

The Pennsylvania State University
The Graduate School
College of Health and Human Development

**THE DEVELOPMENT AND VALIDATION OF AN INTERPERSONAL
MEASURE OF UNSPORTSPERSONLIKE BEHAVIOR**

A Dissertation in

Kinesiology

by

Miranda P. Kaye

© 2009 Miranda P. Kaye

Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

May 2009

The dissertation of Miranda P. Kaye was reviewed and approved* by the following:

R. Scott Kretchmar
Professor of Kinesiology
Dissertation Adviser
Chair of Committee

Linda Caldwell
Professor of Recreation, Park and Tourism Management

Danielle Symons Downs
Associate Professor of Kinesiology

Sterani Elavsky
Assistant Professor of Kinesiology

Karl M. Newell
Professor of Kinesiology and Biobehavioral Health
Marie Underhill Noll Chair and Head of Department, Kinesiology

*Signatures are on file in the Graduate School.

ABSTRACT

This dissertation investigates aspects of ethics in sport and develops a new, integrative measure to assess unsportspersonlike behavior. In chapter two, I review previous research examining sport ethics. Based on the limitations identified, including the inconsistent use of theoretical and operational definitions, reliability and validity issues in the measurement of moral behavior in sport, and the limited range of behaviors examined, unsportspersonlike behavior is reconceptualized as an interpersonal construct defined from its core aspects of harm, injustice, and violations of others' rights. Chapter three establishes the basis for classifying behaviors as unsportspersonlike or interpersonal. Drawing on philosophic theorizing and Interpersonal Theory, I detail three main points: (1) morality is interpersonal in nature; (2) sport competition is an interpersonal and a moral domain; and (3) unsportspersonlike behavior is interpersonal in nature and is inherently moral in nature. Through this, a variety of unsportspersonlike behaviors are organized around the major interpersonal characteristics of agency and communion. Chapter four examines the structure, validity, and interpersonal nature of the newly developed Scale of Unsportspersonlike Behavior (SUB). The underlying eight-factor model with higher order factors representing interpersonal unsportspersonlike behavior is confirmed. Evidence of internal, convergent, concurrent, and discriminant validity is provided. Participant-based characteristics influenced the type of interpersonal unsportspersonlike behavior athletes engaged in. Men participating in sports with high levels of contact and athletes having longer sport experience reported more hostile-dominant behaviors. Women participating in non-contact sports, and competitors having limited sport experience reported more submissive behaviors. Chapter reconfirms the

structure and content validity of the SUB with an independent sample. Similar participant-related differences in hostile-dominant and hostile-submissive behaviors were also evident. These findings are discussed in relation to theory, past research, and their practical application.

TABLE OF CONTENTS

List of Figures	x
List of Tables	xi
Acknowledgements	xiii
1. Introduction	1
1.1 General Introduction	1
1.2 Purpose of Studies	4
1.2.1 Specific Aims	6
1.3 Study Overviews	7
2. Review of Literature	10
2.1 Overview	10
2.2 Sportpersonship Defined	12
2.3 Inclusion Criteria	14
2.4 Theoretical Background	15
2.4.1 Social-Moral Functioning	15
2.4.2 Achievement Goals	17
2.4.3 Social-Psychological Sportpersonship	19
2.5 State of the Literature	20
2.5.1 Populations Studied	20
2.6 Research Findings	21
2.6.1 Achievement Motivation	22
2.6.2 Gender	24
2.6.3 Age	26

2.6.4 Sportspersonship	27
2.7 Caveats to Research Findings	28
2.7.1 Methodological Limitations	28
2.7.2 Methods of Measurement	33
2.7.3 Social Desirability of Responses	34
2.7.4 Study Design Issues	35
2.8 Summary	36
3. Reconceptualizing Unsportspersonlike Behavior as an Interpersonal Phenomenon	57
3.1 Introduction	57
3.2 Sport Ethics	59
3.2.1 The Communal Nature of Ethics	60
3.3 The Social Nature of Competition	64
3.3.1 Dual Agency	64
3.3.2 Shared Values	66
3.3.3 Cooperation Paradox	68
3.3.4 Metaethics – the zero-sum/nonzero-sum matter	70
3.4 Sportspersonship as a Moral Domain	71
3.5 Sportspersonship as an Interpersonal Construct	74
3.5.1 Interpersonal Theory	75
3.5.2 Interpersonal Unsportspersonlike Behavior	76
3.6 Pilot Work	87
3.6.1 Participants and Methods	88

3.6.2 Results and Discussion	89
3.7 Conclusions	93
4. Initial SUB Development	96
4.1 Purpose	96
4.2 Methods	96
4.2.1 Preliminary Scale Development	96
4.2.2 Participants	99
4.3.2 Procedures	100
4.2.4 Measures	101
4.3 Hypotheses	105
4.4 Results	109
4.4.1 Preliminary Analyses	109
4.4.2 Confirmatory Factor Analysis	114
4.4.3 Convergent Validity Among Unsportsmanlike Behaviors	122
4.4.4 Convergent Validity Among Interpersonal Behaviors	132
4.4.5 Concurrent Validity of SUB Scores and Achievement Goals	134
4.4.6 Discriminant Validity of SUB Scores	137
4.4.7 Gender, Sport, and Experience Related Findings	138
4.5 Discussion	141
4.5.1 SUB Structure	141
4.5.2 Construct Validity	144
4.5.3 Gender, Sport Type, and Experience	149
4.5.4 Limitations	150

4.6 Conclusion	152
5. SUB Development and Revalidation	154
5.1 Purpose	154
5.2 Hypotheses	154
5.3 Participants	155
5.4 Procedures	157
5.5 Measures	158
5.6 Results	162
5.6.1 Preliminary Analyses	162
5.6.2 CFA	163
5.6.3 Convergent Validity Among Unsportsmanlike Behaviors	178
5.6.4 Convergent Validity Among Interpersonal Behaviors	183
5.6.5 Concurrent Validity of SUB Scores and Achievement Goals	184
5.6.6 Discriminant Validity of SUB Scores	187
5.6.7. Gender, Sport, and Experience Related Findings	187
5.7 Discussion	190
5.7.1 Reliability	191
5.7.2 SUB Structure	191
5.7.3 Construct Validity	194
5.7.4 Participant-Related Differences	200
5.8 Conclusions	201
6. Discussion	202
6.1 SUB Development and Content Validity	202

6.1.1 Step 1: Defining Interpersonal Unsportsmanlike Behavior	202
6.1.2 Step 2: Conceptual Development	203
6.1.3 Step 3: Category Development	203
6.1.4 Step 4: Item Development and Testing	205
6.1.5 Step 5: Structural Confirmation	206
6.1.6 Step 6: Construct Validity	207
6.1.7 Step 7: Participant-Related Differences	210
6.2 Limitations	211
6.3 Practical Implications	214
6.4 Future Directions	215
6.5 Conclusions	215
References	217

LIST OF FIGURES

Figure 1. Circle of Interpersonal Unsportspersonlike Behavior	88
Figure 2. Behavioral Categories and Coordinates From MDS of Data Set One	91
Figure 3. Behavioral Categories and Coordinates From MDS of Data Set Two	93
Figure 4. Simplified Structural Model of Interpersonal Unsportspersonlike Behavior	119

LIST OF TABLES

Table 1. Direction of Replicated Motivational Climate and Sportspersonship Findings with Effect Size (Cohen's <i>d</i>)	39
Table 2. Direction of Replicated Achievement Goal and Sportspersonship Findings Effect Size (Cohen's <i>d</i>)	43
Table 3. Direction of Replicated Sportspersonship Findings with Effect Size (Cohen's <i>d</i>)	48
Table 4. Interpersonal Categorization of Unsportspersonlike Behaviors	79
Table 5. Interpersonal Nature of Unsportspersonlike Behaviors	86
Table 6. Detailed Predictions Between Category Scores and Related Measures	108
Table 7. Scale Items, Descriptive Statistics, and α Coefficients	110
Table 8. Individual Category Measurement Model Fit	116
Table 9. Structural Model Fit Indices	121
Table 10. Chapter Four and Five Scale Reliability Estimates	124
Table 11. Convergent Validity Correlations Between SUB Scores and Related Measures	126
Table 12. Ipsatized SUB Category and Related Unsportspersonlike Behavior Correlations	131
Table 13. Ipsatized and Unipsatized SUB and IIP-C Convergent Validity Correlations	135
Table 14. AGQ-S and Unipsatized and Ipsatized SUB Concurrent Validity Correlations	137
Table 15. Sex Related Differences in Interpersonal Unsportspersonlike Behaviors	140
Table 16. Participant Characteristics for Chapters Four and Five	156
Table 17. Reconfirmed SUB Scale Items, Descriptive Statistics, and α Coefficients	164
Table 18. Structural Model Fit Indices	172

Table 19. Measurement Model Fit Indices	174
Table 20. Factor Loadings of the Final SUB Model	176
Table 21. Reconfirming Convergent Validity Correlations Between SUB Scores and Related Measures	180
Table 22. Reconfirming SUB correlations with Interpersonal Problem Scores	185
Table 23. Reconfirming AGQ-S and Unipsatized and Ipsatized SUB Concurrent Validity Correlations	186
Table 24. Contact Level Differences in Interpersonal Unsportsmanlike Behavior	189

ACKNOWLEDGEMENTS

I am deeply grateful for all the support I've had throughout this process. Although this research was an individual work, I would have never been able to complete this project without the support of the department, the guidance of my committee members, and the help from my friends and family.

First, I would like to thank my committee member Dr. Linda Caldwell for serving on my committee and supporting me from the start; Dr. Danielle Downs, your feedback has made this a valuable learning experience; and Dr. Steriani Elvasky for serving on my committee when you first arrived at Penn State. You provided valuable insight and I deeply appreciate you input.

A very special thanks goes to my committee chair, Dr. R. Scott Kretchmar for agreeing to serve on my committee on top of all your other commitments. You stepped in midway through the process when asked, and I am indebted to you for your time and effort. I could not have completed this process without your support. Thank you for your guidance.

I would like to acknowledge Dr. David Conroy's early involvement in the project. His comments and critiques during the development and proposal stage of this project were invaluable. I learned a great deal about myself through this process which shaped my views on research, mentorship, teaching, and ethics.

I am deeply grateful to Dr. John Challis. Your continued support through difficult times made all the difference. I would not be where I am today without your assistance. Thank you!

Thank you, to Michael Packard, Josh DeKeyser, Jennifer DiNallo, Michelle Vuchunich, and Benjamin Infantolino for your friendship and support. And to Zack Packard, thank you for compelling me to make time to play.

And last but not least, thank you Mom and Dad for your love and support. I would not be here today without you. Your assistance throughout this process has been indispensable.

CHAPTER 1 – INTRODUCTION

1.1 General Introduction

The infamous business scandals at Enron, WorldCom, Arthur Anderson, and Halliburton have highlighted the problem of immoral behavior, especially cheating. One study recently found that 56% of graduate business students admitted they had cheated at least once in the last year, compared with 47% of non-business students (McCabe, Butterfield, & Trevino, 2006). Many of the students said they cheated because they believed it was an accepted practice in business. Likewise, 73% of first-year university students reported instances of serious cheating on written work while in high school, and more than half of undergraduates (53%) admitted to continuing this practice at a university in the last year (Christensen-Hughes & McCabe, 2006).

In the athletic arena, one drug scandal has followed another, including the indictments of Barry Bonds and Marion Jones. In the wake of the recent Olympic Games, with nearly a dozen disqualifications for illegal drug use and several controversies centering on sportspersonship, it is clear that wrongdoing in sport is a crucial issue (BBC Online; 2008; CBS Sports Online, 2008; Steroid Nation Online, 2008). Moreover, this problem is not confined to elite and professional athletes. Recent studies of high school sports teams have shown that players place great importance on victory (Heeren & Requa, 2001) and learn to cheat and engage in excessive violence (Josephson Institute on Ethics, 2004; May, 2001). Young athletes acknowledge cheating, attempting to injure their opponents, arguing with officials, and acting like a “bad sport”; moreover, they express little remorse for such actions (Josephson Institute on Ethics, 2004). Fourteen

percent of the youngsters said they believe cheating is an acceptable behavior, and 32% consider arguing with officials to be part of the game.

Recently, interest in sport ethics has grown. Many studies have examined moral and immoral behavior in sport from a psychological perspective and have found links between sportspersonship and achievement goals (e.g., Gano-Overway, Guivernau, Magyar, Waldron, & Ewing, 2005; Lemyre, Roberts, & Ommunsden, 2002), moral reasoning (e.g., Bredemeier, 1985; Kavussanu & Ntoumanis, 2003), and aggression (e.g., Conroy, Sliva, Newcomer, Walker, & Johnson, 2001; Visek & Watson, 2005). However, there is still much to learn about sportspersonship and moral reasoning. Although considerable research has been devoted to sportsperson-like behaviors, less attention has been paid to immoral sport behaviors. Immoral behaviors in sport are typically examined as distinct entities (i.e., aggression or cheating) rather than as an interconnected network of beliefs and attitudes that undergirds immoral behavior.

Research into moral and immoral sport behavior has been hindered by a lack of valid and reliable measures and unreliable psychometric properties of many instruments used to measure such behavior (Bredemeier & Shields, 1998; Shields & Bredemeier, 2007). In fact, a call has been issued to develop psychometrically-sound assessments of moral and immoral variables in sport (Shields & Bredemeier, 2007). Given the importance of a valid measure, throughout this work, I use Interpersonal Theory as a conceptual basis to develop a broader and multidimensional measure of unsportspersonlike behavior.

A number of factors have made it difficult to develop a systematic understanding of moral and immoral behavior in sport. Perhaps the foremost obstacle is the lack of a

clear and concise definition of moral and immoral sport behavior. In this research, I consider moral violations, briefly defined, as intentional or reckless actions that negatively affect the material or psychological well-being of people. Morality therefore is concerned with such factors as harm (physical or psychological), injustice, and violations of rights (Haidt, Koller, & Dias, 1993). In a sporting context, participants' rights center on fair competition and an equal opportunity to strive for success, protection from malevolence and degrading treatment or punishment, and treatment that signifies one's worth and dignity (Seefeldt & Martens, 1979; Universal Declaration of Human Rights, 1948). Sport actions that lead to injustice, harm, or the violation of participants' rights are typically considered to be immoral (Haidt, 2001) and examples of poor sportspersonship. They are *prima facie* immoral or unsporting, but both excuses and justifications would need to be considered before making final moral judgments. Therefore, the phrase "unsportspersonlike behavior" is henceforth used to refer to sport behaviors that are clearly connected to fundamental issues of fairness and respect, even if they might be excused, accepted, or justified in some circumstances.

Another factor contributing to the difficulty in developing a systematic understanding of moral and immoral behavior in sport is the relatively scant attention paid to organizing the fragmented findings from the various measures of sportspersonship found in the literature today. Currently, no scale captures a sufficiently broad range of unsportspersonlike behaviors. Ambiguities can be found in the existing literature concerning the interpretations of research findings in this area, specifically, the relationship between unsportspersonlike behaviors and various antecedents and consequences of that behavior. Interpersonal Theory offers a more comprehensive

framework from which to organize and examine unsportspersonlike behavior and is the theoretical framework applied throughout this manuscript.

1.2 Purpose of Studies

The overarching objective of this project is to develop a new, integrative, theoretically based measure of unsportspersonlike behavior – a Scale of Unsportspersonlike Behavior (SUB) that is appropriate for use across a wide range of sports. A standardized measure based on multiple large samples would make it easier to compare findings and facilitate the development and testing of theory (e.g., Price & Mueller, 1986). First, however, it is necessary to decide upon construct definitions as there seems to be much disagreement on this issue. For example, as noted previously, sportspersonship has been defined and operationalized in a number of different ways, and, as a result, few generalizations can be made about the effects of sportspersonship on behavior.

This project develops and tests an interpersonal model distinguishing among subtypes of unsportspersonlike behavior with a particular focus on unsportspersonlike behaviors that are previously unexamined in the literature. With this overarching framework, the purpose of this project was to (a) reconceptualize unsportspersonlike behavior as an interpersonal behavior, (b) develop items for the SUB, (c) confirm the hypothesized eight-factor structure of the items, and (d) demonstrate the validity of the SUB through an investigation of the relationships between the SUB items and a number of moral cognitive and behavioral variables. Ultimately, the goal was to develop a measure that will be appropriate for future research aimed at further understanding

unsportspersonlike behavior and reporting possible individual differences in these actions.

This work serves to contribute to the literature both methodologically and substantively. Methodologically, the emphasis was on developing taxonomy of unsportspersonlike behavior styles. One of the central goals of scientific taxonomy is to define the overarching domain within which large numbers of specific instances can be understood in a simplified way. A taxonomy of unsportspersonlike behaviors provides a framework for the analysis of this behavior. Previous researchers have struggled with the disparity among nomenclatures representing essentially the same behaviors. A comprehensive taxonomy of unsportspersonlike behaviors would thus permit researchers to study a variety of unsportspersonlike behaviors simultaneously, rather than separately examining the numerous attitudes, cognitions, and behaviors that have previously been used to represent components of sportpersonship and moral functioning. A generally-accepted taxonomy would also facilitate the accumulation and communication of empirical findings by offering a common metric for studying immoral behaviors. A common metric may in turn help to integrate the various and diverse systems of sportpersonship.

This study includes a comprehensive assessment of unsportspersonlike behaviors by distinguishing among eight classes of immoral sport behaviors, five of which have been largely neglected in the literature. Most theoretical approaches to the understanding of sportpersonship are grounded in achievement goal theory or social-moral functioning. These theories explain variations in behavior but do not attempt to describe the phenomenon of unsportspersonlike behavior itself. Even with the recent advances in the

field, these approaches leave much to be desired. Associations between sportspersonlike and unsportspersonlike behaviors and related variables are suggestive but problematic (Shields & Bredemeier, 2007) for a variety of reasons including the lack of an underlying theoretical framework, a disjointed examination of attitudes, cognitions, and behaviors which are considered unsportspersonlike, and a lack of adequate assessment instruments of unsportspersonlike behavior.

Substantively, this work serves to provide a comprehensive measure of unsportspersonlike behavior by incorporating the many previously examined aspects of unsportspersonlike behavior. In addition, a more comprehensive measure can be used across all competitive sport contexts, rather than being modified or adapted for different sports. This will allow results across sports to be compared. In sum, the present work attempts to provide a model for understanding and measuring unsportspersonlike behavior.

1.2.1 Specific Aims.

Aim 1: Define unsportspersonlike behavior and review sportspersonship research (Chapter 2).

Aim 2: Reconceptualize unsportspersonlike behavior as an interpersonal construct (Chapter 3).

Aim 3: Identify viable items for the SUB (Chapters 4 & 5).

Aim 4: Assess the validity of the items and the factors they are hypothesized to represent (Chapters 4 & 5).

Aim 5: Determine the factor structure of the SUB (Chapters 4 & 5).

Aim 6: Establish measurement equivalence of the SUB in an independent sample
(Chapter 5).

1.3 Study Overviews

Four manuscripts were written to address these aims. First, in chapter two I review the literature on moral and immoral behavior in sport, identify the limitations of published work, and offer suggestion for future research. I present common definitions of sportpersonship and moral functioning. Three main theoretical approaches have applied have been employed by previous researchers. I review these approaches and identify the previously examined aspects of sportpersonship and moral functioning. Through an examination of this work, I highlight methodological issues and trends in replicated research findings about the relationships between different variables and sportpersonship. Informed by the accumulation of previous findings, I argue that it is apparent that our understanding of unsportpersonlike behavior is limited both by previous conceptualizations of sport ethics and by the existing measures. I conclude with the suggestion that future work applies a theoretical framework, namely Interpersonal Theory, to organize and measure unsportpersonlike behavior.

Chapter three incorporates this suggestion and reports on the interpersonal nature of unsportpersonlike behavior. I begin by arguing for a broader conception of sportpersonship and suggesting that most of the research on ethical behavior in sport offers a fragmented examination of components of sportpersonship rather than a viable theoretical framework through which the full range of unethical behavior in sport can be understood. I detail the convergence between philosophical writings on ethics, writings on the nature of competition, and empirical research on sportpersonship and moral

functioning. I suggest that together, these complementary perspectives offer the possibility of extending the exploration and understanding of unsportspersonlike behavior.

In chapter four I report on the initial development of the SUB. The purpose of this study was threefold. The first objective was to identify viable items for the SUB by testing the pool of pilot items. The second objective was to confirm the hypothesized eight-factor structure of the measure. The third objective was to assess construct validity through convergent, concurrent, and discriminant validity. Associations between related measures (interpersonal problems, aggression, sportpersonship, gamesmanship, and hypercompetitiveness) and to potential correlates of unsportspersonlike behavior (achievement goals) were examined to assess convergent and concurrent validity respectively. Discriminant validity of the SUB was evaluated through an examination of the social desirability of responses. As a final point, participant-related differences such as gender, contact level, and experience were examined in relation to one's unsportspersonlike behavior.

