison to the upper class.

CHAPTER ONE: INTRODUCTION

There is no consensus definition of “middle class,” neither is there an official government definition. What constitutes the middle class is relative, subjective, and not easily defined. (Cashell, 2007)

The above quote sums up the challenge of defining social class in the United States. It comes from a special report prepared early in 2007 for Congress in response to a request for a definition of the middle class. Brian W. Cashell, a specialist in quantitative economics in the Government and Finance Division, came to this conclusion after comparing income distribution data with opinion survey data. Analysts in this division are responsible for providing accurate, unbiased information to Members of Congress. Cashell found that those who categorized themselves as middle class had household incomes ranging from approximately \$38,000 at the low end to over \$250,000 at the high end. Thus, he questioned the precision of defining the middle class using income distributions. The finding that income is not a reliable predictor of class, and vice versa, has a long and contentious history in sociology. For instance, the discrepancy between objective and subjective measures of class has led some theorists to assume that Americans are either not class conscious or do not identify with their class. The purpose of this study was to challenge this assumption by examining how people identify as middle class.

Despite the fundamental importance of class analysis to sociology, the struggle to determine what objective factors make a class a “class” has historically overshadowed the analysis of subjective class identification. The tendency to employ class in objective terms has led to an incomplete understanding of how relations to a social class structure can contribute to the development of the self. As a result, class analysis has been historically one-sided with little insight into the various facets of subjective class identities. There are a

number of reasons for the lack of interest in subjective class identities: (1) a stigma surrounds the use of traditional class-placement questions; (2) the theoretical analysis of class has developed separately from the analysis of identity; and (3) the link between social class and the individual has for the most part been ignored in psychology.

Subjective class categorization is most commonly determined by asking people to select from a list of options—which can vary in number and name—the social class with which they belong. This categorization has come to be called the traditional class-placement question (Vanneman & Cannon, 1987). However, a stigma surrounds the use of the traditional class-placement question because of its inability to correspond to objective class locations. Much of this stigma is the result of disagreements over the meaning of answers to this type of question, and not necessarily its use. For example, answers to traditional class-placement questions have been used as evidence for (e.g., Centers, 1949) and against (e.g., Kingston, 2000) such complex sociological and psychological constructs as class consciousness and class identification. Because of these inconsistencies, a more nuanced measure of subjective class is needed in order to analyze class identification from a social psychological perspective. Recent methodological developments in the operationalization of social identification (e.g., Cameron, 2004) represent a step in this direction.

In addition to methodological concerns, there has been a theoretical mismatch between the study of objective indicators of social class and the subjective experience of living and interacting within a class structure. This is due to the separate development of class and identity analyses (Lawler, 2005). Within sociology, class theorists have focused on the fundamental cleavages of social class with little attention given to subjective dimensions. Identity theorists, on the other hand, are rooted in psychology, a discipline which has

historically left the study larger social issues to sociologists and economists (Argyle, 1994; Brown, Fukunga, Umemota, & Wicker, 1996; Fouad & Brown, 2000; Frable, 1997).

Therefore, what is needed is a theoretical perspective capable of bridging the analysis of class and identity. Social identity theory, with its focus on social identification and social interaction, represents such a perspective.

Social identity theory is essentially a theory of intergroup relations. A social identity is derived from the sense of belonging or attachment a person develops as a member of a social category or group (Hogg, Terry, & White, 1995). In view of that, the central assumption of this theory is that people are motivated to maintain group identities that reflect back positively on the self, when compared to relevant outgroups. Thus, social identities are relative. Given the insight by Cashell in his report to Congress, so is class. Therefore, an examination of class identification from a social identity perspective must focus on the relations between classes, rather than class categories in isolation. For that reason, in this study I focused on the class identification of the middle class in relation to two specific outgroups: the working class and the upper class. By doing so, I was able to examine a topic that is not often studied in class analysis outside of Marxist circles: the relations between social classes as groups.

Social identity theory, with its focus on intergroup relations, represents an ideal framework from which to tackle the elusive concept of class identification. However, this theory is not without its limits. For instance, despite a call to focus on “large-scale social processes” (Tajfel, Jaspers, & Fraser, 1984, p. 3), class identification has never been the focus of social identity research. Michèle Lamont (1992, 2000), while not a social identity theorist, extensively examined the interclass relations of middle and working class men. A

common theme in her work was the use of morality by working class men to positively distinguish themselves from the middle class. Based on Lamont's work, I focused on alternative ways in which the middle class could positively distinguish themselves from the working class and the upper class. Specifically, I concentrated on middle class evaluations of both ingroup and outgroup members on dimensions of morality and success.

In addition, despite the fundamental importance of identification to social identity processes, there has been a reluctance to measure this concept directly (Huddy, 2001, 2002). Therefore, an additional goal of this study was to measure class identification using Cameron's (2004) recently developed three-factor model of identification. The three factors of this model represent distinct, but related, aspects of identification. First, the "centrality" factor is meant to capture the importance and accessibility of the group identity. Second, the factor called "ingroup affect" assesses the emotions associated with group membership. Finally, a factor called "ingroup ties" gauges the perceived interdependence of group members. Through these three factors, I was able to examine the various ways in which the middle class identified with their class as a group.

In a state of the field address, Turner (1999) critiqued the absence of sociostructural characteristics in social identity research. Turner was referring to the characteristics of intergroup relations that can influence processes of social identification and ingroup bias. Of these characteristics, permeability corresponds to the distinctions between groups, legitimacy stands for the validity of status differences, and stability refers to the consistency of group relations. Very rarely have all three characteristics been accounted for in the same study (for exceptions see Ellemers, Wilke, & van Knippenberg, 1993; Mummendey & colleagues, 1999a, 1999b), and there is no research, that I am aware of, that has compared these

characteristics across intergroup contexts. Therefore, I have incorporated in this study of middle class identification, perceptions of the permeability, legitimacy, and stability of interclass relations.

It should be noted that the aforementioned sociostructural characteristics are theorized to operate through their influence on identification (Tajfel & Turner, 1979). For instance, social identity theory states that people are motivated to maintain positive social identities in relation to relevant outgroups. Therefore, identification leads to identity maintenance strategies such as ingroup bias or social competition. These strategies work to maintain a positive group identity. The permeability, legitimacy, and stability of intergroup relations do not directly influence identity maintenance strategies, but they do so through their influence on group identification. For example, people will be more or less identified with a group depending on the permeability, legitimacy, and stability of intergroup relations. As a result, in this study, I examined a complete model of class identification by conceptualizing class identification as a mediator between the sociostructural characteristics of interclass relations and evaluations of moral and success bias.

No previous research has sought to integrate social identity theory with the study of social class. In this brief introduction, I have argued that this integration would be beneficial to both the analysis of social class and to the further development of social identity theory. Therefore, the purpose of the present study was to examine how people socially identify themselves as middle class by focusing on the specific relations of the middle class in comparison to the working and upper class. Of particular interest was the ways in which the middle class-identified maintained positive class identities in relation to each of these other class groups, paying specific attention to moral and success evaluations. I also examined the

influence of interclass context on perceptions of the permeability, legitimacy, and stability of interclass relations. Finally, I tested a complete model of social identity processes, with class identification entered as a mediator of the effects of the sociostructural characteristics on moral and success bias, and interclass context as a moderator of the model as a whole.

CHAPTER TWO: LITERATURE REVIEW

In February of 1940, *Fortune* magazine reported results from a Roper poll that had asked a sample of American men to report their own social class. The responses of these men were grouped into three categories—upper class, middle class and lower class—with the vast majority (~80%) ending up as middle class. Thus, in a post-depression/pre-World War II America, when unemployment rates remained high and President Roosevelt declared that as much as a third of the U.S. population was ill-fed, ill-housed, and ill-clothed, the idea that Americans thought of themselves as middle class became conventional wisdom (Miller, 1995). In the decades to follow it became apparent that the connection between class identification and objective class location was weak at best (Kingston, 2000). Whether people were wrong about their own class identities or simply differed from class theorists in how they saw the world, the result was that the study of class identification faded from the sociological landscape in favor of objective class locations. With this research I hope to revitalize the study of class identification by approaching social class from a social psychological perspective: social identity theory.

I begin this chapter by arguing that the lack of sociological interest in class identities is largely due to the validity, or lack-thereof, of class identification measures. This section includes a brief discussion of the history of the study of class identification and the stigma that has been associated with it. Next, I discuss the theoretical and methodological mismatch that has developed between the study of social class as a position and class as an identity. In this section I touch on the continued relevance of class identities as they relate to class theory in general. Third, I introduce social identity theory as a perspective that can revive the study

of class identities without the limitations of previous research. Finally, I lay out a plan for the empirical study of social class from a social identity perspective.

Class Identities: A History of Research and Measurement

The relative lack of contemporary research on the study of class as an identity is due in part to the stigma that surrounds the use of traditional class-placement questions (e.g., “Which social class would you say you belong to?”). It should be pointed out that there is nothing inherently flawed with this type of question and it has been used to explore a number of issues relevant to subjective class placement.¹ The problem with the traditional class-placement question lies in its meaning, not exclusively its use. For example, this simple question has been used as evidence for and against the existence of such complex sociological and psychological constructs as class consciousness and class identification. Class consciousness is typically defined in sociology as the understandings that people have of their class interests (Wright, 1997), while identity is broadly defined in social psychology as the meanings or attachments that individuals have in regards to various social positions, categories, or roles (Hogg et al., 1995; Stets & Burke, 2000). It could be argued that an attachment to a social class and the awareness of class interests are not one and the same. The use of the traditional class-placement question to operationalize both constructs is testament to the lack of agreement as to what the answers to this question actually mean. Despite its limitations, however, the history of the psychological study of social class is tied to the use of the traditional class-placement question.

¹ See Jackman & Jackman (1983) for a comprehensive example.

Centers and the Psychological Study of Social class

Richard Centers (1949) initiated the psychological study of social class and the use of the traditional class-placement question. Reacting to the aforementioned results published by *Fortune* magazine (1940, February), Centers (1949) set out to show that Americans were in fact conscious, not ignorant, of their class position and that the *Fortune* findings were the result of specific methodological choices. The *Fortune* survey had used the following open-ended question to assess class identification: “What word do you use to name the class in America you belong to?” The choice to lump the answers into only three categories—upper, middle, and lower—was made by the researchers collecting the data, not the respondents themselves. In order to show what he expected to be a greater variation of response, Centers used the following closed-ended question with four answer choices: “If you were asked to use one of these four names for your social class, which would you say you belonged in: the middle class, lower class, working class or upper class?” According to the results from a nationally representative sample ($N = 1,097$) a greater proportion of respondents claimed a working class identity (51%) than a middle class identity (43%).² The findings led Centers to exclaim that “the answers will convincingly dispel any doubt that Americans are class conscious, and quite as quickly quell any glib assertions like *Fortune*’s America is ‘Middle Class’” (p. 76).

Centers’ research was groundbreaking in that it could be considered the first psychological study of social class. He used his empirical findings to support what he called an “interest group theory of social classes” (Centers, 1949). According to this theoretical

² The sample was considered nationally representative for the time, but only contained a cross-section of white males.

perspective, class can only be understood as a psychological phenomenon. It is to be differentiated from stratification, which is objectively determined. Unlike objective indicators of stratification (e.g., occupation, education, and income), class is characterized by “a feeling on his part [i.e., the individual] of belongingness to something; an identification with something larger than himself” (p. 27; bracketed content added for clarification). Therefore, from this perspective two individuals can identify with the same class while differing significantly in income, occupation, and education. Centers conceded the influence of objective socioeconomic factors on class identification, but argued that they are not the sole determinants.

Despite his seminal contributions to the field, critics were quick to question Centers’ use of a single forced choice survey question to measure consciousness and identification (Case, 1955; Vanneman & Cannon, 1987). As a result, following Centers’ innovative study a substantial body of research developed on the measurement of subjective social class. Initially, of most concern was the influence of question type and wording on class identification. Concerning question type, the controversy over the superiority of either closed (i.e., forced choice) or open (i.e., free choice) question forms is not exclusive to the study of class identification and has been the source of a significant amount of experimental research across disciplines (See Schuman and Presser [1981] for a literature review and systematic comparison of the two question forms). Within the study of social class, a number of studies have discovered significant differences between the use of open and closed class identification questions (Gross, 1953; Haer, 1957; Rosenberg, 1953). Gross (1953), for example, argued that pre-determined categories should not be needed to get at class identities if class is such an important part of an individual’s self-concept. He compared answers to

open and closed versions of a class identification question and found that people were much less likely to identify themselves as working class in the open-ended condition (11%) than in the closed-ended condition (45%). There was also a small drop in the number of respondents that identified themselves as middle class in the open-ended condition (31%) compared to the closed-ended condition (42%). The bulk of the difference between the two conditions appeared in the number of people who either claimed no class (14%) or reported a “don’t know” response (20%) in the open-ended condition. As a result, Gross and other researchers (e.g., Haer, 1957; Rosenberg, 1953) have used the differences between open and closed class identification questions as evidence that, for many people, class identification is a fiction generated by forced-choice questions.

The comparisons of open and closed class identification questions by Gross (1953) and others at the very least indicates that answers to one form cannot reliably predict answers to the other. However, there is little evidence that forced answer choices bias respondents to the extent that they provide answers that they would not have thought of themselves. Schuman and Presser (1981) found in their analysis of open and closed question forms that the failure of the closed-question form was not in the misrepresentation of respondents but in the unrepresentativeness of the categories used by researchers. Ideally, answers provided from an open-question form would be used to construct the categories of a closed-question form when possible. Gross’s (1953) own results indicated that only 15% of his open-question sample provided class responses other than the categories used in his closed-question sample (i.e., upper, middle, working, lower). While the two forms do not match identically, the amount of shared variance is large enough to consider the closed-question categories as an adequate approximation of the open-question results. It should also be noted that the open-

question form is not without its own limitations. Vanneman and Cannon (1987) have pointed out that while closed-ended questions limit answer choices, open-ended questions produce middle-range responses by not providing any information as to the categories of interest. Despite its limitations, the closed-question form has won in practice due to its efficiency in interviewing, coding, and analysis (Schuman & Presser, 1981).

Along with manipulations of question form, the traditional class placement question has undergone numerous changes both in the question text as well as in the number and name of response categories. One of the first disagreements over the number and name of response categories was fought over the inclusion of “lower middle class” and “upper middle class” as answer choices. The argument began when Hamilton (1966a) found that over half of a sample of respondents who were clerical or sales workers identified themselves as working class. This contradicted the then popular notion that white collar workers thought of themselves as middle class. Reacting against this finding, Tucker (1966) tried to replicate the study on a greater, more representative scale. He found what he hypothesized, namely that the clerical and sales workers in his sample categorized themselves as middle class more than working class. However, the answer choices to the class identification question in Tucker’s analysis included a lower and upper middle class option. As a result, Hamilton (1966b) dismissed Tucker’s results as attributable to changes in question wording. Schreiber and Nygreen (1970) agreed with Hamilton and replicated Tucker’s study using the same dataset (i.e., the Survey Research Center (SRC) Election Studies), but focused on multiple years of data. They found that the SRC recorded class differently in 1963, the year from which Tucker based his study, and that in other years the percentage of working-class identification varied but never dropped as low as Tucker found. They concluded that by using six answer

choices in 1963, the class question took on an ordinal scale form as opposed to a nominal categorical ranking. Thus, they argued that respondents were ranking themselves on a continuum as opposed to selecting an identity. This is just one of many examples of how changes in the number and name of response categories can influence the distribution of class identification. Schreiber and Nygreen's study was unique in that it provided an example of how easily the meaning or understanding of the question can be changed.

The Meaning of Class Self-Placements

What does it mean when respondents choose a class label on a traditional class-placement question? What does it suggest, if anything, when they choose middle class as opposed to working class? Despite extensive research on the subject, researchers have been relatively unsuccessful in finding the determinants of class self-placements. For example, Hodge and Treiman (1968) found that education, occupation, and income only accounted for about 20% of the variation in class placements. They found that social contacts (e.g., number of low and high status friends, family members, and neighbors) had a strong and unique influence on class placements, even when controlling for stratification indicators, but the total variance explained remained low ($R^2 = .24$). Regardless of this lack of predictability, Hodge and Treiman concluded that class identities were as much a function of interclass contact (within what they considered to be heterogeneous status groups) as they were a function of socioeconomic status. These conclusions called into question the importance of class, defined in socioeconomic terms, in predicting class self-placement.

Jackman and Jackman (1973) reanalyzed Hodge and Treiman's findings in the form of a number of structural models. Using these models they elaborated on the relationship between social contacts, socioeconomic status (SES), and class placement. Contrary to

Hodge and Treiman, they did not find the status of social contacts to be independent of SES in the prediction of class placement. They found the likelihood of having high status social contacts to be a direct function of socioeconomic status, which then partially mediated the relationship between socioeconomic status and class placement. To put it simply, the Jackmans found an individual's socioeconomic status to be strongly correlated with the socioeconomic status of his or her friends and neighbors. However, while the Jackmans' findings restored the importance of socioeconomic status in predicting class placement, their most complete model only explained 30% of the variance in class placement.

Thus, while these authors have disagreed on the meanings of class placement (see Hodge, 1986, 1987; Jackman & Jackman, 1987) they agreed that at best they could only moderately explain class placements. Consequently, if objective class and social contacts do not predict class placement, how should traditional class-placement questions be interpreted? The answer to this question, in practice, has depended on the agenda of the researcher. Jackman and Jackman (1983), for example, emphasized "popular" conceptions of class and set out "to explore and delineate the place of class in the popular consciousness" (p. 9). Thus, the use of the traditional class-placement question was warranted because it captures a person's perception of social class as opposed to an imposed objective class location. However, while the traditional class-placement question can be used to investigate a wide range of issues, class identities cannot be found in the answers to a simple class-placement question. According to social identity theory, social identities are inherently relational. The traditional class-placement question not only does not provide any information as to the sense of belonging or attachment a person develops as a member of a social class, it also does not reveal how the existence of a class identity is dependent on relevant class non-identities

(e.g., how much of a middle class identity is determined by *not* identifying as working class?). While it is obvious that a more nuanced measure of subjective class is needed in order to analyze class identification from a social psychological perspective, it is necessary to first discuss the theoretical and methodological mismatch that has developed between class as a position and class as an identity.

Class as a Position vs. Class as an Identity

Taken as a whole, there has been a mismatch both theoretically and methodologically between the study of social class as an objective indicator of peoples' position within a social structure and their subjective experience of living and interacting within that social structure. According to Lawler (2005), this mismatch is due to the fact that, "Historically, theoretical analysis of class developed separately from analyses of either culture or identity" (p. 797). For instance, while there has been a great deal of debate among class theorists regarding the fundamental cleavages of society (e.g., occupation vs. class), most demarcate class in terms of objective class locations with little attention given to the subjective dimensions of class. The omission of class from identity research is the result of social psychology's roots in psychology, which has mostly left the analysis of class to economics and sociology (Argyle, 1994; Brown et al., 1996; Fouad & Brown, 2000; Frable, 1997). As a result, what is needed is a social psychological approach to social class that theoretically and methodologically emphasizes the link between class as a social structure and the individuals who make up this structure. Before I can outline such an approach it is essential that I first justify that class is in fact a defining factor in people's lives (as opposed to occupation) and that class identities are indeed relevant.

The Locus of Class Structure and Identification

Where is the locus of the foundations of class structure and identification? Is it on occupational groupings as Grusky and Sørensen (1998) have suggested, or is it on the broad, overarching, nominalist class categories that Portes (2000) has called for? By contrasting the realist and nominalist arguments of Grusky and Sørensen and Portes, I argue that the use of occupations as the locus of class structure and identification mirrors the tendency in sociology to focus on objective (i.e., “real”) divisions in society. However, a nominalist class view is a better reflection of social stratification in that it can explain social processes that are beyond the scope of a realist class view, such as the intergenerational transmission of class, residential patterns, and social identification.

Grusky and Sørensen (1998) built upon Durkheim to put forth a realist view of class relations. In *The Division of Labor in Society*, Durkheim (1947 [1893]) argued that as work becomes more segmented the professional group would play an increasingly important role in connecting individuals to the larger “state.” Even though Durkheim did not suggest the “extreme disaggregation” that Grusky and Sørensen have proposed, he did avoid the use of overwhelmingly aggregate terms to describe social stratification. Using what they called a “quasi-Durkheimian third road”, Grusky and Sørensen (1998) advocated a disaggregate analysis of social stratification in the form of occupational groupings. Based on a number of premises, the authors argued that occupational groupings, contrary to aggregate class groupings, represent real cleavages among people in society. First, they argued that occupational groupings contribute significantly to the identity of the majority of workers. While there is little doubt that people do in fact identify with their occupation and with the expectations, statuses, and roles associated with these positions, Grusky and Sørensen

considered occupation to be the defining social identity. Second, they argued that people are more consistent in their identification with and ranking of occupational groupings than they are with aggregate class rankings. Thus, occupational groups are “real,” concrete entities that are perceived and experienced directly. Third, they argued that social closure is centered on occupations, not aggregate social classes, through the control of private property and credentialism. As an extension of this point, they put forth that other aspects of social stratification (e.g., housing, social networks) are significantly influenced by occupation. Fourth, Grusky and Sørensen argued that people act collectively in the interest of their specific occupational groupings, not in the interest of an aggregate class membership. The authors supported this with examples of how occupational groupings relate towards superior, subordinate, and parallel groupings in the occupational structure. Finally, they argued that lives and lifestyles are influenced by and organized around occupational groupings, not aggregate classes.

The realist class view put forth by Grusky and Sørensen is limited in scope in that it focuses only on what people directly experience, and in fact, only one dimension of this experience, the workplace. Portes (2000) argued against this realist class view and built a nominalist class view on what he defined as the four core elements of class analysis. The first of these elements is the belief that there is an underlying structure to the inequality manifested in society and it cannot be understood in terms of “superficial manifestations” (i.e., occupational groupings). Although it could be argued that such things as race and gender inequality are reproduced at the occupational level, it is obvious that there are other social processes at work. A second key element proposed by Portes was that, “classes are defined by their relationships to each other” (p. 259). As I will show, according to social

identity theory, it is the relationship between groups that defines a social identity. The relationships among people of different occupational groupings are not the only defining feature of social interaction in society. Third, an important feature of a class system is the unequal distribution of power in society. Power can be distributed through occupations, but is also related to human or social capital that may or may not be tied to an individual's occupation. Finally, Portes argued that class is transmitted across generations. Overall, Portes's nominalist class view is centered on explaining broad social processes that cannot be understood when class is disaggregated to the occupational level.

The question then becomes, which is a better indicator of social stratification, a nominalist or realist class view? Earlier, I mentioned that a nominalist class view has the potential to explain social processes (e.g., the intergenerational transmission of class, residential patterns, and social identification) that are beyond the scope of a realist class view that disaggregates class down to occupational groupings. The intergenerational transmission of class or privilege cannot be supported from a realist class view that focuses on occupational groupings. For example, McMurrer and Sawhill (1998) found that the correlation between the incomes of fathers and sons in the United States is statistically significant at a fairly high level. In addition, they found a correlation between the occupations of these two generations. On the surface, this would seem to support the realist class view, but McMurrer and Sawhill did not find a correlation between specific occupations but between aggregate categories such as blue-collar or white-collar. The fact that a son born to a father with a white-collar occupation has an increased chance of working in a white-collar occupation is not related to the specific occupation of the father as much as it is

probably related to other factors such as the income and quality of education available to this son.

Occupational groupings also do not explain the influence of residential patterns in society. In a comparison of low income and high income urban areas, Mulvey (2002) found that those who lived in high income urban areas reported a higher quality of life than those who lived in lower income urban areas. While there might be some correlation between occupational grouping and the type of area people live in, there is bound to be a significant amount of overlap in residential choice across occupations. This raises the question of what would be the difference between a realist class view that focuses on occupational groupings and a view that instead focuses on neighborhood groupings? Both would represent “real” cleavages among people in society.

The strength of using a nominalist or class-based approach to social stratification, as discussed above, is that aggregate categories allow for a better understanding of a wide range of social processes. Occupational groupings can be important in determining a person’s class, but there is more to the unequal distribution of resources in society than the distribution of people among various occupations. Likewise, an individual’s occupation may be an important part of his or her class identity, but other factors are also important, such as: inherited class (i.e., parents’ or family’s class), type of occupation (e.g., blue collar, white collar), residence, consumption patterns, and social networks. However, it is essential to a nominalist view of class identification that people think of themselves in class terms. Thus, class identities must be relevant.

The Relevance of Class Identities

Disagreement over the continued relevance of class identities has become one of the most divisive issues in class analysis. According to Savage, Bagnall, and Longhurst (2001), the study of class has developed into three opposing camps: (1) those who pronounce the death of class identities and the futility of class analysis in general (e.g., Bauman, 1982; Beck, 1992; Giddens, 1990); (2) those who defend class analysis while acknowledging the ambivalence, nonexistence, or avoidance of class identities (e.g., Goldthorpe, 1996, 1998; Skeggs, 1997); and (3) those who argue for the continued salience of class identities (e.g., Devine, 1992a, 1992b, 1998; Marshall, Newby, Rose, & Vogler, 1988).

A defining feature of the first camp, especially of the work of Beck and Giddens, is a shift in focus from class to the individual (Savage, 2000). From this perspective, structural forces continue to be influential but in the modern world individuals are separated from the historical foundations from which structural forces arise. For Beck, class is a “zombie category.” That is, the idea of class lives on even though the reality of class relations has been long dead (Beck & Willms, 2004). This position is summed up in his argument that “society can no longer look in the mirror and see social classes. The mirror has been smashed and all we have left are the individualized fragments” (Beck & Willms, 2004, p. 107). Individuals relate to these fragments reflexively in that they can choose how to act in relation to them (e.g., cooperation, opposition, ignorance, denial, etc.) (Beck, 1992). For Giddens (1990), this reflexivity is present in the constant revision and reinterpretation of social relations (i.e., relations that are no longer structurally grounded by class). A criticism of the first camp, particularly of Beck and Giddens, is that they provide no clear understanding of

how an individual's relation to social forces, be it reflexive or not, relates to identity formation (Savage et al., 2001).

The second and third camps vary in terms of the salience attributed to class identities, but both differ from the first in that they emphasize the influence of social structure on social action and therefore the importance of class analysis. Towards one extreme, Goldthorpe's (1996) rational action theory (RAT) claims that class can be analyzed without the existence of class identities. According to RAT, an individual's position in the class structure creates class action as individuals make rational choices among the costs and opportunities dictated by their social class position. While variations of RAT differ in terms of how much psychological agency is allowed to rational actors, the majority of RAT researchers leave psychological processes out of the equation. At the other extreme, Marshall et al. (1988) argued that class is still one of the most important sources of social identity and bears more influence on attitudes and behavior than any other social cleavages. In addition, in a qualitative study of middle class identities Devine (2005) found that people, particularly Americans, willingly identified themselves with a class and readily referred to class when discussing social mobility, the socialization of their children, and the communities they lived in. Unlike RAT researchers, scholars from this camp are more likely to focus on the cultural dimensions of social structures (Devine & Savage, 2005).

While there has been an increase in the amount of theoretical debate over the relevance of class identities, empirical research on the subject has been limited (Savage, 2000; Savage et al., 2001). Furthermore, the research that does examine subjective social class is limited by the use of the traditional class placement question, with little insight into what answers to this question actually mean. Critics such as Kingston (2000) are correct in

pointing out the methodological and theoretical inconsistencies of subjective class research. I claim that the use of a social identity theory framework would represent a step forward in resolving these inconsistencies.

A Social Identity Theory Approach

In outlining a social identity approach to the study of organizational psychology, Haslam (2001) criticized the dominant paradigms within this field for using the individual as the primary unit of analysis. Taking an alternative approach, he argued that “we need to understand how social interaction is bound up with individuals’ *social identities* – their definition of themselves in terms of group memberships” (p. 26). Haslam argued that social identity theory can provide organizational psychology with a bridge between structural and individual processes.

The same argument can be made for the study of social class; we need to understand how class interaction is bound up with individuals’ social class identities. As I mentioned before, most class theorists demarcate class in objective terms (e.g., occupation, income, etc.), and those who have examined class subjectively have done so using the traditional class placement question. While answers to the class placement question do imply group membership to some extent, they reveal nothing in terms of the social interaction that is “bound up” in group memberships. Unlike organizational psychology, class analysis has moved away from the individual by emphasizing structure or position. Psychology, on the other hand, has focused on the individual while mostly ignoring the relationship between social class and individual psychological processes (Argyle, 1994; Brown et al., 1996; Fouad & Brown, 2000; Frable, 1997). Social identity theory is capable of bridging the structural and individual processes that have been the focus of sociology and psychology, respectively.

Under the umbrella of social identity theory, individual and societal processes are mutually reinforcing. Societal factors play an important role in the development of an individual's self-concept, and the motivation to maintain a positive self-concept influences an individual's attitudes and behavior.

Social identity theory (SIT) was created by Tajfel and his colleagues (e.g., Tajfel, 1974, 1978a, 1982; Tajfel & Turner, 1979, 1986) in the early to mid 1970s in the context of a developing European social psychology that sought to break from what was at the time a reductionist, and primarily American, mainstream social psychology (Hogg et al., 1995; Hogg & Williams, 2000). Central to this emerging European social psychology was an emphasis on the social dimension, which was defined as the social and interactive expressions of individuals (Tajfel et al., 1984). The result was a social psychology focused on the social contexts of individual thought and behavior. With this attention towards the intersections of psychological and structural processes came a reassessment of the self to include the influences of collective (i.e., social) relationships. Social identity theory, a theory of the collective self, brings together previously independent psychological and social concepts such as self-enhancement, ethnocentrism, prejudice, and intergroup conflict through the notion of social identity (Hogg & Williams, 2000).

Social identity theory at its core is a theory of intergroup behavior and intergroup conflict. According to Tajfel and Turner (1979, 1986), social interaction is patterned by the personal and social relationships shared by the people involved. In some situations interaction is guided more by interpersonal relationships (e.g., as in a discussion between a husband and wife), while in others group or category membership is the most important determining factor (e.g., nationality in a United Nations debate). In the majority of real life

situations, social interaction is likely to include elements of both personal and social relationships, with the pure form of either extreme unlikely to be found. Social identity theory is primarily concerned with the socially derived aspects of a person's self-concept (i.e., social identities) that they bring into the course of social interaction.

Social identities are derived from the sense of belonging or attachment a person develops as a member of a social category or group (Hogg et al., 1995). In order for a social category or group to become a social identity (i.e., a part of a person's self-concept) the person in question must subjectively identify themselves with that category or group (Tajfel and Turner, 1979, 1986). While identification with a social category or group is necessary it is not a sufficient condition for the development of a social identity. Social identities are also inherently relational. That is, an identity reflects positively or negatively on a person's self-concept based on how the identity compares with relevant outgroups or categories. For example, a Catholic social identity might be evaluated against other possible religiosities (e.g., is being Catholic "better" than being Lutheran, Muslim, Jewish, atheist, etc.).

Satisfactory identities become an important part of an individual's self-concept.

Unsatisfactory identities are either discarded (if possible) or made more satisfactory through more favorable comparisons or through social competition. However, it is important to note that the value allocated to a social identity is relative in that its worth depends on the dimensions of comparison. For example, it could be possible for a person to positively value being working class based on hard work and integrity, while someone who is upper class could negatively value their class position based on the guilt of being born into a life of luxury. It is in this respect that social identity theory is a promising framework for the analysis of the development of subjective class identities.