In chapter five I report on the retests of items identified in chapter four. The purpose of this study was to cross-validate the measure and demonstrate that the findings from chapter four are replicable in an independent sample. To do so, the first aim was to confirm the hypothesized eight-factor structure of the measure. The second objective was to evaluate construct validity through convergent, concurrent, and discriminant validity. Associations between related measures (interpersonal problems, aggression, sportpersonship, gamesmanship, and hypercompetitiveness) were examined to assess convergent validity. Potential correlates of immoral sport behavior (achievement goals)

were examined to evaluate concurrent validity. Discriminant validity of the SUB was evaluated through an examination of the social desirability of responses. Finally, the role of participant-related differences (gender, contact level, and experience) in unsportspersonlike behavior was examined.

Finally, in chapter six I summarize and discuss the findings of chapters two through five. The purpose of this manuscript was to tie together the series of studies comprising this project. First, the process of SUB development was highlighted and discussed from the conceptual development to the item development. Next, the process and findings of SUB development were outlined and discussed in terms of item testing, structural confirmation, and construct validity. Comparisons between the studies were identified and limitations were noted. Finally, the conclusions and practical implications of this undertaking were identified and recommendations for future work were discussed.

CHAPTER 2 – REVIEW OF LITERATURE

2.1 Overview

In athletics, aggression, cheating, and other unsportsmanlike behaviors are problematic. Instances of unsportsmanlike behavior both in and out of the sport arena are reported in the media on nearly a daily basis for athletes of all levels of competition. In today's sporting environment, displays of unsportsmanlike behavior in all levels of competitive sports are common (Hopkins & Lantz, 1999). One drug scandal has followed another, including alleged cover-ups in USA track and field, allegations of widespread use in major league baseball and the recent Mitchell Report, and similar troubles in Nordic skiing, swimming, and tennis. In the wake 2008 Olympic Games, with nearly one dozen disqualifications for illegal drug use and several controversies centering on sportsmanship (BBC Online, 2008; CBS Sports Online, 2008; Steroid Nation Online, 2008), it is clear that unsportsmanlike behavior is a crucial issue.

The problem is not confined to elite and professional athletes. Recent studies of high school sports teams have shown that players place great importance on victory (Heeren & Requa, 2001), and learn to cheat, to engage in improper sportsmanship, and to indulge in excessive violence along the way (May, 2001). Young athletes acknowledge cheating, attempting to injure their opponents, arguing with officials, and acting like a "bad sport," and they express little remorse for such actions (Josephson Institute on Ethics, 2004). A survey of high school athletes found that many of these athletes break rules and engage in unsporting conduct with most of them reporting that it is acceptable to: deliberately inflict pain on an opponent to intimidate them, trash talk a defender, soak a football field to slow down an opponent, build up a foul line in baseball to keep bunts

fair, throw at a batter who hit a home run the last time up, and illegally alter a hockey stick (Josephson Institute on Ethics, 2004). Fourteen percent of the youngsters said they believe cheating is an acceptable behavior, and 32% consider arguing with officials to be part of the game. In the face of these statistics, it is doubtful that youth sport teaches positive life lessons and prosocial behavior and develops moral attitudes and social behaviors such as cooperation and healthy competition. This phenomenon heightens the need to understand factors associated with unsportsmanlike attitudes and behaviors.

From a social-psychological perspective, the study of moral behavior in sport has dramatically increased over the past 2 ½ decades. Within the past six years, the number of studies has nearly outnumbered that of the early 1980's through the 1990's. But despite this increased interest in moral behavior in sport, the field is still developing. Research findings are often descriptive in nature and many are equivocal. In an attempt to shed light on these findings and shortcomings, this paper reviews the sportspersonship and moral functioning literature and proposes an interpersonal model of moral sport behavior that should enhance future work in this area.

The purpose of the present review is to report empirical research findings about moral behavior in sport, to identify the limitations of these findings, and to discuss unsportsmanlike behavior as an interpersonal phenomenon. Definitions of sportspersonship and moral functioning are presented, and theoretical approaches are identified that apply to the aspects of sportspersonship and moral functioning that have been previously examined. Methodological issues are highlighted and replicated research findings about the relationships between different variables and moral behavior in sport are reported. Then, interpersonal theory is discussed and related to unsporting behavior.

2.2 *Sportspersonship Defined*

In general, morality is defined from its core aspects of harm (physical or psychological), injustice, and violations of rights (Haidt, Koller, & Dias, 1993). Moral violations are actions that affect the material or psychological well-being of other people. In a sporting context, rights center around fair competition and an equal opportunity to strive for success, protection from malevolence and degrading treatment or punishment, and treatment that signifies one's worth and dignity (Seefeldt & Martens, 1979; Universal Declaration of Human Rights, 1949).

Although, there is no universally accepted definition of sportspersonlike behavior, it is typically regarded as a component of morality in sport comprised of three related and overlapping concepts: fair play, sportspersonship, and character (Shields & Bredemeier, 1995). *Fair play* refers to all participants having an equitable chance to pursue victory (Weinberg & Gould, 1999) and acting towards others in an honest, straightforward, firm, and dignified manner even when others do not play fairly. It includes respect for others including teammates, opponents, and officials (Canadian Commission for Fair Play, 1990). *Character* refers to dispositions, values and habits that determine the way a person normally responds to desires, fears, challenges, opportunities, failures, and successes and is typically seen in polite behaviors towards others such as helping an opponent up or shaking hands after a match. An individual is believed to have a "good character" when those dispositions and habits reflect core ethical values. *Sportspersonship* can be conceptualized as an enduring and relatively stable characteristic or disposition describing the ways in which individuals are generally expected to behave in sport situations. In general, sportspersonship refers to virtues such as fairness, self-

control, courage, and persistence (Shields & Bredemeier, 1995) and has been associated with interpersonal concepts of treating others and being treated fairly, maintaining self-control in dealing with others, and respecting both authorities and opponents. Five facets of sportspersonship have been identified: (a) respect and concern for one's full commitment to participation (e.g., showing up, working hard during all practices and games, acknowledging one's mistakes and trying to improve); (b) respect and concern for rules and officials; (c) respect and concern for social conventions (e.g., shaking hands, recognizing the good performance of an opponent); (d) respect and concern for the opponent (e.g., lending one's equipment to the opponent, agreeing to play even if the opponent is late, not taking advantage of injured opponents); and (e) avoiding a negative approach towards participation (e.g., not adopting a win-at-all-costs approach, not showing temper after a mistake, and not competing solely for individual prizes; Vallerand, Deshaies, Cuerrier, Briere, & Pelletier, 1996; Vallerand, Briere, Blanchard, & Provencher, 1997). Recently, *gamesmanship*, a category of actions that do not actually violate the rules of the sport but appear to violate the spirit of the contest by using tactics to gain some advantage that might be considered unfair or dishonorable, has been identified as well (Lee, Whitehead, & Ntoumanis, 2007).

Another approach used to define sportspersonship looks to social-moral functioning (e.g., Bredemeier, 1985; Bredemeier & Shields, 1984a; Bredemeier & Shields, 1984b; Bredemeier & Shields, 1986; Bredemeier, Shields, Weiss, & Cooper, 1986; Bredemeier, Shields, Weiss, & Cooper, 1987). *Social-moral functioning* has three components: (1) moral reasoning (i.e., the process in which one decides if a course of action is right or wrong in reference to internalized standards), (2) moral development

(i.e., the process through which one develops the capacity to reason morally), and (3) moral behavior (i.e., the execution of an act that is deemed right or wrong; Weinberg & Gould, 1999). The two behaviors or aspects of social-moral functioning that have been commonly examined are aggression and perceptions of the legitimacy of injurious acts. Most commonly, *aggression* is considered any form of behavior intentionally directed toward another living being with the goal of harming or injuring them (Baron & Richardson, 1994; Gill, 1986). These are overt behaviors intended to injure oneself or another either physically or psychologically (Hussman & Silva, 1984). Thus, an accidental foul or injury to another athlete is not considered aggression, but an intentional foul, even one that does not result in any harm or injury, is an act of sport aggression. Aggression can be either hostile, where the primary goal is to inflict harm on someone else, or instrumental, occurring in the pursuit of a non-aggressive goal (Silva, 1983). Aggression reflects unsportspersonlike behavior, and research has suggested that some players employ intentional aggression to win in sport (Shields & Bredemeier, 1995; Stephens *et al.*, 1997). Perceived legitimacy of intentionally injurious acts refers to the degree which an individual perceives that a specific behavior or group of behaviors, usually aggressive in nature, is deemed acceptable (Conroy *et al.*, 2001).

2.3 Inclusion Criteria

A major purpose of this paper is to examine the state of the research on sportspersonship and social-moral functioning in sport. To identify studies examining these areas of research, a literature search for the period from 1960 to 2008 was conducted using two computer databases (PsychInfo and SportDiscus) with key words including aggression, cheating, immoral behavior, morality, moral behavior, moral

judgment, perceived legitimacy, prosocial and antisocial behavior, and sportspersonship to locate sportspersonship studies. A manual search was also conducted by examining studies referenced in articles identified in the computerized search. To be included, studies had to be (1) published in a peer-reviewed journal, (2) empirical, (3) written in the English language, and (4) related to physical activity. A total of 103 studies met these criteria. Over 78% were quantitative in nature, 15% were qualitative, and 7% utilized a mixed design.

2.4 Theoretical Background

Three main approaches to studying moral behavior in sport were evident in the literature: roughly 27% were grounded in a social learning or structural developmental approach to sportspersonship, most often examined as aggression and perceived legitimacy and henceforth categorized as social-moral functioning; 23% examined the role of achievement goal theory on sportspersonship; 10% used strictly a social-psychological approach to sportspersonship; 4% used some other theoretical background; the remaining 34% had no clear theoretical foundation.

2.4.1 Social-moral functioning. As noted, much of the work on moral sport behavior has used the tenets of social-moral functioning as a conceptual foundation for examining the role of moral norms on immoral sport behavior, aggression, and perceived legitimacy of aggressive acts. Most research in this area is based on Kohlberg's (1981, 1984) theory of developmental stages and levels and Rest's (1984) expansion of this. Kohlberg (1981, 1984) argued that individuals develop their moral maturity by progressing through three levels and six stages. The levels incorporate the stages an individual goes through when assessing whether or not to resort to cheating. To briefly

summarize this developmental process, individuals begin as egocentric beings (pre-conventional level), become more aware of the needs of others (conventional level), and finally develop moral maturity to the point where an understanding and acknowledgment of justice and the universal rights and needs of humans to respect others and hold them with dignity is valued (post-conventional level). For a detailed description of these levels of moral maturity interested readers are referred to Kohlberg (1984).

Kohlberg's theory of moral development refers to the stages of one's reasoning on whether or not to cheat. This approach, however, is not without its critics both within the structural developmental psychology community (e.g., Haan, 1985; Gilligan, 1977) and outside this theoretical perspective (e.g., Jones & McNamee, 2000). As Kohlberg himself acknowledged (see Reed, 1997), it is important to understand the underlying cognitive processes that pave the way for individual reasoning for behaving morally or immorally. These are crucial to the understanding of the developmental maturation process. Merely invoking a moral judgment that leads to moral action is not enough to tell us about these underlying processes at work (Kohlberg, 1984). In response to this criticism, Rest (1984) expanded on Kohlberg's self-critique by questioning the significance of conceptualizing levels of moral development if, at the same time, there is not an investigation of what "goes on" in the head of a person who acts morally or immorally in certain situations (1984, p. 25). According to this argument, the display of moral behavior is not an indicator, in and of itself, of moral maturity.

Rest (1984) proposed that moral behavior is the end result of the direct and indirect interplay of four components within a cognitive developmental process and that the activation of moral behavior is based on the individual's ability to rationalize a moral

response to a given situation and then act on that rationalization. Rest acknowledged that a deficiency in one or more of the procedural components may well lead to non-moral behavior and that the interplay of these cognitive components collectively serves to represent a developmental, socio-moral process whose end result is the display of either moral or immoral behavior. Rest's model has received support in life domains (e.g., Rest, 1994) and a number of studies have used Rest's model in sport and physical activity settings (e.g., Gibbons, Ebbeck, & Weiss, 1995; Ebbeck & Gibbons, 2003; Kavussanu & Roberts, 2001; Stuart & Ebbeck, 1995). Shields and Bredemeier (1995) elaborated on Rest's model to develop a 12-point exploratory model for certain physical activity settings (Miller, Bredemeier, & Shields, 1997).

Along this vein, researchers have examined attitudes, beliefs, intentions as relevant moral constructs along with socio-moral behavior (e.g., Kavussanu & Ntoumanis, 2003; Kavussanu & Spray, 2006; Keeler, 2007; Miller, Roberts, & Ommundsen, 2005; Mouratidou, Chatzopoulos, & Karamavrou, 2007; Stephens, 2004).

2.4.2 Achievement goals. To understand athletes' tendencies to act morally or immorally in the athletic context, researchers have examined sportspersonship and other aspects of moral functioning from a motivational perspective utilizing achievement goal theory (e.g., Gano-Overway et al., 2005; Kavussanu, 2005; Lemyre et al., 2002; Miller et al., 2004; Miller et al., 2005; Sage & Kavussanu, 2007; Sage, Kavussanu, & Duda, 2006). Achievement goals refer to the cognitive focus of achievement behavior and create a framework for how one interprets, evaluates, experiences, and acts in achievement settings (Dweck, 1986; Nicholls, 1989). Classically, these goals have been

distinguished by their definition of competence (Ames, 1992; Dweck, 1986; Nicholls, 1989).

One's criteria for judging success and defining competence vary as a function of one's goals and are typically defined in absolute (i.e., performing a task as well as possible) and intrapersonal (i.e., learning and improvement) terms. From this, two major goal perspectives are assumed to operate in the achievement context of sport – mastery (or task) and performance (or ego) goals. An individual espousing a mastery goal tends to use self-referenced criteria to judge competence and feels successful when he or she has learned or mastered the task. In contrast, an individual endorsing performance goals tends to use normatively-referenced criteria to define success and judge competence. He or she feels successful when outperforming others; the primary means by which an athlete with performance goals demonstrates competence is through winning.

Achievement goals appear to have important implications for moral functioning in sport. It has been commonly proposed that when competence is at stake, an athlete with performance goals will be more likely to break the rules and behave in an unsportsmanlike manner (Duda, Olson, & Templin, 1991; Nicholls, 1989). In contrast, an athlete with mastery goals will be more likely to focus on the task at hand and feels successful by performing up to his or her potential. Since competence for the latter individual is attained with respect to self-referenced criteria, cheating and aggressing seem irrelevant. Accordingly, it is thought that the athlete with mastery goals is more likely to play by the rules and to desire fair competition. Similar predictions have been made with regard to situational influences on achievement goals and moral behavior. A climate that emphasizes normative success is believed to reinforce success and failure,

while a climate that emphasizes self- or absolutely referenced competence emphasizes learning and skill development, and the prospect of outperforming others is not of direct interest to the individual. It is argued that cheating and unsportsmanlike behavior occur when a performance-oriented environment is stressed, (e.g., Bredemeier, 1999; Kavussanu & Roberts, 2001).

2.4.3 Social-psychological sportpersonship. To understand moral attitudes and behavior in athletic settings, research has often examined sportpersonship from a social-psychological approach, incorporating both personal elements and a wide range of social factors. To remedy the lack of a conceptual definition of sportpersonship, Vallerand and colleagues (Vallerand *et al.*, 1996; Vallerand *et al.*, 1997) developed a multidimensional definition of sportpersonship reflecting athletes' views of sportpersonship. As previously noted, this approach to moral sport behavior incorporates five specific dimensions: (1) respect and concern for one's full commitment toward sport, (2) respect for rules and officials, (3) respect for opponents, (4) respect for social conventions, and (5) a negative approach toward sport participation (Vallerand *et al.*, 1996; Vallerand *et al.*, 1997). Central to this multidimensional definition are the issues of respect and fairness toward others. As such, these dimensions reflect an athlete's tendency to make an effort to respect the spirit of the game (i.e., to follow the rules and obey the officials), to treat others with respect, and to respect one's self (i.e., to put forth one's best effort to make the contest fair and challenging for self and others) while avoiding a win-at-all-costs attitude. Although it is not entirely clear that this instrument truly captures a multidimensional concept of sportpersonship (Bredemeier & Shields, 1998; McCutcheon, 1999), a number of studies have used this model to examine

sportspersonship beliefs in the sporting context (e.g., Gano-Overway *et al.*, 2005; Lemyre, Roberts, & Ommundsen, 2002; Miller, Roberts, & Ommundsen, 2004). Research in this area uses these dimensions as an indication of sportspersonship, poor sportspersonship (e.g., unsportspersonlike play, unsportspersonlike attitudes, strategic play, rough play, cheating, lying), social relations, responsibility, and immoral behavior.

2.5 State of the Literature

The sportspersonship literature is still in its infancy even though there have been an increasing number of studies examining sportspersonship and related variables. Within the past seven years alone, the amount of this work has more than surpassed that accomplished in nearly 20 previous years (1980-1999: $n = 43$; 2000-2008: $n = 60$). With regard to the theoretical perspectives studied, the number of studies applying achievement motivation theory grew from less than two percent of the studies in the 1980's to over 28% of the studies since 2000. Although comprising a smaller portion of the total studies, those employing social-psychological approaches (not including achievement motivation theory) have more than doubled each decade. Studies (typically qualitative in nature) with no theoretical framework have dramatically decreased in the past seven years to about five percent of the published studies.

2.5.1 Populations studied. Most of these studies were conducted with physical education classes or sports teams that had been formed on the basis of variables not under experimental control. Some 93% of the studies reported information on groups sampled (e.g., athletes [77%], physical education students [9%], coaches [7%], children at camp [5%], officials [3%], nonathletes [3%], and after-school programs [1%]). Of the studies that reported group composition, athletes were the participant groups most commonly

sampled (83% of studies). About half (47%) of these studies reported the sport the athletes participated in. These sports and activities included soccer (25%); basketball (20%); handball (8%); ice hockey (7%); swimming (6%); volleyball, rugby, and tennis (each 5%); baseball/softball, badminton, and track and field (each 2%); cycling, horseback riding, golf, gymnastics, judo, field hockey, and floor hockey (each 1%).

The age of the participants sampled ranged from 8 to 62 years of age. The unweighted mean age of samples was 18.47 years and since the inception of this line of research, the average age of participants was found to be on the decline. Many studies report the school level of participants in addition to or in lieu of reporting age. Twenty-three percent of participants were elementary school aged, 29% were in middle school or junior high, 25% were in high school, 24% were college-aged, and 15% were adults, suggesting an impressive level of diversity with respect to age and education. Less diversity was apparent with regard to sampling of gender. Of the studies that reported the gender of participants, males represented 61% of the participants where as females represented only 39% of participants.

2.6 Research Findings

Results from studies identified in the literature review were compiled with effect sizes (Cohen's d) calculated when feasible. Effect sizes were defined as small, $d = .20$, medium, $d = .50$, large, $d = .80$, and very large $d > 1.00$ (Cohen, 1988). Due to the varied terminology and scales used to measure these variables, results were expressed in slightly more abstract terms than in the primary sources. Replicated findings¹ are discussed and

¹ Unreplicated findings are noted in the sections on research findings associated with each theoretical background. Their exclusion from Tables 1-3 results from space considerations and the fact that the focus of this review is on reconceptualizing the literature. Although adding to our understanding of immoral

listed in Tables 1, 2, and 3. These findings are identified by both the direction of the association (i.e. positive, null, or negative) and, if calculable, the effect size. Summarized findings are noted, and heterogeneous results are identified and discussed. For example, moral reasoning was consistently related to moral and behaviors cognitions (Ebbeck & Gibbons, 2003; Gibbons *et al.*, 1995; Kavussanu, Roberts, & Ntoumanis, 2002).

Conversely, low moral functioning was consistently associated with immoral cognitions and behaviors (Kavussanu & Ntoumanis, 2003; Kavussanu & Spray, 2006), including aggression (Kavussanu & Roberts, 2001; Miller *et al.*, 2005). Aggression and perceived legitimacy of intentionally injurious acts were positively related to immoral cognitions and behaviors (Kavussanu & Roberts, 2001; Miller *et al.*, 2005), membership on a team with norms for aggression (Guivernau & Duda, 2002; Stephens, 2000; Stephens, 2004; Stephens & Bredemeier, 1996; Stephens & Kavanagh, 2003), and for individuals with low responsibility judgments and preconventional motives (Stephens & Bredemeier, 1996; Stephens *et al.*, 1997).

2.6.1 Achievement Motivation. Theoretically, motivational climates and achievement goals are expected to influence moral behavior (Nicholls, 1989). As detailed in Table 1, the results on motivational climate and MSOS (Multidimensional Sportpersonship Orientation Scale) dimensions of sportpersonship suggest that in general, a strong mastery climate leads to a higher sportpersonship orientation. The influences of performance climate on sportpersonship were much less clear. The influence of a performance climate was varied for all the factors of sportpersonship², for

behavior in sport and informative in their own right, unreplicated results do not provide a picture of the hetero- or homogeneity of findings. Full tables of results are available by request.

² The sole exception is negative approach which was only examined in one study.

one's tendency to engage in aggressive behavior and perceive aggressive behavior as legitimate, and for one's immoral cognitions and behaviors.

Mastery goals were generally related to higher levels of sportpersonship, as detailed in Table 2. Again, however, mixed results for the influence of mastery goals on respect for rules and officials and respect for opponents suggested that different factors of the sportpersonship scale were not equally sensitive to the different aspects of sportpersonship. In addition, mastery goals were unrelated to the majority of the sportpersonship outcomes. Performance goals, on the other hand, had heterogeneous relations with the majority of the sportpersonship outcomes. For example, as seen with performance climate, performance goals displayed mixed results with all of the MSOS factors with the exception of a negative approach to sport participation which was only examined in one study (Stornes & Ommundsen, 2004).

One explanation for these inconsistent results could be that the traditionally defined mastery and performance goals and climates do not adequately describe achievement motivation. Previous studies have only investigated moral variables in relation to dispositional goal orientations and perceptions of the motivational climate even though achievement goal theory is centered on situational goal involvement. Recent research has demonstrated the value of characterizing goals both by the definition of competence (as in the sportpersonship literature) and the valence of the outcome (Elliot & Harackiewicz, 1996; Rawsthorne & Elliot, 1999). *Valence* refers to whether the focal outcome is desirable or undesirable. Although valence is a relatively new, and still somewhat controversial, addition to the achievement goal framework, this dimension has historically been a central component of motivation theories (Elliot & Covington, 2001;

Lewin, Dembo, Festinger, & Sears, 1944; McClelland, Atkinson, Clark, & Lowell, 1953). Perhaps differentiating achievement goals by valence as well as competence definitions will reduce the ambiguity in the role of achievement goals on moral sport behavior as it has helped to resolve somewhat equivocal findings about relations between performance achievement goals and intrinsic motivation (Elliot & Harackiewicz, 1996; Rawsthorne & Elliot, 1999). The added predictive power of distinguishing the valence of goals in the sport context is an open empirical question. Theoretically, one would expect that MAP and PAV goals would be predicted by the lowest and highest immoral sport behavior elevations respectively, and that MAV and PAp goals would have more mixed predictors (in absolute terms) because each includes a desirable and undesirable component of achievement goals.

2.6.2 *Gender*. Findings also are inconsistent with regard to gender differences. For example, Bredemeier (1995) did not find any gender difference in sport-specific moral reasoning with children aged between nine and twelve. In other studies, males have been found to be more unsportspersonlike than females (Kavussanu & Roberts, 2001) and more prone to endorse unsportspersonlike group norms (Guivernau & Duda, 2002; Shields, Bredemeier, Gardner, & Bostrom, 1995). Likewise, some studies have found that females endorsed higher levels of sportspersonship (Blair, 1985; Chantal & Berrache-Assollant, 2003; Duda *et al.*, 1991; Kavussanu & Roberts, 2001; Tsai & Fung, 2005). Yet, when boys and girls were introduced to competitive soccer at a comparably early age, they were found to be similar in their sportspersonship orientations; all participants also reported that they had played soccer for nearly the same amount of time as well as having played for their present team and present coach for a similar number of years

(Miller *et al.*, 2004). Additionally, females with a higher level of past success in sport placed more importance on playing well and less importance on sportspersonship than did females with less past success (Nixon, 1980).

In addition to results with the MSOS, research on aggression typically found that males were more aggressive than females and endorsed the legitimacy of aggressive acts as displayed in Table 3. Among both contact sport and non-contact sport athletes, some studies have found males to perceive injurious and aggressive behavior as more legitimate than females do (Gardner & Janelle, 2002). On the other hand, no gender differences were found among contact-sport collegiate athletes with respect to the legitimacy of injurious sport acts (Tucker & Parks, 2001) suggesting that perhaps the reported differences are the result of the level of competition rather than gender. In line with this, gender differences in aggression may not be present in high levels of sport, as recent results suggest that both instrumental and hostile aggression in sport did not differ across sport type or gender (Keeler, 2007).

Consistent with the experience explanation for gender differences is the fact that girls were found to have lower levels of experience in medium contact sports than boys and no experience in high contact sports (Bredemeier *et al.*, 1986; Conroy *et al.*, 2001). Boys also reported greater interest in playing and watching high contact sports than girls did (Bredemeier *et al.*, 1986). Boys were more likely to participate exclusively in one sport and sports with higher levels of contact, which were in turn related to higher levels of aggression (Conroy *et al.*, 2001). Moreover, when examining actual aggressive acts as measured by fouls, no gender differences were discernable (Bredemeier & Shields, 1984a). Finally, among adults and athletes of the same competitive level, no gender

differences were found in the perceived legitimacy of engaging in aggressive acts (Bredemeier *et al.*, 1987; Keeler, 2007).

Regardless of gender, positive relationships between one's level of ethical knowledge concerning sports and the content of the sporting activity, and between knowledge about sport ethics and acceptance of sportspersonlike behaviors have been identified. This suggests that longer involvement in sport is related to lower sportspersonship (Papp & Prosztoka, 1995). Historically, boys have been given more opportunity to participate in sport and are typically perceived as more unsportspersonlike and aggressive in sport than girls (Coakley, 1990). Perhaps however, as more girls become involved in competitive sport, the traditional gender-specific patterns of sport behavior may dissipate. Although it has been argued that gender differences are to be expected because boys and girls are socialized differently into competitive sport (Gill, 2002), additional studies suggest that other factors, such as sport experience, exposure to contact and collision sports, competitive level, or past success, need to be taken into account. Examination and comparison of individuals matched in these areas begins to address this issue (e.g., Miller *et al.*, 2004), but future work in this area could serve to strengthen these claims.

Overall, these studies rouse questions about the existence and strength of gender differences. They also point to the potential causal roles played by experience and competitive level. Finally, they suggest that some gender differences may be partly a function of age.

2.6.3 Age. Another area with inconsistent results is age-related changes. Here, too, cross-sectional studies suggest that sportspersonship attitudes develop with age. Older

individuals (adults and adolescents) are more accepting of unsportspersonlike behaviors than younger individuals (children, adolescents, and young adults; Stephens, 2004; Stephens & Bredemeier, 1996; Tsai & Fung, 2005). However, other research does not support this relationship (McCutcheon, 1999; Ryska, 2002; 2003). As with gender, experience, and levels of participation are confounding variables. Supporting this notion, Pilz (1995) found that greater sport experience led to less sportspersonlike attitudes as both sport experience and increasing levels of sport contact have been found to increase with age. For example, fifth graders had more experience than fourth graders in medium contact sports (Bredemeier *et al.*, 1986). Other research suggests that participation in certain types of sports (i.e., team, open-skilled contact sport; Bredemeier and Shields, 1986), or the amount of contact in a sport (i.e. contact, collision, or combative) may underlie age-related differences. Some of the discrepancy found between the categories of sport participation may be explained by the nature of the different situations that evolve in interactive contact team sports and individual, self-paced noncontact sports. In sports such as football, soccer, and basketball the chances of being injured by an opponent during the game are much greater than in sports such as tennis, track and field, or swimming. The inherent potential for injury in collision and contact sports might dull or erode athletes' sensitivities to aggressive and possibly physically harmful play.

2.6.4 Sportspersonship. The final area with inconsistent findings is that of sportspersonship. General sportspersonship was related to motivation (Chantal & Berrache-Assollant, 2003; Chantal, Robin, Vernat, & Bernache-Assolant, 2005; Vallerand & Losier, 1994). When this relation was examined over time, it is unclear whether sportspersonship is related to motivation throughout the season, with some

research suggesting the relations between sportspersonship and motivation remain constant (Vallerand & Losier, 1994) and other research finding no association between sportspersonship and motivation throughout the course of a season (Chantal & Berrache-Assollant, 2003). Many of the associations between the MSOS variables and factors such as instrumental aggression were varied as well. Results are detailed in Table 3.

2.7 Caveats to Research Findings

2.7.1 Methodological limitations. Although past work has made great strides in the understanding of sportspersonship, there are some notable limitations of the research. The first is a preoccupation with measuring the cognitive variables of moral judgment, reasoning, and intention (e.g., Bredemeier, 1984, 1994, 1995; Bredemeier & Shields, 1986; Duda et al., 1991; Dunn & Causgrove-Dunn, 1999; Lemyre et al., 2002; Miller et al., 2004). While unsportspersonlike behaviors have more consequence to others than moral reasoning, judgments, and intentions, these cognitions have received more attention in the sportspersonship literature. Another substantial limitation in this examination of sportspersonship and associated variables was the limited replication for majority of associations. Finally, the variables that have been used to assess unsportspersonlike behavior are piecemeal. They do not span a broad range of potential unsportspersonlike behavior; rather, they only focus on hostile and aggressive behaviors.

Passive observation (i.e. cross-sectional) research designs are most common in the literature. With the exception of a few studies (e.g., Gibbons *et al.*, 1995; Kavussanu *et al.*, 2006; Sage & Kavussanu, 2007), the vast majority of studies (90%) involved passive observation designs in which the data were collected without any experimental or quasi-experimental manipulation. Typically data were collected on a single occasion (76%);

however, some studies collected repeated measures over extended intervals of days, weeks, or months (24%). Longer intervals for repeated-measures assessments can strengthen conclusions about change processes and causal relations. The frequent use of passive observational data collection suggests that this literature has focused on describing relations between variables rather than testing causal relations.

At the same time that reliance on correlational research with a single source and method of data collection is increasing, longitudinal data collection is decreasing. Although multiple constructs are being used increasingly (in 75% of studies published since 2000), currently popular cross-sectional designs capture only a snapshot of a developing process. Without some manipulation of achievement goals, motivational climate, or other antecedents of sportpersonship, it is difficult to determine whether these associations are simply correlations between variables or direct or indirect causal antecedents of behavioral aspects of sportpersonship. Identifying predictors of immoral sport behavior can eliminate one of the major classes of confounding explanations for observed cross-sectional links between immoral sport behavior and other factors that these links may reflect. For example, it could establish the effect of one's perception of the motivational climate on immoral sport behavior rather than the reverse. Examining predictors of change thus provides one necessary (though not sufficient) step toward eliminating rival hypotheses.

While many measures have been used to quantify ethical and unethical behavior in sport, few attempts have been made to develop an inclusive overview of such actions or to devise a comprehensive measure of these factors. Perhaps the most notable effort was undertaken by Vallerand and colleagues (Vallerand *et al.*, 1996; Vallerand *et al.*,

1997) who developed a multidimensional definition of sportpersonship to reflect athletes' views of sportpersonship. This approach to moral sport behavior incorporates five specific dimensions previously noted: (1) respect and concern for one's full commitment toward sport (e.g., showing up, working hard during all practices and games, acknowledging one's mistakes and trying to improve), (2) respect for rules and officials (e.g., obeying the rules and the referee), (3) respect for opponents (e.g., shaking hands, recognizing the good performance of an opponent) , (4) respect for social conventions (e.g., lending one's equipment to the opponent, agreeing to play even if the opponent is late, not taking advantage of injured opponents), and (5) a negative approach toward sport participation (e.g., not adopting a win-at-all-costs approach, not showing temper after a mistake, and not competing solely for individual prizes; Vallerand *et al.*, 1996; Vallerand *et al.*, 1997). Central to this multidimensional definition are the issues of respect and fairness toward others. As such, these dimensions reflect an athletes' tendency to make an effort to respect the spirit of the game (i.e., to follow the rules and obey the officials), to treat others with respect, and to respect one's self (i.e., to put forth one's best effort to make the contest fair and challenging for self and others) while avoiding a win at-all-costs attitude.

Another measure used to assess moral and immoral behavior in sport examines attitudes toward three types of immoral behavior: cheating, aggression, and lying to officials (Judgments about Moral Behavior in Youth Sport Questionnaire (JAMBYSQ); Stephens, Bredemeier, & Shields, 1997). The JAMBYSQ uses three scenarios to explore moral atmosphere within the team and participants' deontic judgment, action tendencies, and motivational precursors to action. This has the advantage of exploring different

aspects of moral reasoning, judgment, and attitude while focusing on a single incident. It does not, however, permit researchers to distinguish among other aspects of immoral behavior or across different sport situations.

Most recently Lee, Whitehead and Ntoumanis (2007) developed the Attitudes of Moral Decision-making in Youth Sport Questionnaire (AMDYSQ). Their approach differs in both content and structure from existing instruments in that it accesses different facets of sportpersonship than those measured by the Multidimensional Sportpersonship Orientation Scale (MSOS; Vallerand *et al.*, 1997). While the AMDYSQ addresses moral attitudes toward sport with the Keeping Winning in Proportion scale, it also includes two immoral attitude scales, the Acceptance of Cheating and the Acceptance of Gamesmanship. The development of a scale assessing these new factors, suggests that these researchers are looking into domains that have not been measured. However, like other scales assessing sport ethics, the AMDYSQ still lacks a theoretically informed framework for organizing behavior as well as a comprehensive measurement of unsportpersonlike behavior. In addition, the numerous terms that these scales employ (i.e., sportpersonship, keeping winning in proportion, respect for rules and officials, respect for social conventions, etc.) make it difficult to determine how similar or different the attitudes and behaviors that comprise those concepts are.

While attitudes toward cheating and aggression have received direct treatment in the sport psychology literature (e.g. Stephens *et al.*, 1997), the complete range of unsportpersonlike behaviors has not yet been identified. The inception of the AMDYSQ, a new measure that specifically addresses two essentially immoral attitudes, the Acceptance of Cheating and the Acceptance of Gamesmanship, supports the notion that

there are factors of immoral behavior that have not been clearly identified and thus are not well understood. In order to enhance the understanding of sport ethics, it remains important to identify and assess these other aspects of unsportspersonlike behavior.

Despite the noteworthy efforts that have gone into developing these instruments, the psychometric properties of moral and immoral sport behavior evaluated with these instruments have ranged in validity and reliability. Evidence of reliability often involves the level of internal consistency of the scale (Cronbach's alpha) being equal to or higher than .70, as accepted in the statistical literature as a good level of adequate internal consistency or evidence of other forms of reliability (see Messick, 1995). Many instruments used to measure moral and immoral sport behavior do not show evidence of sufficient reliability. Therefore, it is unclear whether the inconsistent findings utilizing these measures are theoretically meaningful or simply artifacts of the various conceptualizations and measures adopted by different researchers.

Research utilizing the MSOS has ranged in estimates of internal consistency. Alphas for the factors from the studies which have reported reliability have ranged from .54 (McCutcheon, 1999; Ryska, 2003) to .72 (Vallerand *et al.*, 1996) for negative approach; .59 (Vallerand *et al.*, 1996) to .81 (Ryska, 2002) for respect for opponents; .59 (Vallerand *et al.*, 1996) to .79 (Ommundsen *et al.*, 2003) for respect for rules and officials; .64 (Ommundsen *et al.*, 2003; Tsai & Fung, 2005) to .86 (Vallerand *et al.*, 1997) for respect for social conventions; and .68 (Tsai & Fung, 2005) to .76 (Lemyre *et al.*, 2002) for respect for full commitment. Similarly, these findings extended to test-retest reliability coefficients which ranged from .56 to .76 for the five MSOS factors in one study (McCutcheon, 1999) and .67 for the scale as a whole across five weeks

(Ostrow, 2002). Some of the differences in the level of alpha found could be due to differences in characteristics of the research study. For example, Dunn and Dunn (1999) reported low alphas for respect for rules and officials as well as for respect for opponents ($\alpha = .63$ and $\alpha = .64$ respectively); however, these scales had been modified from the original MSOS to be hockey-specific and included only three items.

Clearly, a more concrete and comprehensive characterization along, with a theoretically informed framework of unsportspersonlike behavior, is desirable. The three measures discussed above provide bits and pieces of the behaviors and attitudes that may be expected to influence interpersonal unsportspersonlike behavior. Ultimately, all these efforts are directed toward developing a body of knowledge. The numerous terms that these scales have employed however, make it difficult to determine how similar or different those behaviors and attitudes are. No comprehensive measure covers all possible unsportspersonlike behaviors (at least at higher levels of the hierarchies), and there is no clear theoretical organization of the factors. A broad framework for integrating common models may serve to piece together and identify the full range of immoral sport behaviors.

2.7.2 Methods of measurement. Self-report methods may be exerting undue influence on theory development. Approximately 80% of the research used self-report questionnaires. Some researchers view self-report measures as a biased factor requiring control (e.g., Edwards, Edwards, & Clark, 1988; Jackson & Helmes, 1979; Norman, 1967). In this perspective, the self-reported factor is thought to represent a response tendency unrelated to item content. Thus instrument validity is believed to be influenced by other factors such as social desirability. This is not to say that the use of self-report

measures is improper. On the contrary, self-report methods are appropriate for many studies. The selection of measurement tools, self-report or other however, should be driven by substantive considerations. Currently, with the exception of a few behavioral observation studies (e.g., Kavussanu *et al.*, 2006; Sage & Kavussanu, 2007; Vidoni & Ward, 2006), the majority of previous work has been completed using cross-sectional design with self-report measures. Whether the high frequency of research utilizing self-report measures in this literature pool is based on substantive considerations or ease of sampling, future research would benefit from more diversity in the sources of data.

2.7.3 Social desirability of responses. Socially desirable responding, or the tendency to tailor responses for the purpose of looking good, has been a long-standing concern in self-report assessment. Unlike observational studies, when considering the veracity of self-reported data, it is important to recognize that participants frequently misreport behaviors commonly deemed to be socially undesirable (Edwards, 1957). The influence of socially desirable responding on self-report measures of sportpersonship, moral functioning, and aggression are of particular concern given the illicit nature of unsportpersonlike behavior. People may feel embarrassed or threatened when asked to provide information on their unsportpersonlike behavior. The tendency for respondents to present themselves in a favorable light can undermine the validity of self-report indices of immoral sport behavior by leading respondents to (a) underreport or over report certain behaviors, (b) deny having engaged in or falsely claim participation in behaviors, and (c) omit answers to questions they believe will reflect negatively on their character. Research on sportpersonship and related variables suggests that an individual's perceptions of their sportpersonship cognitions, values, and behaviors may be clouded by a desire to

impress others, although results are varied. Some studies have controlled for social desirability (e.g., Kavussanu, 2006; Kavussanu & Ntoumanis, 2003; Sage *et al.*, 2006), but the majority of sportspersonship research has not taken self-deceptive enhancement into account.

2.7.4 Study design issues. The vast majority of studies employ passive observational, cross-sectional, and self-report designs. Numerous findings have demonstrated heterogeneous associations perhaps due in part to limited replication, validity and measurement issues resulting from the inconsistent operational definitions of sportspersonship, problems with the measurement of sportspersonship, the lack of experimental and quasi-experimental studies, response biases from factors such as deceptive self-enhancement, dichotomization of continuous variables, and structural issues with the measurement of sportspersonship. Although there is clearly a strong base for the examination of the antecedents of sportspersonship, future research needs to incorporate consistent operational definitions of sportspersonship-related variables and improved methodologies and analyses. Areas that need further attention include the use of longitudinal research designs, the heterogeneity of the populations studied, the replication of single study findings, and the reliability and variability of sportspersonship measures. Most studies reviewed were more or less exploratory in nature and did not attempt to test specific models of sportspersonship. This is an especially important consideration for research employing achievement motivation theory, as the results of these studies displayed the most inconsistencies. These convoluted findings may become comprehensible with the incorporation of the 2 x 2 model of achievement goals, but that remains to be seen. Additionally, the research incorporating achievement motivation

theory may also benefit by examining theoretically derived structures of moral sport behavior from an interpersonal approach.

2.8 Summary

Clearly, the efficacy of sportpersonship research has been limited by methodological issues, including the inconsistent use of theoretical and operational definitions, reliability and validity issues in the measurement of moral behavior in sport, problems in sampling, the absence of longitudinal and experimental research designs, and the lack of replication of results. Taken in isolation, no study in this sample is severely problematic. Although many of these studies have aspects that are less than desirable, each is functioning to contribute to developing a more comprehensive understanding of moral and immoral sport behavior. Taken in aggregate however, the focus of the picture changes. It is apparent that significant problems in the measurement of sportpersonship exist. However, the literature is in its infancy, as evidenced by the limited number of studies. Research examining sportpersonship is expected to increase, as the rate of publications over the past two-and-a-half decades has been on the rise. Recently there are some excellent examples of theoretical sportpersonship scale development, such as the Moral Disengagement Scale developed by Boardley and Kavussanu (2007). But even their scale of moral disengagement does not directly measure unsportpersonlike behavior. Thus there is still a gap in the assessment of unsportpersonlike behavior and ultimately in the understanding of the phenomenon itself.

A potential reason for the measurement problems and inconsistencies may be that the structure of immoral sport behavior has not been identified. One aspect of the issues seen with previous measures such as the MSOS is that there is no clear organization of

the factors. It is unclear whether the structure of sportpersonship actually yields the five dimensions postulated by Vallerand and colleagues (Vallerand *et al.*, 1997). In a recent study, Gano-Overway *et al.* (2005) found that a factor analysis of the MSOS items produced only two factors representing sportpersonship: respect for the game and respect for the opponent. In addition, four out of the six other studies which performed a factor analysis identified fewer than five factors (Chantal *et al.*, 2005; Dunn & Dunn, 1999; Lemyre *et al.*, 2002; Ommundsen *et al.*, 2003). Many studies found that items believed to be components of one dimension actually loaded onto another dimension (e.g., items from respect and concern for opponents onto respect for social conventions; Dunn & Dunn, 1999; Gano-Overway *et al.*, 2005; Lemyre *et al.*, 2002; Miller *et al.*, 2004; Ommundsen *et al.*, 2003; Ryska, 2002). Another issue is the ambiguity associated with the term sportpersonship. Current definitions and assessments of sportpersonship (i.e., MSOS, AMDYSQ) do not account for forms of unsportpersonlike behavior such as aggression or perceived legitimacy of intentionally injurious acts. These unmistakably unsportpersonlike behaviors are conceptualized, categorized, and examined separately, further fragmenting the findings.