Turner, Hogg, Oakes, Reicher, and Wetherall (1987) simplified social identity theory down to two basic hypotheses: (1) people are motivated to maintain positively distinct group identities in relation to relevant outgroups; and (2) people will engage in identity maintenance strategies when membership in a group is deemed unsatisfactory. The first hypothesis developed out of the emergence of ingroup bias in minimal group situations. A minimal group is an experimental categorization of people based on relatively meaningless criteria. Explaining the emergence of bias towards a group with no previous personal meaning was an important step towards understanding how people might act in relation to more complex social identities. The second hypothesis developed as a limitation of the first. What happens when people hold group identities that are not positively distinct? All other hypotheses within social identity theory derive from the hypothesized need for positive distinctiveness or the hypothesized identity maintenance strategies of negatively valued group members.

The Positive Distinctiveness Hypothesis

The original goal of what became known as minimal group studies was “to establish minimal conditions in which an individual will, in his behaviour, distinguish between an ingroup and an outgroup” (Tajfel, 1978b, p. 77). The plan was to start with a minimal condition, in which no discrimination was expected, with the intention of adding meaning to the situation until the point at which discrimination would occur (Haslam, 2001). Unexpectedly, subjects consistently chose to reward ingroup members over outgroup members even when the rationale for intergroup categorization was essentially meaningless.

In 1970, Tajfel conducted a number of minimal group experiments using a sample of fourteen and fifteen-year-old schoolboys in Bristol, England. In the first experiment the boys

were brought into a lecture hall, eight at a time, and were asked to estimate the number of dots that were flashed on a screen in clusters. After this initial task, the boys were then asked to participate in a reward distribution experiment wherein they would be required to allot money (a tenth of a penny per point) to pairs of individuals. After being informed that they were grouped for ease of coding as “overestimators” or “underestimators” based on their answers in the flashing-dot task, the subjects were asked to fill out a booklet of reward possibilities (See Figure 2.1 for an example of one of the reward matrices). In reality, the subjects were not categorized based on task performance, but were randomly sorted into groups. Each boy completed this distribution task independently, was never asked to allocate money to himself, and was never informed of the names of the people to whom he would be allocating money. In the main experimental condition each boy was asked to select from a variety of allocation possibilities in which an ingroup member (a fellow overestimator, for example) was contrasted with an outgroup member (underestimator). The example in Figure 2.1 shows that the subjects were forced to favor one individual over another; equal rewards were not an option. In this intergroup differentiation condition the vast majority of the boys allocated more money to their own group members than outgroup members even though the categorization was random and they did not know the names of these group members. Tajfel argued that “ingroup discrimination was the deliberate strategy adopted in making intergroup choices” (p. 101).

While Tajfel’s (1970) first experiment found ingroup bias in the minimal group condition, his second experiment focused on the nature of the bias. Specifically, he examined whether his subjects employed a maximum joint profit strategy (highest combined value of ingroup and outgroup allocations), a maximum ingroup profit strategy (highest value for

These numbers are rewards for:

Ingroup member	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Outgroup member	14	13	12	11	10	9	8	7	6	5	4	3	2	1

Figure 2.1. Distribution of Reward Choices in Tajfel's Dot Experiment

ingroup, regardless of amount allocated to outgroup), or a maximum difference strategy (greatest difference between ingroup and outgroup allocations). Using a similar sample of teenage boys, Tajfel replaced the flashing dots with an aesthetic preference task. Each group of boys was asked to express their preference for a series of paintings shown on slides (the work of Wassily Kandinsky or Paul Klee). Like the first experiment, they were actually grouped randomly, but were told that they had been grouped based on their preference for the work of Kandinsky or Klee. Following the aesthetic preference task the subjects were asked to participate in a reward distribution task, as in the first experiment. In the main experimental condition, when the subjects were asked to select rewards between an ingroup and outgroup member, they once again consistently gave more rewards to ingroup members. In terms of strategy, the boys consistently selected reward distributions that maximized the difference in favor of the ingroup member instead of either maximizing joint profit or maximizing ingroup profit. Therefore, intergroup differentiation was just as important as ingroup bias.

The key finding of Tajfel's (1970) original minimal group experiments was the emergence of ingroup bias, which took on the form of the maximization of difference between ingroup and outgroup members. The key questions that emerged from the minimal

group studies, and which led to the development of social identity theory, were: (1) Why did people favor the ingroup in what appeared to be a meaningless social context?; and (2) In such situations, why did group members seek to maximize the differences between groups, rather than focus on maximizing ingroup profit?

Ingroup Bias

The findings of minimal group studies have been replicated using a number of different contexts and controlling for a wide variety of variables. While the findings are reliable, they are often misinterpreted (Haslam, 2001). The most common misinterpretation usually involves the assumption that ingroup bias is the inevitable result of group categorization. Tajfel and Turner (1979) were cautious of such deterministic thinking and argued that the emergence of ingroup bias is dependent on a number of factors.

First, Tajfel and Turner (1979) argued that in order for ingroup bias to occur the individual must have internalized the group membership; that is, they must have subjectively identified with the ingroup. Thus, the relationship between categorization and ingroup bias is mediated by identification.³ Grieve and Hogg (1999) tested this mediating relationship by arguing that identification is driven by two factors: (1) the need to reduce uncertainty in the social world; and (2) the need to maintain or enhance self-esteem. Using a standard minimal group study, they found ingroup bias only when subjects were under conditions of subjective uncertainty. Under these conditions, ingroup bias was complemented by an elevated sense of ingroup identification and self-esteem. In a similar study, Reid and Hogg (2005) found the relationship between uncertainty and ingroup bias to be dependent on the relative status of

³ Ironically, we will see that one of the main criticisms of social identity theory, and the minimal group paradigm to some extent, has been the reluctance to measure identity directly (Huddy, 2001, 2002).

the ingroup (e.g., high uncertainty led to greater ingroup identification among low status group members). In both studies, ingroup bias was influenced by identification processes, thus supporting Tajfel and Turner's (1979) warning that categorization by itself is not sufficient for ingroup bias.

Second, Tajfel and Turner (1979) argued that ingroup bias is possible only when the social situation allows for comparisons between groups on relevant attributes. Relevant comparisons, in this context, refer to evaluations on dimensions that have some bearing on the status of the group. For example, national graduate program rankings might be considered relevant to the social identification of graduate students with their department. A number of studies have found evidence of outgroup favoritism (e.g., Mummendey & Schreiber, 1983, 1984) or social cooperation (i.e., mutual acknowledgement of each group's superiority on certain characteristics; see van Knippenberg & Ellemers, 1990) when the task or comparison attributes were not relevant to the social identities at hand. In their meta-analytic examination of status differences and ingroup bias, Bettencourt, Dorr, Charlton, and Hume (2001) found patterns of ingroup favoritism and outgroup discrimination to be dependent on the status of the group and the relevance of the dimensions of intergroup comparison. For example, when the dimensions of comparison were relevant to high status group members they were much more likely to evaluate the ingroup positively and outgroups negatively. On the other hand, low status group members acknowledged the superiority of the high status group when the dimensions of comparison were relevant to this group. However, when the conditions were reversed and the dimensions of comparison were relevant to the low status group and not the high status group, high status group members not only continued to favor their own group, but were more discriminatory of low status groups.

Also, as expected low status group members favored themselves on dimensions that were relevant to their group identity, but they did not discriminate against high status groups on these dimensions. In general, Bettencourt et al. found additional support for the hypothesis that high status groups are more likely to display ingroup bias than low status groups. In addition, they found that high status groups were not as likely to engage in outgroup favoritism or social cooperation even when the dimensions of comparison were not directly relevant to the status of their group. These findings highlight the importance of status and the relevance of comparison dimensions in intergroup relations.

A third factor that can influence the emergence of ingroup bias is the relevance of the outgroup. Tajfel and Turner (1979) warned that “in-groups do not compare themselves with every cognitively available out-group” (p. 41). In order for intergroup differentiation to occur the two groups must correlate with one another on contextually relevant attributes. There has been a lack of research on outgroup relevance and ingroup bias. This is not surprising given the central place of group relevance in social identity theory. For example, it would be difficult, if not impossible, to examine the biased behavior of a group of plumbers in relation to a group of rodeo clowns, while it would be reasonable to compare Democrats and Republicans. The existence of a relationship between two or more groups is the bedrock on which social identities are created, maintained, and abandoned. However, Bettencourt et al.’s (2001) finding of high-status ingroup bias in irrelevant comparison conditions suggests the ingroup favoritism of some social identities can emerge in a variety of social situations, regardless of relevance. The adaptability of social identities has led to a multi-theoretical explanation of the intersections of bias and social status using principles from social identity

theory and the theory of status characteristics and expectation states (Oldmeadow, Platow, Foddy, & Anderson, 2003).

Differentiation

According to social identity theory in its classic form, individuals want to maintain or enhance a positive self-concept (Tajfel & Turner, 1979). Along with individual characteristics (e.g., intelligence or kindness) an individual's self-concept is influenced by the value connotations associated with group or categorical memberships. These value connotations are derived in comparison to relevant outgroups on relevant dimensions. Therefore, the value of a group membership comes from the comparison, not from the innate qualities of the group itself. From this perspective, the maximization of difference strategy used by the boys in Tajfel's (1970) minimal group experiments is justified. In this minimal condition, wherein the rationale for group membership was essentially meaningless and there was no other source from which to form positive self-concepts, Tajfel's subjects sought to distinguish themselves from the only available outgroup. Had they maximized ingroup profit and allowed the outgroup to earn even more, their motivation to be positively distinct would not have been released.

Moving away from the minimal group situation, Brown (1978) examined the intergroup differentiation strategies used by employees of an aircraft engine factory. He specifically contrasted the strategies of skilled production (P), development (D), and toolroom (T) craftsmen. The latter were involved with the servicing of machines and with the manufacture of equipment used by the other two groups (P & D). Thus, the T were at the top of the craftsman status hierarchy and were paid accordingly. The P focused on the production of finished machines while the D were involved in the development of new engines. Brown

found that the remuneration of the two groups varied over time, but that the D considered themselves to be the status superiors of the P. In order to examine the intergroup differentiation of these three groups Brown asked the workers how they thought wages should be structured amongst the three groups. In general, he found that each group sought to alter the wage structure in their favor. In particular, each group focused on specific outgroups: (1) the P emphasized their similarity to the D and acknowledged the superior status of the T; (2) the D also acknowledged the superior status of the T, but attributed a much inferior position to the P in comparison to their own; and (3) the T emphasized their superiority over both the P and the D. Within these differentiations the T gave themselves much less money than the other groups attributed to them but they maximized their superiority over these groups by awarding the other groups less money than these groups rewarded themselves.

Not only is Brown's (1978) study a good example of social identity theory in practice outside of the laboratory, it showed the interaction effects of identification and status. For example, the development craftsmen (D) attempted to maintain positive group identities by emphasizing their superiority over the P. The P, on the other hand, fostered a positive self-concept by emphasizing their similarity to the development craftsmen (D). The P, in a sense, redrew group lines for their own benefit. How did the actions of the P fit in with social identity theory's emphasis on positive distinctiveness? One explanation comes from optimal distinctiveness theory, which is an expansion of social identity theory (Brewer, 1991, 2003). According to this theoretical perspective, the motivation for positive group distinctiveness that is central to social identity theory is complicated by an equivalent motivation for individual uniqueness. According to Brewer (1991), "groups must not only satisfy members'

needs for affiliation and belonging *within* the group, they must also maintain clear boundaries that differentiate them from other groups” (p. 478). Ideally, group memberships are “optimally distinct”, meaning that individuals seek to maintain social identities that satisfy both needs for distinctiveness and assimilation. Using Brown’s (1978) study as an example, a common identification as craftsmen for the workers would not satisfy the motivation for distinctiveness within the context of the engine factory. As a result, members of each group engaged in strategies that would result in optimally distinct social identities. The toolroom craftsmen drew distinctions between themselves and the rest of the lower status craftsmen. The development craftsmen acknowledged the superiority of the toolroom craftsmen, but distinguished themselves from what they considered to be the inferior production craftsmen. Finally, the production craftsmen also acknowledged the superiority of the toolroom craftsmen, but dealt with the negative value connotations of their group status by grouping themselves with the development craftsmen. Thus, within the context of this factory these groups all engaged in different strategies that would make their group identity positively and optimally distinct. Predicting the identity maintenance strategies of social groups, particularly of low status groups, leads to the second basic hypothesis of social identity theory.

The Identity Maintenance Strategies of Low-Status Groups

Predicting the identity maintenance strategies of low-status groups has become a point of contention within social identity theory (Brown, 2000). In its classic form (e.g., Tajfel & Turner, 1986), social identity theory postulated that people in low-status groups had three options in regards to this group that could lead to a positive self-concept: (1) if possible they could leave or cease to identify with the group; (2) they could enhance the value of the group by redefining the dimensions on which the group, and relevant outgroups, are

compared (this is often labeled “social creativity”); and (3) they could engage in direct competition with a higher status group. However, the conflict amongst social identity theorists has not centered on the range of identity maintenance possibilities but on predicting which one of these strategies a low status group member will use in a specific situation.

The bulk of the research on predicting identity maintenance strategies has focused on the moderating influence of sociostructural variables (e.g., stability, legitimacy, and permeability). According to social identity theory, low status group members should engage in collective identity maintenance strategies (i.e., competition, social creativity) when they perceive their status inferiority to be stable (i.e., less likely to change) and when group boundaries are perceived to be impermeable (i.e., not crossable). In regards to the legitimacy of status differences, low status group members should be more likely to engage in direct competition with higher status groups when they perceive the status hierarchy to be illegitimate. However, legitimate status structures could lead to group disidentification or social creativity depending on the permeability and stability of group boundaries (Mummendey, Klink, Mielke, Wenzel, & Blanz, 1999b).

While there has been some support for these social identity derived hypotheses (e.g., Turner & Brown, 1978; Ellemers, 1993), other research has led to contradictory results. For example, Mummendey et al. (1999b) conducted a study on the identity maintenance strategies of East Germans in relation to West Germans. As expected, they found that stability was positively related to direct competition as an identity maintenance strategy. However, they also found permeability to be negatively related to social mobility (i.e., change of group membership), indicating that low status group members (East Germans in this case) only indicated a desire to leave the group when the permeability of group

boundaries was perceived to be low. This runs contrary to social identity theory which suggests that low status groups would only seek to leave the group if it were a viable option to do so; and thus, higher permeability should result in a greater likelihood of social mobility as an identity maintenance strategy. In addition, Mummendey et al. found relatively weak effects for legitimacy and no relationship between any of the sociostructural variables and social creativity as an identity maintenance strategy. They did, however, find that ingroup identification significantly mediated or moderated the effects of the sociostructural variables on identity maintenance strategies.

Identity maintenance strategies appear to vary with social context and sometimes because of the sociostructural characteristics within this context. The relationships between these sociostructural characteristics and identity maintenance strategies have been found to operate in ways that are not consistent with social identity theory (Mummendey et al., 1999b). However, as Brown (2000, p. 759) argued, “one promising avenue in this regard concerns the role of group identification.” A number of studies have found a negative relationship between ingroup identification and social mobility as an identity maintenance strategy (Abrams, Ando, & Hinkle, 1998; Abrams, Hinkle, & Tomkins, 1999; Ellemers, Spears, & Doosje, 1997; Mummendey et al., 1999a, 1999b), but the relationship between group identification and other identity maintenance strategies has yet to be fully developed.⁴ As a result, one goal of this study is to analyze the relationship between group identification as it relates to social class and social creativity as an identity maintenance strategy.

⁴ For examples of research on group identification and social creativity see Brown and Ross (1982) and the meta-analysis conducted by Bettencourt et al. (2001).

Limitations of Social Identity Theory

Any theoretical perspective that has been employed as often and extensively as social identity theory is going to accumulate empirical inconsistencies and theoretical criticisms. While a number of reviews have elaborated on some of the limitations of social identity theory (see Brown, 2000; Huddy, 2001, 2002), I will only elaborate on those that are relevant to this analysis. Over the last two decades social identity theory has developed into one of the most significant and popular theories in mainstream social psychology (Hogg, 2006). As a result of this popularity the social identity approach has grown to incorporate an inclusive and diverse range of conceptual components and explanatory relationships. Thus, some of the limitations of social identity theory are concerned with relationships that are not of direct interest to this study. The limitations that are of interest to this study include: (1) the reluctance to measure identification directly; and (2) the relationship between identification and bias.

The Reluctance to Measure Identification Directly

While a vast amount of research inspired by social identity theory has focused on the relationship between categorization and ingroup bias (e.g., when does bias occur, what factors qualify this relationship, what form does bias take, etc.), much less attention has been paid to the development of social identities from categorization. In fact, as Huddy (2001, 2002) has argued, research using the minimal group situation has been particularly guilty of assuming that identification results from mere categorization or is evident from the existence of bias along group lines. Social identity theory developed as an explanation for why people behaved as they did in minimal group situations. Thus, it was argued that people were biased in favor of their group because they identified with this categorization. If there was no

identification, presumably there would be no ingroup bias. Despite its importance to the creation of social identity theory, the practice of inferring identification from bias has become a roadblock to the further development of the theory, particularly when it is applied to “real life” situations.

While there has been a general reluctance to measure identification directly in social identity studies, a growing amount of research has been dedicated to this endeavor (Brown et al., 1986; Cameron, 2004; Ellemers, Kortekaas, & Ouwerkerk, 1999; Hinkle, Taylor, Fox-Cardamone, & Crook, 1989; Jackson, 2002; Karasawa, 1991; Kelly, 1988). Of greatest concern in regards to the measurement of social identification has been the dimensionality of the concept (Cameron, 2004). For example, some studies have found a bifurcate identity structure with positively phrased items forming one factor and negatively phrased items forming the other (Brown et al., 1986; Kelly, 1988). Other studies have found cognitive and affective aspects of identification to form independent but correlated factors of a larger identity structure (Ellemers et al., 1999; Hinkle et al., 1989; Jackson, 2002). However, Karasawa’s (1991) study of Japanese students found no evidence of separate cognitive and affective dimensions. Most recently, Cameron (2004) has developed a three-factor model of social identification that includes both cognitive and affective factors along with a third factor of identification that taps into the interdependence of group members. Unlike some of the operationalizations of identification in that past, Cameron’s model is grounded on a theoretical explanation for multidimensionality.

Deaux (1996) has argued that there are three basic mechanisms of identification: (1) the cognitive process of self-categorization; (2) the affective meaning of categorization; and (3) the interdependence of group members. The cognitive process of self-categorization in

social identity theory is represented by a person's knowledge of a group membership along with the value connotations associated with this membership. Cameron (2004) operationalized this mechanism of identification under the label "centrality." Cameron's centrality factor was developed to capture the importance and accessibility of the group identity. While the word accessibility conjures up a slightly different image than mere knowledge of a group membership, Cameron's focus on the cognitive accessibility of a group identity acknowledged the fact that "each of us belongs to many social groups, and yet these memberships are not likely to be of equivalent psychological meaning, or formative behavior at a given time" (p. 241).

That group memberships have affective meaning for those who hold them has been acknowledged by social identity theorists for over a quarter of a century (e.g., Tajfel, 1978a). However, this dimension of identification has often been ignored in favor of more cognitive factors. Cameron (2004) labeled the affective factor "ingroup affect." The items that compose this factor refer to the emotions associated with group membership (e.g., "In general, I'm glad to be middle class"). The more cognitive models of social identification have conceptualized affect to be a result of categorization processes (Deaux, 1996). On the other hand, by including an emotional factor in his model Cameron (2004) made affect an intrinsic component of identification.

The third mechanism of identification according to Deaux (1996), the interdependence of group members, involves concrete relationships among group members. The interpretation of interdependence from a social identity theory perspective is complex. Group members are dependent on one another in that they need each other for the group to exist, but are they interdependent in a reward-cost exchange manner? That is, do people

develop social identities and favor the ingroup because they expect to be treated similarly at some later time? This alone would not explain the actions of participants in minimal group experiments who for all intents and purposes may never be members of that group again. The proposed interdependence of group members marks the boundary of what social identity theory can explain in terms of societal and individual processes. Social identity theory does not attempt to explain the joint-action of group members. However, if interdependence is conceptualized as the psychological ties that can bind a person to a group (and to other group members), interdependence influences the identification of a person with a group. Cameron (2004) operationalized this notion of interdependence under the label “ingroup ties.” This factor was created to evaluate the extent to which a person feels a part of the group.

Cameron’s (2004) three-factor model of social identity has been used to assess identification with a number of group memberships including identification as a university student, as a male or female, as a citizen of a nation (Cameron, Duck, Terry, & Lalonde, 2005), and as a self-generated interest group member (Obst & White, 2005).⁵ In addition, the three-factor model has consistently been found to be the best-fitting model (in comparison to one and two-factor alternatives) in each of these cases. The three factors have also been found to be differently related to other theoretically relevant variables such as collective self-esteem, authoritarianism, perceived cohesion, and self-construal as independent/interdependent (Cameron, 2004). However, there has been relatively little use of this model in a larger social identity framework and little is known about exactly how each factor relates to ingroup bias, positive distinctiveness, or identity maintenance. Therefore,

⁵ Membership in a self-generated interest group was operationalized by allowing subjects to identify with a group/category that was of most interest to them (Obst & White, 2005).

another goal of this study is to add to the extant literature on the measurement of social identification by applying Cameron's three-factor model to the basic hypotheses of social identity theory.

The Relationship between Identification and Bias

As mentioned before, a fundamental assumption of social identity theory is that ingroup bias is a product of identification with a social group and the need to maintain a positive evaluation of the self. A number of social identity theorists have inferred from this assumption that the degree (or strength) of group identification should then relate to the magnitude of ingroup bias (Brown, 2000). Attempts to validate this hypothesis have been somewhat inconclusive. In support of this hypothesis a number of studies have found that highly identified subjects exhibit more ingroup bias than their less-identified peers in both perceptual (e.g., Struch & Schwartz, 1989) and real (e.g., Brown, Maras, Masser, Vivian, & Hewstone, 2001) intergroup contexts.⁶ On the contrary, Hinkle and Brown (1990) analyzed the results from fourteen studies that had correlated these two variables and found varying amounts of support and nonsupport for the identification-bias hypothesis. Thus, they concluded that group identification would not always correlate with ingroup bias. Their conclusion was not surprising given that the identification-bias hypothesis was not a part of social identity theory as it was originally stated. According to Turner (1999), ingroup bias is just one possible identity maintenance strategy. Therefore, it becomes necessary to identify the conditions under which the degree of group identification will relate to bias. The bulk of

⁶ By perceptual I mean that subjects were asked to evaluate how they perceive their own group in relation to an outgroup. For example, Struch and Schwartz (1989) surveyed a sample of Jerusalem residents about their intergroup relations with ultraorthodox Jews. Brown et al. (2001), on the other hand, surveyed a group of British ferry passengers who actually had an intergroup conflict with the outgroup (French fishermen) during the execution of the study.

the research in this area is centered on individual differences in the propensity to identify with an ingroup.

In an attempt to explain the inconsistencies of the relationship between identification and bias, Hinkle and Brown (1990) developed a taxonomic model that distinguished people based on their position on an individualist-collectivist dimension crossed with their position on an autonomous-relational dimension. In general, Hinkle and Brown proposed that social identity processes would only emerge when people hold a collectivist orientation and are comparative (i.e. relational) in nature.⁷ Brown, Hinkle, Ely, Fox-Cardamone, Maras, and Taylor (1992) tested this model and found moderate support for this hypothesis in that subjects identified more strongly with the ingroup and were more likely to exhibit ingroup bias when they held collectivist and comparative orientations. However, Perreault and Bourhis (1999) have argued that the contradictory results found in Hinkle and Brown's (1990) survey, and the weak to moderate support for the Hinkle-Brown model, were the consequence of measuring multiple dimensions of identification (e.g., cognitive and affective) on one scale. As a result, this criticism echoes the call for a multidimensional measure of social identification.

Building on their criticism of the Hinkle-Brown model, Perreault and Bourhis (1998, 1999) examined the relationship between identification and bias by drawing a distinction between the degree of ingroup identification and the quality of ingroup identification. The former refers to the strength of an individual's ingroup identification and the latter refers to the affective evaluation of the ingroup. In one study, Perreault and Bourhis (1998) found the

⁷ "Comparative" in this sense refers to the extent to which people compare themselves with other outgroups. For example, a class study group could be thought of as non-comparative, while the same group could become comparative when involved in a class debate situation.

relationship between identification and ingroup bias to be moderated by both the type of identification (i.e., degree vs. quality) and the timing of the identification (i.e., measured before or after participants were asked to allocate rewards to ingroup and outgroup members). Specifically, the degree of identification was correlated with ingroup bias when measured before and after the group allocation task, with the post-task correlation being stronger. To the contrary, the quality of ingroup identification was only correlated with bias when measured after the group allocation task. This second finding supported the authors' hypothesis, and a main assumption of social identity theory, that people are biased in favor of the ingroup in order to foster a more positive social identity. The first finding supported Perreault and Bourhis's hypothesis that identification with an ingroup increases bias, which in turn leads to an increased identification with the ingroup in "a reinforcing cycle of ingroup identification and discrimination" (p. 62).

Perreault and Bourhis's (1998, 1999) treatment of the identification-bias relationship elaborated and clarified what was an inconsistently supported hypothesis. However, their approach overemphasized the degree or strength of identification and was limited to the minimal group setting. While their finding that affective identification dimensions only become relevant post-bias should have led to a more thorough analysis of the various dimensions of identity in regards to bias, the majority of their subsequent research focused on a single dimension at a time (e.g., Amiot & Bourhis, 2005; Perreault & Bourhis, 1999). In addition, as I have discussed earlier, more recent research has found social identity to be three-dimensional, with the degree of identification separated into two independent factors, centrality and ingroup ties (Cameron, 2004). Therefore, another goal of this study is to

examine the relationship between identification and bias using Cameron's three-dimensional model of identification.

Social Identity and Class

Social identity theory developed in the context of a post-World War II European social psychology (Hogg, 2006). The difference between this European social psychology and what was the dominant paradigm at the time (American and reductionist) can best be summed up by this argument put forth by Tajfel et al. (1984):

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. (p. 3)

However, despite this call to focus on "large-scale social processes" the treatment of class as a social identity has been conspicuously absent. This could be due in part to the perception that class is not salient to the identities of most Americans. Even if this were the case, and I argue that it is not, it would not explain the lack of a social identity approach to class elsewhere around the world. Another explanation could be the avoidance of class in psychology as a whole (Argyle, 1994; Brown et al., 1996; Fouad & Brown, 2000; Frable, 1997). Whatever the reasons may be, it could be argued that class, perhaps the most influential of all "large-scale social processes," has yet to be examined from a social identity theory perspective.

By focusing on social identity processes, I will explore class categorization subjectively in favor of the objective conceptualizations that have historically dominated class analysis. To borrow a phrase from Beverley Skeggs (2004), this study "has a very different perspective on class to some of the ones usually taken" (p. 4). For instance, I am not concerned with fitting people into categories and I do not focus on defining or measuring

class as such. However, I am interested in how people classify themselves, and I do define and measure social identifications with class, leaving the criterion of class membership open to the individual. In a sense, I will focus on those whom Lamont (2000) has called the “class identified.” Because of this, it is entirely possible for the middle class identified in this study to vary by objective class locations. In fact, I expect this to be the case. The rationale for this focus, I argue, is tied to the social identity premise that people act in favor of groups with which they identify and not necessarily based on their objective positions in a social structure. Thus, outside of the influence of objective class locations on subjective class identification, there is no reason to assume that people would act along objective class lines, however they may be defined.

Before I can apply social identity theory to social class, I should mention that this study will focus on the class identifications and relations of the middle class. There are two reasons for this focus. First, when asked to place oneself in a class category, a large percentage of people select “middle class.” Second, it would be difficult to exaggerate the extent to which “middle class” has pervaded the American lexicon. Legislators and politicians use the term indiscriminately to refer to what they believe, or hope, is the majority of the American public. Perhaps this is fitting given the findings of Brian Cashell (2007) discussed earlier. As a result, the middle class, more than any other potential class, appear to be the most prominent class category in the United States. Of course, the apparent inclusiveness of the middle class category leads me to question whether people actually identify with this class as a group or if it has become a common label or adjective.⁸ If the

⁸ For example, to what is the phrase “middle class values” referring? Does it refer to the values of the middle class, as a group? Or does it refer to a type of value system, best described by the adjective “middle class.”

former is true, social identity hypotheses should apply, with social class representing a social identity. This would not be the case if class operates more as a descriptive term than as a group membership. Exploring this question is beneficial to both class analysis—which has historically been unable to confirm or deny class identification—and to social identity theory, which has never truly been applied to a grouping that might not be a source of identification.

Lamont and the Class Identified

Michèle Lamont has written two books in which she has explored the boundaries of class. In *The Dignity of Working Men* (2000), she inductively explored the lives of black and white working class men. In her earlier work—*Money, Morals, and Manners* (1992)—she did the same with upper middle class men. In these works, Lamont found that the working class and the middle class used different strategies to distinguish class boundaries when comparing their own social class to the other group. From a social identity perspective, these men used different dimensions to evaluate intergroup relations depending on the relative status of their group in relation to a specific outgroup. Lamont did not word it as such, but the men in her study appeared to be using identity maintenance strategies to maintain a positive social class identity. Working from this premise, I will use Lamont's analyses of working and middle class men to build a social identity framework of middle class identities. Instead of comparing the intergroup relations of the working and middle class, I will focus on the middle class and how they identify as a both a high and low status group when compared to the working class or upper class, respectively.

The Working Class Identified

I conclude that workers are not condemned to think of themselves as losers due to their failure to realize the material version of the American dream. (Lamont, 2000, p. 147)

The above quote raises the question, if those who identify themselves as working class do not evaluate themselves in terms of socioeconomic success, then how do they define themselves?⁹ Working from the premise that these men would not be able to compete with socioeconomic standards of success, Lamont (2000) focused on how they established alternative dimensions of self-worth. In the interviews with these men three themes developed regarding their perceptions of class, self-worth, and identity: (1) the working class consistently established an alternative dimension of class self-worth based on morality; (2) these men used moral standards to distinguish themselves from higher status others (including those they perceived to be middle class); and (3) the working class resorted to socioeconomic dimensions of self-worth when comparing themselves to lower status others (i.e., lower class, poor). Working from these three themes I will show how they reflect social identity processes, particularly ingroup favoritism and differentiation.¹⁰

As mentioned before, previous research has shown that members of low status groups will acknowledge the superiority of higher status groups on dimensions of comparison that favor these groups (Bettencourt et al., 2001). Lamont (2000) found a similar pattern in her study of working class men. These men were aware of their own socioeconomic position in relation to those above (whom Lamont labeled “the upper half”). In fact, a good percentage of these men (33% of white and 50% of black working class) continued to equate worth with

⁹ Lamont used socioeconomic characteristics to distinguish the working class from the middle class and other groups. A person had to be a full-time worker in a blue-collar or low-status white collar job (i.e., a job that requires little supervision of others), without a college education in order to qualify as working class.

¹⁰ One limitation of using Lamont’s work is that she focused primarily on men. As a result, it would be naïve to assume that the same processes exist among working and middle class women. Stuber’s (2006) analysis of working and middle class college students (both men and women) verified many of Lamont’s (1992, 2000) findings, but it should be noted that the intersection of class and gender was not a focus of this study and was not investigated as such.

socioeconomic status.¹¹ However, the majority of these men were critical of their socioeconomic superiors on moral grounds. According to Lamont, “most workers disentangle socioeconomic and moral worth” (p. 147). These men developed “alternative definitions of success” based on honesty, integrity, responsibility, being hardworking, and providing for the family. Unlike social identity research (e.g., Bettencourt et al., 2001) that has found low status group members to be less likely to discriminate against higher status groups, these men were extremely critical in their conceptions of those in superior economic positions as being dishonest, untrustworthy, and immoral. Following social identity theory, these men achieved positive distinctiveness by favoring the ingroup (working class) while differentiating themselves from the outgroup (upper middle class) on moral definitions of success.

In contrast, Lamont found that these same men were more than willing to equate socioeconomic success with moral worth when evaluating the lower class, the poor, or the unemployed. Thus, these men established self-worth on two dimensions: socioeconomic success and morality. As an identity maintenance strategy, they defined the importance of these dimensions depending on the status of the relevant outgroup. For example, they acknowledged that the middle class were in a superior socioeconomic position, but believed that this advantage came at the expense of personal integrity, honesty, and morality. The lower class and the poor, however, were thought to owe their disadvantaged position to a combination of socioeconomic and moral flaws. That is, their distorted value system (e.g., laziness) was the source of their poor socioeconomic position.

¹¹ These men would most likely fall under “middle class identified” in the present study.

The Middle Class Identified

Prior research has found that high status groups are more likely to display bias than low status groups and are likely to do so even when the dimensions of comparison are not relevant to the status of their group (Bettencourt et al., 2001). As a result, it should be no surprise that Lamont's (1992) interviews with upper middle class men revealed a tendency to stress material achievement as the defining indicator of success while simultaneously incorporating other evaluations into this definition. For example, Lamont (2000) found that, "for many professionals and managers I talked to, socioeconomic success and moral worth go hand in hand, the former confirming the latter" (p. 146). Thus, while both the working class and middle class—identified in Lamont's interviews valued providing for their families and being hardworking, only the middle class equated these issues with material success. For example, while the working class defined providing for the family as providing for basic needs (e.g., shelter, food, clothing) the middle class were more likely to focus on such things as providing a college education or a nice house—things that stem from economic success. Also, while hardworking might mean showing up for work everyday and not being lazy for someone who identifies with the working class, being hardworking was more likely to be tied to performance (e.g., promotions, salary) for someone in the middle class. As a result, in Lamont's research, those who identified with the middle class achieved positive distinctiveness from the working class by evaluating the ingroup on primarily, but not exclusively, socioeconomic definitions of success.

As far as this study is concerned, the question then becomes, do the middle class—identified develop alternative dimensions of self-worth (e.g., moral) when they compare themselves with people or groups that are better off than they are? That is, like the working

class in Lamont's (2000) research, do the middle class downplay their socioeconomic position when it is no longer a source of positive social distinctiveness? The answers to these questions depend on the nature of intergroup relations for those who identify as middle class. It is possible that the boundaries dividing the middle class and the upper class differ from the boundaries that separate the working class from the middle class. Thus, I argue that the identity maintenance strategies of the middle class identified depend on their ideological beliefs about the sociostructural characteristics of class relations. For example, if a middle class person believes that achieving an upper class status is possible, he or she will be less likely to be biased against this potential ingroup. In social identity terms, the extent to which the middle class differentiate themselves from the upper class depends on the permeability, legitimacy, and stability of the relations between these groups.

Sociostructural Characteristics of Intergroup Relations

In the economic and political study of public support for income redistribution there is a popular idea that many Americans oppose aggressive tax plans because they believe that they, or their children, might one day be rich (Benabou & Ok, 2001). This is known as the "prospect of upward mobility" (POUM) hypothesis. In social identity research, the possibility of mobility is referred to as permeability and joins stability and legitimacy as sociostructural characteristics of intergroup relations. As is implied in the POUM hypothesis, these characteristics do not necessarily reflect the actual structure of group relations, but represent perceptions of the people involved. Research on the identity maintenance strategies of social groups, particularly low status groups, has found that strategy choice depends on these perceptions. For example, people are more likely to attempt, or believe in, upward mobility when group boundaries are believed to be permeable. For the middle class,

perceptions of intergroup permeability, legitimacy, and stability are expected to influence not only the extent to which a person identifies with his or her social class, but also the likelihood of using social creativity to maintain a positive social class identity. Thus, I will address each of these characteristics in turn as they relate to social class as a social identity.

Permeability

In the case of social class, two factors characterize the permeability of interclass relations: mobility and distinctiveness. Mobility refers to the ability of a person to move from one class to another. In the United States, perceptions of class mobility are often based on a meritocracy ideology—meaning that status differences are thought to be the result of merit (Major, Kaiser, O’Brien, & McCoy, 2007). This ideology contains two main components: (1) the belief in individual mobility; and (2) the belief in the Protestant work ethic. People who truly believe in individual mobility expect that anyone can get ahead, or achieve a higher status, regardless of their class origins. Thus, class relations are increasingly permeable the more a person believes in individual mobility. The second component of a meritocratic ideology, the belief in the Protestant work ethic, associates success with hard work, talent, or innate ability. Simply put, success is tied to merit. People who believe in the Protestant work ethic expect that hard work and ability are mechanisms through which advancement is possible, regardless of social position. Greater acceptance of a meritocratic ideology indicates that class relations are perceived to be permeable.

Permeability can also be characterized as the distinctiveness of group memberships. Social classes are distinct to the extent that members of different classes are identifiable. For example, if it is easy for someone who is middle class to “pass” as upper class, then the permeability of middle-to-upper class relations is high. On the other hand, if one believes that

there is something about being upper class that is unattainable to the middle class (e.g., style, grace, refinement, etc.), then perceptions of permeability would be low. Whereas a belief in a meritocratic ideology captures the perceived likelihood that class members can achieve upward class mobility in time, distinctiveness depicts something different in the form of class relations as they exist in the present. For instance, is it possible to tell apart a middle class person from an upper class person? Can a working class person “pass” as middle class? The answers to these questions attest to the distinctiveness of class groups.

Both factors, mobility and distinctiveness, address the boundaries that separate one group from another. Permeability represents the ability to cross these boundaries. However, it must be noted that the acceptance of a meritocratic ideology, or a belief in the distinctiveness of class groups, does not necessarily apply to all interclass relations. For example, a middle class person may believe that the boundaries between the working and middle class are increasingly permeable, while the boundaries between the middle and upper classes are not. The sociostructural characteristics of group relations are subjective manifestations, not objective indicators. As a result, disagreement and cross-group inconsistencies should be expected.

Legitimacy

While permeability is a characteristic of the boundaries between groups, legitimacy is a characteristic of the structure of group relations. When group relations are perceived to be legitimate, the relative statuses of the groups are justified as “the deserved outcome of a just procedure” (Terry & O’Brien, 2001, p. 274). Regarding social class, the belief that class relations are legitimate is essentially a support for the status quo. As such, members of the upper class are thought to deserve their advantageous social position because they have

earned it, have greater ability, or are more worthy. On the other hand, when group relations are thought to be illegitimate, status inequalities can be questioned. Because of the inherently hierarchical nature of class as a concept it is not possible to suggest that the middle class should be better off than the upper class. However, it is possible to question the extent of the inequalities between class groupings. For example, the belief in an illegitimate class structure could emerge as the support for greater class equality. A belief in legitimate class relations, on the other hand, represents the acceptance of class inequality.

Stability

Intergroup relations are stable when they do not change over time. Using Mummendey et al.'s (1999b) example, the belief that West Germans had been and would continue to be better off than East Germans was a perception of stability. Regarding social class, the belief in the existence of a class structure implies a stable hierarchy of relationships (e.g., the lower class, by definition, cannot achieve a higher status than the upper class). There are, however, a number of other ways on which a class structure can change. For instance, a class structure can change in terms of the proportion of the population in each class. To examine perceptions of the shape of class structures over time, Evans, Kelley, and Kolosi (1992) developed a pictorial approach to class. In this approach, people are presented with diagrams that represent different class arrangements (see Figure 2.2). They are then asked to select the shape that best describes the class structure today, thirty years ago, and thirty years from now. By using this pictorial approach, it is possible to assess perceptions of class stability as well as the perceived movement of a class structure over time. For example, if a person selects a pyramid shape (Type B in Figure 2.2) for the class structure today, thirty years ago, and thirty years from now, that is a perception of stability. The shapes are also

These five diagrams show different kinds of society. Please read the descriptions and look at the diagrams and decide which you think best describes Australia today ...

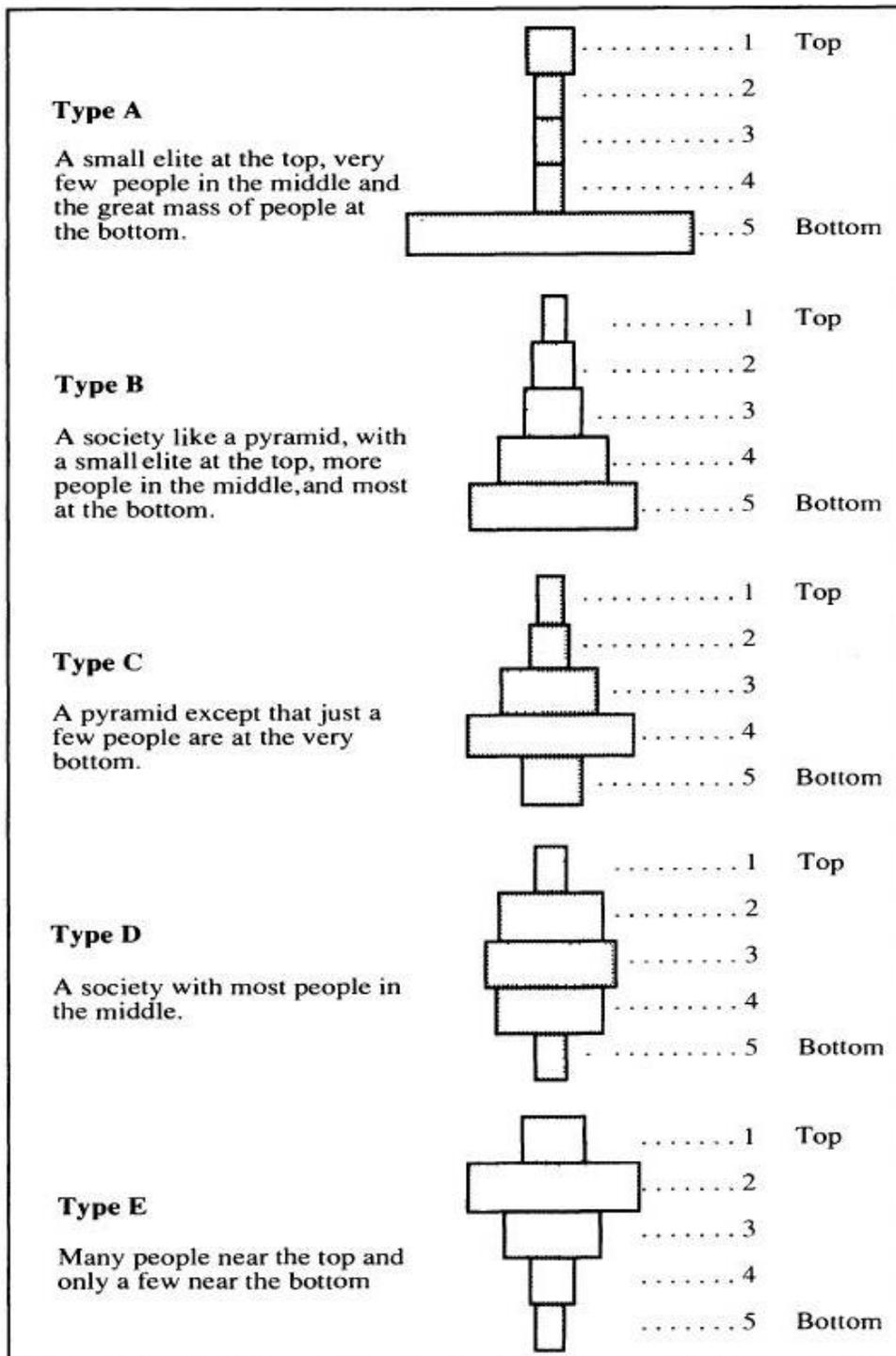


Figure 2.2. Evans, Kelley, and Kolosi's (1992) Depiction of Social Class

constructed so that as you move from Type A to Type E, there is a trend towards upward mobility. That is, the majority of the population moves from the bottom half of the class structure in Type A to the top half in Type E. Thus, a choice of Type C for the class structure today, and Type E for the class structure thirty years from now, represents a perception of upward mobility. When class relations appear to be stable, it is expected that people should be more likely to identify with their social class and undertake strategies to maintain a positive class identity. If class relations appear to be unstable, however, the boundaries between groups are less clear, thus complicating class identification. How people identify with their class when the class structure is perceived to be unstable depends on two things: the position of their class in the overall class structure, and the direction of the perceived instability (upward or downward).

Taken together, perceptions about the sociostructural characteristics of interclass relations are expected to influence class identification and class bias. In this study, I argue that the strategies employed by the middle class to maintain a positive social class identity depend on these characteristics (permeability, legitimacy, and stability) as well as the relative status of the middle class as a group. Therefore, contrary to Centers' (1940) groundbreaking psychological study of social class, class categorization is not enough to declare class identification. Contrary to Kingston (2000) as well, the lack of a match between class categorization and objective class location does not negate the existence of class identification. Reiterating Cashell (2007), what constitutes a class is relative and subjective. Analyzing how people define the boundaries between class groupings, and how they relate to other classes, is as important to class identification as is any claim to a class category. I have discussed the benefits of using a social identity approach to address the relative and

subjective bases of social class. The next step is to turn from theory to practice and apply social identity theory to an empirical study of social class.

The Plan of the Present Study

The plan of the present study was to incorporate social identity theory into an analysis of class identification. Specifically, I focused on the identification strategies of people who identified themselves as middle class. As I have mentioned before, social identity theory can be simplified down to two basic hypotheses (Turner et al., 1987). First, people are motivated to maintain positively distinct social identities. Second, people will engage in identity maintenance strategies when a social identity is not positively distinct. Building on the work of Lamont (1992, 2000), I have argued that the ability of the middle class to maintain a positively distinct class identity depends on the class to which they are compared. In order to test this argument, in this study, middle class participants were randomly selected into one of two experimental conditions. In the first condition, middle class participants were asked to make downward comparisons with the working class. In the second condition, middle class participants made upward comparisons with the upper class. Through this experimental design, I examined middle class identification in two different interclass contexts.

In addition to the importance of interclass context, I have also argued that class identification depends on the sociostructural characteristics of interclass relations. That is, the permeability, legitimacy, and stability of the relations between classes were also expected to influence class identification processes. Pulling these arguments together, I focused on one of the mechanisms through which positive distinctiveness is maintained: ingroup bias.

Social identity theory does not assume there will be a direct relationship between categorization and bias (Tajfel & Turner, 1979). For instance, Oakes, Haslam, and Turner

(1994) argued that bias is dependent on the status, salience, and degree of group identification, as well as on the importance and relevance of intergroup comparative dimensions. Other researchers have also found ingroup bias to be influenced by the sociostructural characteristics of intergroup relations (Bettencourt et al., 2001; Mummendey et al., 1999a, 1999b). Therefore, I considered each of these variables as I developed testable hypotheses in line with a social identity approach to social class.

The Impact of Interclass Context on Class Identification

In the research on identity salience, much importance is given to predicting which identities are likely to be invoked in a given situation (Stryker, 1980). In this study, I was only interested in one particular identity, class identity, and not its position in a hierarchy of identities. Thus, I was primarily concerned with manipulating a condition in which individuals would be ready to act on a class identity, if they have one, in relation to a specific outgroup. The importance of salience to social identity processes is significant. The motivation to achieve a positive social identity only exists in contexts in which an identity is salient. Manipulating identity salience is less problematic in minimal group studies, where experimental conditions help to ensure the salience of the identity in question. However, in a survey design, as was used in this study, it is more difficult to control the context in which people are being asked to invoke an identity. The main rationale for the experimental design used in this study was to exert some control over the salience of interclass relations. The idea was that by asking people to think in specific interclass terms, the status of the identity in relation to a specific outgroup class would become salient.

Regarding group status and identification, previous research has found that members of higher status groups tend to identify more with their ingroups than members of low status

groups (Bettencourt et al., 2001). In this study, participants who were asked to make comparisons with the upper class could be considered a relatively low status group, while those who made comparisons with the working class could be considered a relatively high status group.¹² As I mentioned before, one of the goals of this study was to apply Cameron's (2004) three-factor model of identification to the context of interclass relations. The three factors of this model (centrality, ingroup affect, ingroup ties) have been constructed as independent, but related, dimensions of identification. Therefore, in this study the three factors were hypothesized to relate similarly to differences in status. Therefore:

- *Hypothesis 1:* Members of the middle class would have higher levels of class identification when comparing themselves to the working class, than when comparing themselves to the upper class.

Interclass Context and the Sociostructural Characteristics of Interclass Relations

Mummendey et al. (1999) have argued that predictions regarding the sociostructural characteristics of intergroup relations need to be adapted to the specific context at hand. However, while many researchers have focused on the relations between these characteristics and other social identity processes, such as identification and bias, there has been no research that I am aware of that has compared multiple intergroup contexts in terms of permeability, legitimacy, or stability. In the present study, I was able to make predictions regarding two different sets of intergroup relations. For some characteristics, I expected the two conditions to differ. For instance, I predicted that the boundaries between the middle class and the working class would be seen as more permeable than the boundaries between the middle and

¹² To avoid confusion, I will try to use the term "experimental condition" when referring to the status of the groups. Participants in both groups categorized themselves as middle class. Thus, status differences are a result of the relative position of the middle class to the comparison class.

the upper class. I also predicted that the relations between the middle class and the working class would be seen as more legitimate than the relations between the middle class and the upper class. Finally, working from the assumption that perceptions of the stability of the class structure as a whole should not change with the experimental manipulation of interclass context, I expected there to be no stability differences between the two groups. Thus:

- *Hypothesis 2:* Middle class–working class relations would be seen as more permeable than middle class–upper class relations.
- *Hypothesis 3:* Middle class–working class relations would be seen as more legitimate than middle class–upper class relations.
- *Hypothesis 4:* Perceptions of class stability would not differ across experimental conditions.

The Impact of Interclass Context on Ingroup Bias

Prior research has found that, on average, higher status groups express more bias than lower status groups, favor the ingroup more than lower status groups, and are more unfavorable towards outgroups than are lower status groups (Bettencourt et al., 2001). However, depending on the dimension of comparison, this pattern can reverse. Lower status groups are often more biased and more favorable to the ingroup when the dimension of comparison is relevant to the identity of the lower status group. In other words, lower status groups often exploit alternative dimensions, irrelevant to the basis for their subordinate status, on which they may claim positive distinctiveness over other groups. This pattern of emphasizing ingroup superiority on alternative dimensions is characteristic of social creativity as an identity maintenance strategy. In this study, I defined the status relevant dimension in terms of the evaluation of a group's success, power, competitiveness, and

confidence, and labeled this dimension “success bias.” On the other hand, I defined the alternative, status irrelevant dimension in terms of the evaluation of a group’s moral superiority (e.g., honest, good, sincere, moral), and labeled this dimension “moral bias.” Including these two dimensions in the same study allowed for a comparison of how members of the middle class develop a positive social class identity along either status relevant (success) or irrelevant (moral) dimensions, when compared to either the working class or the upper class. Thus, it was predicted that:

- *Hypothesis 5:* People in the middle class would exhibit ingroup bias on the moral dimension in both experimental conditions, but would exhibit more moral bias when making comparisons with the upper class.
- *Hypothesis 6:* People in the middle class would exhibit ingroup bias on the success dimension when making comparisons with the working class, but would exhibit outgroup bias on the success dimension when making comparisons with the working class.
- *Hypothesis 7:* Regarding ingroup evaluations, people in the middle class would evaluate the ingroup more favorably—on both the moral and success dimensions—when comparing themselves to the working class, than when comparing themselves to the upper class.

In addition to the success and moral dimensions of bias, middle class participants were also asked to describe how warm or cold they felt towards ingroup and outgroup members. They were also asked to make allocation decisions regarding the dissemination of tax rebates and tax increases to ingroup and outgroup members. It was predicted that:

- *Hypothesis 8*: People in the middle class would be biased in favor of the ingroup on allocation decisions (Tajfel matrices), and in terms of feelings of warmth and closeness.

The Mediating Effect of Class Identification

As mentioned before, attempts to validate the relationship between the degree of ingroup identification and the amount of ingroup bias have been inconclusive (see Hinkle & Brown, 1990). In theory, group identification and the sociostructural characteristics of intergroup relations are expected to influence the identity maintenance strategies of group members (e.g., ingroup bias). Specifically, the permeability, legitimacy, and stability of intergroup relations are expected to influence ingroup bias through their relationship with group identification (Mummendey et al., 1999; Terry & O'Brien, 2001). That is, identification is expected to mediate the relationships between these sociostructural characteristics and ingroup bias. Thus,

- *Hypothesis 9*: The relationships between permeability, legitimacy, stability and ingroup bias would be mediated by class identification.

However, to verify this mediating effect, it is necessary to establish relationships between the sociostructural characteristics and both class identification and ingroup bias.

Effects of Sociostructural Characteristics on Class Identification

Prior research has found that the permeability, legitimacy, and stability of intergroup relations can influence the degree to which people identify with a group (Mummendey et al., 1999). In this study, I hypothesize that the relationships between these sociostructural characteristics of interclass relations and class identification would vary by interclass context. Thus, I predicted that:

- *Hypothesis 10*: More permeable interclass relations would be associated with lower levels of identification, regardless of experimental condition.
- *Hypothesis 11*: More legitimate middle class–working class relations would positively relate to identification, while more legitimate middle class–upper class relations would be associated with lower levels of identification.

As mentioned before, one of the ways to conceptualize the stability of interclass relations is to examine perceptions of the shape of the class structure over time. Thus, the movement of the class structure can be perceived as being upwardly mobile (i.e., the proportion of people in lower classes is getting smaller, with the classes above getting larger), downwardly mobile (i.e., the proportion of people in higher classes is getting smaller, with the classes below getting larger), or stable (i.e., class groupings retain their proportions over time). For people in the middle class, perceptions of an upwardly mobile class structure could indicate a belief that the differences between class groups are shrinking. Classes would be less distinct from each other, thus making class identities less salient. Therefore, it was predicted that:

- *Hypothesis 12*. Perceptions of an upwardly mobile class structure would be associated with lower levels of identification for participants in both experimental conditions.

Effects of Sociostructural Characteristics on Ingroup Bias

The distinctions between groups are reduced when people think that it is easy to move across class boundaries. As the distinctions between groups disappear, the motivation to maintain positive ingroup distinctiveness is reduced. Thus, greater perceptions of permeability should make people less likely to exhibit ingroup bias. Therefore, in this study it was predicted that:

- *Hypothesis 13*: More permeable interclass relations would be associated with lower levels of ingroup bias, regardless of interclass context or type of bias.

In contrast, interclass context was expected to moderate the relationship between the legitimacy of group relations and ingroup bias. For example, the belief that a class is lower status, and legitimately so, is a negative evaluation of being a member of that group. Thus, one possible identity maintenance strategy would be to emphasize alternative aspects (e.g., morality) of being middle class that are not necessarily related to status-defining characteristics (i.e., success). Thus, it was expected that:

- *Hypothesis 14*: More legitimate middle class–upper class relations would be associated with more ingroup bias on the morality dimension, but less ingroup bias on the success dimension.
- *Hypothesis 15*: More legitimate middle class–working class relations would be associated with more ingroup bias on both the morality and success dimensions.

Once again, it was expected that perceptions of an upwardly mobile class structure (i.e., as a measure of instability) would result in the perception of less distinctions between classes. Therefore, It was predicted that:

- *Hypothesis 16*: Perceptions of an upwardly mobile class structure would be related to less ingroup bias on both the morality and success dimensions for participants in both interclass contexts.

Finally, following the prediction that class identification would mediate the relationships between the sociostructural characteristics and ingroup bias, it was hypothesized that class identification would be directly related to ingroup bias. Thus:

- *Hypothesis 17*: Greater class identification would be associated with higher levels of ingroup bias.

CHAPTER THREE: METHODS

In Chapter Two, I developed the theoretical framework for an analysis of social class using social identity theory. In this chapter, I will outline the methods, procedures, and data analysis that were used to address the hypotheses proposed in the previous chapter. I will begin by describing the participants who were sampled in this study. Next, I will provide a detailed description of how I contacted potential participants, obtained their consent, and administered my survey instrument. Third, I will outline the particular measures that were used and how they relate to the variables specified in the hypotheses. Finally, I will provide a description of the experimental and statistical tests that were used to analyze the hypotheses. The research design was correlational and experimental. Data analysis involved a cross-sectional analysis of the correlations between class identification, sociostructural interclass characteristics, and ingroup bias. Participants were randomly assigned to one of two experimental conditions: Middle class comparing themselves to working class (middle-to-working) or middle class comparing themselves to upper class (middle-to-upper).

Participants

The sample for this study came from the population of faculty and staff at Iowa State University. Specifically, a sample was drawn from a pool of the three largest employee classifications at the university: faculty, professional and scientific staff, and merit staff. In 2006, this university employed 1,709 faculty members, 2,458 professional and scientific staff, and 1,784 merit staff. While this sample can best be described as a sample of convenience, the three employee groups encompass the stratification of occupations at this university. In addition, a brief analysis of General Social Survey (GSS) data from 2000 to 2006 indicated that 65% of those employed in professional and specialty occupations and

53% of those employed as technicians and related support occupations categorized themselves as middle class (Davis, Smith, & Marsden, 1972-2006).¹³ As a result, given the focus on the middle class in this study, sampling from this population was justified.¹⁴

Procedures

Before participants were contacted, I obtained approval from Iowa State University's Institutional Review Board to conduct research on human subjects. After making contact with personnel at Human Resource Services, I had found that I would be able to obtain an email list of all of the faculty and staff at Iowa State University once I had IRB approval. I contacted all of the employees on this list ($N = 5,856$). Potential participants received an email message inviting them to take-part in a survey on social class (see Appendix A).¹⁵ The survey was introduced by the following paragraph:

The purpose of this survey is to learn more about the attitudes people have towards social class in the United States. To examine this issue, we will be asking you a few questions about yourself, and then some that address various issues involving social class.

The message also contained a link to the location of the survey. After following the link, participants were directed to an online survey that was created and hosted on a secure server using the SPSS Dimensions program. One of the benefits of this program is that it allows for seamless branching in the survey design. Using this branching ability, I was able to tailor questions at a later point in the survey to each participant based on answers that were given earlier. For example, participants who claimed a middle class category were then asked identification items based on this category (e.g., "I have strong ties to others who are middle

¹³ "Professional and specialty occupations" and "technicians and related support occupations" are broad occupational categories used by the U.S. Census Bureau. These specific labels come from the 1980 Census occupational codes, which are the most recent used in the GSS.

¹⁴ The merit staff represent a possible exception. Using Census occupational codes and GSS data, merit staff employees appear to be just as likely claim a working class category (46%) as a middle class category (46%).

¹⁵ The list of university emails was suppressed during the mailing.

class”). As a result, I was able to measure a participant’s specific class identification without having to use general categories (e.g., “I have strong ties to others who are the same social class as I am”) or rely on the participant’s ability to navigate a complex branching scheme, as would have been the case in a paper and pencil questionnaire.

Before the introduction of the survey, participants were presented with an informed consent document that included assurances that participation in the survey was completely voluntary, that they did not have to answer any question that they did not wish to answer, and that all responses would be kept completely anonymous (see Appendix B). If they consented to participate, participants would continue on through the online survey. The survey was composed of six parts: (1) Class placement; (2) Experimental manipulation and manipulation check; (3) Sociostructural characteristics; (4) Class Identification; (5) Ingroup bias tests; and (6) Demographics and family background. From prior experience with the SPSS Dimensions program, I was confident that the survey would take less than 20 minutes to complete. Once participants completed the survey, their answers were saved by the SPSS Dimensions program and were available to be downloaded into SPSS at any time. By using this program I was able to save time and avoid the errors that can be associated with data entry.

A total of 884 people participated in the survey, resulting in a response rate of approximately 15%. In addition, 21 of the survey invitations bounced back to my email account as undeliverable. An additional 20 invitees informed me through email that they were refusing to take part in the survey.

Measures

The survey began with a traditional class placement question (i.e., “Most people see themselves as belonging to a particular social class. Which social class would you say you

belong to?”). I chose to use a four-class structure, with answer choices of upper class, middle class, working class, and lower class. After a review of the research on class placement, I considered this four-class structure to be the most parsimonious, while also maximizing the differences between class groupings. For instance, Schreiber and Nygreen (1970) have shown that including too many choices can turn a categorical form into an ordinal scale. Since the focus of this study is on how people identify with their social class as a group, an ordinal scale would have been both unwanted and detrimental to the results. Answers to this question were used to tailor the rest of the survey instrument (see Appendix C for the complete questionnaire). In total, 4% of those who participated in the survey categorized themselves as upper class, 77% categorized themselves as middle class, 19% categorized themselves as working class, and about 1% categorized themselves as lower class. I excluded participants who claimed to be upper, working, and lower class from further analysis given that the focus of this research was on the middle class.

Experimental Manipulation and Manipulation Check

After the class placement question, participants who categorized themselves as middle class were randomly assigned to either the middle-to-upper interclass condition or the middle-to-working interclass condition using the last digit of their telephone number.¹⁶ Using a manipulation task adapted from Oldmeadow and Fiske (2007), participants assigned to the middle-to-upper condition were shown the picture of a large, very expensive looking home. In the middle-to-working condition, participants were shown the picture of a smaller, inexpensive looking home. In both conditions, participants were asked to look at this

¹⁶ Participants who selected one of the other three class options were assigned to a condition in which they compared their own social class to the middle class. These data were not used in this study.

house—which was described as either an upper class home or a working class home—and guess its worth. Second, they were asked to rate the hypothetical residents of this house in terms of the prestige of their jobs, economic success, and the prestige of the cars they drive. Response options ranged from *Not at all*, coded as 1, to *Extremely*, coded as 5. Answers to these questions, along with the question on the worth of the house, were used as a manipulation check to see if participants were thinking in the right direction regarding the class of the manipulated outgroup. The goal was to invoke a specific set of intergroup relations in the minds of participants, thus increasing intergroup salience. As a result, subsequent evaluations of identification and bias were dependent on the manipulation of this intergroup situation.

Sociostructural Characteristics of Interclass Relations

After the experimental manipulation, participants were asked a series of questions that measured their perceptions of the sociostructural characteristics of interclass relations (permeability, legitimacy, and stability). The permeability and legitimacy measures were tailored to the specific interclass condition (middle-to-working or middle-to-upper), while the stability measure focused on the class structure as a whole.

Permeability

Permeability was measured using eight items. Four of the items were adapted from Major et al.'s (2007) scale of meritocracy ideology and assessed perceptions of class mobility (e.g., “In this country, it is easy for someone from the middle class to become upper class”). The four remaining items were developed for this study to gauge the distinctiveness of class identities (e.g., “Middle class individuals who try to ‘pass’ as members of the upper class are only fooling themselves”). Response options ranged from *strongly disagree*, coded as 1, to

strongly agree, coded as 7. There was also a neutral midpoint, coded as 4. Half of the items were reverse-scored so that higher values reflected greater perceptions of interclass permeability.