Currently, scales for examining moral and immoral sport behavior, although rationally based, are not theoretically informed. Organization of these piecemeal findings into a united model is essential for developing an understanding of immoral sport behavior. In sum, a more concrete and comprehensive theoretically-based characterization of immoral sport behavior is warranted.

Throughout the following chapters of this dissertation, I sought to address the above issues by developing a theoretically-based and empirically derived measure of

unsportspersonlike behavior. I did so by defining and conceptualizing sportspersonship as an interpersonal phenomenon. The product was intended to be a comprehensive classification of unsportspersonlike behavior highlighting the similarities and differences between both previously examined and ignored aspects of behavior as well as their underlying dimensions. The goal of this undertaking is to bring attention to the interpersonal nature of unsportspersonlike behavior. It is my intention that this endeavor serve as a springboard for additional research into interpersonal unsportspersonlike behavior.

Table 1. Direction of Replicated Motivational Climate and Sportspersonship Findings with Effect Size (Cohen's *d*)

Motivational Climate	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery climate</i>				
	Respect for social conventions (0.47 - 1.67)	Gano-Overway et al., 2005; Miller et al., 2004; Stornes & Ommundsen, 2004		
	Respect for rules and officials (0.39 - 1.67)	Miller et al., 2004; Ommundsen et al., 2003; Stornes & Ommundsen, 2004		
	Respect for opponents (0.20 - 1.42)	Miller et al., 2004; Stornes & Ommundsen, 2004	Gano-Overway et al., 2005	
	Full commitment (0.98 - 9.85)	Miller et al., 2004; Stornes & Ommundsen, 2004		
	Moral reasoning (0.24 - 0.30)	Miller et al., 2005; Ommundsen et al., 2003		
	Prosocial behavior	Kavussanu, 2006; Kavussanu et al., 2006	Sage & Kavussanu, 2007	

(table continues)

Table 1. (continued)

Motivational Climate	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery climate</i>				
	Antisocial behavior (0.63 - 0.93)		Sage & Kavussanu, 2007	Boixados et al., 2004; Fry & Newton, 2003; Miller et al., 2004; Kavussanu, 2006; Kavussanu et al., 2006; Ommundsen et al., 2003
<i>Performance climate</i>				
	Poor sportspersonship (0.37)	Boixados et al., 2004; Miller et al., 2004		
	Respect for social conventions (0.49)	Lemyre et al., 2002; Miller et al., 2004; Ommundsen et al., 2003	Gano-Overway et al., 2005;	Stornes & Ommundsen, 2004
	Rules and officials (0.77)	Lemyre et al., 2002; Miller et al., 2004; Ommundsen et al., 2003	Stornes & Ommundsen, 2004	

(table continues)

Table 1. (continued)

Motivational Climate	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Performance climate</i>				
	Respect for opponents	Lemyre et al., 2002; Miller et al., 2004	Gano-Overway et al., 2005; Miller et al., 2004; Stornes & Ommundsen, 2004	
	Full commitment (0.95)	Lemyre et al., 2002	Miller et al., 2004; Stornes & Ommundsen, 2004	
	Aggression (0.37)	Stephens, 2000; Stephens & Bredemeier, 1996	Boixados et al., 2004	
	Instrumental aggression (0.54 - 1.51)	Rasclé & Coulomb, 2003; Stornes & Ommundsen, 2004		
	Legitimacy of physical aggression (0.37 - 0.41)	Miller et al., 2005	Ommundsen et al., 2003	
	Moral functioning (low; 0.35 - 0.56)	Kavussanu & Spray, 2006; Miller et al., 2005	Kavussanu et al., 2002; Ommundsen et al., 2003	

(table continues)

Table 1. (continued)

Motivational Climate	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Performance climate</i>				
	Prosocial behavior		Sage & Kavussanu, 2007	Kavussanu, 2006; Kavussanu et al., 2006
	Antisocial behavior (0.54 - 0.61)	Kavussanu, 2006; Kavussanu et al., 2006; Miller et al., 2005; Ommundsen et al., 2003		
	Unsportsmanlike atmosphere	Kavussanu & Spray, 2006; Ommundsen et al., 2003 ; Stuntz & Weiss, 2003		

Table 2. Direction of Replicated Achievement Goal and Sportpersonship Findings with Effect Size (Cohen's *d*)

Achievement Goal	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery goals</i>				
	Respect for social conventions (0.28 - 1.15)	Dunn & Causgrove-Dunn, 1999; Gano-Overway et al., 2005; Lemyre et al., 2002; Roberts et al., 2003; Ryska, 2003; Stornes & Ommundsen, 2004		
	Rules and officials (0.26 - 0.35)	Dunn & Causgrove-Dunn, 1999; Ryska, 2003; Stornes & Ommundsen, 2004	Kavussanu & Ntoumanis, 2003; Ommundsen et al., 2003	
	Respect for opponents (0.22 - 0.65)	Gano-Overway et al., 2005; Lemyre et al., 2002; Ryska, 2003; Stornes & Ommundsen, 2004	Dunn & Causgrove-Dunn, 1999	

(table continues)

Table 2. (continued)

Achievement Goal	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery goals</i>				
	Full commitment (0.85 - 3.71)	Dunn & Causgrove-Dunn, 1999; Lemyre et al., 2002; Ryska, 2003; Stornes & Ommundsen, 2004		
	Prosocial behavior	Kavussanu, 2006; Kavussanu et al., 2006	Sage et al., 2006	
	Antisocial behavior/Poor sportspersonship		Kavussanu et al., 2001; Sage et al., 2006	Kavussanu, 2006; Kavussanu et al., 2006
	Instrumental aggression		Rasclé & Coulomb, 2003; Stornes & Ommundsen, 2004	
	Physical aggression		Dunn & Causgrove-Dunn, 1999; Kavussanu & Ntoumanis, 2003; Stephens & Bredemeier, 1996	

(table continues)

Table 2. (continued)

Achievement Goal	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery goals</i>				
	Team proaggressive norms (0.32-5.51)			Carpenter & Yates, 1997; Stephens & Bredemeier, 1996
	Sportspersonship (0.95)		Carpenter & Yates, 1997; Fry & Newton, 2003; McCutcheon, 1999	Duda et al., 1991
	Antisocial behavior/ Poor sportspersonship (0.47 - 3.23)	Duda et al., 1991; Kavussanu, 2006; Kavussanu et al., 2006; Sage et al., 2006; Stuntz & Weiss, 2003	Kavussanu & Roberts, 2001	
	Respect for social conventions (0.87)		Dunn & Causgrove-Dunn, 1999; Gano-Overway et al., 2005; Stornes & Ommundsen, 2004	Lemyre et al., 2002; Ryska, 2003

(table continues)

Table 2. (continued)

Achievement Goal	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery goals</i>				
	Rules and officials (0.80)		Stornes & Ommundsen, 2004; Ommundsen et al., 2003	Dunn & Causgrove-Dunn, 1999; Lemyre et al., 2002; Miller et al., 2004; Ryska, 2003
	Respect for opponents (0.26-0.98)		Dunn & Causgrove-Dunn, 1999; Gano-Overway et al., 2005	Lemyre et al., 2002; Ryska, 2003; Stornes & Ommundsen, 2004
	Full commitment (0.77)		Dunn & Causgrove-Dunn, 1999; Stornes & Ommundsen, 2004	Lemyre et al., 2002; Ryska, 2003
	Prosocial behavior		Kavussanu, 2006; Kavussanu et al., 2006; Sage et al., 2006	
	Physical aggression (0.26)	Dunn & Causgrove-Dunn, 1999; Stephens & Kavanagh, 2003	Stephens & Bredemeier, 1996	

(table continues)

Table 2. (continued)

Achievement Goal	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Mastery goals</i>				
	Instrumental aggression (0.72 - 0.94)	Rasclé & Coulomb, 2003; Stornes & Ommundsen, 2004		
	Nonphysical aggression	Dunn & Causgrove-Dunn, 1999		Duda et al., 1991
	Legitimacy of aggression (0.46 - 4.39)	Duda et al., 1991; Dunn & Causgrove-Dunn, 1999; Kavussanu & Roberts, 2001	Duda et al., 1991	Duda et al., 1991
	Moral functioning (0.47)		Proios & Doganis, 2003; Sage et al., 2006	(females) Kavussanu & Roberts, 2001
	Team proaggressive norms		Carpenter & Yates, 1997; Stephens & Bredemeier, 1996	

Table 3. Direction of Replicated Sportspersonship Findings with Effect Size (Cohen's *d*)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for social conventions</i>				
	Rules and officials (0.93 - 1.58)	Chantal et al., 2005; Laparids et al., 2003; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		
	Opponents (0.75 - 1.50)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for social conventions</i>				
	Commitment (0.49 - 0.87)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996	Laparids et al., 2003	
	Negative approach (0.18)		Ryska, 2002; Stornes & Ommundsen, 2004; Vallerand et al., 1997	Vallerand et al., 1996
	Instrumental aggression (0.22 - 0.93)	Chantal et al., 2005; Stornes & Ommundsen, 2004		
	Mastery/cooperation (0.03)	Laparids et al., 2003; Ryska, 2003		
	Gender (females)	Ryska, 2003	Miller et al., 2004; Stornes & Ommundsen, 2004	

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for rules and officials</i>				
	Opponents (0.58 - 2.34)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		
	Social conventions (0.93 - 3.37)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for rules and officials</i>				
	Commitment (0.58 - 1.22)	Chantal et al., 2005; Lapidis et al., 2003; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		
	Negative approach (0.37)		Ryska, 2002; Vallerand et al., 1996	Stornes & Ommundsen, 2004; Vallerand et al., 1997
	Instrumental aggression (.72 - 1.12)	Chantal et al., 2005; Stornes & Ommundsen, 2004		
	Gender	Ryska, 2003	Miller et al., 2004; Ryska, 2002	
	Age		Ryska, 2002; 2003	

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for opponents</i>				
	Rules and officials (0.58-0.90)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		
	Commitment (0.47-0.95)	Lee et al., 2007; Ryska, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996	Chantal et al., 2005; Ryska, 2002	
	Social conventions (0.72-1.50)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Respect for opponents</i>				
	Negative approach		Stornes & Ommundsen, 2004; Vallerand et al., 1996; Vallerand et al., 1997	
	Instrumental aggression (0.72)	Chantal et al., 2005	Chantal et al., 2005; Stornes & Ommundsen, 2004	
	Age		Ryska, 2002; 2003	
	Gender		Miller et al., 2004; Ryska, 2002, 2003	
	Experience		Ryska, 2002, 2003	

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Full Commitment</i>				
	Rules and officials (0.58-0.98)	Chantal et al., 2005; Lapidis et al., 2003; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		
	Opponent (0.45-0.54)	Lee et al., 2007; Ryska, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996	Chantal et al., 2005; Ryska, 2002	
	Social conventions (0.49-0.87)	Chantal et al., 2005; Lee et al., 2007; Ryska, 2002, 2003; Stornes & Ommundsen, 2004; Vallerand et al., 1997; Vallerand et al., 1996		

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Full Commitment</i>				
	Negative approach (0.52)		Stornes & Ommundsen, 2004	Vallerand et al., 1997; Vallerand et al., 1996
	Instrumental aggression (0.20-0.65)	Chantal et al., 2005; Stornes & Ommundsen, 2004		
	Gender	Miller et al., 2004; Ryska, 2003; Tsai & Fung, 2005	Ryska, 2002	
	Age		Ryska, 2002, 2003	
	Experience	Ryska, 2003	Ryska, 2002	
<i>Negative approach</i>				
	Commitment (0.52-1.06)		Stornes & Ommundsen, 2004	Ryska, 2002; Vallerand et al., 1996
	Rules and officials (0.37)		Vallerand et al., 1996	Stornes & Ommundsen, 2004
	Social conventions (0.18)		Ryska, 2002; Stornes & Ommundsen, 2004	Vallerand et al., 1996

(table continues)

Table 3. (continued)

Sportspersonship	Variable (range of <i>d</i>)	Positive Relations	Null Relations	Negative Relations
<i>Negative Approach</i>				
	Opponents		Ryska, 2002; Stornes & Ommundsen, 2004; Vallerand et al., 1996	

CHAPTER 3 – RECONCEPTUALIZING UNSPORTSPERSONLIKE BEHAVIOR AS AN INTERPERSONAL PHENOMENON

As previously noted, current scales for examining moral and immoral sport behavior, although rationally based, are not theoretically informed. Organizing the pieces of previous measures into a united and theoretically-informed model is an essential step for developing a better understanding of immoral sport behavior. A broad framework that integrates existing models of moral and immoral sport behavior may resolve many of the ambiguities reported in the literature. Interpersonal Theory offers such a framework. This manuscript discusses the interpersonal nature of unsportspersonlike behavior. I begin by arguing for a broader conception of sportspersonship and suggesting that most of the research on ethical behavior in sport offers a fragmented examination of components of sportspersonship rather than a viable comprehensive framework through which behavior can be understood.

3.1 Introduction

Although a substantial number of empirically supported generalizations about the communitarian nature of sport ethics have been made, those generalizations and evidence for them are scattered in the literatures of a number of different disciplines. The next two sections assemble some of these generalizations and discuss the evidence that would support them. Three main points emerge: (1) morality is interpersonal in nature; (2) sport competition is an interpersonal and a moral domain of behavior; and (3) unsportspersonlike behavior is interpersonal in nature and is an inherently moral domain.

The first two points are addressed by drawing on the ideas of researchers and theorists in the philosophic tradition. Next, the interpersonal nature of sportspersonship is

linked with Interpersonal Theory, an approach that has achieved widespread acceptance in personality research and has proved useful for clarifying concepts and measures from a variety of research traditions (e.g., Locke, 2000; Wiggins & Trobst, 1997).

In drawing these connections, I am not proposing that Interpersonal Theory is the only or even the best theory from which to study sport ethics, but I do argue that Interpersonal Theory may yield deep insights into the architecture of unsportspersonlike behavior. There is a convergence between philosophical writings on ethics, writings on the nature of competition, and empirical research on sportpersonship and moral functioning. These complementary perspectives offer the possibility of extending the exploration of unsportspersonlike behavior.

Sport, moral behavior, and sportpersonship can be conceptualized from different points of view. One can take the philosophical point of view and focus on the theoretical background of moral development, or emphasize the demands of the sport itself as a highly competitive domain in which achieving second place is sometimes seen as entirely unacceptable. Moral behavior in sport has been studied from an achievement-goal perspective, a social-learning or structural developmental approach, and a social-psychological approach. Yet, no one of these viewpoints has proved entirely successful in providing a comprehensive understanding of sport ethics. As such, I propose an interpersonal social-psychological theory of sportpersonship that draws on theory and research in ethics, personality psychology, and sport psychology. My central argument is that one's ethical behavior in sport is related to or otherwise intertwined with other human beings and that this has implications for self-evaluation, self-regulation, and, most broadly, for one's behavior in sport. This approach is based on the long-standing view

that individual behavior is fundamentally interpersonal (e.g., James, 1890). I believe that an individual's behavior in sport competition is inherently interpersonal and will provide evidence throughout this paper to support this claim.

3.2 Sport Ethics

At the outset, it will be helpful to clarify what I mean by sport ethics and sportpersonship. Previous work by Vallerand and colleagues (Vallerand et al., 1996; Vallerand, et al., 1997) has conceptualized sportpersonship as a component of morality in sport composed of five facets: (a) *respect and concern for one's full commitment to participation* (e.g., showing up, working hard during all practices and games, acknowledging one's mistakes and trying to improve); (b) *respect and concern for rules and officials* (e.g. obeying referees decisions, respecting the rules); (c) *respect and concern for social conventions* (e.g., shaking hands, recognizing the good performance of an opponent); (d) *respect and concern for the opponent* (e.g., lending one's equipment to the opponent, agreeing to play even if the opponent is late, not taking advantage of injured opponents); and (e) *avoiding a negative approach towards participation* (e.g., not adopting a win-at-all-costs approach, not showing temper after a mistake, and not competing solely for individual prizes).

In the psychological literature, unsportpersonlike behavior has most commonly been studied as *aggression*. Typically, aggression is considered to be any form of behavior intentionally directed toward another living being with the goal of harming or injuring them (Baron & Richardson, 1994; Gill, 1986). These are overt behaviors intended to injure oneself or another either physically or psychologically (Hussman & Silva, 1984). More recently, *acceptance of cheating* and *acceptance of gamesmanship* –

actions that do not actually violate the rules of the sport but appear to violate the spirit of the contest – have been identified as unethical as well (Lee et al., 2007).

3.2.1 The communitarian nature of ethics. Although these conceptualizations and definitions of sportpersonship and unsportpersonlike behavior provide categories of wrongdoing for study, they are not clearly connected to a more general understanding of sport ethics. Identifying and examining these various constructs as part of a more comprehensive model is essential to developing one's understanding of sport ethics. Previous work has examined sport ethics mainly from the theory of moral development and moral reasoning.

Theories of moral development and moral reasoning are centered on the ideas of Kohlberg, Gilligan, and other moral psychologists who believe that justice and care are the two foundations of morality. This approach is based on the idea that moral issues pertain to the rights and welfare of individuals within a greater whole. In this sense, morality is about helping and hurting other people. This approach is similar to the perspective of achievement goal theorists such as Nicholls (1989) who have suggested that an ego orientation, which involves a preoccupation with demonstrating superiority, may be accompanied by a lack of concern for justice and fairness.

Kohlberg's (1981, 1984) epistemology is deontological and is centered on the view that justice is the essential feature of moral reasoning. Through Kohlberg's lens of justice, morality is seen as fairness. The ethical problem people face is whether to treat others the same, differently but equitably, or differently and unfairly. Regardless of whether or not one feels compassion for others, the rules are clear; differential treatment in most sport settings would be unfair, thus individuals must apply the rules consistently.

Although this is an individual-centered approach – it is focused on the actions of an individual – it contains an implicit social component. As Turiel (1983, p. 3) stated, the moral domain pertains to

prescriptive judgments of justice, rights, and welfare pertaining to how people ought to relate to each other. ... Moral judgments are not derived directly from social institutional systems, but from features inherent to social relationships – including experiences involving harm to persons, violations of rights, and conflicts of competing claims.

This epitomizes justice and a respect for persons, which primarily means a respect for their freedom, rights and autonomy.

Although these moral issues center on individuals and their own judgments and actions, these moral issues are social in that one's actions affect others. Through this lens of justice, the common good in the form of fair play is the highest value. This is often regarded as a “cool,” highly rational approach to ethics. Care for individuals and harmonious relationships are generally ignored.

Gilligan (1982) maintains that care is central to morality. Many social psychologists tend to follow this approach by studying decision making where research participants must make choices that will help or harm others (e.g., Darley & Batson, 1973; Baston et al., 1983; Milgram, 1963). Through this teleological epistemology Gilligan, more explicitly than Kohlberg, states the communitarian nature of ethics. Morality, in Gilligan's view, centers not on only rights and rules, but also on the ethics of compassion and care, thus emphasizing the importance of relationships. An ethic of caring and responsibility follows more naturally from the concept of persons as

connected. This also centers on the understanding of, and response to others. This approach to ethics posits that the morality of one's actions depend on the consequences of the actions. Actions are approved to the extent that they produce "the greatest good for the greatest number." This is a more explicitly communitarian view of ethics.

Although there is a great deal of debate as to which view – the justice-focused or caring-oriented approach – is "better," I believe that each view is a piece of the puzzle. By accepting and integrating both approaches, there is a consensus across these disciplines that the moral domain is recognized as involving actions that lead to injustice, to harm, or to the violation of rights. Morality is about helping or harming another, and moral issues are those that pertain to the rights and welfare of individuals (Haidt & Joseph, 2006). In this sense, morality is a social enterprise, not just a means to guide an individual in his or her own projects. People simply are not solitary beings capable of autonomous reasoning in suspended objectivity and removed from the context. People are deeply social, embedded in culture and in social practices. Ethical significance is attributed to include the notions of psychological and physical harm, injustice, and violations of others rights as well as well as to the ideas of love and friendship. One's actions – harmful or caring, just or unjust – have interpersonal consequences and are meaningful in the athletic context. As Haidt (Haidt et al., 1993, p. 614) noted, "moral issues are intrinsically interpersonal issues and actions are judged by their material and psychological consequences for others."

Varieties of egoism are, perhaps, the strongest alternatives to communitarian views on ethics. The enlightenment belief that one should take responsibility for oneself has deteriorated into the belief that one is only responsible for oneself. However, even if

one takes an egoist view that individuals are out to seek their own advantage and welfare, they are still a participant in this greater whole. The best policy of the individual, or what is to his or her greatest advantage, is still in relation to others.