Table 3.1 shows the results of a principal components analysis of the eight permeability items by experimental condition. Using Kaiser's recommendation of retaining factors with eigenvalues greater than 1, two factors were extracted in the middle-to-working condition, and three factors were extracted in the middle-to-upper condition. Despite the emergence of two factors in the middle-to-working condition, there was a substantial drop-off in the amount of variance explained from the first factor (35%) to the second (15%). Also, all of the items had factor loadings on the first factor greater than .4, with the exception of one passing item which loaded at .39. The same pattern was evident in the middle-to-upper condition, with the first factor accounting for much more of the variance (34%) than the second (14%) and third factors (13%). Once again, all of the items had factor loadings on the first factor greater than .4. These results indicate that the eight permeability items loaded well on one single factor. Additional analyses supported this conclusion as the internal consistencies of the eight-item scale were acceptable in both the middle-to-working condition ($\alpha = .73$) and the middle-to-upper condition ($\alpha = .70$). A single permeability variable was constructed by averaging the eight items. As a result, this variable retained the scoring of the original items.

Legitimacy

Legitimacy was also measured using eight items. Many of these items were adapted from Jost and Thompson's (2000) social dominance orientation scale. Four of the items measured a tendency to support class equality (e.g., "Members of both the middle and

Table 3.1. Item Loadings for Interclass Permeability from a Principal Factor Analysis by Experimental Condition

Item ^a	Middle-to-Working		Middle-to-Upper		
	1	2	1	2	3
Middle class individuals have difficulty becoming upper class.	.75	-.02	.72	-.15	.16
In this country, it is easy for someone from the middle class to become upper class.	.72	-.27	.74	-.27	-.30
In this country, it takes more than hard work to become upper class.	.61	-.38	.49	-.46	.25
It is easy for middle class individuals to “fit in” socially with members of the upper class.	.59	.44	.58	.47	-.01
With hard work, it is possible for a middle class individual to become upper class.	.59	-.46	.69	-.18	-.42
Middle class individuals who try to “pass” as members of the upper class are only fooling themselves.	.39	-.22	.43	-.14	.52
Middle class individuals feel uncomfortable and inauthentic when they mingle with members of the upper class.	.54	.55	.40	.45	.54
These days you cannot tell the difference between a middle class or upper class person based on dress or appearance.	.48	.50	.47	.57	-.33
Eigenvalues	2.81	1.23	2.68	1.11	1.03
Variance (%)	35.11	15.32	33.55	13.86	12.86

Note. Boldface indicates highest factor loadings. ^a The items are presented as seen in the Middle-to-Upper condition. In the Middle-to-Working condition the statements were worded to reflect the permeability of middle and working class relations.

working classes should be given an equal chance in life”), while the remaining four assessed perceptions about the legitimacy of unequal class relations (e.g., “People in the upper class are just more worthy than those in the middle class”). Response options ranged from *strongly disagree*, coded as 1, to *strongly agree*, coded as 7. There was also a neutral midpoint, coded as 4. Once again, half of the items were reverse-scored so that higher values reflected greater perceptions of interclass legitimacy.

Table 3.2 shows the results of a principal components analysis of the eight legitimacy items by experimental condition. Two factors were extracted for both conditions. In the middle-to-working condition, the first factor accounted for 36% of the total variance, while the second factor accounted for 17%. All eight items had higher factor loadings on the first factor, with all of the values exceeding .55. The first factor also accounted for much more variance in the middle-to-upper condition (34%), in comparison to the second factor (17%). In this condition, all of the items loaded highest on the first factor except one, and all of the loadings were greater than .41. Thus, based on these results I concluded that the eight items loaded well on one single factor of legitimacy. The internal consistencies of this eight-item legitimacy scale were acceptable for the middle-to-working condition ($\alpha = .74$) and for the middle-to-upper condition ($\alpha = .71$). As with the measure of permeability, a single legitimacy variable was constructed by averaging the eight items. As a result, this variable retained the scoring of the original items.

Stability

Stability was assessed using a pictorial approach to class as developed by Evans et al. (1992). In this pictorial approach, participants were shown a series of images that differed in how the class structure is shaped (see Appendix A). Participants

Table 3.2. Item Loadings for Interclass Legitimacy from a Principal Factor Analysis by Experimental Condition

Item ^a	Middle-to-Working		Middle-to-Upper	
	1	2	1	2
We should do what we can to equalize the conditions of the upper and middle classes.	.68	-.52	.67	-.53
The upper class should be better off than the middle class.	.65	-.05	.51	-.12
Class equality should be our ideal.	.63	-.61	.64	-.56
Members of the middle class should have the same chances in life as those in the upper class.	.60	-.22	.58	-.15
Members of the upper class deserve to hold social positions superior to that of the middle class.	.59	-.22	.70	.35
People in the upper class are just more worthy than those in the middle class.	.57	.56	.55	.42
The middle class should stay in their place.	.56	.37	.41	.57
Members of the upper class are not better than those in the middle class.	.55	.20	.57	.26
Eigenvalues	2.91	1.38	2.75	1.32
Variance (%)	36.38	17.18	34.34	16.52

Note. Boldface indicates highest factor loadings. ^a The items are presented as seen in the Middle-to-Upper condition. In the Middle-to-Working condition the statements were worded to reflect the legitimacy of middle and working class relations.

were asked three questions regarding these images: (1) “What type of society is the United States today—which diagram comes closest?” (2) “What do you think the United States was like 30 years ago—in the 1970s—just your best guess?” and (3) “What do you think the United States will be like 30 years from now, in the future—just your best guess?” Table 3.3 shows the distribution of responses to questions about the class structure 30 years ago and today. Values along the diagonal indicate perceptions of stability. In other words, 11.3% of participants indicated that figure C represented the class structure 30 years ago and still represents it today. Values above the diagonal indicate perceptions of instability in the direction of upward mobility. For instance, nearly 14% of respondents believed that figure C represented class structure 30 years ago, but figure D represents class structure today. Values below the diagonal indicate perceptions of instability in the direction of downward mobility. Nearly 11% thought figure D represented class structure 30 years ago, but that figure C represents it today. In total, 30.7% of participants perceived class structure to have been stable. Among those who perceived instability, 31.8% indicated a change toward upward mobility, and 37.3% indicated a change toward downward mobility. By comparing the answers to these two pictorial class questions, I created a new variable that measured perceptions of stability from the past to the present. This variable ranged from perceptions of a downwardly mobile class structure, coded as -1, to perceptions of an upwardly mobile class structure, coded as 1. Participants who perceived no change (i.e., stability) across time were coded as 0.

Table 3.4 shows the distribution of responses to questions about the class structure today and 30 year in the future. In total, 40.1% of participants indicated that class structure will be stable. Among those who expect instability, only 15.2% expect change in the

Table 3.3. Distribution of Responses to Questions about Class Structure 30 Years Ago and Today ($N = 657$)

Class Structure 30 Years Ago	Today's Class Structure					Total
	A	B	C	D	E	
A	1.2	0.6	0.6	0.0	0.0	2.4
B	3.7	8.8	7.3	4.0	0.5	24.2
C	2.3	6.8	11.3	13.9	3.5	37.7
D	1.8	6.2	10.8	8.5	1.4	28.8
E	0.5	0.3	2.1	3.0	0.9	6.8
Total	9.4	22.8	32.1	29.4	6.2	100.0

Note. Numbers represent percentages of the total. “A” is a class structure with a small elite at the top, very few people in the middle and a great mass of people at the bottom. “B” is a society like a pyramid, with a small elite at the top, more people in the middle, and most at the bottom. “C” is a pyramid except that just a few people are at the very bottom. “D” is a society with most people in the middle. “E” is a society with many people near the top and only a few near the bottom.

direction of upward mobility, and 44.6% expect change in the direction of downward mobility. Figure C was the most frequently chosen class structure for 30 years ago (37.7%) and for today (32.1%), but figure A was the most frequently chosen class structure (35.0%) to represent society 30 years from now. As in the comparison of the class structure in the past to the class structure in the present, I created a variable that measured participants' perceptions of the mobility of the class structure from the present into the future. Once again, this variable ranged from -1 (downwardly mobile) to 1 (upwardly mobile), with 0 representing perceptions of stability.

Table 3.4. Distribution of Responses to Questions about Class Structure Today and 30 Years in the Future ($N = 648$)

Today's Class Structure	Class Structure 30 Years From Now					Total
	A	B	C	D	E	
A	8.0	0.5	0.5	0.3	0.2	9.4
B	10.0	9.9	1.5	1.4	0.2	23.0
C	10.0	6.5	8.3	5.6	1.5	31.9
D	6.3	4.5	3.5	11.4	3.5	29.3
E	0.6	0.8	1.2	1.2	2.5	6.3
Total	35.0	22.1	15.1	19.9	7.9	100.0

Note. Numbers represent percentages of the total. “A” is a class structure with a small elite at the top, very few people in the middle and a great mass of people at the bottom. “B” is a society like a pyramid, with a small elite at the top, more people in the middle, and most at the bottom. “C” is a pyramid except that just a few people are at the very bottom. “D” is a society with most people in the middle. “E” is a society with many people near the top and only a few near the bottom.

For use in the subsequent analyses, I added together the two measures of class structure mobility to create a single variable. This variable ranged from -2 to 2, with negative values representing perceptions of downward class mobility over time. As in the previous measures, perceptions of stability were coded as 0. Based on this measure, roughly 42% of the participants in this study perceived a downward moving class structure, 38% perceived stability across time, and 20% perceived an upwardly mobile class structure.

Class Identification

Participants were asked a number of questions that measured their class identification. Based on responses to the earlier class placement question, participants completed 12 items

that make up Cameron's (2004) three-factor model of social identity. The three factors refer to centrality (e.g., "I often think about the fact that I am middle class"), ingroup ties (e.g., "I have a lot in common with others who are middle class"), and ingroup affect (e.g., "In general, I'm glad to be middle class"). One of the original scale items was replaced and a second modified in order to improve model fit as suggested by prior research (Cameron, 2004; Obst & White, 2005). Response options ranged from *strongly disagree*, coded as 1, to *strongly agree*, coded as 7. There was also a neutral midpoint, coded as 4. Half of the items were reverse-scored. Higher values represent greater identification.

Past research has tested the dimensionality and validity of this model (see Cameron, 2004; Obst & White, 2005), but it has yet to be fully applied to an analysis of intergroup relations and intergroup bias. Therefore, prior to the main analysis, I confirmed the dimensionality of Cameron's model for class as a social identity using exploratory factor analysis. Cameron's model of identification consists of 12 items that make up three distinct factors: ingroup affect, centrality, and ingroup ties. Table 3.5 shows the results of a principal components analysis of the 12 items with an oblimin rotation.¹⁷ The analysis was done separately for each experimental condition (middle-to-working, middle-to-upper). As expected, three factors were extracted, accounting for 57% the common variance in the middle-to-working condition and 58% in the middle-to-upper condition. All 12 items loaded on the expected factors, and the cross-loadings on the other factors were relatively low or negative.

¹⁷ Direct oblimin, a method of oblique rotation, was used due to the hypothesized correlations among the three factors.

Table 3.5. Item Loadings for Class Identification from Principal Factor Analysis with Oblimin Rotation by Experimental Condition

Item	Middle-to-Working			Middle-to-Upper		
	Ingroup Affect	Centrality	Ingroup Ties	Ingroup Affect	Centrality	Ingroup Ties
In general, I'm glad to be middle class.	.88	.03	.09	.85	.06	-.03
Generally, I am proud to be middle class.	.70	.16	-.04	.76	.14	.12
I don't feel good about being middle class.	.66	-.23	-.16	.52	-.34	.15
I often regret being middle class.	.53	-.49	-.03	.50	-.52	-.10
The fact that I'm middle class rarely enters my mind.	-.05	.84	.05	-.06	.78	-.12
I often think about the fact that I am middle class.	-.03	.75	.06	.03	.80	-.04
Being middle class has very little to do with how I feel about myself.	-.08	.69	-.05	-.10	.67	-.04
In general, being middle class is an important part of my self-image.	.26	.66	-.13	.23	.57	.16
I find it difficult to form a bond with others who are middle class.	-.08	-.23	-.83	-.04	-.26	.75
I don't feel a sense of being "connected" with others who are middle class.	.02	.03	-.75	.02	.14	.80
I have a lot in common with others who are middle class.	.05	.09	-.65	.02	.07	.71
I have strong ties to others who are middle class.	-.02	.09	-.64	.01	.00	.74
Eigenvalues	3.16	2.37	1.31	1.07	2.38	3.48
Variance (%)	26.36	19.79	10.91	8.93	19.80	29.03

Note. Boldface indicates highest factor loadings

The internal consistencies of the three subscales were satisfactory and consistent across conditions. For the middle-to-working condition, the coefficient α 's were .70 for ingroup affect, .74 for centrality, and .69 for ingroup ties. Correspondingly, the coefficient α 's for the middle-to-upper condition were .70 for ingroup affect, .69 for centrality, and .75 for ingroup ties. Therefore, consistent with past research, these results support the three-dimensional conceptualization of identification in the context of social class. Each of the three identification variables was constructed by averaging responses across the items.

Ingroup Bias

In this study, I assessed class bias using three different sets of concepts. First, participants were asked to give moral and success evaluations of ingroup and outgroup class members. Second, participants were asked to indicate how warm or close they felt towards ingroup and outgroup class members. Finally, participants were asked to allocate tax rebates and tax increases to ingroup and outgroup class members using pairs of Tajfel matrices.

Moral and Success Bias

Participants were asked to evaluate ingroup and outgroup class members on a list of 18 adjectives that were designed to indicate group morality, success, competence, and sociability.¹⁸ Of particular interest to this study were the evaluations of morality and success. The items that made up the success dimension tapped subjective notions of socioeconomic success (competitiveness, confidence, success, power) rather than materialistic value (e.g., income). The morality dimension was composed of evaluations of honesty, morality,

¹⁸ An exploration of the distribution of moral and success evaluations indicated that seven cases—four in the middle-to-working condition and three in the middle-to-upper condition—displayed the properties of a response set (i.e., answers contained all 1's or all 5's). These cases were flagged as outliers and were removed prior to analysis.

goodness, and sincerity. Each dimension contained four items with response options ranging from *Not at all*, coded as 1, to *Extremely*, coded as 5.

To test the dimensionality of the moral and success evaluations, these eight items were submitted to a principal components analysis with an oblimin rotation.¹⁹ Table 3.6 shows the factor loadings for the eight items, grouped by experimental condition (middle-to-working, middle-to-upper) and target group (ingroup, outgroup). The factor loadings for participants in the middle-to-working condition are shown in the left-hand side of this table. As expected, two factors were extracted, accounting for a majority of the common variance for both the ingroup (72%) and outgroup (71%) evaluations. All eight items loaded on the expected factors, with relatively low ($< .25$) cross-loadings on the other factor; this supports the conceptualization of morality and success as distinct characteristics. However, it should be noted that the two dimensions were moderately correlated for both ingroup ($r = .55$) and outgroup evaluations ($r = .45$). Single item scales were created for each dimension, as a function of target group, by averaging across the items. For participants in the middle-to-working condition, the items held together well for both moral (ingroup: $\alpha = .91$; outgroup: $\alpha = .90$) and success (ingroup: $\alpha = .81$; outgroup: $\alpha = .79$) evaluations.

The right-hand side of Table 3.6 contains the factor loadings for participants in the middle-to-upper condition. As in the middle-to-working condition, only two factors were extracted, accounting for a majority of the common variance for both the ingroup (66%) and outgroup (70%) evaluations. All eight items loaded on the expected factors and the cross-

¹⁹ A method of oblique rotation was used to account for the possibility that these dimensions were correlated.

Table 3.6. Item Loadings for Morality and Success Evaluations from a Principal Factor Analysis with Oblimin Rotation by Experimental Condition

Group/trait	Middle-to-Working		Middle-to-Upper	
	Morality	Success	Morality	Success
Ingroup				
Sincere	.92	-.04	.86	.02
Honest	.90	-.01	.84	.03
Moral	.88	.02	.86	-.04
Good	.81	.11	.84	.02
Confident	-.16	.86	.05	.82
Competitive	.06	.77	.00	.74
Successful	.13	.72	.13	.74
Powerful	.23	.69	-.09	.74
Eigenvalues	4.68	1.10	4.10	1.20
Variance (%)	58.51	13.81	51.27	15.06
Outgroup				
Sincere	.91	-.10	.87	-.06
Honest	.87	.07	.89	-.02
Moral	.83	.10	.88	.00
Good	.88	.04	.84	.08
Confident	.07	.77	.07	.81
Competitive	.14	.66	-.03	.80
Successful	.23	.68	.14	.78
Powerful	-.19	.90	-.18	.76
Eigenvalues	4.34	1.33	3.09	2.49
Variance (%)	54.19	16.64	38.57	31.01

Note. Boldface indicates highest factor loadings

loadings on the other factor were relatively low ($< .20$). The two dimensions were moderately correlated for ingroup evaluations ($r = .51$), but not correlated at all for outgroup evaluations ($r = .00$). The items held together well for both moral (ingroup: $\alpha = .88$; outgroup: $\alpha = .89$) and success (ingroup: $\alpha = .76$; outgroup: $\alpha = .79$) evaluations.

Measures of moral and success bias were created by subtracting each of the outgroup evaluations from the corresponding ingroup evaluation. For example, evaluation of ingroup minus outgroup honesty became a measure of honesty bias. This resulted in four measures each for moral bias and success bias. The mean of these four items was used to create a single measure for moral and success bias. The morality bias items held together well, with a coefficient α of .71 for participants in the middle-to-working condition and a coefficient α of .85 for participants in the middle-to-upper condition. The success bias items, while slightly less reliable than the morality items, displayed adequate reliability with a coefficient α of .63 for participants in the middle-to-working condition, and .65 for participants in the middle-to-upper condition.

Warmth and Closeness Thermometers

As alternative measures of ingroup bias, participants were asked about the feelings they have towards their own social class and the outgroup class, depending on experimental condition. Following the example of Jackman and Jackman (1983), participants were asked: (1) “In general, how warm or cold do you feel toward people who are in the [middle, working, or upper] class?” and (2) “In general, how close do you feel toward people who are in the [middle, working, or upper] class?” For both warmth and closeness, participants were asked to select responses from a nine-point scale with the left-hand pole labeled *very cold/not at all close* and the right-hand pole labeled *very warm/very close*. The midpoint (5) was

labeled *neither cold nor warm/neither one feeling nor the other*. Similar to the measures of moral and success bias, warmth and closeness were measured in terms of ingroup and outgroup evaluations, with bias measures representing the difference between group evaluations.

Tajfel Matrices

Tajfel matrices are the primary dependent measures of ingroup bias associated with social identity theory. They are the foundation on which the minimal group paradigm is based (Bourhis, Sachdev, & Gagnon, 1994); however, they have also proven to be valuable in research conducted outside of the laboratory (Bourhis & Sachdev, 1986). In this study, all participants were asked to make allocations based on two hypothetical scenarios using pairs of these matrices. Figure 3.1 contains an example of one of the scenarios followed by the sample matrices to be completed by each participant. Each participant was asked to allocate tax rebates (Scenario 1) and tax increases (Scenario 2) to members of the middle class and members of the upper or working class. The two matrices used in each scenario are identical. There are three general types of Tajfel matrices and the choice of what type to use depends on the comparisons to be made. The matrices used in this study compare a strategy to maximize the difference in favor of the ingroup against a strategy to maximize ingroup profit or joint profit (Bourhis et al., 1994). For instance, in Figure 3.1 Matrix A, option G represents the choice to maximize the difference in favor of the ingroup, and option A represents a strategy to maximize ingroup profit or joint profit. In Figure 3.1 Matrix B, all strategies (i.e., maximum difference, maximum ingroup profit, and maximum joint profit) are represented by option G.

Scenario 1

Due to an unexpected abundance of funds, the Governor has decided to award a tax rebate to all of the residents of Iowa. The amount to be distributed is unknown, but a decision needs to be made on how to allocate the funds. On each matrix you are to award a dollar amount (\$) to each of these two groups. This amount represents the funds to be allocated to the members of each group.

The top row of numbers within the boxes represents the amount to be awarded to the middle class, and the bottom row represents the amount to be awarded to the upper class. After looking at each box of the matrix, you must choose only one that represents your choice of how you wish to allocate the funds.

Matrix A

If these were your options, how would you distribute the money to members of the middle and upper classes?

Option	A	B	C	D	E	F	G
Middle Class	\$1,900	\$1,700	\$1,500	\$1,300	\$1,100	\$900	\$700
Upper Class	\$2,500	\$2,100	\$1,700	\$1,300	\$900	\$500	\$100

Matrix B

If instead these were your options, how would you distribute the money to members of the middle and upper classes?

Option	A	B	C	D	E	F	G
Middle Class	\$100	\$500	\$900	\$1,300	\$1,700	\$2,100	\$2,500
Upper Class	\$700	\$900	\$1,100	\$1,300	\$1,500	\$1,700	\$1,900

Figure 3.1. Example of Allocation Task and Tajfel Matrices

Pull scores are calculated by comparing responses to Matrix A relative to Matrix B. Pull scores allow for the comparison of allocation strategies, and higher scores reflect more ingroup bias. I calculated one pull score for each pair of matrices: the pull of maximum difference on maximum ingroup profit and maximum joint profit. The values of these pull scores show the degree to which a participant maximized the difference between his or her social class from another social class. For example, the selection of option G on Matrix A would be assigned a score of 6. This is because option G is 6 places away from the option which represents a strategy to maximize ingroup or joint profit, option A. The selection of option E on Matrix B would be assigned a score of 2. This is because option E is 2 places away from the option which represents a strategy to maximize ingroup or joint profit, option G. To get the pull of maximum difference on maximum ingroup profit and maximum joint profit, the score from Matrix B is subtracted from the score obtained in Matrix A ($6-2=4$). A pull score of zero would indicate that a participant is not biased in favor of the ingroup, at least in the direction of maximum difference. Thus, mean scores for a group can be compared to zero to determine the existence of bias; they can also be compared between groups to compare levels of bias. In addition, correlation results have shown that the two types of matrices used to calculate pull scores are independent of one another (Bourhis et al., 1994). Thus, the measurement of pull scores between the two matrices is justified.

A note on Scenario 2: the allocation of a tax increase—as opposed to a tax break—may result in a positive-negative asymmetry effect. It is a well-supported finding that the hypotheses of social identity theory fail to explain the lack of ingroup bias and outgroup discrimination when allocation tasks involve something negative (Mummendey & Otten, 1998; Otten & Mummendey, 2000). For instance, people do not as willingly seek to

maximize the difference between groups when the allocation involves the doling out of punishments instead of rewards. The conclusion to be made is that positive and negative discrimination are fundamentally different actions. The purpose of including a negative allocation task in this study twofold: (1) to see if this positive-negative effect appears with class identification; and (2) to counterbalance the effects of the positive allocation task. The distribution of a tax break may occasionally occur, but tax increases are a constant in people's lives.

Demographics and Family Background

In addition to the primary identification and bias variables, I also collected demographic (sex, race and ethnicity, age, and education) and family background information. I was particularly interested in people's perceptions of their class background when they were growing up and how it compares to their standard of living today. Also, all participants with children under the age of 18 were asked to anticipate the eventual class location and standard of living of their children.

Methods of Analysis

In order to test the hypotheses presented in the previous chapter, I employed a variety of techniques in analyzing the data. First, to test for the effects of experimental condition on class identification, perceptions of interclass relations, and ingroup bias I used a combination of one-sample *t* tests, independent-samples *t* tests, and mixed-model ANOVAs. Second, the relationships between experimental condition, class identification, the sociostructural characteristics of interclass relations, and ingroup bias were explored through a series of hierarchical linear regressions. These regressions were structured to test for the possible mediation of class identification on the relationships between the sociostructural

characteristics of interclass relations and ingroup bias. Finally, I used a series of structural equation models to replicate the tests done in the regression analysis with a more comprehensive measurement model.

CHAPTER FOUR: RESULTS

The results are presented in five subsections, beginning with a brief overview of the sample. Next, I performed a manipulation check on the instructions given to middle class participants to compare themselves with either the working or upper class. Third, I examined the effects of this experimental condition on class identification, the sociostructural characteristics of interclass relations (permeability, legitimacy, and stability), and ingroup bias. Fourth, I estimated a series of regression models to test whether class identification mediated the relationships between the sociostructural characteristics and ingroup bias. Within these models I also examined the relationships between permeability, legitimacy, stability, class identification, and ingroup bias. Finally, I double-checked for the mediation of class identification using structural equation modeling.

A Brief Overview of the Sample

Table 4.1 shows that the overall sample ($N = 676$) was 95% white and 62% female. Ages ranged from 23 to 72, with an average age of about 47 years old. Total family incomes ranged from less than \$20,000 to over \$250,000, with an average family income of approximately \$80,000. As expected with the university setting from which the sample was drawn, approximately 87% of the participants held at least a Bachelor's degree, with 27% having completed a professional degree of some kind (e.g., PhD, JD, MD, etc.). In terms of university position, 23% of the middle class participants were employed as faculty members, 60% were employed as professional and scientific staff, and 17% were employed as merit staff. Table 4.1 also includes the demographic characteristics for each experimental condition. Participants in the middle-to-working condition ($N = 328$) did not differ significantly from participants in the middle-to-upper condition ($N = 348$) on any of the

Table 4.1. Demographic Characteristics of Participants ($N = 676$)

Characteristic	Overall Sample ($N = 676$)		Middle-to-Working ($N = 328$)		Middle-to-Upper ($N = 348$)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age at time of survey (years) ^a						
20-29	52	7.7	27	8.2	25	7.2
30-39	131	19.4	62	18.9	69	19.8
40-49	161	23.8	64	19.5	97	27.9
50-59	234	34.6	127	38.7	107	30.7
60-70	78	11.5	39	11.9	39	11.2
70-80	3	.4	0	0.0	3	.9
Sex ^a						
Female	420	62.1	207	63.1	213	61.2
Male	251	37.1	118	36.0	133	38.2
Race ^a						
Black	7	1.0	3	.9	4	1.1
White	640	94.7	310	94.5	330	94.8
Asian	14	2.1	6	1.8	8	2.3
Other	9	1.3	5	1.2	4	1.2
Annual Family Income (\$)						
Less than 20,000	38	5.6	22	6.7	16	4.6
20,000–39,999	30	4.4	19	5.8	11	3.2
40,000–59,999	107	15.8	52	15.8	55	15.8
60,000–79,999	114	16.9	57	17.4	57	16.4
80,000–99,999	129	19.1	57	17.4	72	20.7
100,000–139,999	164	24.3	77	23.5	87	25.0
140,000–199,999	75	11.1	36	10.9	39	12.2

Note. ^a Total number and percentage values do not equal 676 and 100, respectively, due to non-responses.

Table 4.1. (continued)

Characteristic	Overall Sample (<i>N</i> = 676)		Middle-to-Working (<i>N</i> = 328)		Middle-to-Upper (<i>N</i> = 348)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
200,000 or more	19	2.8	8	2.4	11	3.2
Highest education level completed ^a						
Less than college	88	13.0	47	14.3	41	11.8
Bachelor's degree	189	28.0	95	29.0	94	27.0
Master's degree	212	31.4	98	29.9	114	32.8
Professional degree	183	27.1	86	26.2	97	27.9
University Occupation ^a						
Faculty	153	22.6	74	22.6	79	22.7
Professional and Scientific staff	401	59.8	193	58.8	208	59.8
Merit staff	113	16.8	57	17.4	56	16.1

Note. ^a Total number and percentage values do not equal 676 and 100, respectively, due to non-responses.

demographic indicators, reflecting random assignment to conditions.

Experimental Manipulation Check

To assess whether the experimental manipulation succeeded in making participants think about the specified outgroup (working or upper class), participants were asked—after being shown the picture of an upper class house or a working class house—to assess how much the house was worth. Participants were also asked to form an impression of the type of people most likely to live in such a house and attest to the hypothetical inhabitants' economic success, car, and job. On average, participants attributed greater house worth to the picture of the upper class house ($M = \$4$ million), than to the picture of the working class house ($M =$

\$62,500).²⁰ This difference was significant, $t(507.72) = 110.65, p = .001, r = .98$.²¹ Also consistent with expectations, participants rated the hypothetical residents of the upper class home as being significantly more economically successful ($M = 4.55$) than the residents of the working class home ($M = 2.26$), $t(661) = 47.22, p = .001, r = .88$. They also rated the upper class residents as holding significantly more prestigious jobs ($M = 4.02$) than residents of the working class home ($M = 1.98$), $t(646.96) = 31.77, p = .001, r = .78$, and owning more prestigious cars ($M = 4.47$) than residents of the working class home ($M = 2.00$), $t(658) = 45.11, p = .001, r = .87$. These results show that the experimental manipulation successfully caused participants to think in the right direction in terms of the specified outgroup class.

The Impact of Interclass Context on Class Identification

Regarding the impact of interclass context on the three factors of identification, I hypothesized that members of the middle class would have higher levels of class identification when comparing themselves to the working class, than when comparing themselves to the upper class (Hypothesis 1). This hypothesis was tested using a series of independent-samples t tests, with the three class identification variables as the dependent variable and experimental condition as a grouping factor. Table 4.2 shows the means and standard deviations for the three factors of identification by condition. Contrary to Hypothesis 1, participants in the middle-to-upper condition reported higher levels of ingroup

²⁰ Exploration of the distribution of house worth indicated that four cases—one from the middle-to-working condition and three from the middle-to-upper—were more than two standard deviations removed from the means for house worth by condition. These four cases were flagged as outliers and removed prior to further analysis.

²¹ The Pearson's correlation coefficient r presented here and in further analyses represents a measure of effect size (see Field, 2001). This value represents a standardized measure of the magnitude of an effect and can be compared across analyses and studies.

Table 4.2. Class Identification by Experimental Condition

Measure	Middle-to-Working		Middle-to-Upper		<i>df</i>	<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Ingroup affect	5.29	.85	5.47	.82	625	2.74*
Centrality	2.75	1.09	2.65	1.05	650	-1.23
Ingroup ties	4.73	.95	5.02	1.00	641	3.76**

Note. Class identification scores range from 1 = strongly disagree to 7 = strongly agree.

* $p < .01$. ** $p < .001$.

affect ($M = 5.47$), when compared to participants in the middle-to-working condition ($M = 5.29$), $t(625) = 2.74$, $p = .006$, $r = .11$, and higher levels of ingroup ties ($M = 5.02$), when compared to those in the middle-to-working condition ($M = 4.73$), $t(641) = 3.76$, $p = .001$, $r = .15$. This pattern was reversed for centrality, with middle-to-working participants ($M = 2.75$) identifying more than those in the middle-to-upper condition ($M = 2.65$). However, this latter result was not significant. Therefore, the experimental manipulation led to differences in class identification, albeit not as hypothesized. I should also note that the mean values for the centrality factor were much lower than the other two factors in both conditions. This is further evidence that this factor does not fit in well with measures of ingroup affect and ingroup ties.

The Impact of Interclass Context on Perceptions of Interclass Relations

Regarding the impact of experimental condition on perceptions of interclass relations, I predicted that middle class–working class relations would be seen as more permeable (Hypothesis 2) and legitimate (Hypothesis 3) than middle class–upper class relations. It was also predicted that perceptions of class stability would not differ, regardless of interclass context (Hypothesis 4). In order to test these hypotheses, measures of interclass permeability,

legitimacy, and stability were compared across conditions using a series of independent-samples *t* tests. The means and standard deviations of these variables are shown in Table 4.3. As predicted, participants found the relations between the working class and the middle class to be more permeable ($M = 4.29$) than the relations between the middle class and the upper class ($M = 3.64$), $t(627) = -9.89, p = .001, r = .37$. On the other hand, contrary to Hypothesis 4, participants found middle class–upper class relations to be more legitimate ($M = 2.65$) than middle class–working class relations ($M = 2.42$), $t(619) = 3.71, p = .001, r = .15$. However, it should be noted that the values for legitimacy are below the midpoint in both conditions, suggesting that neither set of interclass relations were seen as very legitimate. Finally, as predicted, there were no differences in perceptions of class stability between participants in the middle-to-working condition ($M = -0.36$) and participants in the middle-to-upper condition ($M = -0.36$). The negative values for the stability variable suggest that participants in both conditions perceived a trend of downward mobility over time.

Table 4.3. Permeability, Legitimacy, and Stability Measures by Experimental Condition

Measure	Middle-to-Working		Middle-to-Upper		<i>df</i>	<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Permeability	4.29	0.83	3.64	0.83	627	-9.89***
Legitimacy	2.42	0.78	2.65	0.81	619	3.71***
Stability	-0.36	1.13	-0.36	1.09	645	-0.03

Note. Permeability and legitimacy scores ranged from 1 = strongly disagree to 7 = strongly agree. Stability scores ranged from -2 to 2. *** $p < .001$

The Impact of Interclass Context on Ingroup Bias

Table 4.4 shows the descriptive statistics for the bias variables used in this study. Under Hypothesis 5, it was predicted that participants would show ingroup bias on the morality dimension across conditions, but the amount of bias would be higher in the middle-to-upper than the middle-to-working condition. It was also predicted that participants would show ingroup bias on the success dimension in the middle-to-working condition, but outgroup bias in the middle-to-upper condition (Hypothesis 6). To test these hypotheses, I first conducted a 2 (experimental condition) x 2 (type of dimension) mixed-model ANOVA with bias scores entered as a dependent variable.²² This analysis revealed a significant Experimental Condition x Dimension interaction effect $F(1, 576) = 847.51, p = .001$. This interaction effect is displayed in Figure 4.1. As confirmed by a comparison of the means, participants in the middle-to-upper condition expressed more bias on the moral dimension ($M = .59$) than participants in the middle-to-working condition ($M = -.16$), $t(592) = 16.70, p = .001, r = .57$. However, contrary to Hypothesis 5, participants in the middle-to-working condition actually exhibited bias in favor of the outgroup on the morality dimension, $t(292) = -6.96, p = .001, r = .38$. As predicted in Hypothesis 6, further analysis of the means also revealed that participants in the middle-to-working condition exhibited more bias on the success dimension ($M = .54$) than participants in the middle-to-upper condition ($M = -.83$), $t(593) = -28.94, p = .001, r = .77$. Also in support of Hypothesis 6, middle-to-upper participants were biased in favor of the outgroup on the success dimension, $t(306) = -23.39, p = .001, r = .80$.

²² A mixed design was used in this case, and in future analyses, in order to incorporate a mixture of between-group and repeated measure variables in the same analysis.

Table 4.4. Means and Standard Deviations of Ingroup/Outgroup Evaluations and Bias by Condition

Measure	Ingroup		Outgroup		Bias	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Middle-to-Working Condition ^a						
Moral	3.44	.52	3.60	.52	-.16	.39
Success	3.50	.48	2.95	.61	.54	.52
Warmth	6.26	1.28	6.24	1.37	.02	1.11
Closeness	6.29	1.24	5.88	1.46	.41	1.33
Middle-to-Upper Condition ^b						
Moral	3.34	.49	2.77	.63	.58	.64
Success	3.23	.47	4.04	.59	-.81	.62
Warmth	6.16	1.21	4.83	1.30	1.34	1.58
Closeness	6.22	1.29	4.17	1.70	2.06	2.13

Note. Moral/Success Ingroup and outgroup scores range from 1 = not at all to 5 = extremely. Warmth and closeness scores range from 1 = very cold/not at all close to 9 = very warm/very close, with 5 = neutral midpoint. ^a *N* = 271. ^b *N* = 275.

Bias scores show to what extent a person favors the ingroup in relation to an outgroup. However, these scores do not provide any information regarding the actual values of ingroup and outgroup evaluations. For example, it is impossible to tell if a bias score is the result of ingroup favoritism (positively evaluating the ingroup), outgroup derogation (negatively evaluating the outgroup), or both. As a result, the impact of class comparison on evaluations of ingroup and outgroup members was further analyzed using a 2 (experimental condition) x 2 (type of dimension) x 2 (target: ingroup, outgroup) mixed-model ANOVA. The significance of the three-way interaction of Experimental Condition x Dimension x Target, $F(1, 576) = 847.51, p = .001$, indicated that the combined effect of the dimension

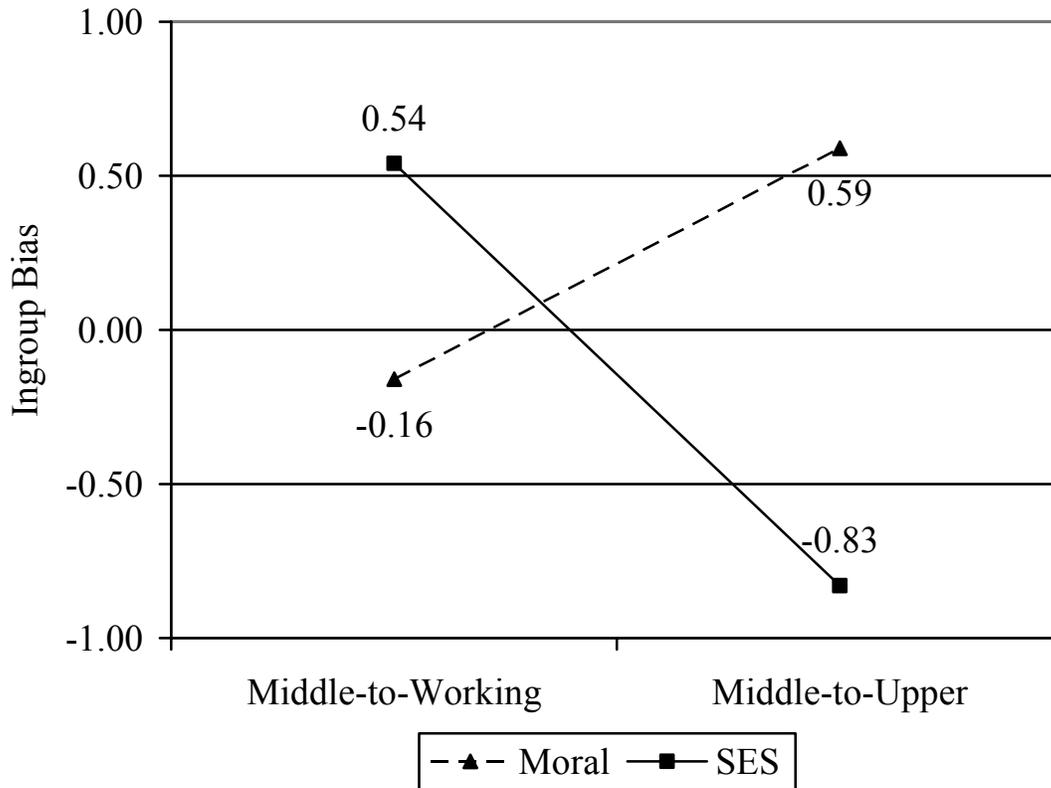


Figure 4.1. The Interaction of Experimental Condition (Middle-to-Working, Middle-to-Upper) and Evaluative Dimension (Moral, Success) on Ingroup Bias

of evaluation and the target of comparison was different for participants in the two experimental conditions. The character of this interaction is revealed in Figure 4.2. Ingroup and outgroup evaluations were scored from one to five. Therefore, a value of three represents a middle value. The left-hand side of the figure shows that participants in the middle-to-working condition favored the ingroup ($M = 3.49$) over the working class ($M = 2.96$) on the success dimension, but favored the working class ($M = 3.60$) over the ingroup ($M = 3.44$) on the moral dimension. Given that these means exceeded or came close to the midpoint value of 3.00, I concluded that there was no evidence of ingroup or outgroup derogation for this

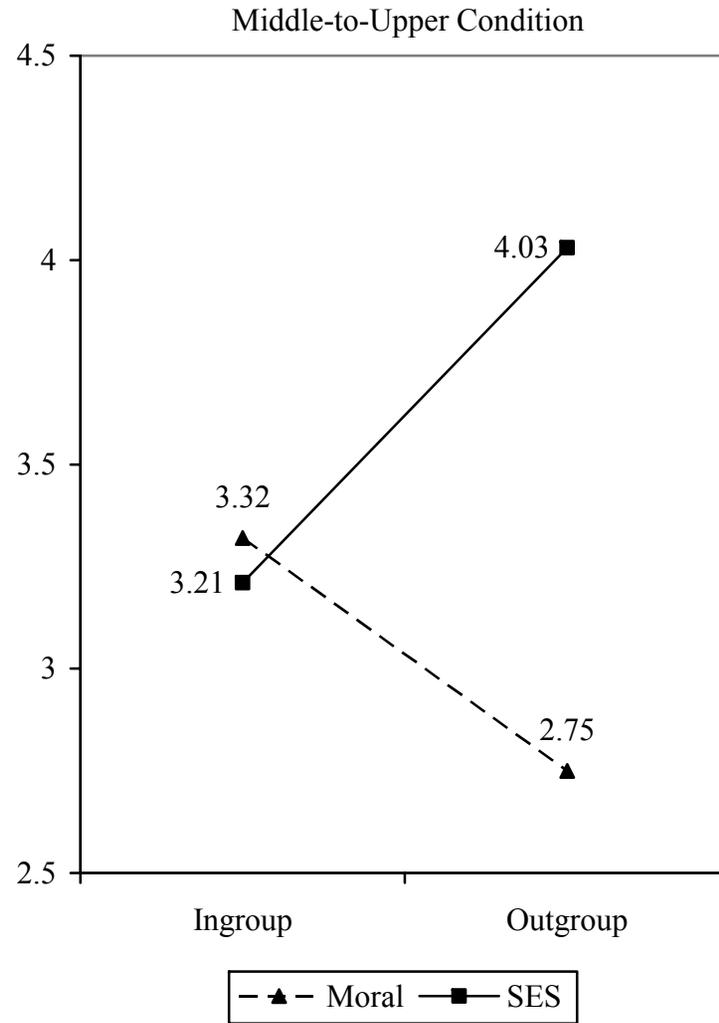
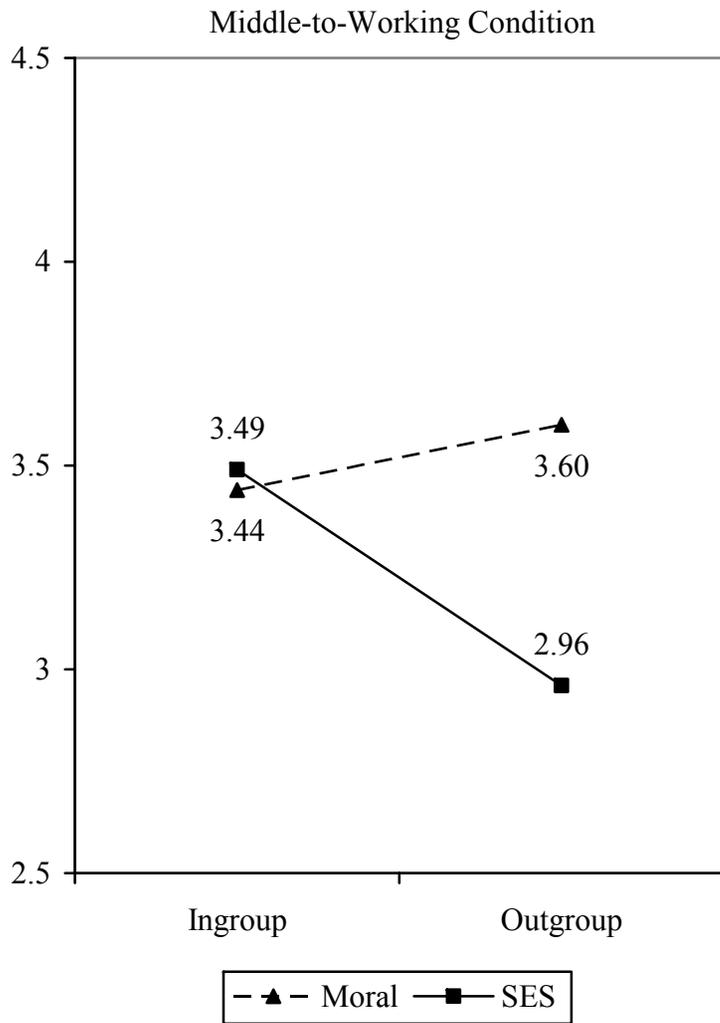


Figure 4.2. Three-Way Interaction of Experimental Condition (Middle-to-Working, Middle-to-Upper), Dimension (Moral, Success), and Target (Ingroup, Outgroup) on Evaluation

condition. In contrast, the right-hand side of Figure 4.2 reveals that the moral evaluations of the middle-to-upper participants exhibited some evidence of ingroup favoritism ($M = 3.32$) and outgroup derogation ($M = 2.75$). The success evaluations for middle-to-upper participants, on the other hand, showed no evidence of ingroup or outgroup derogation.

In addition to the predictions regarding interclass context and ingroup bias, it was also hypothesized that participants in the middle-to-working condition would evaluate the ingroup more favorably, on both dimensions, than participants in the middle-to-upper condition (Hypothesis 7). As predicted, participants in the middle-to-working condition rated themselves higher on the moral dimension ($M = 3.45$), than did participants in the middle-to-upper condition ($M = 3.33$), $t(599.01) = -2.87$, $p = .004$, $r = .12$. They also rated themselves higher on the success dimension ($M = 3.50$) than did middle-to-upper participants ($M = 3.20$), $t(605) = -7.61$, $p = .001$, $r = .30$.

To examine the effect of interclass context on warmth and closeness bias towards the ingroup, a series of one-sample t tests were conducted comparing the bias scores to zero (i.e., no bias). It was predicted that all middle class participants, regardless of condition, would be biased in favor of the ingroup in terms of feelings of warmth and closeness (Hypothesis 8). As predicted, participants in the middle-to-working condition felt closer to fellow members of the middle class, than to the working class ($M = .41$), $t(270) = 5.12$, $p = .001$, $r = .30$). In contrast, they did not differ in their feelings of warmth towards members of the middle and working classes ($M = .02$), $t(270) = 0.33$, $p = .74$, $r = .02$. Participants in the middle-to-upper condition felt significantly (p 's = .001) warmer ($M = 1.34$) and closer ($M = 2.06$) to members of the middle class, when compared to members of the upper class.

As a final test of the impact of interclass context on ingroup bias, another series of one-sample *t* tests were performed comparing the pull scores from the tax rebate and tax increase allocation scenarios. As a reminder it should be noted that these matrices contrasted allocation strategies. The strategy of importance in this study was a strategy of maximum differentiation. That is, higher positive scores indicate a tendency to have maximized the difference between ingroup and outgroup members, when compared to other optional strategies (e.g., maximum ingroup profit, maximum joint profit). I hypothesized that participants would express bias (in the form of maximum differentiation) in favor of the ingroup, regardless of experimental condition, in both the tax rebate and tax increase scenarios (Hypothesis 8). Table 4.5 shows the distribution of pull scores by experimental condition. For participants in the middle-to-upper condition, this hypothesis was supported as they sought to maximize the difference between the middle class and the upper class in allocations of tax rebates ($M = 2.00$), $t(325) = 12.74$, $p = .001$, $r = .58$, and tax increases ($M = 2.96$), $t(324) = 20.54$, $p = .001$, $r = .75$. However, contrary to expectations, participants in the middle-to-working condition maximized the difference in favor of the working class for both tax rebates ($M = -1.01$), $t(313) = -8.06$, $p = .001$, $r = .42$, and tax increases ($M = -1.83$), $t(309) = -15.74$, $p = .001$, $r = .67$. Thus, the results only partially supported Hypothesis 8.

The Mediating Effect of Class Identification

Hypothesis 9 predicted that the relationships between permeability, legitimacy, stability and ingroup bias would be mediated by class identification. According to Baron and Kenny (1986), one way to test for a mediation effect is through a series of regression models. In this analysis, permeability, legitimacy, and stability represent predictor variables, the three factors of class identification represent the mediators, with moral and success bias

Table 4.5. Frequency Distribution of Tajfel Pull Score Values for the Allocation of Tax Rebates and Tax Increases by Experimental Condition

Pull Score Value	Middle-to-Working		Middle-to-Upper	
	Tax Rebate (<i>N</i> = 314)	Tax Increase (<i>N</i> = 310)	Tax Rebate (<i>N</i> = 326)	Tax Increase (<i>N</i> = 325)
6	0.0	0.3	13.8	19.4
5	0.6	0.3	9.2	11.1
4	2.5	1.3	12.9	19.1
3	2.5	0.0	12.3	15.4
2	2.5	0.6	6.7	8.9
1	1.9	1.9	2.8	2.8
0	49.7	32.3	31.6	18.2
-1	5.7	4.5	0.9	1.2
-2	8.0	20.3	2.8	0.3
-3	9.6	17.4	3.4	0.9
-4	9.6	11.0	1.8	0.9
-5	3.8	6.5	1.2	0.3
-6	3.5	3.5	0.6	1.5

Note. Values represent percent of column total.

representing the dependent variables. Using Baron and Kenny's recommendation, three regression equations were created to test this mediational model: (1) the regression of class identification on permeability, legitimacy, and stability; (2) the regression of ingroup bias on permeability, legitimacy, and stability; and (3) the regression of ingroup bias on

Table 4.6. Intercorrelations of Bias, Sociostructural Characteristics, and Class Identification by Experimental Condition

Measure	1	2	3	4	5	6	7	8
1. Moral Bias	--	-.03	.12	.14*	.07	-.07	.10	.11
2. Success Bias	-.26*	--	-.16*	.03	.00	-.01	-.06	-.02
3. Permeability	-.18*	.14*	--	.14*	.24*	-.35*	.16*	.02
4. Legitimacy	-.11	.07	.08	--	.13*	-.05	-.09	-.06
5. Stability	-.02*	.13*	.06	.18*	--	-.19*	.10	.02
6. Centrality	.06	.02	-.19*	-.10	.03	--	-.24*	.01
7. Ingroup Affect	.13*	.16*	.12	.03	.02	-.32*	--	.39*
8. Ingroup Ties	.11	.17*	.09	.00	.12	.01	.41*	--

Note. Intercorrelations for middle-to-upper participants ($N = 248$) are presented below the diagonal, and intercorrelations for middle-to-working participants ($N = 234$) are presented above the diagonal. * $p < .05$.

permeability, legitimacy, stability, and class identification. The bivariate correlations among the variables included in the regression analyses are shown in Table 4.6.

Effects of Sociostructural Characteristics on Class Identification

To confirm mediation, first, it is necessary to find a relationship between the predictors and the mediator (Baron & Kenny, 1986). In this case, I examined the influence of permeability, legitimacy, and stability on each factor of class identification. Hypotheses 10, 11, and 12 predicted that perceptions of interclass permeability, legitimacy, and stability would be related to the degree of class identification. Hypothesis 11, in particular, also predicted that the relationship between perceptions of legitimacy and class identification would vary by interclass context. To test these hypotheses, three hierarchical regression

analyses were performed. Each factor of identification (ingroup affect, centrality, ingroup ties) was included as the dependent variable in separate regression analyses. Each of the three analyses included two steps. Experimental condition (1 = middle-to-working condition; 0 = middle-to-upper condition) and the permeability, legitimacy, and stability variables were entered in the first step.²³ The multiplicative terms between experimental condition and the permeability, legitimacy, and stability variables were entered in the second step. All of the predictor variables were centered, with each score deviated from its mean (Aiken & West, 1991).²⁴ Each interaction term was created by multiplying the experimental condition variable by the centered predictor variable.

The Effects of Interclass Relations on Centrality

The results of the regression analysis predicting the centrality of class identification are shown in Table 4.7. As predicted (Hypothesis 10), permeability was negatively related to centrality ($b = -0.34, p = .001, r = .26$). The interaction effect of Experimental Condition x Permeability was not significant, thus supporting the prediction that permeability would be related to less identification, regardless of experimental condition. However, despite expectations to the contrary, there was no relationship between legitimacy and centrality. In addition, while there was not a main relationship between stability and centrality, there was a small Experimental Condition x Stability interaction effect ($b = -0.17, p = .065, r = .09$). Post hoc probing revealed a significant slope for participants in the middle-to-working

²³ A number of control variables were also entered in the first step, including: sex, age, income, education, and university occupation. Race was omitted due to the fact that the sample was predominately white (95%).

²⁴ Experimental condition was not centered as it was operationalized as a dichotomous variable. Being that I was interested in the differences between distinct groups, the value of the centered mean for this variable would not have been useful.

Table 4.7. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Centrality ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	2.43	(0.31)		2.51	(0.31)	
Experimental Condition	0.31	(0.11)	.14***	0.31	(0.11)	.14***
Sociostructural Characteristics						
Permeability	-0.34	(0.06)	-.28***	-0.24	(0.08)	-.20***
Legitimacy	-0.06	(0.07)	-.04	-0.14	(0.09)	-.10
Stability	-0.04	(0.05)	-.04	0.06	(0.06)	.06
Experimental x Permeability				-0.19	(0.12)	-.11
Experimental x Legitimacy				0.16	(0.13)	.08
Experimental x Stability				-0.17	(0.09)	-.12†
$R^2_{\text{Cumulative}}$		.09			.10	
F_{Change}		3.78***			2.51†	

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

condition ($b = -0.11$, $t = -1.72$, $p = .085$, $r = .08$), but not for participants in the middle-to-upper condition.²⁵ Thus, in partial support of Hypothesis 12, greater perceptions of an upwardly mobile class structure were related to less central class identities for participants in the middle-to-working condition.

²⁵ As suggested by Aiken and West (1991), following a significant interaction effect I examined the significance of the simple slopes of this relationship for participants in each condition separately (i.e., post hoc probing).

The Effects of Interclass Relations on Ingroup Affect

The results of the regression analysis predicting the ingroup affect factor of class identification are shown in Table 4.8. Contrary to Hypothesis 10, greater perceptions of interclass permeability were associated with more ingroup affect ($b = 0.13, p = .002, r = .13$). Even though the Experimental Condition x Permeability interaction effect was not significant, closer analysis of the simple slopes indicated that permeability was only related to more ingroup affect for participants in the middle-to-working condition ($b = 0.16, t = 2.33, p = .020, r = .11$). There were no main or interaction effects of perceptions of legitimacy or stability on ingroup affect.²⁶

The Effects of Interclass Relations on Ingroup Ties

The results of the regression analysis predicting the ingroup ties factor of class identification are shown in Table 4.9. There were no main or interaction effects of permeability or legitimacy on ingroup ties. However, greater perceptions of an upwardly mobile class structure were related to higher levels of ingroup ties ($b = 0.07, p = .103, r = .08$). This effect was small and a post hoc probing of the simple slopes revealed that it was only significant for participants in the middle-to-upper condition ($b = 0.10, t = 1.68, p = .093, r = .08$).²⁷

For a variable to mediate the relationship between a predictor and a dependent variable, it is necessary that the predictor first be related to the proposed mediator. The results of the preceding analyses revealed that four relationships fulfilled this criterion: (1)

²⁶ In addition, women had higher levels of ingroup affect in comparison to men ($b = 0.16, p = .054, r = .09$). Higher income levels were also associated with more ingroup affect ($b = 0.03, p = .022, r = .11$).

²⁷ Age was positively related to the level of ingroup ties ($b = 0.01, p = .004, r = .13$). Also, participants with master's degrees had lower levels of ingroup ties than participants with bachelor's degrees ($b = -0.25, p = .039, r = .09$).

Table 4.8. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Ingroup Affect ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	5.05	(0.25)		5.04	(0.25)	
Experimental Condition	-0.26	(0.08)	-.15***	-0.26	(0.08)	-.15***
Sociostructural Characteristics						
Permeability	0.13	(0.05)	.14**	0.10	(0.07)	.11
Legitimacy	-0.04	(0.05)	-.04	0.03	(0.07)	.03
Stability	0.04	(0.04)	.05	0.00	(0.05)	.00
Experimental x Permeability				0.06	(0.10)	.04
Experimental x Legitimacy				-0.14	(0.10)	-.09
Experimental x Stability				0.07	(0.07)	.06
<hr/>						
$R^2_{\text{Cumulative}}$		.06			.07	
F_{Change}		2.44***			0.96	

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

permeability was related to the centrality of class identification; (2) stability was related to the centrality of class identification for participants in the middle-to-working condition; (3) permeability was related to ingroup affect for participants in the middle-to-working condition; and (4) stability was related to ingroup ties for participants in the middle-to-upper condition. The lack of a relationship between legitimacy and all three factors of identification suggests that class identification does not mediate the relationship between legitimacy and

Table 4.9. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Ingroup Ties ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	4.21	(0.28)		4.24	(0.29)	
Experimental Condition	-0.26	(0.10)	-.13**	-0.26	(0.10)	-.14**
Sociostructural Characteristics						
Permeability	0.05	(0.05)	.05	0.07	(0.08)	.06
Legitimacy	-0.05	(0.06)	-.04	-0.04	(0.08)	-.03
Stability	0.07	(0.04)	.08†	0.10	(0.06)	.11†
Experimental x Permeability				-0.03	(0.11)	-.02
Experimental x Legitimacy				-0.03	(0.11)	-.02
Experimental x Stability				-0.06	(0.08)	-.05
<hr/>						
$R^2_{\text{Cumulative}}$		.07			.08	
F_{Change}		3.09***			0.29	

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

ingroup bias. The next step in testing mediation is to find a significant relationship between the predictors and the dependent variable, which was ingroup bias in this study.

Effects of Sociostructural Characteristics on Ingroup Bias

A second set of hierarchical regression analyses examined the relationships between the sociostructural characteristics of interclass relations, experimental condition, and ingroup bias. Each analysis contained two steps, with the interactions of each sociostructural variable

and experimental condition entered at the second step. Once again, the permeability, legitimacy, and stability variables were centered, with each score deviated from its mean. Each analysis was run two times, with moral and success bias as dependent variables.

The Effects of Interclass Relations on Moral Bias

The results of the regression analysis predicting moral ingroup bias are shown in Table 4.10. Hypothesis 13 predicted that more permeable interclass relations would be associated with lower levels of moral bias, regardless of experimental condition. As expected, there was a significant main effect of permeability on moral bias ($b = -0.06, p = .056, r = .09$). There was also a significant Experimental Condition x Permeability interaction effect ($b = 0.19, p = .002, r = .15$). Post hoc analyses of this interaction revealed a significant slope for participants in the middle-to-upper condition ($b = -0.15, t = -3.70, p = .001, r = .17$), but not for participants in the middle-to-working condition. It was also predicted that more legitimate class relations would be positively associated with ingroup bias on the morality dimension for participants in both conditions (Hypotheses 14 & 15). There was not a significant main effect of legitimacy on moral bias, but the Experimental Condition x Legitimacy interaction was significant ($b = 0.16, p = .011, r = .12$). Consistent with expectations, greater legitimacy was associated with more moral bias for participants in the middle-to-working condition ($b = 0.08, t = 1.72, p = .086, r = .08$). However, for participants in the middle-to-upper condition legitimacy was related to lower levels of moral bias ($b = -0.08, t = -1.81, p = .070, r = .08$). Finally, there were no significant stability effects on moral bias for participants in this study.²⁸

²⁸ Women had higher levels of moral bias in comparison to men ($b = 0.10, p = .055, r = .09$), and participants with master's degrees had lower levels of moral bias than participants with bachelor's degrees ($b = -0.12, p = .069, r = .09$).

Table 4.10. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Moral Bias ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	0.54	(0.16)		0.48	(0.16)	
Experimental Condition	-0.68	(0.05)	-.53***	-0.68	(0.05)	-.52***
Sociostructural Characteristics						
Permeability	-0.06	(0.03)	-.08†	-0.15	(0.04)	-.21***
Legitimacy	0.00	(0.03)	-.01	-0.08	(0.04)	-.10†
Stability	0.02	(0.02)	.03	0.01	(0.03)	.02
Experimental x Permeability				0.19	(0.06)	.18***
Experimental x Legitimacy				0.16	(0.06)	.14**
Experimental x Stability				0.00	(0.05)	.01
<hr/>						
$R^2_{\text{Cumulative}}$		.33			.36	
F_{Change}		19.17***			6.36***	

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

The Effects of Interclass Relations on Success Bias

The results of the regression analysis predicting success ingroup bias are shown in Table 4.11. It was predicted that more permeable class relations would be associated with less success bias for participants in both conditions (Hypothesis 13). There was no significant main effect of permeability on success bias, but the Experimental Condition x Permeability interaction was significant ($b = -0.20, p = .002, r = .14$). A post hoc analysis of

Table 4.11. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, and Stability as Predictors of Success Bias ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	-0.55	(0.17)		-0.49	(0.17)	
Experimental Condition	1.35	(0.06)	.76***	1.35	(0.06)	.76***
Sociostructural Characteristics						
Permeability	0.00	(0.03)	.00	0.10	(0.05)	.10**
Legitimacy	0.05	(0.04)	.04	0.04	(0.05)	.04
Stability	0.03	(0.02)	.03	0.07	(0.04)	.08†
Experimental x Permeability				-0.20	(0.07)	-.14***
Experimental x Legitimacy				0.00	(0.07)	.00
Experimental x Stability				-0.05	(0.05)	-.05
<hr/>						
$R^2_{\text{Cumulative}}$		.59			.60	
F_{Change}		56.32***			4.03**	

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

the simple slopes revealed that permeability was related to less success bias for participants in the middle-to- working condition ($b = -0.10$, $t = -2.08$, $p = .038$, $r = .10$), but was related to more success bias for participants in the middle-to-upper condition ($b = 0.10$, $t = 2.31$, $p = .038$, $r = .11$). There were no legitimacy effects on success bias in either experimental condition. Finally, under Hypothesis 16, it was predicted that greater perceptions of an upwardly mobile class structure would be related to less bias on the success dimension for

participants in both conditions. There were no significant main or interaction effects for the effect of these perceptions on success bias, but a closer analysis of this relationship by experimental condition revealed that greater perceptions of an upwardly mobile class structure were related to more success bias for participants in the middle-to-upper condition ($b = 0.07, t = 1.92, p = .056, r = .09$).²⁹

The second step in confirming a mediation effect is to find a relationship between predictors and the dependent variables. The results of the preceding analyses revealed that four relationships fulfilled this criterion: (1) permeability was related to lower levels of moral bias for participants in the middle-to-upper condition; (2) legitimacy was associated with more moral bias for participants in the middle-to-working condition, and less moral bias for participants in the middle-to-upper condition; (3) permeability was related to less success bias for participants in the middle-to-working condition, but more success bias for participants in the middle-to-upper condition; and (4) the stability measure was related to more success bias for participants in the middle-to-upper condition. In the final stage of establishing mediation, it is necessary to find that these relationships become weakened when the class identification variables are entered into the equation.