Frankena (1963) makes this point clearly; the basic criterion of morality has been described as the amount of good produced. As Frankena conjectures, an individual seeking his or her own greatest good leads to the general greatest good only if and when an individual's actions are considered with respect to others. In his view, morality is social in its origins and functions. It is an instrument of society as a whole that promotes rational guidance for its members. It is involved with promoting the good and distributing it fairly. Individuals internalize the societal norms and regulate their own conduct. This connection between individuals and social context determines the ways in which people relate to one another. Morality cannot be understood unless the social context is fully accounted for.

There is a long tradition of this idea of the "greatest good" in sport. Going back to Plato, sport has been seen as an activity that not only benefits the individual, but also promotes the greatest good for society. In sport, rules serve as a guide to make competition fair, and fairness has long been described as a fundamental good (Aicinena, 2007). However, as winning is the goal and not all competitors can win, the temptation to be dishonest and to break the rules may arise. Thus, self-interest, in a narrow sense, must be sacrificed to some extent if fairness is to exist (Aicinena, 2007). Along these lines, Simon (2004) has argued that athletes have an obligation to fairness that restricts selfishness in sport and that to behave selfishly is unethical. This is not to say that one's own interest in succeeding is unimportant, as will be discussed further in the following

section. It does, however, suggest that individuals with an enlightened self-interest will strive for success within the parameters of seeking the greatest good for all.

3.3 The Social Nature of Competition

The commonalities between these approaches to ethics have led to a general consensus about the scope of the moral domain: morality is about resolving dilemmas involving the competing interests of people. Accordingly, competitive sport is grounded in a moral domain that is, at the same time, an interpersonal setting. The identification and understanding of the communitarian nature of sport provides a means for understanding sportspersonship that is both consistent and compatible with the communal nature of sport. In this section, I will examine four ways that philosophers and theorists – such as Kretchmar and Simon – have offered that competition is inherently interpersonal.

First, at a minimum, competition requires dual agency. Second, competitors have common interests and make implicit agreements about the nature and structure of competition. These shared values and agreements to keep them take competition into the moral domain. Third, competition involves an agreement to participate in a mutual quest for excellence. This requires cooperation if that project is to succeed. Finally, competition is a mutual quest for excellence. The very nature of competition means that it is not simply a zero-sum game, but a cooperative, interpersonal endeavor that can gratify all participants.

3.3.1 Dual agency. In sport, athletes have competing interests. From a metaphysical viewpoint, competitive sport is structured to assess superiority and inferiority (Kretchmar, 1975). Competitive sport has a “central competitive purpose ... the determination of athletic superiority” (Dixon, 1999, p.10). In sport, two or more

individuals make a commitment to outperform one another. They attempt to do the same thing, only better than the other (Kretchmar & Elcombe, 2007). By engaging in competition, athlete A is promising to do X better than athlete B, while athlete B is promising to do X better than athlete A. Thus, competition is a social or interpersonal forum. “Contests...must be public. They require, at minimum a second party – another person, another team, or groups of individuals and teams” (Kretchmar & Elcombe, 2007, p.191). Competition by its very nature denotes the struggle of two or more parties for the same objective (Keating, 2003).

This idea of dual agency can be demonstrated in the meanings associated with competitive outcomes. For example, in addition to agreeing to try to outperform one another, athlete A and B also are demonstrating an understanding of what that performance means. Borrowing from Simon’s (2004) example, if an isolated person shooting baskets makes five out of ten free throws, he has numerical information about this performance (a 50% success rate). However, in the absence of a norm to which a comparison can be made, it is difficult to understand what that statistic means. Without that normative comparison, it is hard to draw conclusions about the significance of that achievement. As Kretchmar and Elcombe (2007, p. 185) state, “In the absence of interpersonal comparisons, either norms or direct observations of foul shots of others, the activity remains relatively uninformative.” Competition thus, is interpersonally normed.

That is not to say that there is no self-referenced achievement in athletic tests. Improvement and task-mastery are undeniably important aspects of performance. If the isolated free-throw shooter practiced to the point where he could make seven out of ten shots, he should feel a sense of achievement. However, without a normative reference, it

would still be hard for him to draw conclusions about the significance of this achievement.

In competition, however, the question is not just how well an individual athlete can perform the required skill for that test and what, against various norms that performance means. It involves a second kind of interpersonal comparison – if athlete A performs to the best of her ability, is that better than athlete B’s performance? Even an athlete performing at a world record pace can lose the competition. Conversely, an athlete who is performing below a personal best still can beat another athlete whose performance was even worse (Kretchmar & Elcombe, 2007). Furthermore, it is not always the better athlete who produces the superior performance on a given day (Dixon, 1999); instead, competitive results require comparisons between the athletes during a particular competition. From this perspective, the competitive environment is inherently social. A comparative objective is present, and the progress of one’s opponent is relevant. As Kretchmar and Elcombe (p. 187) have eloquently stated, “competition involves the interweaving of at least two stories into one.” In a competition, both sides depend upon each other for meaning and significance.

3.3.2 Shared values. The interweaving of stories highlights another component of the communal nature of competition – the shared values of athletes. Sports bring together people with shared interests. In a competition, athletes engage in the same activity. In doing so, they implicitly make an interpersonal agreement about the grounds of the contest. To summarize Kretchmar and Elcombe, in a competition, athletes are committing to the values inherent in the contest, to try their hardest and abide by the rules. Both sides share a communality of interest, the love of challenge, and they are each committing to

that challenge. They are committing to exert maximum energy and resourcefulness toward winning. In competitions where individuals are part of a team, they owe their teammates a full commitment to winning. Even when athletes play as individuals, the obligation of effort is owed to the other contestants. This norm is evident when athletes who “give 110 percent” are praised, while players who fail to put forth earnest effort are criticized.

This commitment to one another generates issues of fairness – issues that are part of a moral domain. Just as the stories of athletes are intertwined in competition, the competitive domain is interwoven with the moral domain. Players must respect the rules that limit play so as to prevent harm to other competitors. These rules are specified in advance and relate to aspects such as the arena of competition (e.g., court, field, or ring), the game’s duration (e.g., innings or quarters), the allowable equipment, the scoring system, the specific goals to be achieved by participants and the means to achieve the goals, and penalties for violating the rules). According to Fraleigh (1984), it is these rules and the agreement by the players to follow the rules of play that enable conditions for the sport’s existence. Accordingly, competitors cannot change the means or end of the competition without full understanding and agreement of all parties (e.g., Kretchmar & Elcombe, 2007). When players intentionally violate this rule, in a sense, the competition itself ends because the contestants are no longer facing the same test. Competition in and of itself requires that athlete A’s opportunities are comparable to those of athlete B. By rule, they have a common understanding of what they are allowed and not allowed to do. When athlete A seeks victory outside this agreement, when one does whatever is needed to achieve success, moral behavior is lost in the process. Thus, one component of

competition tugging the interpersonal and ethical storylines lies in the obligation of competitors to follow the rules for the protection and gratification of both themselves and others.

3.3.3 Cooperation paradox. This communal nature of competition is also apparent through the paradoxical need for cooperation. In a sense, the communal nature of sport precedes competition. The very foundation of the sport context provides for a collaborative and yet competitive dynamic between athletes. Rather than being viewed as dichotomous or mutually exclusive, competition and cooperation are in fact complementary. As explained by Boxill (2003), cooperation is required to begin, continue, and end competitive activities. Whether in individual or team sports, there is a mutual challenge such that each competitor must cooperate in accordance with the rules defining the activity. Along these lines, Suits (1978) outlined three necessary components of a contest as (1) a prelusory goal or the object of the game, (2) constitutive rules, and (3) a lusory attitude or the athletes' conscious acceptance of rules which makes the game possible. Accordingly, in the game of soccer, the prelusory goal is to score points by getting the ball into the goal; the constitutive rules prohibit such useful means picking up the ball and running; and the lusory attitude which is the acceptance of constitutive rules so that the game can occur. It is such an acceptance that makes it possible for a contest to occur. By engaging in a competition, athletes are agreeing to these components, and, as follows, agreeing to cooperate within the bounds of this agreement.

As Simon (2004, p. 27) has noted, "The principal value of athletic competition lies not in winning, but in overcoming the challenge presented by a worthy opponent." This idea presumes that competitors engage in a cooperative effort to generate the

optimal challenge to one another. By recognizing competition as an interpersonal commitment to exert maximum energy toward winning, to respect the rules that limit play, and to preserve the arena in which the game is played, a collaborative structure emerges in which opponents serve as facilitators of the best possible performances (Philips & deLeon, 2005). Through this blend of competition and cooperation, competitors strive not only to win, but also to cooperate in this very process.

In this sense, the demands of sport specifically require the interdependent, interactive activity of athletes, be they teammates or competitors, moving toward a shared goal. Athletes must work together to enhance their own performance. In addition, the athletes or teams involved agree to cooperate in competition with each other. There is an implicit agreement among competitors to play within the parameters of the contest – to play by the same rules, to show up at the same time, to try ones hardest. Without the implicit contractual agreement to cooperate, there is no game and no competition.

The idea of cooperation within competition is evident then, when the “community nature of the self” is recognized and people realize one role of competitors is to help each other excel (Senge, 1990). As Margaret Mead (1937) suggested in her work on competition and cooperation in primitive cultures, it is inaccurate to speak of these processes outside of the basic social context in which they exist. Similarly, in sport, competition and cooperation are the basic social forms of the contest. This is not to say that competitors are automatically interested in the well-being of each other. The socio-moral nature of sport can be seen through the need to cooperate with others for the contest to even occur.

Cooperation is based on the unity of interests between competitors – their shared values and implicit agreement to participate within the parameters of the contest. Although in our culture people tend to see competition among individuals as the ultimate component of sport (e.g., we need to “beat the competition”), by recognizing that cooperation is a necessary component of competition, the communal nature of sport is underscored. Whether the motivation behind the competition is caring or simply advancing one’s own interests, cooperation is part of competition, and this communal nature of competition infuses the competition with a moral dimension.

3.3.4 Metaethics – the zero-sum/nonzero-sum matter. Sports are commonly thought of as a zero-sum contest in which a player or team can win only by making the other player or team lose. For example, a player can win the championship only by denying it to all other competitors. Although competition can be and is, in one sense, a zero-sum game in which one person’s victory is another’s defeat, at the same time sport is nonzero-sum in another sense. A whole host of nonzero-sum outcomes can be identified, including outcomes such as enjoyment, health benefits, and improved performance. In this way, sport competition allows that all the participants may achieve some of their goals. For example, in a race, all participants can share the achievement of completing the course or obtaining a personal best time, even though there is only one winner. In this example, a losing competitor may compete well, employ the right strategies, make a move at the right time, run a personal best and still lose to a more skilled competitor (e.g., Kretchmar, 2005).

Simon’s (2004) writings about the quest for mutual excellence also indicate that competition is not solely a zero-sum activity, but rather a mutual quest for excellence.

This takes us back to the example of athlete A, who performs at world-record pace, but loses the competition to athlete B who breaks the record by a greater margin. Both athletes push each other in their mutual quest, and both athletes show excellence (e.g., Kretchmar & Elcombe, 2007). This interpersonal nature of competition is seen through this process as each competitor must react and respond to the actions of other competitors and through the outcome, in which each competitor's performance is compared to that of others.

If sport were only a zero-sum endeavor, simply about a victory possessed by only one participant, significant moral concerns would be raised (Fraleigh, 1984). It is the nonzero-sum aspect of sport that yields it a mutually valuable task for all participants. As Kretchmar (1975) indicated, it is the development of excellences in sport that comprise the nonzero-sum component. The zero-sum idea of winning is distinct from achieving. Winning involves a series of relationships in which the excellences related to superiority can be (and usually are) exhibited by both competitors and teams (Kretchmar, 1975).

Together, these four components highlight the communal nature of sport. It is through the aspects of dual agency, shared values, cooperation, and the nonzero-sum reward structure of competition, that it becomes increasingly evident that sport is a social context. The very nature of competition means that it is not simply a zero-sum game, but a cooperative mutual quest for excellence; an interpersonal endeavor that can gratify all participants.

3.4 Sportpersonship as a Moral Domain

Churchland (1996, 1998) has asserted that human beings are born into and live in a sociomoral world. In this world, all societies generate and enforce norms (Brown, 1991)

in many contexts, including sports. Quite simply, sport participants expect others to act in certain ways and not in others. These norms are the basis for many beliefs about what constitutes sportspersonship. Researchers have suggested that these norms center on moral issues of harm/care, injustice/fairness, and the violation of the rights of others. As Haidt and Joseph (2006) have done in their argument for a broader conception of morality, the first step in mapping the moral domain of sportspersonship is to identify the norms that have received the most attention. Such quantitative examination is difficult, but several researchers have worked to identify important components of moral behavior in sport.

Sportspersonship is probably the most commonly cited aspect of moral behavior in sport. Vallerand, Deshates, & Cuerrier (1997) asked athletes from various sports to assess the extent to which different sports situations and behaviors were related to the concept of sportspersonship. Their results distinguished between five dimensions which were upheld in their later work: “concern and respect for the rules and officials, social conventions, the opponent, as well as one’s full commitment to one’s sport, and the relative absence of a negative approach to sport participation.” (Vallerand, Brière, Blanchard, & Provencher, 1997: p. 198). They conjectured that well-behaved athletes would generally behave in accord with these five orientations, although more recent work has questioned whether these dimensions are distinct (e.g., Gano-Overway, Guivernau, Magyar, Waldron, & Ewing, 2005).

More recently Lee and colleagues (Lee et al., 2007) broadened Vallerand’s conceptualization to include acceptance of cheating and gamesmanship as components of

unsportspersonlike behavior. An advantage of this approach to examining moral behavior is

the disentanglement of the concept of sportspersonship from that of aggression, thereby precluding problems of tautology. To say that one lacks sportspersonship orientations because one reacts aggressively is indeed tantamount to affirming that one is being aggressive due to a lack of sportspersonship (Chantal, Robin, & Bernache-Assolant, 2003: p. 234).

However, the area of aggression is an important component sport ethics, and norms relating to aggression have received a great deal of attention. Physical aggression causes harm to others more directly than do the aspects of sportspersonship involving the social conventions identified by Vallerand or Lee. According to Bredemeier and colleagues (see Bredemeier & Shields, 1993; Shields & Bredemeier, 1995; Weiss & Bredemeier, 1986), sportspersonship pertains to more than athletes' endorsement or rejection of injurious or unsuitable acts in sport.

Butler (2000) listed actions that directly caused harm, conduct that constitutes injustice, and behavior regulated by social conventions according to Turiel's definition. In Butler's view, sportspersonship is demonstrated by striving to win and treating one's opponents and the officials with respect and civility. Unsportspersonlike behavior, according to Butler, includes: verbally or physically taunting an opponent, words or actions directed at officials, the opposing team, or the opposing bench that demonstrate a lack of respect, unnecessary roughness, pushing that goes beyond normal aggressive play, instances of frustration-induced profanity that is self-directed rather than directed at opponents or officials, berating and belittling the officials or opponents, fighting,

punching, kicking, throwing, or directing profanity at the officials, opposing players, or opposing coach. These norms associated with moral sport behavior apply the ideas of respect and commitment seen in Vallerand's conceptualization to acts of aggression.

As these examples indicate, the most common sport norms are based on the welfare of all the participants in a cooperative enterprise. Individuals are autonomous agents, but their behavior is regulated and evaluated from the perspective of a group of interacting individuals. Thus, Shweder (1990, Shweder, et al., 1997) described an "ethic of autonomy" centered on concepts such as harm and suffering, and rights and justice. This is the moral domain as Turiel defines it. It is also the domain of sport behavior.

3.5 Sportpersonship as an Interpersonal Construct

This broader conception of morality and competition as interpersonal, and as sport as a moral domain, challenges theorists to explain how the full set of moral issues in sport are connected, not just sportpersonship or aggression. Toward this end, it may be valuable to see if a broad and heterogeneous set of unsportpersonlike behaviors – beyond disrespect, aggression, gamesmanship, and cheating – might reflect a higher-order taxonomy of unsportpersonlike behavior. Much existing research is partial and piecemeal, making it difficult to know how individual findings cohere in presenting a comprehensive picture.

My goal is to offer an account of sport ethics that integrates what is known and what has been overlooked to serve as a framework for future research. This is done by examining the ways that unsportpersonlike behavior could be better understood as an interpersonal phenomenon. Beginning with an overview of Interpersonal Theory, I suggest that sport ethics are interpersonal, and that the understanding of

unsportsmanlike behavior can be improved by organizing previously identified (as well as previously overlooked) behaviors around the framework delineated by Interpersonal Theory.

3.5.1 Interpersonal Theory

Interpersonal Theory describes interpersonal functioning in terms of the qualities of the individual that are thought to give rise to generally consistent behavior across time and interpersonal situations (Wiggins, 1997). Interpersonal theorists posit that personality is best viewed in terms of recurrent interpersonal dispositions or tendencies to display characteristic patterns of interpersonal behavior (Leary, 1957; Sullivan, 1953). This interpersonal approach construes personality as a consistent pattern of interpersonal behaviors (Pincus & Ansell, 2003). Interpersonal dispositions are an index of typical interpersonal behavior across situations and over time. For example, an individual who possesses the interpersonal trait of dominance is likely to act dominantly across many interpersonal situations.

Interpersonal theorists commonly believe that interpersonal behavior is represented by the dimensions of agency and communion (e.g., Benjamin, 1974; Kiesler, 1983; Leary, 1957; Lorr & McNair, 1963; Wiggins, 1979). *Agentic behaviors* assert individuation and status relative to other individuals. These behaviors are represented by a bipolar axis ranging from assertive-dominant behavior to passive-submissive behavior. *Communal behaviors* promote interpersonal ties and are represented by a bipolar axis ranging from agreeable-friendly behavior to hostile-attacking behavior. Within interpersonal domains, individual differences can be described as blends of these two

dimensions of agency and communion or dominance and affiliation (Pincus & Ansell, 2003).

Interpersonal Theory commonly uses eight categories to represent interpersonal behavior. Category one represents dominant-assertive behaviors. Category two is characterized by a blend of hostile-dominance. Category three corresponds to hostile-cold behaviors. Category four represents a blend of hostile-submissiveness. Category five corresponds to passive-submissive behaviors. Category six is a blend of friendly-submissiveness. Category seven represents agreeable-friendly behaviors. Finally, Category eight is characterized by dominant-friendly behavior. These eight categories have been utilized in a variety of domains, including interpersonal acts (Gifford, 1991), interpersonal problems (Alden, Wiggins, & Pincus, 1990), interpersonal traits (Wiggins, 1979, 1995), verbal, nonverbal and covert interpersonal impacts (Kiesler, Schmidt, & Wagner, 1997), social support (Trobst, 2000), and interpersonal values (Locke, 2000).

In and of themselves, interpersonal categories of behavior are regarded neither as positive nor as negative; they are simply categories of a theoretical framework which yields itself to organizing and understanding interpersonal behavior. As evidenced by the range of behaviors interpersonal categories of behavior have been applied to in previous research, the categories of behavior can be used to identify behavior involving supportive action, or problem behavior. One of the benefits of Interpersonal Theory is that it can be applied to any number of behaviors. Although one could make the case for identifying a different range of sport behaviors, here, these categories will be applied to unsportspersonlike behaviors.

3.5.2 Interpersonal unsportspersonlike behavior

Previous sections made the case for the interpersonal nature of competition. Applying Interpersonal Theory's criteria, that interpersonal behavior ranges in agency and communion, can further this argument. In sport as in life, athletes are continually negotiating how friendly or hostile they will be with one another and how much they will control or submit to others (Hogan & Hogan, 1991). As previously noted, moral violation is interpersonal if it may cause harm to or violate the rights of a particular person. Assertions of moral violations typically appeal to welfare considerations (e.g., "because it's not fair" or "because it hurt the person"; e.g., Greene & Haidt, 2002; Tisak, 1995). Unsportsmanlike behavior – actions that lead to injustice, to harm, or to the violation of participant's rights to a fair competition, an equal opportunity to strive for success, safety from malevolence, degrading treatment, or punishment, and being treated disrespectfully – therefore are interpersonal. The behavior causes harm and injustice to others.

Interpersonal Theory is a way of explaining phenomena associated with the study of personality and social interaction. Interpersonal behavior includes behaviors that fit the frame "person A [does this to] person B," such as "A dominates B," "A intimidates B," "A aggresses against B," and "A disrespects B." Applying Interpersonal Theory to sport ethics, a variety of possible unsportsmanlike behavior categories can be organized around two major interpersonal characteristics: agency (ranging from yielding, submitting, or relinquishing control to influencing, controlling, or dominating) and communion (ranging from being disconnected, indifferent, or hostile to being connected, loving, or close). Agency and communion are salient organizing dimensions in interpersonal behavior in sport, and different unsportsmanlike behaviors are blends of these dimensions. These dimensions reflect two broad tasks that every person encounters

from childhood on (e.g., Erikson, 1963). In sport, as in life, agency and communion reflect the two principal challenges of social adaptation, namely, getting along or feeling connected (communion) and getting ahead or feeling competent (agency; Hogan & Roberts, 2000). As such, variance in unsportspersonlike behaviors may be captured, at least in substantial or large measure, by the dimensions of agency and communion.