Class Identification as a Mediator

In the preceding sections, I conducted the first two steps in confirming the possible mediating effect of class identification on the relationships between the sociostructural characteristics of interclass relations and moral and success bias. As I have mentioned, the lack of a relationship between legitimacy and the class identification variables discounts any

²⁹ Participants with master's degrees had lower levels of success bias than participants with bachelor's degrees ($b = -0.12, p = .099, r = .07$). Participants who were employed as Professional and Scientific Staff had lower levels of success bias than participants employed as faculty ($b = -0.16, p = .086, r = .08$).

possible mediating effect on the relationship of legitimacy and bias. On the other hand, there was evidence that both the permeability and stability of interclass relations were related to class identification and ingroup bias. As a final test of the mediating effect of class identification, two more hierarchical regression analyses were performed. Moral and success bias were included as the dependent variable in separate regression analyses. Once again, each of the analyses included two steps. In the first step, the three class identification variables were included with the sociostructural variables and experimental condition to predict bias. The interactions of experimental condition and each sociostructural characteristic were added in the second step. In addition to the hypothesized mediation, it was also predicted that greater class identification would be associated with higher levels of ingroup bias (Hypothesis 17). Thus, moral and success bias were examined in turn, paying specific attention to the direct and mediating effects of class identification.

Mediation of Class Identification on Moral Bias

The results of the regression analysis examining the influence of class identification, along with experimental condition and the sociostructural variables, on moral ingroup bias are shown in Table 4.12. As expected, greater ingroup affect was associated with higher levels of moral bias ($b = 0.06, p = .098, r = .07$). However, there was no relationship between centrality and moral bias, or between ingroup ties and moral bias. Only one sociostructural variable—perceptions of permeability for participants in the middle-to-upper condition—satisfied the first two requirements of mediation mentioned before. To test the mediating effect of identification I examined the Experimental Condition x Permeability interaction that was entered in Step 2. This interaction was still significant ($b = 0.19, p = .002, r = .15$) and the simple slope for middle-to-upper participants revealed that perceptions of passing were

Table 4.12. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, Stability, and Class Identification as Predictors of Moral Bias ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	0.59	(0.16)		0.53	(0.16)	
Experimental Condition	-0.66	(0.06)	-.51***	-0.66	(0.05)	-.51***
Sociostructural Characteristics						
Permeability	-0.07	(0.03)	-.09*	-0.16	(0.04)	-.22***
Legitimacy	0.00	(0.03)	.00	-0.08	(0.04)	-.10†
Stability	0.12	(0.02)	.02	0.00	(0.03)	.01
Class Identification						
Centrality	0.01	(0.03)	.01	0.01	(0.02)	.02
Ingroup Affect	0.06	(0.03)	.07†	0.06	(0.03)	.08†
Ingroup Ties	0.04	(0.03)	.06	0.04	(0.03)	.07
Experimental x Permeability				0.19	(0.06)	.18***
Experimental x Legitimacy				0.17	(0.06)	.14**
Experimental x Stability				0.00	(0.05)	.01
$R^2_{\text{Cumulative}}$	.34			.37		
F_{Change}	16.05***			6.68***		

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

associated with less moral bias ($b = -0.16$, $t = -3.83$, $p = .001$, $r = .16$), even when controlling for class identification. Therefore, there was no evidence that class identification mediated the relationships between the sociostructural characteristics of interclass relations and moral bias.

Mediation of Class Identification on Success Bias

The results of the regression analysis examining the influence of class identification, along with experimental condition and the sociostructural variables, on success ingroup bias are shown in Table 4.13. Contrary to Hypothesis 17, none of the three class identification variables were related to success bias. Given that it is necessary that the mediator be related to the dependent variable for mediation to be present, I concluded from this lack of a relationship that class identification did not mediate the relationships between the sociostructural characteristics of interclass relations and success bias.

A Structural Equation Modeling Approach to Mediation

One of the limitations of testing mediation using regression analysis is that the presence of measurement error in the mediator variable can lead to an underestimation of the mediator effect and an overestimation of the predictor effect. One solution to this possible problem of measurement error—suggested by Baron and Kenny (1986)—is to use multiple indicators to measure each variable. With the exception of the stability variable, the permeability, legitimacy, class identification, and bias variables used in the previous regression analyses were measured using the average score of a number of items. The items included in these averaged scales were shown to be reliable. However, a substantial amount of information is lost when a single averaged variable is used in the place of multiple

Table 4.13. Summary of Hierarchical Regression Analysis Using Experimental Condition, Permeability, Legitimacy, Stability, and Class Identification as Predictors of Success Bias ($N = 476$)

Predictor Variables	Step 1			Step 2		
	<i>B</i>	(<i>SE</i>)	β	<i>B</i>	(<i>SE</i>)	β
Constant	-0.50	(0.17)		-0.45	(0.17)	
Experimental Condition	1.37	(0.06)	.77***	1.37	(0.06)	.77***
Sociostructural Characteristics						
Permeability	0.00	(0.03)	.00	0.10	(0.05)	.10*
Legitimacy	0.05	(0.04)	.05	0.05	(0.05)	.04
Stability	0.03	(0.02)	.04	0.06	(0.04)	.08†
Class Identification						
Centrality	0.01	(0.03)	.02	0.01	(0.03)	.01
Ingroup Affect	0.03	(0.04)	.02	0.03	(0.04)	.03
Ingroup Ties	0.04	(0.03)	.05	0.04	(0.03)	.04
Experimental x Permeability				-0.20	(0.07)	-.14***
Experimental x Legitimacy				0.01	(0.07)	.01
Experimental x Stability				-0.05	(0.05)	-.05
<hr/>						
$R^2_{\text{Cumulative}}$	.60			.61		
F_{Change}	45.44***			3.93**		

Note. *B* = unstandardized regression coefficient; *SE* = standard error of *B*; β = standardized regression coefficient. Experimental condition was coded 1 = Middle-to-Working and 0 = Middle-to-Upper. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

indicators. Therefore, as an additional test of the mediation of class identification—as well as the other hypothesized relationships among the sociostructural characteristics of interclass relations, class identification, and ingroup bias—I constructed a series of causal models with permeability, legitimacy, class identification, and bias as latent variables with multiple indicators. In contrast to the regression models presented in the previous section, each class identification variable was examined separately from the others. Before the structural relations of these models could be tested, it was necessary that I examine the measurement model for each of the latent variables.

Measurement Model

Each model was tested using the maximum-likelihood estimation and the Amos 16.0 statistical program (Arbuckle, 2007). I treated permeability and legitimacy as latent variables with eight observed indicators each. All eight loadings for the permeability indicator were statistically significant, ranging from .25 to .72, with a mean loading of .46. As mentioned in Chapter 3, the eight permeability items were developed to tap into two theoretically related sub-factors of permeability: social mobility and passing. Given the low values of some of the factor loadings, I allowed for three correlations among the measurement residuals within each of these sub-factors. In addition, after examining the modification indices for this latent variable, I allowed for one correlation across sub-factors. I found this correlation to be defensible based on the conceptual similarities between the two items: (1) Middle class individuals have difficulty becoming upper class; and (2) Middle class individuals feel uncomfortable and inauthentic when they mingle with members of the upper class. Fit indices revealed that the model fit the data well both when the coefficients were constrained

across experimental conditions and when they were allowed to vary ($\chi^2 = 33.78$, d.f. = 26, $p = .141$, CFI = .99, RMR = .07, RMSEA = .03).

The eight legitimacy items were all significant, but were less variable than the permeability items with factor loadings ranging from .36 to .57, with a mean loading of .48. The legitimacy items were also created from two related subscales: support for class inequality and support for equality. Once I allowed for four correlations among the class inequality items and two correlations among the class equality items, the model fit the data reasonably well when coefficients were allowed to vary across experimental conditions ($\chi^2 = 55.95$, d.f. = 28, $p = .001$, CFI = .97, RMR = .08, RMSEA = .05). However, the model did not fit the data well when the coefficients were constrained across conditions, suggesting that this measure of legitimacy differed by condition.

I treated class identification as three separate latent variables with four observed indicators each. For centrality, all four factor loadings were statistically significant and ranged from .30 to .96 ($M = .63$). After allowing for one correlation among measurement residuals the model fit the data well in both constrained and unconstrained conditions ($\chi^2 = 4.40$, d.f. = 2, $p = .111$, CFI = .99, RMR = .04, RMSEA = .05). The loadings were significant for the ingroup affect variable, ranging from .42 to .85 ($M = .60$). I allowed for one correlation between the two negatively phrased items. The model fit the data reasonably well both when the coefficients were constrained across experimental conditions and when they were allowed to vary ($\chi^2 = 8.68$, d.f. = 2, $p = .013$, CFI = .98, RMR = .03, RMSEA = .08). Finally, all four factor loadings were statistically significant for the ingroup ties factor and ranged from .54 to .72 ($M = .63$). The model fit the data well under all conditions ($\chi^2 = 2.31$, d.f. = 4, $p = .679$, CFI = 1.00, RMR = .03, RMSEA = .00).

I treated moral bias and success bias as latent variables with four observed indicators each. For moral bias, all four factor loadings were statistically significant and ranged from .65 to .80 ($M = .74$). The model fit the data very well when coefficients were allowed to vary across experimental conditions ($\chi^2 = 6.97$, d.f. = 4, $p = .138$, CFI = .99, RMR = .01, RMSEA = .04), but not well when the coefficients were constrained across conditions. This suggests that this measure of moral bias differed by condition. All four loadings for the success bias measure were statistically significant, ranging from .53 to .61, with a mean loading of .56. This model fit the data reasonably well when coefficients were constrained and very well when they were allowed to vary ($\chi^2 = 3.25$, d.f. = 4, $p = .518$, CFI = 1.00, RMR = .01, RMSEA = .00).

Structural Model

Three structural models were tested. In each model, permeability, stability, and legitimacy were entered as predictor variables; centrality, ingroup affect, and ingroup ties were each entered as a mediator variable in separate models; moral and success bias were entered as dependent variables. To test the mediation of these class identification variables, the direct and indirect effects (through class identification) of the sociostructural characteristics on moral and success bias were examined. Given that this mediation was predicted to occur, regardless of experimental condition, I examined the effects for the fully constrained model.

Centrality as a Mediator

Figure 4.3 shows the results of the structural model with centrality entered as a

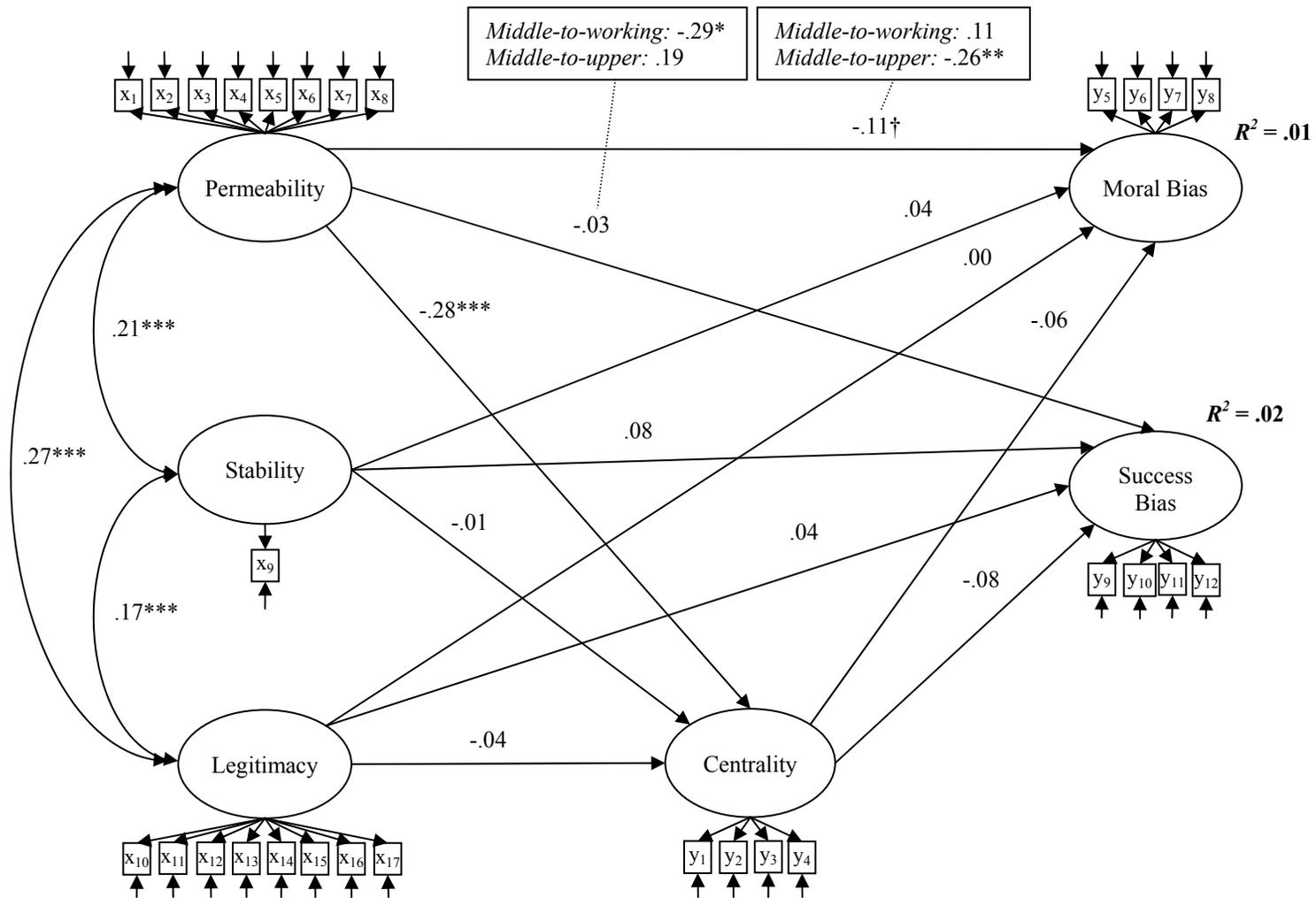


Figure 4.3. Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Centrality, and Moderation by Experimental Condition. $N = 482$. $^\dagger p < .10$; $* p < .05$; $** p < .01$; $*** p < .001$

mediator. The same guidelines apply for testing mediation in a structural equation model as in a regression model. For instance, in a mediated model it is necessary that the mediator be related to the dependent variable. As is shown in Figure 4.3, there was no relationship between centrality and either moral or success bias. In addition, there were also no significant indirect effects of any of the sociostructural variables on either form of bias. These results indicate that centrality did not mediate the relationships between the sociostructural characteristics of interclass relations and ingroup bias. It should be noted that this model did not provide a good fit for the data when coefficients between the groups were constrained ($\chi^2 = 1476.33$, d.f. = 785, $p = .001$, CFI = .79, RMR = .15, RMSEA = .04) or when they were allowed to vary ($\chi^2 = 1166.47$, d.f. = 700, $p = .001$, CFI = .86, RMR = .12, RMSEA = .04). In addition, the fully constrained model only accounted for 1% of the variance in moral bias and 2% of the variance in success bias when the effects of experimental condition were equalized across groups.

In addition to the hypothesized mediating effect of centrality, I also hypothesized that the relationships between the sociostructural characteristics, class identification, and ingroup bias would differ by experimental condition. The moderating effects of experimental condition were tested in two steps. First, multi-group models were tested with the structural coefficients for middle-to-upper and middle-to-working participants allowed to vary (i.e., the model was unconstrained). Second, separate models were created for each hypothesized moderating effect, with the paths between the variables equalized across conditions. A significant change in the chi-square between the unconstrained model and a model with a constrained path would indicate a significant moderating effect. The moderating influence of centrality (a factor of class identification) was hypothesized for two relationships: (1) The

relationship between legitimacy and centrality; and (2) the relationship between legitimacy and success bias.

First, it was hypothesized that legitimacy would be positively related to centrality for participants in the middle-to-working condition, but negatively related to class identification for participants in the middle-to-upper condition (Hypothesis 11). When the equivalence of the path between legitimacy and centrality was imposed across the two conditions, the change in chi-square was not significant, $\Delta \chi^2 (1) = 0.05, p = .831$. Therefore, this relationship was not moderated by experimental condition as hypothesized. It was also hypothesized that legitimacy would be positively related to success bias for participants in the middle-to-working condition, but negatively related to success bias for participants in the middle-to-upper condition (Hypotheses 14 and 15). This was also not supported as the change in chi-square was not significant, $\Delta \chi^2 (1) = 0.24, p = .877$, when the path between legitimacy and centrality was equalized.

The remaining structural paths not mentioned above were hypothesized to be similar across experimental conditions. To test these hypotheses I ran a series of comparisons for each path across conditions. Two significant differences emerged. First, contrary to Hypothesis 13, experimental condition moderated the relationship between permeability and moral bias, $\Delta \chi^2 (1) = 7.73, p = .005$. A closer look at the two groups separately revealed a significant relationship between permeability and moral bias for participants in the middle-to-upper condition ($b = -0.19, p = .010$), but not for participants in the middle-to-working condition. Second, experimental condition also moderated the relationship between permeability and success bias, $\Delta \chi^2 (1) = 9.38, p = .002$. As a result of this moderation, it was revealed that permeability was related to less success bias for participants in the middle-to-

working condition ($b = -0.21, p = .043$), but this relationship was not significant for participants in the middle-to-upper condition.

Ingroup Affect as a Mediator

Figure 4.4 shows the results of the structural model with ingroup affect entered as a mediator. Looking for mediation, there was a significant relationship between permeability and ingroup affect ($b = 0.13, p = .018$), and between ingroup affect and moral bias ($b = 0.19, p = .001$). However, the direct effect of permeability on moral bias was significant ($b = 0.09, p = .001$), and the indirect effect through ingroup affect was not. This finding indicates that ingroup affect did not mediate the relationship between permeability and moral bias. Also, the absence of relationship between legitimacy and ingroup affect, between stability and ingroup affect, and between ingroup affect and success bias suggests that there was no mediating effect for these relationships either. This model also did not provide a good fit for the data when coefficients between the groups were constrained ($\chi^2 = 1457.58, \text{d.f.} = 785, p = .001, \text{CFI} = .79, \text{RMR} = .13, \text{RMSEA} = .04$) or when they were allowed to vary ($\chi^2 = 1145.99, \text{d.f.} = 700, p = .001, \text{CFI} = .86, \text{RMR} = .11, \text{RMSEA} = .04$).

An examination of hypothesized moderating effects revealed that experimental condition did not moderate the relationships between legitimacy and ingroup affect or between legitimacy and success bias. However, as in the previous model, experimental condition moderated the relationship between permeability and moral bias, $\Delta \chi^2(1) = 8.34, p = .004$, as well as the relationship between permeability and success bias, $\Delta \chi^2(1) = 5.95, p = .015$. A closer look at these moderating effects revealed that greater perceptions of permeability were associated with less moral bias for participants in the middle-to-upper condition ($b = -0.19, p = .003$). However, despite the significant difference between the

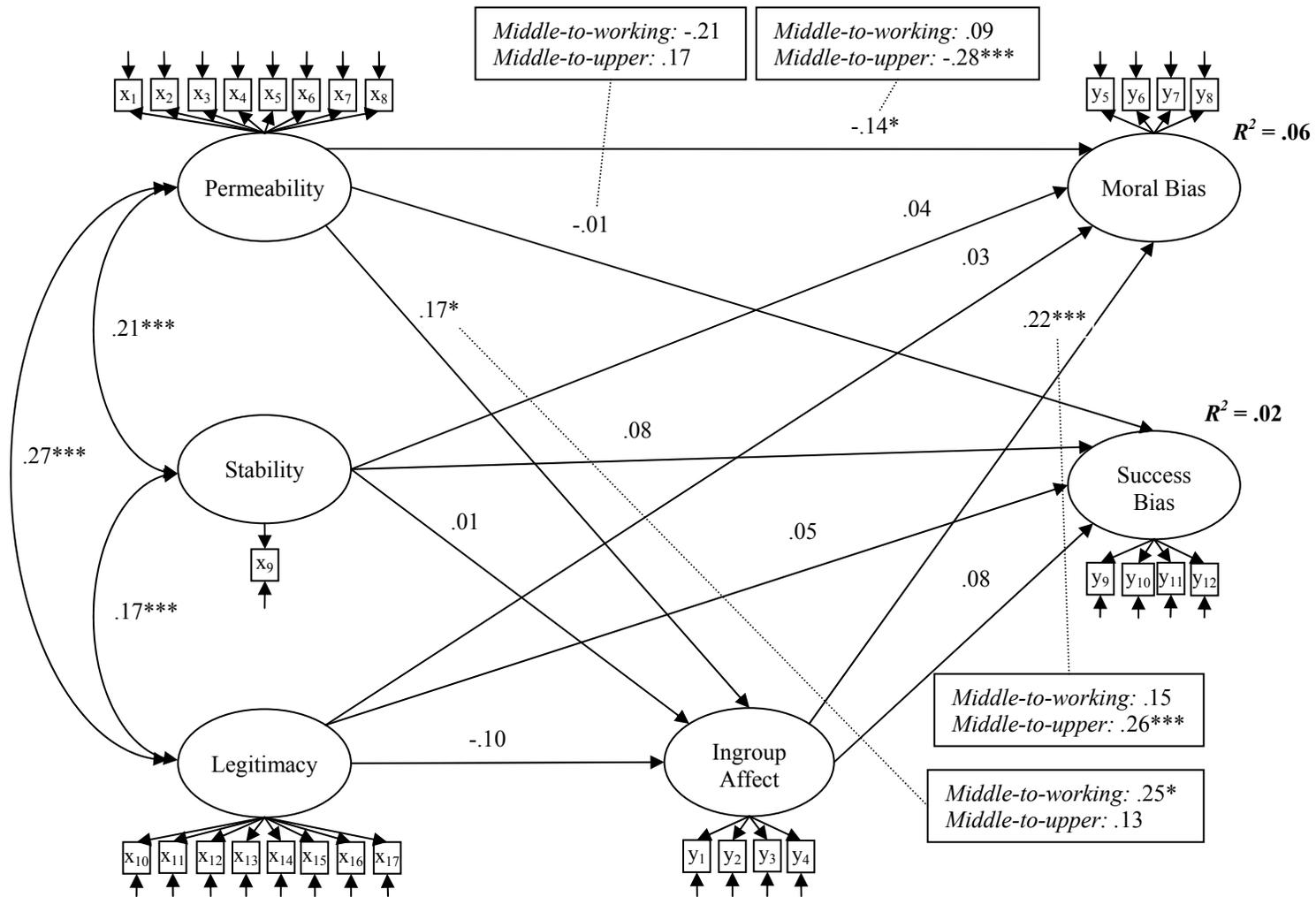


Figure 4.4. Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Ingroup Affect, and Moderation by Experimental Condition. $N = 482$. $^\dagger p < .10$; $* p < .05$; $** p < .01$; $*** p < .001$

conditions on the relationship between permeability and success bias, there was no significant direct relationship for either group when examined separately. A comparison across conditions for all of the other paths also revealed a moderating effect of experimental condition on the relationship between permeability and ingroup affect, $\Delta \chi^2 (1) = 2.84, p = .092$. Looking at the groups separately, greater perceptions of permeability was associated with more ingroup affect for participants in the middle-to-working condition ($b = 0.30, p = .031$). There was no significant effect for participants in the middle-to-upper condition. Finally, there was an additional moderating effect of experimental condition on the relationship between ingroup affect and moral bias, $\Delta \chi^2 (1) = 6.51, p = .011$. Higher levels of ingroup affect were related to more moral bias for participants in the middle-to-upper condition ($b = 0.33, p = .002$), but not for participants in the middle-to-working condition. Exploration of direct and indirect effects revealed that these moderating effects did not significantly change the conclusion that ingroup affect did not mediate the relationship between permeability and ingroup bias.

Ingroup Ties as a Mediator

Figure 4.5 shows the results of the structural model with ingroup ties entered as a mediator. Only one set of relationships fit two of the requirements for a mediation effect: the relationship between permeability and moral bias. First, there was a statistically significant direct effect of permeability on ingroup ties ($b = 0.10, p = .096$). Second, there was also a significant direct effect of ingroup ties on moral bias ($b = 0.10, p = .018$). However, the indirect effects of permeability on moral bias were not significant, thus indicating that ingroup ties was not a mediator of this relationship. As a whole, the model did not fit the data

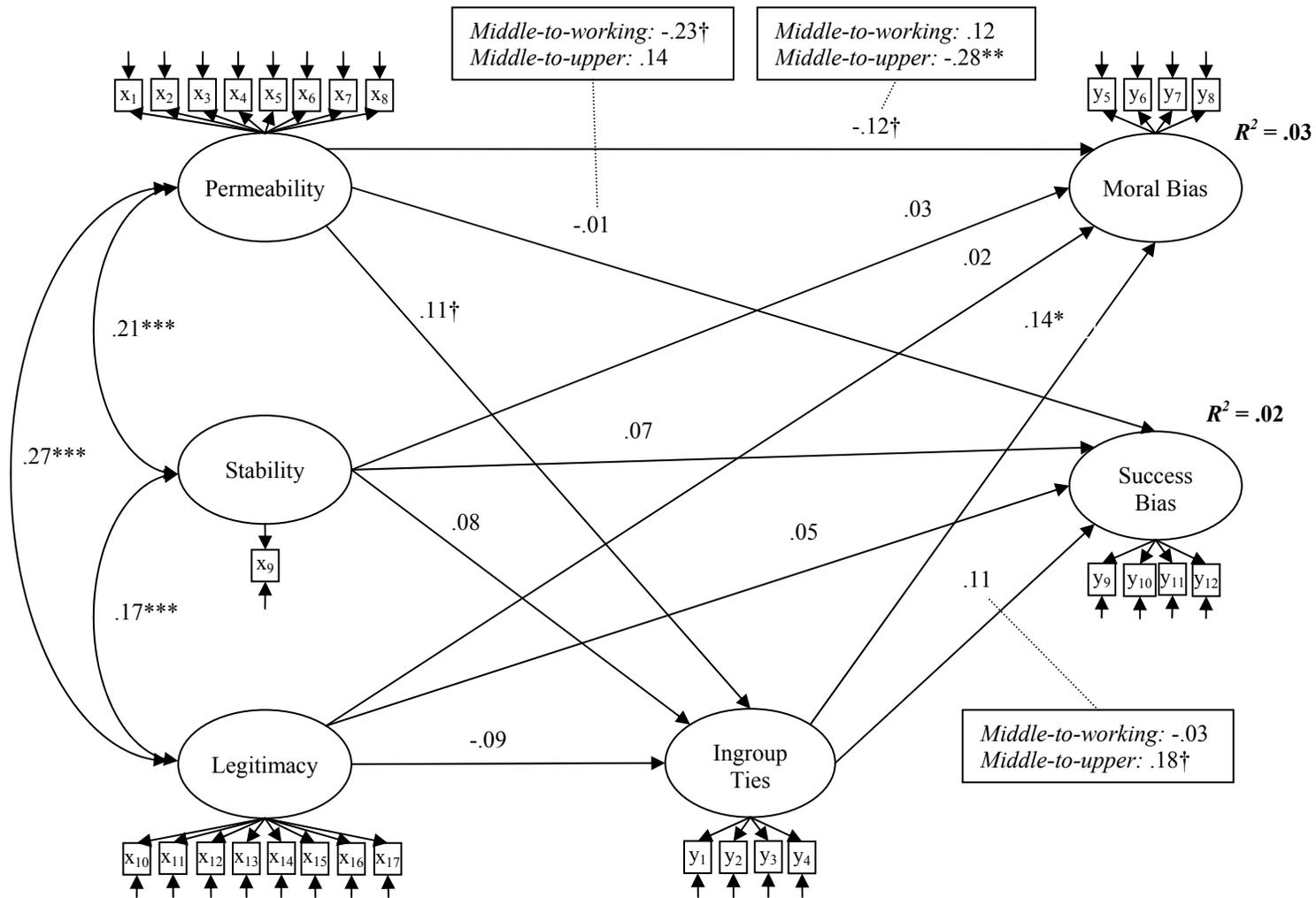


Figure 4.5. Standardized Coefficients from the Structural Equation Model Showing the Effects of Permeability, Stability, and Legitimacy on Moral and Success Bias, Showing Mediation through Ingroup Ties, and Moderation by Experimental Condition. $N = 482$. $^\dagger p < .10$; $* p < .05$; $** p < .01$; $*** p < .001$

well when either constrained ($\chi^2 = 1395.81$, d.f. = 786, $p = .001$, CFI = .80, RMR = .11, RMSEA = .04) or unconstrained across conditions ($\chi^2 = 1087.81$, d.f. = 702, $p = .001$, CFI = .88, RMR = .11, RMSEA = .03).

Once again, the hypothesized moderation effects of experimental condition on the relationships between legitimacy and ingroup ties, and between legitimacy and success bias were not significant. However, as in the first two models, experimental condition did moderate the relationship between permeability and moral bias, $\Delta \chi^2 (1) = 8.92$, $p = .003$, as well as the relationship between permeability and success bias, $\Delta \chi^2 (1) = 6.12$, $p = .013$. Thus, in all three models, more permeable middle class–upper class relations were associated with less moral bias ($b = -0.19$, $p = .005$), while more permeable middle class–working class relations were associated with less success bias ($b = -0.16$, $p = .083$).³⁰ In addition, the relationship between ingroup ties and success bias was moderated by experimental condition, $\Delta \chi^2 (1) = 2.65$, $p = .103$. Examination of this relationship across the two conditions revealed that higher levels of ingroup ties were associated with more success bias for participants in the middle-to-upper condition ($b = 0.14$, $p = .060$). However, the existence of this moderation effect did not change the conclusion that ingroup ties did not mediate the relationship between permeability and ingroup bias.

The Influence of Experimental Condition

Figure 4.6 shows a final model in which experimental condition is included as a predictor of all of the structural variables included in the previous models. To make the interpretation of this model easier, class identification was measured as a single latent

³⁰ However, as noted before, this relationship was not significant in the model containing ingroup affect as a mediator.

variable with twelve indicators.³¹ The point of this model is to show that the greatest differences in the relationships between these variables exist across interclass relations, not within them.

A Comparison of the Two Approaches to Mediation: Regression and SEM

The multiple regression analyses and structural equation models presented in the last two sections represent two alternative approaches to testing the mediating relationships among the sociostructural characteristics of intergroup relations, class identification, and ingroup bias, and the moderating effects of experimental condition. Despite taking different approaches to analyzing the relationships, the results were very similar. For instance, both the regression and SEM analyses showed no evidence that class identification mediated the relationships between the sociostructural characteristics of interclass relations and ingroup bias. In addition, there were few differences in the relationships found amongst variables between the two approaches. Most notably, there was no association between legitimacy and class identification or ingroup bias in the SEM analyses, while legitimacy related to moral bias in the regression analysis. The overwhelmingly similar results of the two approaches, despite the differences in variable measurement, serve as a simple validation of the examination of class identification.

³¹ The permeability, stability, and legitimacy variables were allowed to correlate with one another. This is not depicted in the diagram.

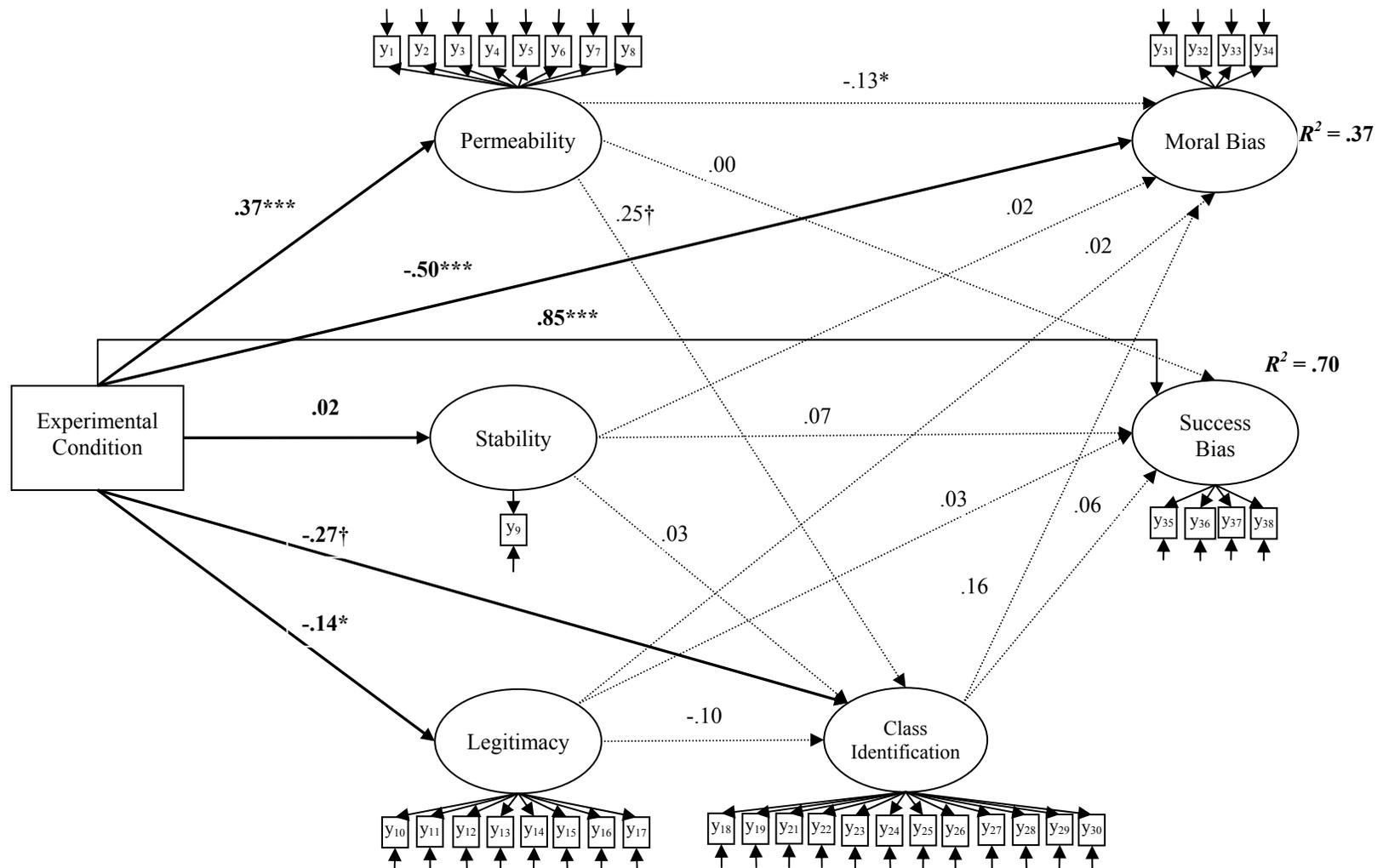


Figure 4.6. Standardized Coefficients from the Structural Equation Model Showing the Influence of Experimental Condition on the Sociostructural Characteristics of Interclass Relations, Class Identification, and Ingroup Bias. $N = 482$. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

CHAPTER FIVE: DISCUSSION

Social identity theory suggests that group members are motivated to maintain a positive sense of self, and that the strategies utilized to achieve this goal are dependent to a large extent on the relative status of the group (Tajfel, 1978). In the present study, I manipulated the relative interclass relations of middle class participants to examine the processes of social identification within two specific interclass contexts: the middle class when compared to the upper class, and the middle class when compared to the working class. Included in comparative context were measures of class identification, the sociostructural characteristics of interclass relations (i.e., permeability, legitimacy, and stability), and evidence of ingroup bias. Before the results of the present analysis are discussed in detail, it should be emphasized that participants were considered to be middle class based on their own self-categorizations and not based on any objective criteria (e.g., income, education). Therefore, the focus of this analysis was on how middle class-identified participants evaluated their own position in the class structure, and the relations between their own class and the class above or the class below.

The Implications of Interclass Context for Class Identification

The first objective of this study was to examine the class identification of members of the middle class in relation to “people above” (i.e., the upper class) or “people below” (i.e., the working class). Previous social identity research has found that members of high status groups identify with the ingroup more than members of lower status groups (Bettencourt et al., 2001). This was not the case in this study, as participants identified more with their social class—by way of stronger ingroup ties and greater ingroup affect—when they were asked to compare the middle class to the upper class, but were less identified when comparing the

middle class to the working class. First, that there was even a difference between the two conditions gives support to the effectiveness of the experimental manipulation. Second, while this finding was unexpected and contradicts previous social identity research, it is not necessarily inconsistent when compared to the historical trends of class categorization. For instance, it has been a consistent finding in the research on class categorization that the vast majority of Americans categorize themselves as either middle class or working class (Centers, 1949; Jackman & Jackman, 1983). Indeed, most of the movement in class categorizations has taken place between the working class and the middle class, and most of the disagreement amongst researchers has involved the distribution of these two classes (see Hamilton, 1966a, 1966b; Tucker, 1966). The overlap between the working class and the middle class is particularly evident in this study as 41% of the middle class participants stated that they came from a working class background, while only 2.1% admitted an upper class upbringing. Thus, it is possible that the distinctions between the middle class and the working class are much more difficult to demarcate, and much more fluid, than those between the middle class and the upper class.

Drawing on one of the basic hypotheses of social identity theory, it is expected that people are motivated to maintain positively distinct group identities in relation to relevant outgroups (Turner et al., 1987). Consequently, the motivation for positive distinctiveness is tied to the relevancy of the outgroup. However, research into social identification processes has yet to compare the relevancy of more than one outgroup. One of the benefits of this study was the inclusion of two outgroups: the upper class and the working class. One interpretation of the finding that participants exhibited higher levels of identification when comparing themselves to the upper class is that the upper class represents a more relevant outgroup than

the working class. That is, the distinctiveness of the middle class from the upper class serves to increase the salience of class identification, which is suppressed by the similarity of the middle class and the working class. Therefore, identification was higher amongst participants in the middle-to-upper condition because of the distinctiveness of the two groups.

Sociostructural Characteristics and Interclass Context

In a critique of social identity research, Turner (1999) questioned the absence of sociostructural characteristics (i.e., permeability, legitimacy, and stability) in analyses of intergroup attitudes and social identification. Despite this critique, there have been relatively few attempts to include all three sociostructural characteristics in the analysis of intergroup relations (for exceptions see Ellemers et al., 1993; Mummendey et al., 1999a, 199b). In addition, while some efforts have been made to examine the influence of these sociostructural characteristics on social identification and the identity maintenance strategies of low status groups, little is known of how these sociostructural characteristics apply to intergroup contexts with more than one relevant outgroup. As a step towards addressing these issues, I examined middle class participants' perceptions of the permeability, legitimacy, and stability relative to their relations with the working class or the upper class.

Permeability and Interclass Context

As expected, middle class–working class relations were seen as more permeable than middle class–upper class relations. In this study, permeability was measured by a combination of items that assessed the ability of people to “move up” in social class or “pass” as members of another class. Thus, results suggest that middle class participants perceived it to be easier for someone from the working class to become (or pass as) middle class, than for someone from the middle class to become (or pass as) upper class.

Permeability, more than legitimacy or stability, is a gauge of the distinctiveness of group relations. Perceptions of an easy transition across class boundaries indicate greater similarity and less distinction between groups. Therefore, perceptions of more permeable boundaries between the middle and working classes helps explain why participants had less class identification in the middle-to-working condition, and supports the conclusion that these groups are less distinct than the middle and upper classes.

Legitimacy and Interclass Context

Contrary to expectations, participants rated the superiority of the upper class over the middle class as more legitimate than the superiority of the middle class over the working class. It should be noted, however, that both sets of interclass relations were seen as illegitimate, in that mean ratings for legitimacy in both conditions were below the midpoint of the scale. Thus, it is more accurate to say that middle-to-working class relations were seen as *more illegitimate* than middle-to-upper class relations. Participants in the middle-to-working condition disagreed that their class advantage is the result of inherent worthiness or deservedness, and agreed that there should be more equality between the classes. In contrast, participants in the middle-to-upper condition expressed less vehement disagreement to the idea that the advantage of the upper class is the result of inherent worthiness or deservedness, and expressed less agreement with the idea that there should be more equality between the classes. These findings make sense if the middle class participants see themselves and members of the working class as relatively interchangeable, but view members of the upper class as very distinct and far above them in social standing. In other words, inequality amongst the similarly positioned middle and working classes could be seen as more illegitimate than inequality between the vastly different middle and upper classes.

Stability and Interclass Context

No differences were found between the two conditions in regards to perceptions of the stability of the American class structure. Given that the measure for this sociostructural characteristic was more of an assessment of the stability of the American class structure, rather than the stability of specific interclass relations, the lack of a difference across conditions was expected. While there were no differences by condition in perceptions of the stability of the American class structure, the middle class participants in this study were generally pessimistic about the trajectory of the class structure. This pessimistic trend is particularly evident in projections for the future as only 15% of the participants predicted an upwardly mobile class structure, with 44% seeing things as getting worse. What this means for stability as a characteristic of interclass relations is hard to say, but these perceptions of a shift downward in the class structure might indicate that the middle class participants in this study were seeing a growing distinction between those at the top of the class structure and everyone else.

The Implications of Interclass Context for Ingroup Bias

A great deal of research has examined the effects of group status on ingroup bias. A consistent finding in this research is that higher status groups tend to favor the ingroup over a lower status outgroup, whereas lower status groups either favor the higher status outgroup, or exhibit no preference at all between the groups (e.g., Brown, 1978; Turner & Brown, 1978). In addition, more recent meta-analytic research has found that the relevancy of the dimensions of comparison can moderate the effects of group status on ingroup bias (Bettencourt et al., 2001; Mullen et al., 1992). As I have mentioned, in this study I manipulated the relative status of middle class participants by asking them to think about

interclass relations with either the upper class or the working class. I examined the effects of this experimental condition on multiple measures of bias. In particular, moral and success evaluations were used to examine how the relevance of the dimensions of comparison moderated the effects of experimental condition on ingroup bias.

Moral and Success Bias

As expected, participants in the middle-to-upper condition were significantly biased in favor of the ingroup when evaluating members of the middle and upper classes on traits of morality. A closer look at these biased evaluations revealed a combination of positive moral evaluations of the middle class and negative moral evaluations of the upper class.

Participants in this condition were also significantly biased in favor of the outgroup on traits assessing success. As in the work of Lamont (1992, 2000), these findings suggest that impressions of morality can be a useful alternative to traditional socioeconomic indicators of self-worth. Whereas Lamont (2000) focused on the moral impressions of working class men as compared to upper middle class men, the findings of the present study extend this use of morality to members of the middle class. Thus, while the middle-to-upper participants in this study acknowledged the superiority of the upper class on the traits evaluating success, they maintained a positive middle class identity by claiming moral superiority. Indeed, that these participants evaluating the upper class negatively on the moral dimension indicates a perceived cost of being in the upper class. Therefore, in the terminology of social identity theory, participants in the middle-to-upper condition employed a strategy of social creativity to maintain a positive class identity when compared to a higher status social class.

It was predicted that participants in the middle-to-working condition would be biased in favor of the ingroup on both evaluations of success and morality. Participants in this

condition did acknowledge the superiority of the middle class over the working class regarding success, but they were significantly biased in favor of the working class in their evaluations of morality. The rationale for this partially refuted hypothesis came from Lamont's (2000) research in which the working class men in her interviews revealed a tendency to draw moral distinctions between themselves and others described as lower class or poor. However, findings in the present research have pointed towards the perceived similarity, not the distinctiveness, between the middle class and the working class. Thus, finding that middle class participants did not evaluate themselves as morally superior to the working class is not surprising. However, the exhibition of moral bias in favor of the working class deserves attention. One interpretation of this finding is that the middle class participants in this study tried to equalize their ratings of the classes by making up for the success difference between the working and middle class with morality. A second explanation is that morality is perceived to have an inverse relationship with success. That is, morality decreases as class increases. However, as in Lamont's research, this pattern most likely does not hold for evaluations of people at the lowest end of the class structure (i.e., the lower class or the poor). Overall, the favorable moral evaluations of the working class and the negative moral evaluations of the upper class once again suggest that participants were distinguishing the middle class from the upper class, while emphasizing the similarity of the middle class and the working class.

Apart from the differences in moral and success ingroup bias across conditions, it should be noted that participants in the middle-to-upper condition evaluated the ingroup higher in terms of both morality and success than participants in the middle-to-working condition. This finding is further evidence supporting the effectiveness of the experimental

manipulation. The implications of this finding for social identity theory are twofold. First, it supports the pattern in social identity research for higher status groups to be more favorable toward the ingroup than lower status groups. Second, by manipulating two separate sets of intergroup relations with the same ingroup, this finding attests to the necessity of taking intergroup contexts seriously.

Warmth and Closeness Bias

I predicted that participants in both conditions would feel warmer and closer to members of the middle class than towards members of the upper or working classes. This prediction was supported in the middle-to-upper condition as participants reported that they felt significantly warmer and closer to the middle class than they did towards members of the upper class. Participants in the middle-to-working condition felt significantly closer towards members of the middle class than they did towards the working class, but not significantly warmer. These findings add more evidence to the conclusion that there is a greater perceived distinction between the middle class and the upper class, than between the the middle class and the working class in participants' minds. Support is qualified to some extent by the finding that the middle class participants felt closer to members of the middle class than to members of the working class.

Bias in Allocations of Tax Rebates and Tax Increases

I predicted that all of the participants in this study, regardless of experimental condition, would seek to maximize the difference between the middle class and the outgroup in the allocation of both tax rebates and tax increases. As expected, participants in the middle-to-upper condition were significantly biased in favor of the middle class in both allocation scenarios. This pattern was reversed for participants in the middle-to-working

condition, however, as they were significantly biased in favor of the working class when allocating both tax rebates and tax increases. One interpretation of these findings is that in both conditions the allocation patterns represent support for more class equality. Participants rated class relations as illegitimate in both conditions, and advantaging the subordinate group in allocations would be a way to ameliorate class differences. Another interpretation is that participants strongly believed in a progressive tax and rebate structure, meaning that the middle class should be advantaged over the upper class and the working class should be advantaged over the middle class regardless of how legitimate or illegitimate class rankings may be.

Sociostructural Characteristics and Class Identification

Perceptions of the sociostructural characteristics of intergroup relations have been found to influence group identification, albeit differently for relatively low and high status groups (see Ellemers, 1993; Mummendey et al., 1999a, 1999b). I examined the relationships between each of these characteristics and the three factors of identification as developed by Cameron (2004): centrality, ingroup affect, and ingroup ties.

Effects of Permeability on Class Identification

Regarding the effects of permeability, Tajfel and Turner (1979) argued that when group boundaries are perceived to be permeable, members of low status groups might seek to disidentify with the ingroup, if possible, as an identity maintenance strategy. Consistent with this argument, perceptions of permeability were negatively related to the centrality of class identification for participants in the middle-to-upper condition. In addition, perceptions of permeability were also negatively related to the centrality of class identification for participants in the middle-to-working condition. Therefore, in both experimental conditions,

the effect of less distinct (i.e., more permeable) group boundaries was associated with less central middle class identities.

Contrary to expectations, permeability was positively related to ingroup affect for middle-to-working participants and positively related to ingroup ties for middle-to-upper participants.³² Why would more permeable middle class–working class relations be associated with more positive feelings towards the ingroup, and why would more permeable middle class–upper class relations lead to stronger ingroup ties? One reason for these unexpected permeability effects may be the direction of the permeability measure. In both conditions, permeability was measured in terms of upward mobility. For instance, middle-to-working participants were asked about the upward mobility of the working class to the middle class, while middle-to-upper participants were asked about the upward mobility of the middle class to the upper class. Thus, greater perceptions of permeability for middle-to-working participants meant that it was possible for others (i.e., members of the working class) to become part of the ingroup. Given the moral evaluations of the middle class in regards to the working class, it is reasonable that permeability was then associated with greater ingroup affect. For participants in the middle-to-upper condition, on the other hand, permeability meant the ability for movement into another group. Based on the distinctions drawn between the middle class and the upper class, perhaps the finding of stronger group ties is a way to maintain a middle class identity in the face of upward mobility. Alternatively, perhaps the more permeable the boundary into the upper class, the more ties middle class participants felt with others like themselves who remain in the middle class.

³² It should be noted that this latter finding was not significant in the regression analysis, and only slightly significant ($p < .10$) in the SEM.

The inconsistent effect of permeability on the different factors of identification suggests that these factors measure substantially different aspects of identification. For instance, a closer look at the intercorrelation of the identification variables revealed that centrality was negatively correlated with ingroup affect and not correlated at all with ingroup ties. Thus, the negative effect of permeability on centrality, and the positive effect of permeability on ingroup affect and ingroup ties, is consistent with the relationships among the three identification variables.

Effects of Legitimacy on Class Identification

Contrary to expectations, there were no significant legitimacy effects on any of the three factors of class identification, regardless of experimental condition. This finding, while unexpected, is consistent with prior research that has found legitimacy effects to be relatively weak in comparison to permeability and stability effects (Mummendey et al., 1999a). In the context of the present study, the nonexistent effect of legitimacy on class identification may be a reflection that class legitimacy is not tied to classes as groups, but is a characteristic of the class structure as a whole or of the position of specific individuals. For instance, most conceptions of class are inherently hierarchical. The acceptance of a hierarchical class structure, whether it is perceived to operate in a meritocratic or caste-like manner, necessitates the superiority of some classes over others. In the United States, where meritocratic beliefs are more of a norm, statements that one class deserves, or is more worthy, of a superior position are met with disagreement. However, this disagreement does not mean that the position of classes in relation to one another is illegitimate. The acceptance of different classes essentially legitimizes their relationship to each other. Therefore,

legitimacy in regards to class might be more applicable in the evaluation of specific individuals within a class structure, and whether their superior positions are warranted.

Effects of Stability on Class Identification

Perceptions of an upwardly mobile class structure were negatively related to the centrality of class identification for middle-to-working participants, and positively related to the ingroup ties of middle-to-upper participants. However, both effects were relatively weak ($p < .10$). The weak effects of the stability measure on class identification may be due to the measurement of the variable. For instance, instead of purely measuring the stability of specific interclass relations, the variable used in this study assessed perceptions of the stability of the entire class structure. The difficulty of measuring the stability of class relations is due to the static position of classes in relation to each other. For instance, because of the inherent hierarchy of the class structure it is not possible for the middle class as a group to become superior to the upper class. People in the middle class might be able to become a part of the upper class, and vice versa, but the relation of the classes as groups are stable.

Because of this inherent stability, the goal in measuring stability in this study was to capture two of the aspects in which classes do differ—proportion and the degree of difference. Thus, higher values on this measure indicated perceptions that the entire class structure was moving upward, with decreasing differences between those at the top and those in the middle. Lower values indicated perceptions of downward mobility, with increasing differences between those at the top and those in the middle. As a result, the negative effect of this stability measure on the centrality of middle-to-working participants could be a consequence of the perception that the differences between class groups were shrinking.

Also, as with the effects of permeability, the positive effect of the stability measure on the ingroup ties of middle-to-upper participants might be a result of the need to maintain ties to fellow class members in the face of upward mobility.

Sociostructural Characteristics and Moral and Success Bias

Ingroup bias, in one form or another, is the primary dependent variable in the majority of social identity research. Bias is a measure of distinction, and the main assumption guiding social identity theory is that people are motivated to maintain positively distinct social identities. In this study, I focused on how ingroup bias, measured in terms of moral and success evaluations, was influenced by the permeability, legitimacy, and stability of interclass relations.

Effects of Permeability on Moral and Success Bias

For the most part, perceptions of permeability were negatively related to ingroup bias. For instance, greater perceptions of permeability were associated with: (1) less moral bias for participants in the middle-to-upper condition; and (2) less success bias for participants in the middle-to-working condition. As an exception, however, permeability had a positive effect on the success bias of middle-to-upper participants.³³ One of the most important hypotheses in this study was the prediction that middle class participants would emphasize self-worth on the morality dimension to make up for inferior evaluations of success when compared to the upper class. Thus, it is interesting that when middle class–upper class relations are perceived to be permeable, this moral distinction decreases. The positive effect of permeability on the success bias of middle-to-upper participants is also a result of the reduced distinctiveness between the two classes. Overall, the middle class exhibited outgroup favoritism towards the

³³ It should be noted that this effect disappeared in the SEM.

upper class on the success dimension. Thus, greater perceptions of permeability reduced this favoritism. This pattern is reversed in the middle-to-working condition as greater perceptions of permeability were associated with less ingroup bias on the success dimension. Therefore, as expected, permeability significantly reduced the distinctiveness of interclass relations.

Effects of Legitimacy on Moral and Success Bias

Like the pattern observed in the effect of legitimacy on class identification, the effects of legitimacy on ingroup bias were weak. Legitimacy was associated with less moral bias for middle-to-upper participants, and more moral bias for middle-to-working participants. However, both of these relationships were not significant when examined through structural equation modeling. Middle class participants were expected to be more morally biased when interclass relations were perceived to be legitimate. This was supported in the middle-to-working condition as greater perceptions of legitimacy were associated with less outgroup favoritism on the moral dimension. That is, the superior morality of the working class was reduced when the status differences between the working class and middle class were seen as legitimate. However, the legitimacy effect was reversed in the middle-to-upper condition. Taken together, these findings suggest that legitimacy might serve to diminish the perceived moral differences between classes.

Effects of Stability on Moral and Success Bias

There was only one significant effect of stability on ingroup bias. For participants in the middle-to-upper condition, perceptions that the class structure is upwardly mobile over time were associated with more success bias. Actually, given the evidence that these middle class participants favored the upper class on success bias ($M = -.81$), it might be more accurate to say that perceptions of an upwardly mobile class structure were associated with

less outgroup favoritism. Thus, the success advantage of the upper class is reduced when the class structure, including the middle class, is shifting proportionately upward.

On the Absence of a Mediating Effect of Class Identification

One of the goals of this study was to test the hypothesis, drawn from social identity theory, that the permeability, legitimacy, and stability of intergroup relations influence ingroup bias through ingroup identification. I tested this hypothesis using two statistical approaches. First, the mediation of class identification was tested using a series of regression equations. Second, I constructed structural equation models that included class identification as a mediator. The benefit of the regression approach was in the testing and evaluation of the moderating effects of experimental condition. Structural equation modeling, on the other hand, allowed for a more comprehensive test of the mediation of class identification. Nevertheless, in both sets of analyses, there was no evidence that class identification mediated this relationship.

It is possible that simply classifying themselves as middle class and then thinking about how they differ from those above or below may have been sufficient to elicit stereotypes of the upper and working class in the minds of participants. In other words, strength of social class identification did not mediate the effects of the sociostructural variables on moral and success bias because none of these variables had much influence on the stereotyped images of class already elicited by the experimental manipulation itself. Participants were already engaged in a social identity process when they categorized themselves as being in the middle class. They were already thinking about what members of their class have in common and how they differ from members of other classes. Using a similar experimental manipulation, Oldmeadow and Fiske (2007) found that white, middle

class participants stereotyped the rich as competent but not warm, and the less fortunate as warm but not competent. Thus, if the experimental manipulation used in this study itself elicited stereotypes regarding the morality and success of the working and upper class, then variation in the other variables may have been left with little explanatory power.

The lack of a mediating effect of class identification, and the relatively weak predictive power of the sociostructural characteristics, suggests that differences in the social identity processes were more evident across interclass conditions than within them. For instance, participants perceived middle-to-working class relations to be more permeable than middle-to-upper class relations, but permeability had very weak effects on class identification and ingroup bias. Taken as a whole, participants identified differently with the middle class depending on whether they were comparing themselves to the working class or the upper class. However, within these interclass relations, perceptions of permeability, legitimacy, stability, and class identification had very little influence on moral and success ingroup bias.

Implications for Social Identity Theory

The results of this study add to the social identity literature in four ways. First, by focusing on social class, I have fulfilled the call made by Tajfel et al. (1984) to apply social identity theory to “large-scale social processes.” Social class may be one of the most important and consequential, but least examined “large-scale social processes” in social psychology. It has never before been addressed by social identity theory. The majority of social identity research continues to be conducted in laboratory settings. While such research is necessary, relatively little is known about how social identity processes operate outside the lab. Thus, my research is one attempt to test social identity theory outside the lab with naturally occurring groups. Arguments can be made as to the salience of class as a group

identity, but until the conclusions made in experimentally controlled settings with ad hoc groups are applied in more natural contexts, with more and less salient natural groups, the generalizability of social identity findings will always be questioned.

Second, this study also added to the social identity research in that class identification was measured directly. As I have argued, there has been a general reluctance to measure identification directly in social identity research, although a growing amount of research has been dedicated to this endeavor (Brown et al., 1986; Cameron, 2004; Ellemers et al., 1999; Hinkle et al., 1989; Jackson, 2002; Karasawa, 1991; Kelly, 1988). The use of Cameron's (2004) three-factor model of class identification in this study, however, was associated with inconclusive results. Class identification did not mediate the relationship between the sociostructural characteristics and ingroup bias, and did not have a direct effect on ingroup bias. Because of these results, I have argued that class identification may be more evident in the choice of a class category than in the identification measures used in this analysis. Therefore, while this research added to the literature by using direct measures of identification, the results indicate that identification may indeed be present in simple self-categorizations.

Ever since Turner's (1999) criticism of the field, a great deal of research has been dedicated towards examining the influence of sociostructural characteristics on identification and bias. However, rarely are the permeability, legitimacy, and stability of intergroup relations included in the same analysis. Thus, as a third addition to the social identity literature, I incorporated perceptions of permeability, legitimacy, and stability into the study of class relations. While I found the overall performance of these variables in a model of identity and ingroup bias disappointing, there were some significant differences across

conditions. Furthermore, my research went beyond previous tests by exploring the moderating effects of the relative group comparison (i.e., working or upper class) on the social identity model.

While a great deal of research has focused on the social identification of higher and lower status groups, very few studies have compared both higher and lower status groups simultaneously. Thus, I also added to the social identity literature by examining class identification in two interclass contexts. I was able to compare the perceived interclass relations of the middle class-identified with both the working and upper classes. Results showed that class identification, ingroup bias, and perceptions of permeability and legitimacy differed across the two interclass contexts. This indicates that changes in the comparison outgroup can significantly alter social identification, and that much more research is needed to test social identity theory outside the framework of groups as pairs.

Implications for Class Analysis

I have argued that class analysis has favored objective indicators of social class and that this has led to an incomplete understanding of how people subjectively relate to social class structures. Therefore, in this study, I focused on how people identified themselves as members of the middle class. To do this, the categorization as middle class was left up to the participants. That is, they chose this class category; it was not dictated by income, occupation, education, or any other objective indicator. One criticism of allowing people to choose their own class is that these categorizations rarely match up with objectively determined class typographies (see Kingston, 2000). However, I would argue that while objective class indicators may more accurately differentiate people in regards to socioeconomic resources, objective classifications have little meaning for people in their

daily lives. A second criticism of subjective classifications is the perception that everyone thinks they are middle class, particularly in the United States. That the majority of Americans claim to be middle class is not as important as what being middle class means to these people. Therefore, despite the criticisms, I focused on how participants identified with the middle class. I examined their perceptions of the permeability, legitimacy, and stability of class relations. Finally, I explored how these participants managed to maintain a positive class identity even when compared to people who were superior to themselves in terms of success. In doing so, I hoped to add a subjective analysis that would lend some balance to what has become an overwhelmingly objective class literature.

In addition, through the application of social identity theory, I framed the analysis of subjective class identification in regards to specific interclass relations. That is, I did not examine middle class identification in isolation. Following the example of Lamont (1992, 2000), I studied the middle class when relating to two other classes: the working class and the upper class. Thus, how participants identified with the middle class was dependent on whether they were comparing themselves to people in the working or upper class. There were two benefits to such an approach. First, it grounded perceptions of class in a specific context. Without this context, it would have been impossible to examine how the middle class—identified perceived their position in a class structure. Evaluations of moral and success traits would have had no comparative basis. Without this context, the salience of class identification would have been severely undermined. Second, not only were the middle class grounded in a specific interclass context, but the experimental manipulation of two such conditions made it possible to compare across interclass settings. Using this approach, I was able to move away from the more traditional treatment of class as a category that is occupied

by individuals with defined socioeconomic characteristics. In this study, I was able to conceptualize class as dynamic intergroup relations. Such a conceptualization allows for more individual agency as people can manage their own class identities, or cease to identify with class at all.

Limitations of the Study

One limitation of this study is the ability to generalize the results to other populations. The data were drawn from what was essentially a convenience sample of the faculty and staff at Iowa State University. Therefore, the ability to generalize the findings outside of this context is limited. For instance, the source of this sample might be considered unique in that all of the participants were employed in an academic setting. It is possible that the middle-class identified in this academic context might differ from the middle-class identified in the United States as a whole. The evidence of progressive allocations for tax rebates and tax increases attests to this possibility. Another limitation of this specific sample was that the vast majority of participants were white. Therefore, generalizations cannot be extended to include the middle class-identified from other racial groups. However, the assignment of participants into experimental conditions was randomized. Consequently, the comparison of class identification across these conditions was justified.

A second limitation of this study concerns the causal relations among the social identification variables. In theory, sociostructural characteristics influence identification, and identification then influences ingroup bias. However, no cross-sectional design can ever definitively test causal ordering. For instance, it is possible that higher levels of ingroup bias produce higher levels of identification. That is, maybe the act of being biased in favor of the

ingroup actually increases identification with the group. Future research is needed to further test the possible reverse causation of ingroup bias on class identification.

Suggestions for Future Research

One of the most under-examined aspects of social identity theory is the matching of ingroups to relevant outgroups. In some cases, the match can be straightforward. For instance, Mummendey et al. (1999a, 1999b) focused on the social identity processes of former East Germans in relation to former West Germans (Mummendey et al., 1999a, 1999b). Von Hippel (2006) contrasted the intergroup attitudes of temporary and permanent employees. Terry and O'Brien (2001) examined the responses to an organizational merger of employees from each premerger organization. However, these examples also reflect the tendency of social identity research to focus on groups in pairs, and in many cases only one half of a pair. As a result, the predictions of social identity theory have rarely been tested in more complex, multi-group contexts. As discussed earlier, Brown's (1978) analysis of the social identity processes of three separate employee groups of an aircraft engine factory represents an exception. In this three-group context, Brown's results showed that a common goal in social identity research—predicting the identity maintenance strategies of low status groups—becomes even more complex when more than two groups are involved, with some groups holding both relatively low and high status positions simultaneously. One of the strengths of the current study was the focus on a group—the middle class—that occupies a social position below some groups and above others. Besides class groupings, there are many possible contexts in which more than two groups interact with one another. Some possibilities include: political parties, sports teams, universities, nationalities, and racial groups, just to name a few. Indeed, there has long been a call in the analysis of racial and

ethnic relations to move beyond the emphasis on black–white relations to include the experiences and histories of other racial groups (e.g., Lee & Bean, 2004). Therefore, more research of this kind is needed.