From this perspective, the eight categories of interpersonal behavior can be identified in unsportspersonlike behavior. I term these eight categories of interpersonal unsportspersonlike behavior Hypercompetitive, Intimidating, Antisocial, Disrespectful, Acquiescent, Overly Deferential, Abetting, and Melodramatic behavior. Through an examination of the compilation of unsportspersonlike behaviors identified and measured in previous research, I was able to identify five of these eight categories of interpersonal behavior. Using the eight interpersonal dimensions, Table 4 categorizes previously identified unsportspersonlike behaviors. The other three can be identified in reported behavior. This indicates that (a) there is at least some merit for the proposition that unsportspersonlike behavior may be categorized into the eight categories of interpersonal behavior and (b) previous work may have missed important elements of unsportspersonlike behavior. By calling attention to all eight categories, Interpersonal Theory provides a framework for organizing previously examined unsportspersonlike behaviors and opens new behavioral possibilities for study.

Table 4. Interpersonal Categorization of Unsportspersonlike Behaviors

Category	Behavior	Studies
Hypercompetitive	Assertive-dominant behaviors	
	Pretending the call was in your favor	Butler, 200
	Protesting the ref's decisions	Butler, 2000
	Trying to influence the referee's decisions	Stornes, 2001
	Take steroids/performance enhancing drugs	Fisher & Bredemeier, 2000
	Rule breaking	Gibbons et al., 1995
	Rule bending	Stornes, 2001
Intimidating	Dishonesty (lying to get an advantage)	Stuart, 2003
	Hostile-dominant behaviors	
	Instrumental aggression	Bredemeier, 1975; Stornes & Bru, 2002
	Lie to official/coach/teammate	Gibbons et al., 1995
	Attempting to upset temperamental members of opposing team	Heinila, 1974
	Reactive aggression	Bredemeier, 1975
	Retaliation	Conroy et al., 2001
Antisocial	Hostile-cold behaviors	
	Hostile aggression	Bredemeier, 1975
	Risk injuring opponent	Bredemeier, 1995
	Profanity directed toward other	Butler, 2000
	Deliberately hurt opponent	Gibbons et al., 1995; Fisher & Bredemeier, 2000
	Criticizing the ref's decision	Heinila, 1974
	Punishment for mistakes	Newton et al., 2000
Public abuse	Stornes, 2001	

(table continues)

Table 4. (continued)

Category	Behavior	Studies
Antisocial	Fighting in practice	Stuart, 2003
	Physical harm	Butler, 2000
	Trash talk	Stuart, 2003
	Intrateam rivalry	Newton et al., 2000
	Selfishness (not involving all players)	Stuart, 2003
Disrespectful	Hostile-submissive behaviors	
	Ignoring another's good play	Butler, 2000
	Not assisting opponent in getting up	Butler, 2000
	Not shaking hands	Butler, 2000
	Not supporting teammate	Fisher & Bredemeier, 2000
	Show no concern when opponent is injured	Fisher & Bredemeier, 2000
	Lack of concern for opponent	Fisher & Bredemeier, 2000; Vallerand et al., 1997
	Time wasting	Heinila, 1974
	Disrespectful opponent's good performance	Stuart, 2003
	Negative attitude toward sport participation	Vallerand et al., 1997
	Withdrawal of effort when losing	Duda, 1988
Faking a foul	Heinila, 1974	
Acquiescent	Passive-submissive behaviors	
	Passive behavior	unstudied
	Pusillanimous behavior	unstudied
Overly Deferential	Friendly-submissive behaviors	
	Deferent behavior	unstudied

(table continues)

Table 4. (continued)

Category	Behavior	Studies
Overly Deferential	Forgiving behavior	unstudied
Abetting	Agreeable-friendly behaviors	
	Absolving behavior	unstudied
	Devotedly indulgent behavior	unstudied
Melodramatic	Dominant-friendly behaviors	
	Hitting inanimate objects in frustration/anger	Butler, 2000
	Profanity directed toward self	Butler, 2000
	Temper being aroused during game	Heinila, 1974
	Distracting the opponent	Butler, 2000
	Losing self-control (losing temper)	Stuart, 2003

First, hypercompetitive behavior is dominant-assertive behavior and reflects the tendencies to put one's own interests in succeeding before the rights of others.

Hypercompetitive individuals compete bitterly with others and are singled-minded about winning at all costs. Previously identified behaviors that reflect hypercompetitive behaviors in sport are constructs such as rule bending (Stornes, 2001), rule breaking (Gibbons, Ebbeck, & Weiss, 1995), lying to an official, coach, or teammate (Gibbons et al., 1995), and acceptance of cheating and gamesmanship (Lee et al., 2007).

Hypercompetitive behaviors are prevalent in sport, with 43% of male and 31% of female high school athletes admitting that they cheat or bend the rules to win, and 42% of male and 24% of females saying they believe it is acceptable to use a stolen playbook of another team (Josephson Institute Report Card on the Ethics of American Youth, 2006).

Second, intimidating behavior is a blend of hostile-dominant behavior which reflects tendencies such as trying to bully others into accepting one's calls during a competition. This includes both physical intimidation such as instrumental aggression as well as verbal intimidation. An individual using intimidation pushes hard to get his or her way. Behaviors such as trying to influence the referee's decisions (Stornes, 2001), trash talking an opponent, protesting the referee's decisions (Butler, 2000), criticizing the referee's decision, and attempting to upset temperamental members of the opposing team (Adaptation of Heinila questionnaire; Heinila, 1974) all constitute intimidating behaviors in the sport setting. Intimidating behavior is common in sport with 51% of male and 30% of female high school athletes claiming they believe it is acceptable to argue with an official with the intention to influence calls. Survey research also reports that 58% of male and 24% of female high school athletes believe it is proper to deliberately inflict pain to intimidate an opponent and that 30% of males and 8% of females would throw at an opposing hitter in retaliation after a key player was hit (Josephson Institute Report Card on the Ethics of American Youth, 2006).

Third, antisocial behavior is cold behavior which reflects the tendency to distance one's self from teammates and opponents who inhibit one's chances for success in a competition. Antisocial individuals find it difficult to cooperate with others and share credit for success. These individuals are often discourteous and readily obstruct others in their pursuit for victory. Behaviors such as risking injury to an opponent (CIA; Bredemeier, 1995), criticizing teammates, and blaming others for one's own mistakes reflect antisocial behaviors in the sport setting. In surveys, high school athletes report antisocial behaviors: 30% believe it appropriate to deliberately throw at a batter who

homered the last time up, and 42% report demeaning others' skill (Josephson Institute Report Card on the Ethics of American Youth, 2006).

Fourth, individuals with tendencies toward disrespectful behavior tend to ignore the presence of others and may forfeit a match to avoid defeat. Disrespectful behavior is a blend of hostile-submissive behavior which includes not supporting teammates, showing no concern when an opponent is injured (Fisher & Bredemeier, 2000), ignoring another's good play, not assisting an opponent in getting up, not shaking hands (Butler, 2000), exhibiting a lack of concern for an opponent (Vallerand et al., 1997; Fisher & Bredemeier, 2000), disrespecting an opponent's good performance, being selfish by not involving all players (Stuart, 2003), withdrawing effort when losing (Duda, 1988), and faking a foul (Heinila, 1974). Although often identified, hostile-submissive behaviors have not been commonly studied. Survey research with high school students demonstrates that these behaviors exist, with 31% of the respondents believing that it is proper to fake a foul, hoping players on the other team will be removed from the game (Josephson Institute Report Card on the Ethics of American Youth, 2006).

Fifth, acquiescent behavior is passive-submissive behavior that reflects a tendency to allow others to take advantage of and steal status from oneself. An acquiescent individual agrees to almost anything and does not stand up for his or her own rights. Such submissive behavior is currently unstudied, although it may be reflected in engaging in negative behavior for approval (Vallerand et al., 1997). Although these submissive behaviors have not been consistently identified in the research literature, 40% of male and 21% of female high school students say nothing when an official declares the wrong score, and 46% of high school athletes report saying nothing when a referee calls a ball

out that the player definitely saw hit the line (Josephson Institute Report Card on the Ethics of American Youth, 2006).

Sixth, overly deferential behavior is a blend of friendly-submissive behavior. Individuals who are overly deferential may take excessive blame for others' mistakes. These are individuals who flatter and fawn over their opponents or are willing to take a fall for them. This behavior is currently unstudied in the literature, although it has been noted that one of the virtues of sport is self-sacrifice (Philips & deLeon, 2005). Research on corruption in sumo wrestling provides evidence of this behavior. In sumo wrestling, a wrestler who achieves a winning record (eight wins or more) is guaranteed to rise up the official ranking, while a wrestler with a losing record falls in the rankings. A wrestler's rank is a source of prestige and the basis for salary and perks. Overwhelming evidence has been uncovered suggesting that match rigging occurs in the final days of sumo tournaments. Wrestlers who are on the margin for attaining their eighth victory win far more often than would be expected (Duggan & Levitt, 2002), suggesting that wrestlers with nothing to lose are throwing matches to aid in another's quest for status.

Overly-deferential behavior has also come to light recently in professional tennis. As early as 2003, there were reports that players were throwing matches. A closer look revealed that the set up of men's tennis seems to encourage match-fixing (Deford, 2008). A review funded by the Association of Tennis Professionals identified 45 suspect matches (Gunn & Rees, 2008). Moreover, more than a dozen pros have disclosed that they were approached to fix matches (Robson, 2007).

Seventh, abetting behavior is agreeable-friendly behavior that reflects tendencies to help others cheat in the spirit of being affable. These individuals readily excuse others'

transgressions and consent to their requests. For example, NASCAR suspended Michael Waltrip's crew chief and competition director for their role in illicitly aiding his win after an illegal substance was found in the engine of Waltrip's car during a qualifier for the Daytona 500 (Ryan, 2007). This behavior is currently unstudied in the research literature.

Finally, individuals who tend towards melodramatic behavior may overreact in competitive situations. This category is a blend of dominant-friendly behavior and individuals demonstrating melodramatic behaviors tend to exaggerate and dramatize situations. Previously identified behaviors include hitting inanimate objects in frustration or anger in order to gain others support for their dissatisfaction, profanity directed toward oneself, distracting the opponent (Butler, 2000), and acceptance of gamesmanship (Lee et al., 2007). For example, 38% of male and 12% of female high school athletes' claim they would swear at an official to get their team worked up, and 37% of males and 15% of females think coaches should use profanity and insults to motivate players (Josephson Institute Report Card on the Ethics of American Youth, 2006).

This interpersonal model of unsportspersonlike behavior includes both affiliative and submissive behaviors that are not commonly considered in the sportspersonship literature. At first thought, friendly behaviors aimed at connecting with others may not seem to be a moral violation because individuals are not directly inflicting harm on an opponent. Nonetheless, unsportspersonlike affiliative behaviors such as cheating for a teammate are still harmful to opponents in that they deny them a fair competition. Table 5 outlines the eight categories of behavior and their interpersonal and unsportspersonlike nature.

Table 5. Interpersonal Nature of Unsportspersonlike Behaviors

Category of Behavior	Interpersonal Behavior	Violation (Harm/Injustice)	Interpersonal Nature
Hypercompetitive	A dominates B	Fair competition	Dominating
			Takes status
Intimidating	A intimidates B	Fair competition	Dominating
		Safety from malevolence	Takes status
		Safety from degrading treatment	Hostile
Antisocial	A thwarts B	Safety from malevolence	Hostile
		Safety from degrading treatment	Cold
Disrespectful	A ignores B	Safety from malevolence	Hostile
		Safety degrading treatment	Submissive Cold
Acquiescent	A overlooks B's error	Fair competition	Gives status
		Equal opportunity	Submissive
Overly Deferential	A sacrifices for B	Fair competition	Gives status
		Equal opportunity	Submissive
Abetting	A illegally aids B	Fair competition	Affiliative
		Equal opportunity	
Melodramatic	A distracts B	Degrading treatment	Takes status
		Dominating	Affiliative

The interpersonal nature of some common unsportspersonlike behaviors is readily apparent. For example with intimidating behavior such as reactive aggression, psychological or physical harm is imposed onto another individual directly (i.e., A

retaliates against B). Hypercompetitive behaviors such as cheating or taking performance-enhancing drugs indirectly influence others in a competition by taking status from them and violating their right to a fair competition. Although unsportspersonlike behaviors indirectly influencing others may not commonly be regarded as interpersonal, those behaviors harm others by violating their rights. In this way, those moral violations are interpersonal. This representation organizes unsportspersonlike behaviors that have been studied previously (e.g., negative approach toward the practice of sport, cheating, aggression). In addition, this framework opens up new behavioral possibilities for study (e.g., excessively submissive behaviors, overly deferential behaviors, aiding others cheating, melodramatic outbursts). Previous work has identified a variety of important unsportspersonlike behaviors but had been piecemeal in its approach. Organizing behaviors within an overarching framework provides researchers a common metric for the study of unsportspersonlike behavior.

3.6 Pilot Work

Drawing from the sportspersonship literature, a model of sportspersonship was developed and analyzed. As displayed in Figure 1, interpersonal aspects of unsportspersonlike behavior were organized around the dimensions of agency (reflected in dominant-submissive acts) and communion (reflected in agreeable-quarrelsome acts). As discussed previously, categories of unsportspersonlike behaviors were composed of previously-measured and theoretically-derived unsportspersonlike behaviors that fit the interpersonal circle (Wiggins, 1982). These categories served to create a common nomenclature for describing and discussing unsportspersonlike behavior.

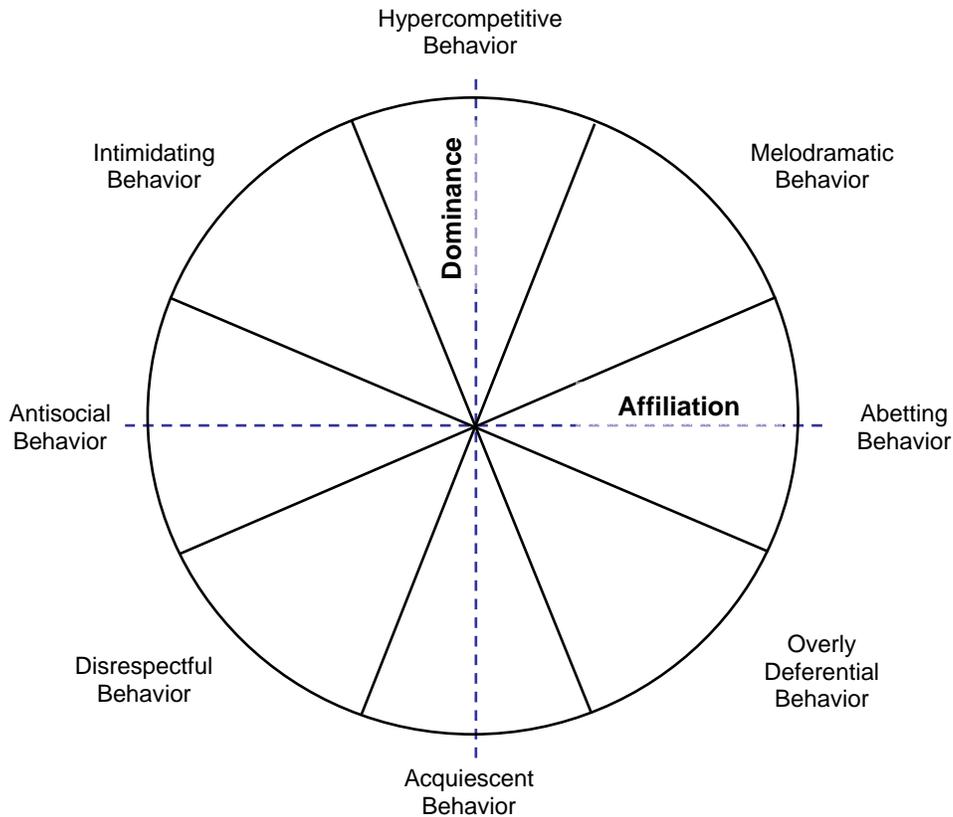


Figure 1. Circle of Interpersonal Unsportspersonlike Behavior

3.6.1 Participants & methods. In an initial attempt to identify and examine the eight categories of interpersonal unsportspersonlike behavior, eight single items were developed, one for each category of interpersonal unsportspersonlike behavior. These single-items for each octant were used to test the hypothesis that unsportspersonlike behavior may be structured around the interpersonal dimensions of affiliation and control.

Separate samples of 158 college students (80 men and 73 women; 5 did not report gender; $M_{\text{age}} = 20.99$, $SD = 3.5$) and 97 college students (37 men and 59 women; $M_{\text{age}} = 20.62$, $SD = 1.43$) were separately recruited as parts of two larger studies. Three series of questions were constructed. First, participants completed similarity ratings of the eight

sportspersonship categories: (1) calculatedly violating the rules, (2) verbally intimidating others, (3) intentionally injuring another, (4) disrespecting others, (5) letting others take advantage of you, (6) giving others too much credit for outcomes, (7) working with another to cheat, and (8) melodramatically exhibiting emotions. In the first of the two pilot studies, a ninth category of enabling another to cheat was examined as well to see if enabling was a more descriptive term than working with in category six. Using a scale ranging from 0 (*not at all similar*) to 10 (*extremely similar*), participants were asked to rate the similarity of combinations of two acts in a sport setting (e.g., intentionally injuring another vs. verbally intimidating others). The structure of the items proposed to tap each sportspersonship octant was examined using both exploratory and confirmatory factor analysis.

3.6.2 Results and discussion. To test the hypothesis that these unsportspersonlike behaviors fit the proposed structure, multidimensional scaling (MDS) was run on the similarity ratings. MDS is an exploratory approach used to spatially represent data and their underlying dimensions and MDS typically provides clear and parsimonious solutions (Fitzgerald & Hubert, 1987). In MDS, each category is represented by a point in a multidimensional space. The points are arranged in this space so that the distances between pairs of points have the strongest possible relation to the similarities among the pairs of categories. That is, two similar objects are represented by two points that are close together, and two dissimilar objects are represented by two points that are far apart. Typically, MDS is plotted in two- or three-dimensional space; the more dimensions used, the better the fit of the matrix is. However, as the goal is to reduce the observed complexity, it is desirable to use fewer underlying dimensions. As Interpersonal Theory

is based on a two-dimensional model, the solution was constrained to a two-dimensional model as well.

A graphic representation of the two-dimensional solution for the first data set is presented in Figure 2. As displayed, the data from the first set of participants appeared to begin to fit a circular structure. An examination of the placement of the behaviors on the first dimension suggested that this dimension is primarily dominant versus those that are submissive. On one side of the dimension are “calculatedly violating the rules,” “verbally intimidating others,” “intentionally injuring another,” “melodramatically exhibiting emotions,” and “giving others too much credit for outcomes.” The other side of the dimension is anchored by “disrespecting others,” “letting others take advantage of you,” “working with another to cheat,” and “enabling another to cheat.” Therefore, this dimension was consistent with the interpersonal dimension of dominance.

The second dimension was appeared to order the behaviors according to the hostility of the behavior. At one extreme of the dimension are “verbally intimidating others,” “intentionally injuring another,” and “disrespecting others.” At the other end of the continuum are “giving others too much credit for outcomes,” “working with another to cheat,” and “melodramatically exhibiting emotions.” This dimension was relatively similar to that of the interpersonal dimension of affiliation.

As shown in Figure 3, the two-dimensional solution for the second data set yielded a slightly better fit to a circular structure. Similar to the results from the first data set, the two dimensions apparent were similar to the interpersonal dimensions of dominance and affiliation. Dimension one was again represented by “verbally intimidating others,” “intentionally injuring another,” “melodramatically exhibiting

emotions,” and “letting others take advantage of you,” while dimension two ranged from “verbally intimidating others, “intentionally injuring another,” and “disrespecting others,” to “giving others too much credit for outcomes,” “working with another to cheat,” and “melodramatically exhibiting emotions.” Similar to the results of the first data set, hypercompetitive behavior still seemed to be central to all the categories of interpersonal unsportsmanlike behavior. This suggests that perhaps hypercompetitive behavior is akin to the motivation underlying unsportsmanlike behavior (i.e., trying to get ahead).

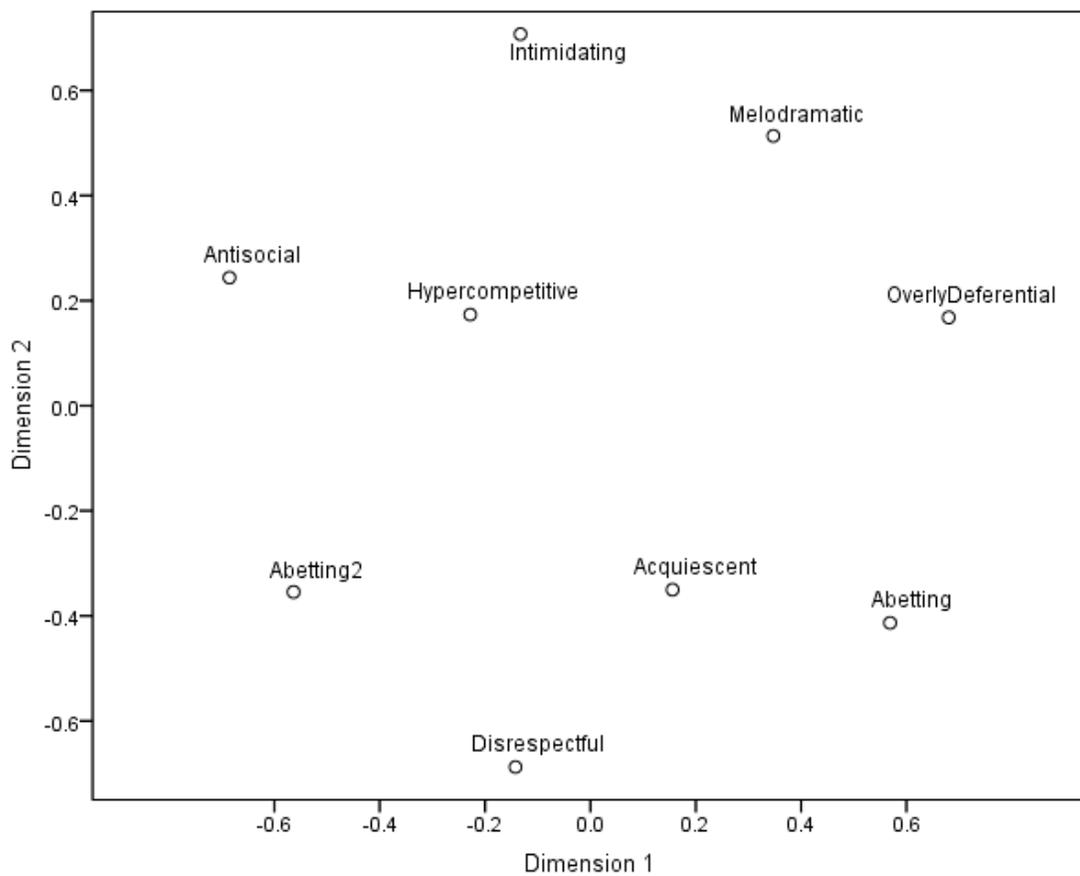


Figure 2. Behavioral Categories and Coordinates from MDS of Data Set One

The fit was not as perfect in either of the models as the hypothesized model depicted in Figure 1, but that is to be expected with real data (Adams & Tracey, 2004).

The category of hypercompetitive behavior was closer to all of the others categories than would be expected, and there were slight spacing problems with the ordering of the other categories (e.g., overly deferential and abetting). Overall however, the multidimensional scaling analysis indicated that participants perceived unsportspersonlike behavior on two dimensions. The first dimension was interpreted as dominance, as participants appeared to differentiate between unsportspersonlike behaviors that are dominant vs. that are submissive. The second dimension was interpreted and labeled as affiliation. Overall, this dimension is clear-cut with differentiation between hostile and affiliative behaviors. This dimension indicated participants perceived acts of unsportspersonlike behavior within a given range from less hostile/cold to friendly acts of unsportspersonlike behavior. Thus, participants are not necessarily lumping all of the behaviors into one category.

Together these findings indicate that an interpersonal taxonomy of unsportspersonlike behavior is a useful starting point for developing a systematic, theory-based study of sport ethics. Such a classification enables us to develop broader, more comprehensive theories of sport ethics (e.g., Rich, 1992). This organization also provides parsimony and order to the diverse set of behaviors that comprise unsportspersonlike behavior, helping us to identify the relationships between these different unsportspersonlike behaviors, and enabling us to make connections between the different findings of studies that have addressed specific types of unsportspersonlike behavior. This interpersonal taxonomy is a useful starting point for developing a broader measure of unsportspersonlike behavior and thus as enabling empirical tests of interpersonal theories of sport ethics. Aggregated measures have been considered more reliable and valid than specific measures (e.g., Rushton, Brainerd, & Pressley, 1983) and it has been

noted that a more comprehensive measure may overcome low base rate problems commonly associated with measuring deviant behaviors (Hulin & Rousseau, 1980).

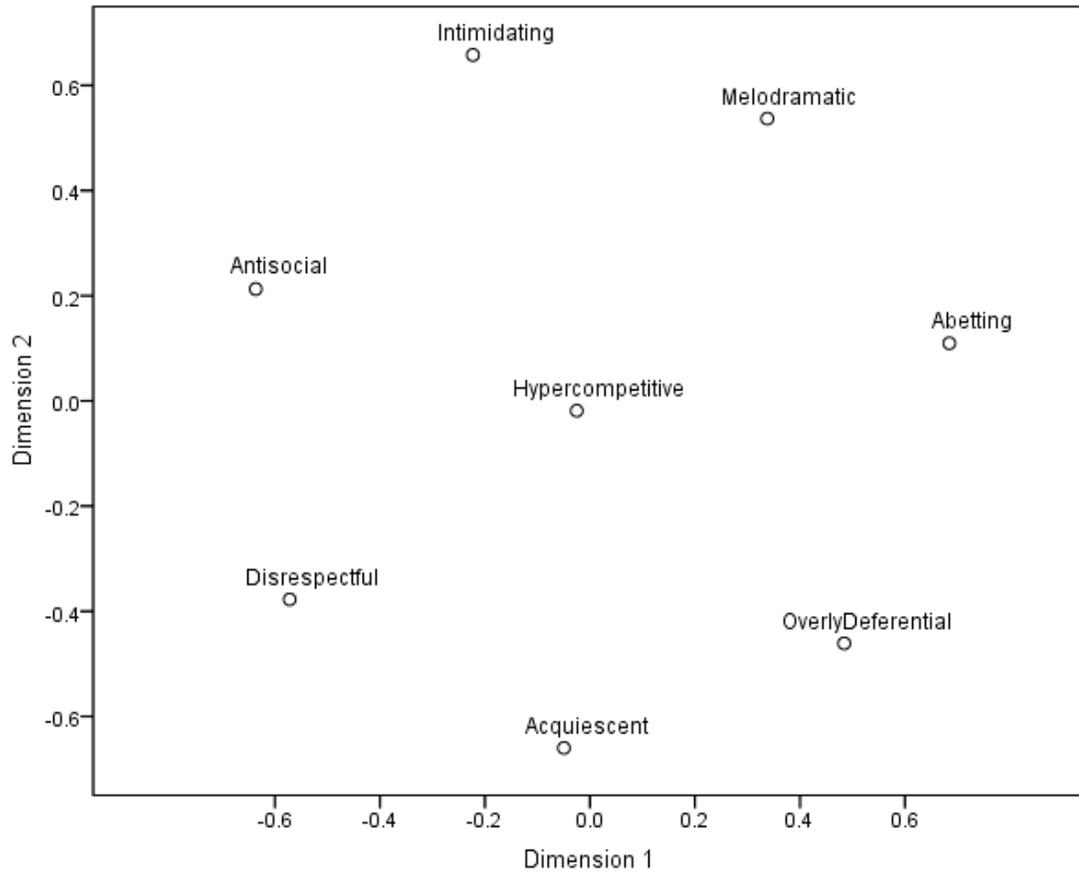


Figure 3. Behavioral Categories and Coordinates from MDS of Data Set Two

3.7 Conclusions

To summarize, writing from the fields of philosophy and psychology suggests that an interpersonal model for sportpersonship would be useful. The philosophical literature supports the view that ethics is communitarian and that sport is an interpersonal endeavor. The psychology literature also regards unsportpersonlike behavior as interpersonal in nature and situated in an ethical domain. Recognizing unsportpersonlike

behavior as both moral and interpersonal provides an approach to understanding sportpersonship that is consistent with the communal nature of sport. In addition, linking ideas in ethics and philosophy to social, personality, and sport psychology creates a common groundwork of explanation, perhaps contributing to the unification rather than the fragmentation of science (Wilson, 1998).

A second benefit to the integrative approach pursued here is a more comprehensive model of unsportpersonlike behavior, encompassing both affiliative and submissive behaviors that are not commonly considered in the sportpersonship literature. These behaviors are evident in sport, but have yet to be integrated into the study of sportpersonship. Whether or not submissive and affiliative behaviors are an integral piece of unsportpersonship remains to be determined; however based on the antidotal evidence of their existence in sport and their theoretical representation, this more comprehensive approach seems valuable.

The third advantage of the model is that it organizes unsportpersonlike behaviors (e.g., negative approach toward the practice of sport, cheating, aggression) that have been studied previously in a piecemeal fashion. Organizing behaviors within an overarching framework provides researchers a common metric for the study of unsportpersonlike behavior. In addition, this framework opens up new possibilities for behaviors to study (e.g., excessively submissive behaviors, overly deferential behaviors, aiding others cheating, melodramatic outbursts).

Thus, throughout this chapter, numerous unsportpersonlike behaviors were integrated into a parsimonious framework in which unsportpersonlike behavior varies along interpersonal dimensions. This work builds upon previous categorical schemes of

sport ethics and produces a more comprehensive taxonomy of unsportspersonlike behavior. First, this classification identifies the underlying dimensions of unsportspersonlike behavior and thus clarifies not only the different categories of unsportspersonlike behavior but also how these categories are interrelated. Second, as noted above, this taxonomy incorporates two previously neglected forms of unsportspersonlike behavior, submissive and affiliative behaviors. To date, the literature on unsportspersonlike behavior has focused only on hostile and dominant behavior. The interpersonal framework paves the way for creating an integrated theory of unsportspersonlike behavior. Rather than continue to expend efforts on separate, unconnected, and potentially redundant studies of specific unsportspersonlike acts, researchers can begin to develop and test theoretical models of the structure of unsportspersonlike behavior. Such theories will enable systematic exploration of this behavior and should lead to a more coherent accumulation of findings. The interpersonal taxonomy developed here is interesting in its own right, but it will need to be expanded and revised to give further insight into dispositional characteristics and causal associations.

Although this interpersonal taxonomy was designed to reflect the way most unsportspersonlike behaviors are organized in research, there may be areas where the fit is not perfect. However, the application of a theory that provides a framework to organize and examine unsportspersonlike behavior is an important starting point for developing a more comprehensive measure of interpersonal unsportspersonlike behavior. The categories of unsportspersonlike behavior proposed here are by no means the final word, but they may be a useful starting point.

CHAPTER 4 – INITIAL SUB DEVELOPMENT

4.1 Purpose

The overall objective of this project was to develop an interpersonal measure of unsportspersonlike behavior that would be appropriate for use across a wide range of sports and to test a theoretical model that would distinguish subtypes of unsportspersonlike behavior. The purpose of this study was to systematically develop an instrument to measure a wider range of interpersonal unsportspersonlike behaviors in competence based physical activities and to take the first steps in demonstrating its convergent, discriminant, concurrent, and structural validity. Initially, a list of items representing the categories of interpersonal behavior was developed. Next, both interpersonal and moral behavior experts were asked to comment on the face and content validity of these items. Then, changes were made based on these comments and the scale was pilot-tested. Next, CFA was used to test the fit of the factor structure using a large heterogeneous sample of athletes. Finally, the validity of the measure was examined. Details of these procedures are reported in the following sections.

4.2 Methods

4.2.1 Preliminary scale development. Items to assess unsportspersonlike behaviors were generated from previous research (a) assessing moral and immoral sport behavior (Bredemeier, 1975, 1995; Conroy et al., 2001; Fisher & Bredemeier, 2000; Gibbons et al., 1995; Heinila, 1974; Lee et al., 2007; Vallerand et al., 1997), (b) surveying athletes' impressions of unsportspersonlike behaviors (Stornes, 2001; Stuart, 2003), and (c) rating unsportspersonlike behaviors observed in sport settings (Butler, 2000; Stornes, 2001). Items that were developed were not taken verbatim from any of

these measures, but they were derived from these previous measures and the general themes of sportpersonship they capture. Initially, these previous measures, examples, and observations were used to generate a pool of unsportspersonlike behavior items representing hypercompetitive, intimidating, antisocial, disrespectful, acquiescent, overly deferential, abetting, and melodramatic behaviors. Each type of behavior was considered to represent interpersonal unsportspersonlike behavior within a more comprehensive system. Applying Interpersonal Theory and its eight categories of behavior, generated a broader range of behaviors and a more comprehensive taxonomy of interpersonal immoral sport behavior were produced than has been previously available.

Next, a random sample of these items was pilot tested on a sample of college students as part of a larger study (c.f., Conroy, Elliot, & Pincus, in press). Items were presented on a 5-point Likert-type scale ranging from A to E. A five-point scale was chosen because it allows for appropriate variances in the responses (Noar, 2003) and is common in the measurement of a variety of socially undesirable behaviors (e.g., Gianluca, 2006; Morrison, Kenny, & Harrington, 2005; Roig & Ballew, 1994; Zopito, Dane, Bosacki, & YLC-CURA, 2006). No consensus exists however about the best scale anchors for the assessment of socially undesirable or immoral behavior. These scales have used anchors ranging from “*almost never*” to “*almost always*,” “*extremely comfortable*” to “*extremely uncomfortable*,” and, when asking about the ease of difficulty of engaging in problematic behaviors, “*not at all*” to “*extremely*” to measure undesirable behaviors (Alden et al., 1990; Gianluca, 2006; Morrison et al., 2005; Roig & Ballew, 1994; Zopito et al., 2006). Participants completed all three response stem measures in a counterbalanced order.

Statistically, there was no difference in how participants responded to items on the different scales, indicating that the stem measures would be equally reliable. For a small portion of the items (four), participants utilized the response scale more fully for ratings of comfort and ratings of how easy or hard it is to engage in those behaviors. Considering these findings, the response scale in which participants indicate how hard or easy it is for them to engage in immoral behaviors was adopted.

The next step of the scale development process was to develop an adequate sample of items within each of the categories of unsportsmanlike behavior. It has been recommended that two to three times the initial number of items desired for a scale be written, with several items for the same thought so that the ones that best portray a particular thought or idea can be selected (Noar, 2003). Thus an initial item pool of 150 items was developed. Next, the content validity of the items was examined. Content validity is concerned with whether instrument items are consistent with the domain they are intended to measure (Kline, 2005) and is an important aspect of scale development (Haynes Richard, & Kubany, 1995). The most effective way of examining content validity is through expert opinion. Therefore, three interpersonal experts evaluated the complete set of items to determine the extent to which they reflect the interpersonal domains of dominance and affiliation. Specifically, judges were asked to categorize the items according to the type of interpersonal behavior they best represent. Items with unanimous agreement were retained. In the event that two judges were in agreement over item placement, but the third judge placed it in an adjacent category, the item was modified to better fit the octant selected by the first two judges. Items with either three different placements or a single placement two or more categories away were dropped.

As a final check, three sport psychology and/or ethics experts were provided with a definition of unsportspersonlike behavior (e.g., harm or injustice to others), the categories of interpersonal unsportspersonlike behavior, and the list of items. They were asked to (a) rate how representative each item was of the categories of interpersonal unsportspersonlike behavior on a 3-point scale ranging from -1 (not at all representative) to +1 (very representative), and (b) comment on each item's relevance to sport. Unrepresentative items were dropped and items with moderate representativeness were revised. From these two processes, 132 items were retained.

4.2.2 Participants. A total of 344 students participated in this study, ranging in age from 18 to 30 years ($M = 20.51$; $SD = 1.58$ years). Participants were drawn from a variety of university sports classes and teams including basketball, soccer, wrestling, racquetball, cycling, ultimate, squash, tennis, golf, swimming, cross country, track, equestrian, ballroom dance, martial arts, baseball/softball, football, hockey, gymnastics, volleyball, fencing, crew, and lacrosse. The sample consisted of 132 men, 157 women, and 55 individuals who chose not to provide their sex³. Approximately 80% of the sample was White/European American, 3% African American, 2% Asian American, 3% Hispanic, and 4% other. The majority of the participants (68%) had over six years of competitive sport experience. Most participants reported experience in a variety of sports which were classified as collision (e.g., football, wrestling, hockey), contact (e.g., basketball, soccer, lacrosse, ultimate frisbee, field hockey), and noncontact (e.g., track, swimming, tennis, volleyball). About 37% of participants played noncontact sports, 26% played contact sports, 13% played collision sports, and 20.2% played a variety of sports at different levels of contact. On average, 24% played a team sport, 23% played an

³ The remaining participant identified themselves as transgendered.

individual sport, and 43% played a variety of sports, both team and individual.

Participants also reported a variety of participation levels, with approximately 27% participating in recreationally organized sport, 35% participating in intramural sports, 21% participating in club sports, 9% participating in collegiate level sports, and 3% participating at a national or professional level.

4.2.3 Procedures. This investigation focused on undergraduate students with a recent history or current engagement in recreational and organized competitive sport involvement. Participants were required to have a minimum of two years of recent competitive sport involvement – membership after the eighth grade on an organized team with a competitive schedule – and to have participated in sport within the past two years. These two requirements ensured that the respondents were reasonably knowledgeable competitors. Participants were informed of the two-year requirement when recruited and sport experience was screened in the demographic questions. Participant data which reported not meeting the sport experience requirement were not included in the analysis. Four individuals (one woman and three participants with unreported gender) did not meet this criterion and were dropped from further analysis.

Following clearance by the university's institutional review board, kinesiology professors and sport instructors were contacted regarding participation of their students in the study. Data from all participants were collected outside of their designated class or training sessions in a classroom on campus. Before completing the questionnaire, all respondents were informed that the survey examined sporting attitudes, that honesty in responses was vital to the success of the study, and that they should complete the questionnaire with their main competitive team sport in mind. It was also explained that

all responses were not linked to their identity and would be used only for research purposes.

4.2.4 Measures. Participants completed six scales (including the newly developed SUB) assessing unethical behavior. As three areas of interpersonal immoral sport behavior have yet to be examined, no existent measures of these behaviors were available to serve as conceptual prototypes. For the SUB, two types of items are included in the scale: behaviors that are “hard for you to do” and that “are easy for you to do.” Responses were made on a scale ranging from A (*not at all*) to E (*extremely*).

The Aggression Questionnaire (AQ; Buss & Perry, 1992) measured individual general aggressive tendencies. Using a scale ranging from 1 (*extremely uncharacteristic of me*) to 5 (*extremely characteristic of me*), participants rated how strongly each of the statements apply to them. The scale consists of four factors: physical aggression (PA, “if somebody hits me, I hit back”); verbal aggression (VA, “I often find myself disagreeing with people”); anger (A; “when frustrated, I let my irritation show”); and hostility (H, “when people are especially nice, I wonder what they want”). The total score for aggression is the sum of the factor scores. Previous studies have demonstrated the four scales of the AQ have moderate-to-high internal consistencies (Harris, 1997). Internal consistencies of the AQ in the current study were acceptable. Cronbach’s α for the full scale equaled .91 and ranged from .74 for VA to .85 for PA.

The 12-item Competitive Aggressiveness and Anger Scale (CAAS; Maxwell & Moores, 2007) was used to measure sport specific aggression. The CAAS consists of two subscales of anger and aggression. Items include statements such as “I become irritable if I am disadvantaged during a match” and “It is acceptable to use illegal physical force to

gain an advantage,” measuring anger and aggression respectively. Ratings are made on a five-point scale with higher scores representing greater severity (1 = not at all severe to 5 = extremely severe). The authors report an internal consistency reliability of .83 for each of the two subscales. In the current study, Cronbach’s alpha for the CAAS equaled .87. The subscales of competitive anger and aggression had acceptable levels of reliability as well ($\alpha = .82$ and $.79$ respectively).

Ryckman, Hammer, Kaczor, and Gold’s (1990) 26-item Hypercompetitive Attitude Scale (HAS) was used as an assessment of excessive hypercompetitiveness. Respondents used a 5-point continuum ranging from 1 (never true of me) to 5 (always true of me). Items include statements such as “It’s a dog eat dog world,” “If you don’t get the better of others, they will surely get the better of you,” and “Failure or loss in competition makes me feel less worthy as a person.” The authors reported an internal consistency of .91 (Ryckman et al., 1990). Internal consistency for the current study was $\alpha = .81$.

Relations with other measures of sportpersonship were examined with the MSOS, a 25-item measure used to assess athletes’ orientations towards the sportpersonship dimensions (Vallerand et al., 1996), which provides scores for respect and concern for opponents (i.e., “I help the opponent get up after a fall”), respect for rules and officials (i.e., “I respect the rules”), respect for social conventions (i.e., “When I lose, I congratulate the opponent whoever he or she is”), respect for full commitment toward participation (i.e., “During practices, I go all out”), and a negative approach towards sport participation (i.e., “If I make a mistake during a crucial time of the match, I get angry”). Participants rated how self-descriptive each item is on a 5-point Likert-type scale ranging

from 1 (*does not correspond at all to me*) to 5 (*corresponds exactly to me*). Reliability has ranged from $\alpha = .54$ (McCutcheon, 1999; Ryska, 2003) for negative approach to sport participation to $\alpha = .86$ (Vallerand et al., 1997) for respect for social conventions. Similar to previous work internal consistency of the MSOS in the current study ranged from $\alpha = .51$ for negative approach to sport to $\alpha = .82$ for respect for social conventions.