In addition, while this research examined how participants identified themselves with the middle class, little is known as to how the upper class, working class, and lower class identify with their class. Two questions regarding further subjective class analysis come to mind. First, do the names of these classes, including that of the middle class, best represent how people think about class in this country? For instance, if upper–middle and lower–middle were included as optional class categories, would the upper–middle class–identified differ from the lower–middle class–identified in their evaluations of interclass relations? Would the poor differ from the lower class, or the upper class from the rich? Answers to these questions would go a long way towards understanding how people think about class and status in this country. Second, do objective class indicators influence how people identify with their social class? Cashell (2007) found that those who identified themselves as middle class had household incomes ranging from approximately \$38,000 to \$250,000. How do the people at the top of this range identify as middle class, and is this identification similar to those at the bottom? Answers to these questions require the combination of subjective and objective class concepts. Research of this kind is necessary to further understandings of how people relate to class structure.

Conclusion

By and large, the purpose of this study was to examine how people identify themselves as middle class. By integrating social identity theory with the study of social class, I have shown that people identify differently with the middle class depending on the

context of interclass relations. When compared to the working class, participants identified less with the middle class and found class relations to be more permeable and less legitimate. When compared to the upper class, however, participants identified more with the middle class and found class relations to be less permeable and more legitimate. Through these patterns of class identification, it became apparent that middle class participants found themselves to be similar to the working class and more distinct from the upper class. By showing that class identification differs by intergroup context, the present research advances both class analysis and the applicability of social identity theory.

APPENDIX A: SURVEY REQUEST EMAIL

Dear Iowa Stater,

My name is Patrick Archer and I am a PhD student in the Department of Sociology where my research focuses on the issue of social class in the United States.

I would like to invite you to participate in a survey. The purpose of this survey is to learn more about the attitudes people have towards social class in the United States. To examine this issue, I will be asking you a few questions about yourself, and then some that address various issues involving social class.

This survey is anonymous and confidential. Participation in this survey is purely voluntary. If you choose to participate you may, of course, discontinue at any time.

Please click on the following link to begin the survey:

<SURVEY LINK>

If you have any questions or concerns regarding your participation in this study, please don't hesitate to contact me at parcher@iastate.edu or 294-0920. My major professor is Wendy J. Harrod, Associate Professor of Sociology. She may also be contacted at wharrod@iastate.edu or 294-9898.

Sincerely,

Patrick Archer

APPENDIX B: INFORMED CONSENT DOCUMENT

“Social Class Identification: A Social Identity Perspective”

Patrick C. Archer

IRB ID: 08-020

Informed Consent Document

You are invited to participate in a voluntary research study conducted by Patrick Archer, a doctoral student in the Department of Sociology at Iowa State University. The purpose of this survey is to learn more about the attitudes people have towards social class in the United States. To examine this issue, you will be asked a few questions about yourself, and then some that address various issues involving social class. If you agree to participate in this study, you may skip any question you do not wish to answer. Your participation will last for approximately 20 minutes. There are no foreseeable risks or costs from participating in this study, although some participants may consider the questions about social class to be a sensitive topic. You should not expect any direct benefits.

Participant Rights:

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. If you decide not to participate or leave the study early, it will not result in any penalty or loss of benefits to which you are otherwise entitled.

Confidentiality:

Records identifying participants will be kept confidential to the extent permitted by law. The following measures will be taken. All data will be stored in password protected computer files. The data will be downloaded to an SPSS data set without personal identifiers. Your name will not appear in any publication of results. Your answers will be pooled with those of many others, and no one will use the information in any way that would identify you. The data will be saved for five years. If the results are published, your identity will remain confidential.

Questions or Problems:

You are encouraged to ask questions at any time during this study.

For further information about the study, contact Patrick Archer, 294-0920.

If you have any questions about the rights of research subjects or research-related injury, please contact IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, Office of Research Assurances, (515) 294-3115, 1138 Pearson Hall, Ames, IA 50011.

By clicking the **Next Button** below, I signify that I agree to participate in the study. I understand that I am free to withdraw at any time without incurring penalty. (Remember to print a copy of the informed consent document if you would like a copy for your files.)

Begin survey!

APPENDIX C: SURVEY INSTRUMENT**Class Placement**

Listed below are questions we will use only for classification purposes. Please provide a response for each question.

1. Most people see themselves as belonging to a particular social class. Which social class would you say you belong to?
 - a. Upper class
 - b. Middle class
 - c. Working class
 - d. Lower class

2. What is the last digit of your telephone number?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
 - f. 5
 - g. 7
 - h. 8
 - i. 9

Experimental Manipulation

Middle-to-Upper Condition

You have identified yourself as middle class. In this survey, we would like you to form an impression of the type of people who occupy a class above the middle class. We call this the upper class. Below is a picture of a typical upper class home. Look at this picture and try to form an impression of the type of people most likely to live in such a house.



1. How much do you think this house is worth?
2. How prestigious are the jobs held by those in this house likely to be?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

3. How economically successful do you think these people would be?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

4. How prestigious a car do you think these people would drive?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

Middle-to-Working Condition

You have identified yourself as middle class. In this survey, we would like you to form an impression of the type of people who occupy a class below the middle class. We call this the working class.

Below is a picture of a typical working class home. Look at this picture and try to form an impression of the type of people most likely to live in such a house.



1. How much do you think this house is worth?
2. How prestigious are the jobs held by the type of people who live in this house?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

3. How economically successful are the type of people who live in this house?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

4. How prestigious a car is driven by the type of people who live in this house?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

Permeability Questions

Next, you will be shown a series of statements about the relations between the middle and upper class in this country. Please indicate how much you agree or disagree with each statement.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

Middle-to-Upper Condition

1. In this country, it is easy for someone from the middle class to become upper class.
2. Middle class individuals have difficulty becoming upper class. (R)
3. Middle class individuals who try to “pass” as members of the upper class are only fooling themselves. (R)
4. These days you cannot tell the difference between a middle class or upper class person based on dress or appearance.
5. Middle class individuals feel uncomfortable and inauthentic when they mingle with members of the upper class. (R)
6. It is easy for middle class individuals to “fit in” socially with members of the upper class.
7. With hard work, it is possible for a middle class individual to become upper class.
8. In this country, it takes more than hard work to become upper class. (R)

Middle-to-Working Condition

1. In this country, it is easy for someone from the working class to become middle class.
2. Working class individuals have difficulty becoming middle class. (R)
3. Working class individuals who try to “pass” as members of the middle class are only fooling themselves. (R)
4. These days you cannot tell the difference between a working class or middle class person based on dress or appearance.
5. Working class individuals feel uncomfortable and inauthentic when they mingle with members of the middle class. (R)
6. It is easy for working class individuals to “fit in” socially with members of the middle class.
7. With hard work, it is possible for a working class individual to become middle class.
8. In this country, it takes more than hard work to become middle class. (R)

Legitimacy Questions

Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

Middle-to-Upper Condition

1. Members of the upper class deserve to hold social positions superior to that of the middle class.
2. Members of the middle class should have the same chances in life as those in the upper class. (R)
3. People in the upper class are just more worthy than those in the middle class.
4. We should do what we can to equalize the conditions of the upper and middle classes. (R)
5. The upper class should be better off than the middle class.
6. Class equality should be our ideal. (R)
7. The middle class should stay in their place.
8. Members of the upper class are not better than those in the middle class. (R)

Middle-to-Working Condition

1. Members of the middle class deserve to hold social positions superior to that of the working class.
2. Members of the working class should have the same chances in life as those in the middle class. (R)
3. People in the middle class are just more worthy than those in the working class.
4. We should do what we can to equalize the conditions of the middle and working classes. (R)
5. The middle class should be better off than the working class.
6. Class equality should be our ideal. (R)
7. The working class should stay in their place.
8. Members of the middle class are not better than those in the working class. (R)

Stability Questions

These five diagrams show different kinds of society. Please read the descriptions and look at the diagrams and decide which you think best describes the United States today.

TYPE A		..... Upper
A small elite at the top, very few		..... Middle
		..... Working
		..... Lower
TYPE B		..... Upper
A society like a pyramid, with a		..... Middle
		..... Working
		..... Lower
TYPE C		..... Upper
A pyramid except that just a few		..... Middle
		..... Working
		..... Lower
TYPE D		..... Upper
A society with most people in the		..... Middle
		..... Working
		..... Lower
TYPE E		..... Upper
Many people near the top and only a		..... Middle
		..... Working
		..... Lower

1. What type of society is the United States today—which diagram comes the closest?
2. What do you think the United States was like 30 years ago—in the 1970s—just your best guess?
3. What do you think the United States will be like 30 years from now, in the future—just your best guess?

Class Identification

You will now be shown a series of statements about your social class. Please indicate how much you agree or disagree with each statement.

Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1	2	3	4	5	6	7

1. I often think about the fact that I am middle class.
2. I often regret being middle class. (R)
3. I have a lot in common with others who are middle class.
4. Overall, being middle class has very little to do with how I feel about myself. (R)
5. In general, I'm glad to be middle class.
6. I don't feel a sense of being "connected" with others who are middle class. (R)
7. The fact that I am middle class rarely enters my mind. (R)
8. Generally, I am proud to be middle class.
9. I find it difficult to form a bond with others who are middle class. (R)
10. In general, being middle class is an important part of my self image.
11. I don't feel good about being middle class. (R)
12. I have strong ties to others who are middle class.

Ingroup Bias Questions**Evaluation Traits**

Participants were asked to rate the middle class and either the upper class or the working class on each of these traits.

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

1. Honest
2. Good
3. Moral
4. Hardworking
5. Responsible
6. Tolerant
7. Warm
8. Good-natured
9. Sincere
10. Intelligent
11. Powerful
12. Successful
13. Important
14. Strong
15. Competitive
16. Independent
17. Confident
18. Competent

Tajfel Allocation Tasks³⁴***Tax Rebate Scenario***

The Governor has decided to award a tax rebate to all of the residents of Iowa.

1. How would you distribute the money to members of the middle and upper classes?

Option	A	C	E	G	I	K	M
Middle Class	\$1,900	\$1,700	\$1,500	\$1,300	\$1,100	\$900	\$700
Upper Class	\$2,500	\$2,100	\$1,700	\$1,300	\$900	\$500	\$100

2. If instead these were your options, how would you distribute the money to members of the middle and upper classes?

Option	A	C	E	G	I	K	M
Middle Class	\$100	\$500	\$900	\$1,300	\$1,700	\$2,100	\$2,500
Upper Class	\$700	\$900	\$1,100	\$1,300	\$1,500	\$1,700	\$1,900

Tax Increase Scenario

The Governor has decided to increase taxes for all of the residents of Iowa. Each person will be taxed an additional sum of money per year.

1. How would you distribute the tax increases to members of the middle and upper classes?

Option	A	C	E	G	I	K	M
Middle Class	\$1,900	\$1,700	\$1,500	\$1,300	\$1,100	\$900	\$700
Upper Class	\$2,500	\$2,100	\$1,700	\$1,300	\$900	\$500	\$100

2. If instead these were your options, how would you distribute the tax increases to members of the middle and upper classes?

Option	A	C	E	G	I	K	M
Middle Class	\$100	\$500	\$900	\$1,300	\$1,700	\$2,100	\$2,500
Upper Class	\$700	\$900	\$1,100	\$1,300	\$1,500	\$1,700	\$1,900

³⁴ The wording for these items are shown as presented to participants in the middle-to-upper condition.

Warmth and Closeness

Very Cold				Neither Cold Nor Warm				Very Warm
1	2	3	4	5	6	7	8	9

Middle-to-Upper Condition

How warm or cold do you feel towards the UPPER CLASS?
 How warm or cold do you feel towards the MIDDLE CLASS?

Middle-to-Working Condition

How warm or cold do you feel towards the WORKING CLASS?
 How warm or cold do you feel towards the MIDDLE CLASS?

Not at all close				Neither one feeling nor the other				Very Close
1	2	3	4	5	6	7	8	9

Middle-to-Upper Condition

In general, how close do you feel towards people who are in the UPPER CLASS?
 In general, how close do you feel towards people who are in the MIDDLE CLASS?

Middle-to-Working Condition

In general, how close do you feel towards people who are in the WORKING CLASS?
 In general, how close do you feel towards people who are in the MIDDLE CLASS?

Demographic Questions

Now, we would like to know some basic information about yourself.

1. What is your sex?
 - a. Female
 - b. Male

2. What is your age in years as of today?
 - a. _____

3. Are you Spanish/Hispanic/Latino?
 - a. No, not Spanish/Hispanic/Latino
 - b. Yes, Mexican, Mexican Amer., Chicano
 - c. Yes, Puerto Rican
 - d. Yes, Cuban
 - e. Yes, other Spanish/Hispanic/Latino

4. What is your race?
 - a. Black/African American
 - b. White/European American
 - c. American Indian or Alaska Native
 - d. Asian/Asian American or Pacific Islander
 - e. Other

5. What is the highest grade of school or year of college you have completed?
 - a. Grade school or less
 - b. High school
 - c. Some college
 - d. Bachelor's degree
 - e. Master's degree
 - f. Professional degree (e.g., PhD, JD, MD, etc.)

6. Which social class would you say your family was in when you were growing up?
 - a. Upper class
 - b. Middle class
 - c. Working class
 - d. Lower class

7. Which of the following best describes your occupational position at Iowa State University?
 - a. Faculty
 - b. Professional and scientific staff
 - c. Merit staff

8. In which of these groups did your total family income fall last year, before taxes?
- a. Less than \$20,000
 - b. \$20,000 to \$29,999
 - c. \$30,000 to \$39,999
 - d. \$40,000 to \$49,999
 - e. \$50,000 to \$59,999
 - f. \$60,000 to \$69,999
 - g. \$70,000 to \$79,999
 - h. \$80,000 to \$89,999
 - i. \$90,000 to \$99,999
 - j. \$100,000 to \$119,999
 - k. \$120,000 to \$139,000
 - l. \$140,000 to \$159,999
 - m. \$160,000 to \$179,000
 - n. \$180,000 to \$199,000
 - o. \$200,000 to \$249,000
 - p. \$250,000 or more
9. Generally speaking, do you usually think of yourself as a REPUBLICAN, a DEMOCRAT, an INDEPENDENT, or what?
- a. Republican
 - b. Democrat
 - c. Independent
 - d. Other party
 - e. No preference
10. Do you have any children?
- a. Yes
 - b. No
11. When your children are the age you are now, what do you think their social class will be?
- a. Upper class
 - b. Middle class
 - c. Working class
 - d. Lower class

REFERENCES

- Abrams, D., Ando, K., & Hinkle, S. W. (1998). Psychological attachment to the group: Cross-cultural differences in organizational identification and subjective norms as predictors of worker's turnover intentions. *Personality and Social Psychology Bulletin, 24*, 1027-1039.
- Abrams, D., Hinkle, S. W., & Tomkins, M. (1999). Leaving Hong Kong: the roles of attitude, subjective norm, perceived control, social identity and relative deprivation. *International Journal of Intercultural Relations, 23*, 319-388.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. London: Sage.
- Amiot, C. E., & Bourhis, R. Y. (2005). Discrimination between dominant and subordinate groups: The positive-negative asymmetry effect and normative processes. *British Journal of Social Psychology, 44*, 289-308.
- Arbuckle, J. L. (2007). *Amos user's guide: Version 16.0*. Chicagi, IL: Amos Development Corporation.
- Argyle, M. (1994). *The Psychology of Social Class*. London: Routledge.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bauman, Z. (1982). *Memories of class*. London, England: Routledge.
- Beck, U. (1992). *Risk society*. London, England: Sage.
- Beck, U., & Willms, J. (2004). *Conversations with Ulrich Beck*. Cambridge, Polity Press.

- Benabou, R., & Ok, E. A. (2001). Social mobility and the demand for redistribution: The POUM hypothesis. *The Quarterly Journal of Economics*, *116*, 447-487.
- Bettencourt, B. A., Dorr, N., Charlton, K., & Hume, D. L. (2001). Status differences and in-group bias: A meta-analytic examination of the effects of status stability, status legitimacy, and group permeability. *Psychological Bulletin*, *127*, 520-542.
- Bourhis, R. Y., & Sachdev, I. (1986). *The Tajfel matrices as an instrument for conducting intergroup research*. Hamilton, Ontario: McMaster University Mimeo.
- Bourhis, R. Y., Sachdev, I., & Gagnon, A. (1994). Intergroup research with the Tajfel matrices: Methodological notes. In M. P. Zanna & J. M. Olson (Eds.), *The psychology of prejudice: The Ontario symposium, Volume 7* (pp. 209-232). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475-482.
- Brewer, M. B. (2003). Optimal distinctiveness, social identity, and the self. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 480-491). New York: The Guilford Press.
- Brown, M. T., Fukunaga, C., Umemoto, D., & Wicker, L. (1996). Annual review, 1990-1996: Social class, work, and retirement behavior. *Journal of Vocational Behavior*, *49*, 159-189.
- Brown, R. J. (1978). Divided we fall: An analysis of relations between sections of a factory workforce. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 395-429). London: Academic Press.

- Brown, R. J. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology, 30*, 745-778.
- Brown, R. J., Condor, S., Mathews, A., Wade, G., & Williams, J. (1986). Explaining intergroup differentiation in an industrial organization. *Journal of Occupational Psychology, 59*, 273-286.
- Brown, R. J., Hinkle, S., Ely, P. G., Fox-Cardamone, L., Maras, P., & Taylor, L. A. (1992). Recognizing group diversity: Individualist-collectivist and autonomous-relational social orientations and their implications for intergroup processes. *British Journal of Social Psychology, 31*, 327-342.
- Brown, R. J., Maras, P., Masser, B., Vivian, J., & Hewstone, M. (2001). Life on the ocean wave: Testing some intergroup hypotheses in a naturalistic setting. *Group Processes & Intergroup Relations, 4*, 81-97.
- Brown, R. J., & Ross, G. F. (1982). The battle for acceptance: An investigation into the dynamics of intergroup behavior. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 156-178). New York: Cambridge University Press.
- Cameron, J. E. (2004). A three-factor model of social identity. *Self and Identity, 3*, 239-262.
- Cameron, J. E., Duck, J. M., Terry, D. J., & Lalonde, R. N. (2005). Perceptions of self and group in the context of a threatened national identity: A field study. *Group Processes & Intergroup Relations, 8*, 73-88.
- Case, H. M. (1955). Marxian implications of centers' interest group theory: A critical appraisal. *Social Forces, 33*, 254-258.
- Cashell, B. W. (2007). Who are the "middle class"? CRS Report for Congress. Washington, D.C., Congressional Research Service, Library of Congress.

- Centers, R. (1949). *Psychology of Social classes*. Princeton, NJ: Princeton University Press.
- Davis, J. A., Smith, T. W., & Marsden, P. V. (1972-2006). *General Social Surveys, 1972-2006 [Cumulative File] [Computer file]*. Chicago, IL: National Opinion Research Center [producer], 2007. Storrs, CT: Roper Center for Public Opinion Research, University of Connecticut / Ann Arbor, MI: Inter-university Consortium for Political and Social Research / Berkeley, CA: Computer-assisted Survey Methods Program (<http://sda.berkeley.edu>), University of California [distributors], 2007.
- Deaux, K. (1996). Social identification. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 777-798). New York: Guilford.
- Devine, F. (1992a). *Affluent workers revisited*. Edinburgh: Edinburgh University Press.
- Devine, F. (1992b). Social identities, class identities and political perspectives. *Sociological Review*, 40, 229-252.
- Devine, F. (1998). Class analysis and the stability of class relations. *Sociology*, 32, 23-42.
- Devine, F. (2005). Middle-class identities in the United States. In F. Devine, M. Savage, J. Scott, & R. Crompton (Eds.), *Rethinking class: Culture, identities, and lifestyles* (pp. 140-162). New York, NY: Palgrave Macmillan.
- Devine, F., & Savage, M. (2005). The cultural turn, sociology and class analysis. In F. Devine, M. Savage, J. Scott, & R. Crompton (Eds.), *Rethinking class: Culture, identities, and lifestyles* (pp. 1-23). New York, NY: Palgrave Macmillan.
- Durkheim, E. (1947 [1893]). *The Division of Labor in Society*. Glencoe, IL: Free Press.
- Ellemers, N. (1993). The influence of socio-structural variables on identity enhancement strategies. In W. Stoebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 4, pp. 27-57). Chichester, England: Wiley.

- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorization, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology, 29*, 371-389.
- Ellemers, N., Spears, R., & Doosje, B. (1997). Sticking together or falling apart: ingroup identification as a psychological determinant of group commitment. *Journal of Personality and Social Psychology, 72*, 617-626.
- Ellemers, N., Wilker, H., & van Knippenberg, A. (1983). Effects of legitimacy of low group or individual status on individual and collective status enhancement strategies. *Journal of Personality and Social Psychology, 64*, 766-778.
- Evans, M. D. R., Kelley, J., & Kolosi, T. (1992). Images of class: Public perceptions in Hungary and Australia. *American Sociological Review, 57*, 461-482.
- Field, A. P. (2001). Meta-analysis of correlation coefficients: A Monte Carlo comparison of fixed- and random-effects methods. *Psychological Methods, 6*, 161-180.
- Fortune. (1940, February). The people of the U.S.A.: A self-portrait. *Fortune, 21*, 14ff.
- Fouad, N. A., & Brown, M. T. (2000). Role of race and social class in development: Implications for counseling psychology. In S. D. Brown & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (3rd ed., pp.379-408). New York: John Wiley & Sons, Inc.
- Frable, D. E. S. (1997). Gender, racial, ethnic, sexual, and class identities. *Annual Review of Psychology, 48*, 139-162.
- Giddens, A. (1990). *The consequences of modernity*. Oxford, England: Polity.

- Goldthorpe, J. H. (1996). Class analysis and the reorientation of class theory: The case of persisting differentials in educational attainment. *British Journal of Sociology*, *45*, 481-505.
- Goldthorpe, J. H. (1998). Rational action theory for sociology. *British Journal of Sociology*, *49*, 1998.
- Grieve, P. G., & Hogg, M. A. (1999). Subjective uncertainty and intergroup discrimination in the minimal group situation. *Personality and Social Psychology Bulletin*, *25*, 926-940.
- Gross, N. (1953). Social class identification in the urban community. *American Sociological Review*, *18*, 398-404.
- Grusky, D. B., & Sørensen, J. B. (1998). Can class analysis be salvaged? *American Journal of Sociology*, *103*, 1187-1234.
- Haer, J. L. (1957). An empirical study of social class awareness. *Social Forces*, *36*, 117-121.
- Hamilton, R. F. (1966a). The marginal middle class: reconsideration. *American Sociological Review*, *31*, 192-199.
- Hamilton, R. F. (1966b) Reply to Tucker. *American Sociological Review*, *31*, 865.
- Haslam, S. A. (2001). *Psychology in organizations: The social identity approach*. London: SAGE Publications.
- Hinkle, S., & Brown, R. (1990). Intergroup comparisons and social identity: Some links and lacunae. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory: Constructive and critical advances* (pp. 48-70). New York: Harvester Wheatsheaf.

- Hinkle, S., Taylor, L. A., Fox-Cardamone, D. L., & Crook, K. F. (1989). Intragroup identification and intergroup differentiation: A multi-component approach. *British Journal of Social Psychology, 28*, 305-317.
- Hodge, R. W. (1986). [Review of the book *Class awareness in the United States*]. *American Journal of Sociology, 92*, 473-478.
- Hodge, R. W. (1987). Class identification one more time: Reply to Jackman and Jackman. *American Journal of Sociology, 93*, 448-450.
- Hodge, R. W., & Treiman, D. J. (1968). Class identification in the United States. *American Journal of Sociology, 73*, 535-547.
- Hogg, M. A. (2006). Social identity theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 111-136). Stanford, CA: Stanford University Press.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly, 58*, 255-269.
- Hogg, M. A., & Williams, K. D. (2000). From I to We: Social identity and the collective self. *Group Dynamics, 4*, 81-97.
- Huddy, L. (2001). From social to political identity: A critical examination of social identity theory. *Political Psychology, 22*, 127-156.
- Huddy, L. (2002). Context and meaning in social identity theory: A response to Oakes. *Political Psychology, 23*, 825-838.
- Jackman, M. R., & Jackman, R. W. (1973). An interpretation of the relation between objective and subjective social status. *American Sociological Review, 38*, 569-582.

- Jackman, M. R., & Jackman, R. W. (1983). *Class awareness in the United States*. Berkeley, CA: University of California Press.
- Jackman, M. R., & Jackman, R. W. (1987). Comment on Hodge on class awareness. *American Journal of Sociology*, *93*, 444-448.
- Jackson, J. W. (2002). Intragroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and Identity*, *1*, 11-33.
- Jost, J. T., & Thompson, E. P. (2000). Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African Americans and European Americans. *Journal of Experimental Social Psychology*, *36*, 209-232.
- Karasawa, M. (1991). Toward an assessment of social identity: The structure of group identification and its effects on in-group evaluations. *British Journal of Social Psychology*, *30*, 293-307.
- Kelly, C. (1988). Intergroup differentiation in a political context. *British Journal of Social Psychology*, *27*, 319-332.
- Kingston, P. W. (2000). *The Classless Society*. Stanford, CA: Stanford University Press.
- Lamont, M. (1992). *Money, morals, & manners: The culture of the French and American upper-middle-class*. Chicago, IL: University of Chicago Press.
- Lamont, M. (2000). *The dignity of working men: Morality and the boundaries of race, class, and immigration*. New York: Russell Sage Foundation.
- Lawler, S. (2005). Disgusted subjects: The making of middle-class identities. *The Sociological Review*, *53*, 429-446.

- Lee, J., & Bean, F. D. (2004). America's changing color lines: Immigration, race/ethnicity, and multiracial identification. *Annual Review of Sociology, 30*, 221-242.
- Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology, 92*, 1068-1086.
- Marshall, G., Newby, H., Rose, D., & Vogler, C. (1988). *Social class in modern Britain*. London, England: Hutchinson Education.
- McMurrer, D. P., & Sawhill, I. V. (1998). *Getting ahead*. Washington, D.C.: Urban Institute Press.
- Miller, S. M., (1995). Class dismissed? *The American Prospect, 6*.
- Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology, 29*, 259-285.
- Mulvey, A. (2002). Gender, economic context, perceptions of safety, and quality of life: A case study of Lowell, Massachusetts. *American Journal of Community Psychology, 30*, 655-679.
- Mummendey, A., Kessler, T., Klink, A., & Mielke, R. (1999a). Strategies to cope with negative social identity: predictions by social identity theory and relative deprivation theory. *Journal of Personality and Social Psychology, 76*, 229-245.
- Mummendey, A., Klink, A., Mielke, R., Wenzel, M., & Blanz, M. (1999b). Socio-structural characteristics of intergroup relations and identity management strategies: Results from a field study in East Germany. *European Journal of Social Psychology, 29*, 259-285.

- Mummendey, A., & Otten, S. (1998). Positive–negative asymmetry in social discrimination. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 9, pp. 107-143). New York: Wiley.
- Mummendey, A., & Schreiber, H.-J. (1983). Better or just different?: Positive social identity by discrimination against or differentiation from outgroups. *European Journal of Social Psychology*, *13*, 389-397.
- Mummendey, A., & Schreiber, H.-J. (1984). Different just means better: Some obvious and some hidden pathways to ingroup favoritism. *British Journal of Social Psychology*, *23*, 363-368.
- Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Malden, MA: Blackwell Publishing.
- Obst, P. L., & White, K. M. (2005). Three-dimensional strength of identification across group memberships: A confirmatory factor analysis. *Self and Identity*, *4*, 69-80.
- Oldmeadow, J., & Fiske, S. T. (2007). System-justifying ideologies moderate status = competence stereotypes: Roles for belief in a just world and social dominance orientation. *European Journal of Social Psychology*, *37*, 1135-1148.
- Oldmeadow, J. A., Platow, M. S., Foddy, M., Anderson, D. (2003). Self-categorization, status, and social influence. *Social Psychology Quarterly*, *66*, 138-152.
- Otten, S., & Mummendey, A. (2000). Valence dependent probability of ingroup favoritism between minimal groups: An integrative view on the positive–negative asymmetry in social discrimination. In D. Capozza & R. Brown (Eds.), *Social identity processes* (pp. 33–48). London: Sage.

- Perreault, S., & Bourhis, R. Y. (1998). Social identification, interdependence and discrimination. *Group Processes & Intergroup Relations, 1*, 49-66.
- Perreault, S., & Bourhis, R. Y. (1999). Ethnocentrism, social identification, and discrimination. *Personality and Social Psychology Bulletin, 25*, 92-103.
- Portes, A. (2000). The resilient importance of class: A nominalist interpretation. *Political Power and Social Theory, 14*, 249-284.
- Reid, S. A., & Hogg, M. A. (2005). Uncertainty reduction, self-enhancement, and ingroup identification. *Personality and Social Psychology Bulletin, 31*, 804-817.
- Rosenberg, M. (1953). Perceptual obstacles to class consciousness. *Social Forces, 32*, 22-27.
- Savage, M. (2000). *Class analysis and social transformation*. Buckingham: Open University Press.
- Savage, M., Bagnall, G., & Longhurst, B. (2001). Ordinary, ambivalent and defensive: Class identities in the northwest of England. *Sociology, 35*, 875-892.
- Schreiber, E. M., & Nygreen, G. T. (1970). Subjective social class in America. *Social Forces, 45*, 348-356.
- Schuman, H., & Presser, S. (1981). *Questions and Answers in Attitude Surveys*. New York: Academic Press, Inc.
- Skeggs, B. (1997). *Formation of class and gender*. London, England: Sage.
- Skeggs, B. (2004). *Class, self, culture*. London, England: Routledge.
- Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly, 63*, 224-237.

- Struch, N., & Schwartz, S. H. (1989). Intergroup aggression: Its predictors and distinctiveness from in-group bias. *Journal of Personality and Social Psychology, 56*, 364-373.
- Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Menlo Park: Benjamin/Cummings.
- Stuber, J. M. (2006). Talk of class: The discursive repertoires of white working- and upper-middle-class college students. *Journal of Contemporary Ethnography, 35*, 285-318.
- Tafel, H. (1970). Experiments in intergroup discrimination. *Scientific American, 223*, 96-102.
- Tajfel, H. (1974). Social identity and intergroup behavior. *Social Science Information, 13*, 65-93.
- Tajfel, H. (Ed.). (1978a). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Tajfel, H. (1978b). The achievement of group differentiation. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 77-98). London: Academic Press.
- Tajfel, H. (1982). *Social identity and intergroup relations*. Cambridge: Cambridge University Press.
- Tajfel, H., Jaspars, J. M. F., & Fraser, C. (1984). The social dimension in European social psychology. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology* (pp. 1-8). Cambridge: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 7-24). Chicago, IL: Nelson-Hall.
- Terry, D. J., & O'Brien, A. T. (2001). Status, legitimacy, and ingroup bias in the context of an organizational merger. *Group Processes & Intergroup Relations*, 4, 271-289.
- Tucker, C. W. (1966). On working class identification. *American Sociological Review*, 31, 855-65.
- Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity* (pp. 6-34). Oxford, England: Blackwell.
- Turner, J. C., & Brown, R. J. (1978). Social status, cognitive alternatives, and intergroup relations. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. XX-XX). London: Academic Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherall, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, England: Blackwell.
- van Knippenberg, A., & Ellemers, N. (1990). Social identity and intergroup differentiation processes. *European Review of Social Psychology*, 1, 137-169.
- Vanneman, R., & Cannon, L. W. (1987). *The American Perception of Class*. Philadelphia, PA: Temple University Press.
- Wright, E. O. (1997). *Class counts: Comparative studies in class analysis*. Cambridge: Cambridge University Press.