The AMDYSQ (Lee et al., 2007), is a new measure of unsportspersonlike behavior that provides scores for Acceptance of Cheating (AC, i.e., “If other people are cheating, I think I can too”), Keeping Winning in Proportion (KWP, i.e., “Winning and losing are a part of life”), and Acceptance of Gamesmanship (AG, i.e., “I sometimes try to wind up the opposition”). Participants rated how much they agree or disagree with items on a five-point Likert-type scale ranging from 1 (*Strongly agree*) to 5 (*Strongly disagree*). Internal consistencies of these scales were marginally adequate ($\alpha = .73$; $\alpha = .75$; $\alpha = .60$, respectively, Lee et al., 2007) both in previous research and in the current study ($\alpha = .83$; $.66$; and $.68$).

The 44-item Big Five Inventory (BFI; John & Srivastava, 1999) was used to measure five broad personality traits – Openness (i.e., “I see myself as someone who is original, comes up with new ideas”), Conscientiousness (i.e., “I see myself as someone who does a thorough job”), Extraversion (i.e., “I see myself as someone who is talkative”), Agreeableness (i.e., “I see myself as someone who is helpful and unselfish with others”), and Neuroticism (i.e., “I see myself as someone who is depressed, blue”). BFI items were developed from definitions of expert and observer ratings of personality, and verified by subsequent factor analysis (John, 1990). Items are scored using a five-point, Likert scale that ranges from 1 (*disagree strongly*) to 5 (*agree strongly*). BFI scales

include 8–10 items each, and have demonstrated moderate to high internal consistency (range of $\alpha = .79$ to $.88$; median = $.82$) as well as substantial convergent and discriminant relations with other Big Five instruments (John & Srivastava, 1999). Internal consistencies of the personality traits measured by the BFI in the current study were unacceptably low (α range = $.24$ to $.61$, mean $\alpha = .45$).

The IIP-C, a 64-item inventory reflecting a wide range of interpersonal problems (Alden et al., 1990), was used to assess category level structural convergence. Two types of items are included in the IIP-C: interpersonal behaviors that are “hard for you to do” (e.g., “It is hard for me to trust people”) and interpersonal behaviors that “you do too much” (e.g., “fight with other people too much”). The 64 items make up eight scales (eight items each) that represent a circumplex of interpersonal problems around the dimensions of dominance and affiliation. In extensive previous research, the alpha coefficients for the eight scales ranged from $.72$ to $.85$, and the authors offer diverse evidence in support of the validity of the score meanings from this measure (Alden et al., 1990; Horowitz et al., 1988). In the current study, alpha coefficients for the eight scales ranged from $.71$ to $.84$.

The 40-item Balanced Inventory of Desired Responses (BIDR; Paulhus, 1991) was used to assess participants’ social desirability of responses. Participants indicated their agreement with the statements on a 7-point scale, ranging from 1 (*not true*) to 7 (*very true*). The BIDR includes two subscales, with the Impression Management (IM) subscale tapping the impression management dimension and the Self-Deception Enhancement (SDE) subscale tapping the self-deception dimension. Both subscales consist of 20 items. Sample items of the IM subscale include “I have received too much

change from a salesperson without telling him or her” and “I have some pretty awful habits.” Sample items of the SDE subscale include “I have not always been honest with myself” and “I never regret my decision.” The scale is counterbalanced so that there are equal numbers of positively and negatively keyed items. Internal consistency, measured by Cronbach’s alpha for both IM and SDE were low ($\alpha = .49, .65$ respectively).

Achievement motivation was assessed with the 2×2 Achievement Goals Questionnaire for Sport (AGQ-S; Conroy, Elliot, & Hofer, 2003). The AGQ-S provides scores for mastery-approach (i.e., “It is important to me to perform as well as I possibly can”), mastery-avoidance (“I worry that I may not perform as well as I possibly can”), performance-approach (“It is important to me to do well compared to others”), and performance-avoidance (“My goal is to avoid performing worse than everyone else”) achievement goals in sport. Participants were asked to reflect on their *current* goals for swimming and to rate each item on a scale ranging from *not at all true of me* (-3) to *very true of me* (+3). The AGQ-S scales have demonstrated acceptable internal consistency in both previous work (e.g., Conroy et al., 2003) as well as in the current study (α range = .79 to .84)

4.3 Hypotheses

A series of predictions were made regarding the construct validity of the SUB. First, according to the tenants of Interpersonal Theory, the structure of the SUB should have eight first-order factors representing the eight categories of interpersonal behavior and three second-order factors representing dominance, affiliation, and general unsportspersonlike behavior. Second, for the SUB to be an interpersonal measure, adjacent SUB categories should be positively correlated. In terms of the scale’s

interrelations, interpersonal unsportspersonlike behaviors are expected to be similar to one another to different degrees. Behaviors near each other on the interpersonal circle (i.e., hypercompetitive and melodramatic behaviors) should have similar meanings, so they are expected to be positively correlated. That is, people who strongly exhibit one behavior also tend to exhibit other nearby behaviors. Behaviors that are diametrically opposite one another (i.e., antisocial and abetting behavior) should have contrasting meanings, so they are expected to be either uncorrelated or negatively correlated. For example, interpersonal behaviors that typically accompany dominating behavior rarely accompany submissive behavior. Thus, the agentic and communal relation of these behaviors will tell us about their degree of correlation (Gurtman & Bakarishnan, 1998).

In addition to demonstrating an interpersonal structure, the SUB should demonstrate convergent validity with related measures. First, the SUB should be related to other measures of sportspersonship such as the AMDYSQ and the MSOS. As the SUB is being developed to measure a wider range of behaviors than has been previously examined, there are no related measures for some of the SUB categories. Additionally, for the previously measured categories, the items in the SUB are more directly interpersonal than previous measures. Although some relations are expected, they should be small to moderate in size. Detailed relations are listed in Table 6.

Second, the SUB categories should be related to the corresponding categories of the IIP-C as well as to personality measures such as the BFI. Inasmuch as the categories of unsportspersonlike behavior are interpersonal, they should be related to other interpersonal behaviors. As per Interpersonal Theory, the eight categories of the SUB and other measures of interpersonal behavior are variations of agentic and communal

behaviors. As such, each category of the SUB should be related to the corresponding category of the IIP-C. Detailed predictions are listed in Table 6.

In terms of personality, the traits of extraversion and agreeableness have often been examined in relation to Interpersonal Theory. These two traits – extraversion and agreeableness – are clearly linked to agency and communion (e.g., McCrae & Costa, 1989). However, as there is no research to date examining personality and sportpersonship, all predictions were based on the pilot studies and other research examining relations between big five personality traits and circumplex measures (e.g., Schmidt, Wagner, & Kiesler, 1999). Dominant behaviors were expected to be positively related to extraversion whereas submissive behaviors were expected to be negatively related to extraversion. Hostile behaviors were expected to be negatively related to agreeableness and affiliative behaviors were expected to be positively related to agreeableness.

The third series of predictions relate to the concurrent validity of the SUB. Specifically, interpersonal unsportpersonlike behaviors should be related to participants' achievement motivation. Tentative hypotheses are made based both on past research examining achievement orientations and sportpersonship and results from pilot studies 2 and 3. Overall, it is predicted that interpersonal unsportpersonlike behavior should be negatively related to mastery-approach goals and positively related to performance goals.

Finally, the SUB should demonstrate discriminate validity. Along these lines, it is predicted that interpersonal unsportpersonlike behavior should be unrelated to socially desirable responses. These hypotheses are detailed in Table 6.

Table 6. Detailed Predictions Between Category Scores and Related Measures

Category	Predicted Relationship	
	Positive	Negative
Hypercompetitive	HAS AMDYSQ Approach-valenced goals (AGQ-S) Domineering (IIP-C)	Nonassertive (IIP-C)
Intimidating	HAS AQ CAAS Approach-valenced goals (AGQ-S) Vindictive (IIP-C)	Exploitable (IIP-C)
Antisocial	AQ CAAS Cold (IIP-C)	Overly Nutrient (IIP-C)
Disrespectful	Performance-avoidance goals (AGQ-S) Socially Avoidant (IIP-C)	Respect for social conventions (MSOS) Respect and concern for the opponent (MSOS) Intrusive (IIP-C)
Acquiescent	Nonassertive (IIP-C)	Domineering (IIP-C)

(table continues)

Table 6. (continued)

Category	Predicted Relationship	
	Positive	Negative
Overly Deferential	Exploitable (IIP-C)	Vindictive (IIP-C)
Abetting	Overly Nurturant (IIP-C)	Respect and concern for the opponent (MSOS) Cold (IIP-C)
Melodramatic	Negative approach toward the practice of sport (MSOS) Intrusive (IIP-C)	Socially Avoidant (IIP-C)

Note. AGQ-S = Achievement Goal Questionnaire for Sport; AMDYSQ = Attitudes of Moral Decision-making in Youth Sport Questionnaire; CAAS = Competitive Anger and Aggression Scale; HAS = Hypercompetitive Attitudes Scale; IIP-C = Inventory of Interpersonal Problems Circumplex; MSOS = Multidimensional Sportspersonship Orientation Scale

4.4 Results

4.4.1 Preliminary analyses. Before testing the factor structure and validity of the SUB, a two-stage process was used to select the items most effective at measuring their respective interpersonal category and for use in subsequent model testing. First, the internal consistency (using Cronbach's α) of the full scale and the eight subscales was examined. Since reliability is a necessary condition for validity (Nunnally, 1978), reporting of internal consistency is a required part of the scale development process (Hinkin, 1995). Internal consistency (α) for the full SUB was .93 and ranged from .72 to

.81 for the eight subscales. Factor reliability coefficients, as well as item means and standard deviations are detailed in Table 7. But, internal consistency is not a sufficient condition for homogeneity or unidimensionality. Accordingly, the average interitem correlation (which is a straightforward measure of internal consistency) is a more useful index than α . Thus, any item that was correlated less than .15 with the other items in its category was dropped (Clark & Watson, 1995). Based on these analyses five to seven items per factor were selected (48 items in all) and used in subsequent analyses. In all, these preliminary tests resulted in the retention of 42 items for further testing.

Table 7. Scale Items, Descriptive Statistics, and α Coefficients

Category	Item	M (SD)	α 1	α 2
Hypercompetitive			.74	.72
	HYP1 It is easy for me to strive for personal success at any cost in a competition.	2.49 (1.22)		
	HYP2 In a competition, it is easy for me to put my chance for victory before the success of others.	2.49 (1.11)		
	HYP3 It is easy for me to bend or break the rules if it would help me to win.	1.64 (0.97)		
	HYP4 It is easy for me to compete with others so that I can win at any cost.	2.21 (1.23)		
	HYP5 It is easy for me to justify cheating when my success is on the line.	1.66 (0.94)		
	HYP6 When competing, it is easy for me put my personal success before that of others.	2.82 (1.23)		
	HYP7 In a competition, it is hard for me to put others' interests in succeeding before my own.	2.63 (1.11)		

(table continues)

Table 7. (continued)

Category	Item	M (SD)	α 1	α 2
Intimidating			.74	.74
INT1	It is hard for me to refrain from retaliating against an opponent to settle a score.	2.41 (1.20)		
INT2	When winning is at stake, it is easy for me to deliberately inflict pain on others in a competition.	1.87 (1.14)		
INT3	When winning is at stake, it is easy for me to threaten others who block my goals.	2.30 (1.19)		
INT4	It is easy for me to retaliate against others when I've been wronged in a competition.	2.49 (1.16)		
INT5	It is easy for me to exploit other competitors for personal gains in a competition.	2.09 (1.13)		
INT6	<i>It is hard for me to resist taking a cheap shot against an opponent to gain an advantage in a competition.</i>	1.97(1.11)		
ANT1	It is hard for me to support a teammate who might outperform me in a competition.	1.64 (0.86)		
ANT2	When winning is at stake, it is hard for me to be supportive of others if it will reduce my chances for success.	2.15 (1.03)		
ANT3	It is hard for me to share credit with others for successes.	1.45 (0.79)		
ANT4	It is hard for me to cooperate with others during a competition.	1.46 (0.75)		
ANT5	When success is on the line, it is hard for me to sacrifice my performance by working with others.	1.93 (0.98)		
ANT6	<i>It is easy for me to dismiss others' accomplishments in a competition.</i>	1.86 (0.90)		

(table continues)

Table 7. (continued)

Category	Item	M (SD)	α 1	α 2
Disrespectful			.72	.72
DIS1	It is easy for me to display myself as easily beatable to undermine opponents' efforts in a competition.	2.37 (1.17)		
DIS2	It is easy for me to forfeit a competition to avoid sure defeat.	1.66 (1.05)		
DIS3	In a close competition, it is easy for me to fake an injury to deny others the opportunity to outperform me.	1.58 (1.00)		
DIS4	It is easy for me to create obstacles for myself so I have ready excuses in case I lose a competition.	1.86 (0.99)		
DIS5	It is easy for me to make-up excuses for my losses.	2.03 (1.05)		
DIS6	<i>It is easy for me to withhold support from others during a competition.</i>	1.84 (1.02)		
Acquiescent			.78	.81
ACQ1	It is hard for me to assert myself when I am being taken advantage of in a competition.	2.46 (1.24)		
ACQ2	It is hard for me to protect my rights to a fair competition.	2.30 (1.41)		
ACQ3	It is hard for me to defend my rights to a fair competition when they are threatened.	2.33 (1.32)		
ACQ4	It is hard for me to stand up for what I think is right during a competition.	2.23 (1.34)		
ACQ5	It is easy for me to overlook situations where opponents compete unfairly.	1.78 (1.01)		
ACQ6	<i>When competing, it is easy for me to ignore bad calls that unjustly disadvantage me.</i>	2.03 (1.08)		

(table continues)

Table 7. (continued)

Category	Item	M (SD)	α 1	α 2
Overly Deferential				.79
OVR1	In a competition, it is easy for me to sabotage my performance to help someone else shine.	1.73 (0.98)		
Overly Deferential				
OVR2	It is easy for me to sacrifice my performance for the good of others in a competition.	2.11 (1.00)		
OVR3	It is easy for me to neglect my performance in the interest of another competitor's success.	1.88 (1.02)		
OVR4	It is easy for me to forfeit a match to let another competitor who needs the victory win.	1.70 (1.11)		
OVR5	It is easy for me to withhold effort in a competition to benefit another person.	1.91 (1.05)		
Abetting				.76
ABT1	It is hard for me to stop myself from helping another person bend the rules in a competition.	2.17 (1.28)		
ABT2	It is easy for me to help others to bend or break the rules in a competition.	1.67 (0.98)		
ABT3	It is easy for me to help a friend gain an unfair advantage to ensure their success in a competition.	1.72 (0.95)		
ABT4	It is easy for me to illegally increase another person's chance for victory in a competition.	1.34 (0.73)		
ABT5	It is hard for me to turn down a request to help someone gain an unfair advantage in a competition.	2.28 (1.37)		
ABT6	It is hard for me to resist helping someone gain an unfair advantage in a competition.	2.20 (1.30)		

(table continues)

Table 7. (continued)

Category	Item	M (SD)	α 1	α 2
Melodramatic			.75	.76
MLD1	It is hard for me to maintain my composure so I don't create a scene when winning is at stake.	2.50 (1.24)		
MLD2	When winning is at stake, it is hard for me to keep from attracting others attention with my emotional displays.	2.19 (1.20)		
MLD3	It is hard for me to exhibit self-control so I don't distract my opponent's attention in a competition.	2.25 (1.16)		
MLD4	It is hard for me to refrain from distracting my opponent by overreacting during competitions.	2.07 (1.13)		
MLD5	When competing, it is easy for me to attract attention by overreacting to my mistakes.	1.85 (1.00)		
<i>MLD6</i>	<i>In a close competition, it is easy for me to dramatize fouls or injuries.</i>	<i>2.11 (1.11)</i>		

Note. Italicized items were dropped; α 1 = internal consistency of subscale before items were dropped; α 2 = internal consistency of subscale after items were dropped.

4.4.2 Confirmatory factor analysis. The next step involved using confirmatory factor analysis (CFA) to test the fit of a series of models. CFA is a data reduction technique that assesses the interrelationships among a set of variables in an effort to find a new, more limited, set of variables that expresses what is common among the original variables. It also provides a complete and unified system for testing *a priori* models (Dillon & Goldstein, 1984). The main applications of CFA techniques are: (1) to reduce the number of variables, and (2) to detect structure in the relationships between variables; that is, to classify variables. Therefore, CFA is applied both for data reduction and

structure detection because (1) it offers a rigorous test of the plausibility of the factor structure, and (2) is the most appropriate method for confirming hypothesized factor structures (e.g., Fabrigar, Wegener, MacCallum, & Strahan, 1999).

It is critical that the measurement of each latent variable is psychometrically sound before examining a full structural equation model. Thus, an important preliminary step in the analysis of full latent variable models is to test first for the validity of the measurement model before making any attempt to evaluate the structural model.

Accordingly, CFA procedures are used in testing the validity of the indicator variables. Once it is established that the measurement model is adequate, findings related to the assessment of the hypothesized structural model are better supported (Bryne, 2001). As such, the first step of CFA analysis, in accordance with the two-step approach advocated by Anderson and Gerbing (1988), separate CFA's were performed on each of the eight category scales to obtain close-fitting scales that will then serve as a foundation for the eight-factor model.

CFA analyses were performed with AMOS 16.0 (Arbuckle, 2006). Testing CFA with Structural Equation Modeling (SEM) relies on several statistical tests to determine the adequacy of model fit to the data. A combination of absolute (i.e., χ^2 , RMSEA) and relative (i.e., NFI, NNFI, CFI) fit indices were used to evaluate goodness of fit for the model. Values above .90 for the latter indices typically indicate good model fit, whereas values above .95 indicate excellent fit (Bentler, 1990). RMSEA values of .08, .05, and .00 were interpreted as indicating acceptable, good, and exact fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). Fit indices for these models are listed in Table 8. Based on these

analyses the five to six items with the highest loadings on their respective factor were retained.

Table 8. Individual Category Measurement Model Fit

Category	Item	R ²	SMC	χ^2 (<i>df</i>)	NFI	NNFI	CFI	RMSEA (90% CI)
Hypercompetitive				51.44 (9)**	0.84	0.85	0.86	.12 (.09-.15)
	Hyp1	.61	.37					
	Hyp2	.58	.34					
	Hyp3	.55	.30					
	Hyp4	.54	.29					
	Hyp5	.64	.41					
	Hyp6	.38	.15					
Intimidating				22.29 (5)**	0.93	0.88	0.94	.10 (.06-.15)
	Int1	.48	.23					
	Int2	.58	.34					
	Int3	.53	.28					
	Int4	.67	.44					
	Int5	.70	.49					
Antisocial				19.23 (5)**	0.97	0.95	0.98	.09 (.05-.14)
	Ant1	.77	.60					
	Ant2	.49	.24					
	Ant3	.86	.73					
	Ant4	.69	.48					
	Ant5	.66	.43					

(table continues)

Table 8. (continued)

Category	Item	R ²	SMC	χ^2 (df)	NFI	NNFI	CFI	RMSEA (90% CI)
Disrespectful				6.12 (5)	0.98	0.99	0.99	.03 (.00-.09)
	Dis1	.25	.06					
	Dis2	.61	.38					
	Dis3	.67	.44					
	Dis4	.65	.42					
	Dis5	.72	.52					
Acquiescent				11.57 (5)*	0.98	0.98	0.99	.06 (.01-.11)
	Acq1	.69	.48					
	Acq2	.89	.79					
	Acq3	.80	.63					
	Acq4	.80	.64					
	Acq5	.27	.07					
Overly Deferential				12.95 (5)*	0.97	0.96	0.98	.07 (.02-.12)
	Ovr1	.63	.40					
	Ovr2	.68	.46					
	Ovr3	.75	.56					
	Ovr4	.53	.28					
	Ovr5	.69	.47					
Abetting				167.31(9)**	0.71	0.53	0.72	.23 (.22-.32)
	Abt1	.71	.62					
	Abt2	.79	.63					
	Abt3	.79	.14					
	Abt4	.37	.10					
	Abt5	.31	.11					
	Abt6	.33	.50					

(table continues)

Table 8. (continued)

Category	Item	R ²	SMC	χ^2 (df)	NFI	NNFI	CFI	RMSEA (90% CI)
Melodramatic				2.25 (5)	0.99	1.01	1.01	.01 (.00-.32)
	Mld1	.75	.57					
	Mld2	.78	.60					
	Mld3	.79	.63					
	Mld4	.70	.49					
	Mld5	.42	.18					

Note. SMC = squared multiple correlation; NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation; CI = confidence interval.

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

With the exception of the abetting factor, all models had acceptable fit. It seems that the items comprising the abetting factor loaded onto two factors better than one factor. This may have been due of the wording of the items – three items assessed how easy abetting behaviors were and the other three items assessed how hard it was to engage in abetting behaviors. Alpha was calculated for each grouping. For the two scales, one of the three hard items and one of the three easy items, α was .81 and .73 respectively. However, it has been suggested that to interpret a factor, more than three items are needed to load on to it (Pedhazur & Schmelkin, 1991). Accordingly (and because my interest was in a one-factor solution), individual CFA models for each of these two potential abetting factors were not calculated. In the full model, however, abetting behavior was modeled by these two factors, rather than the ill-fitting one-factor model.

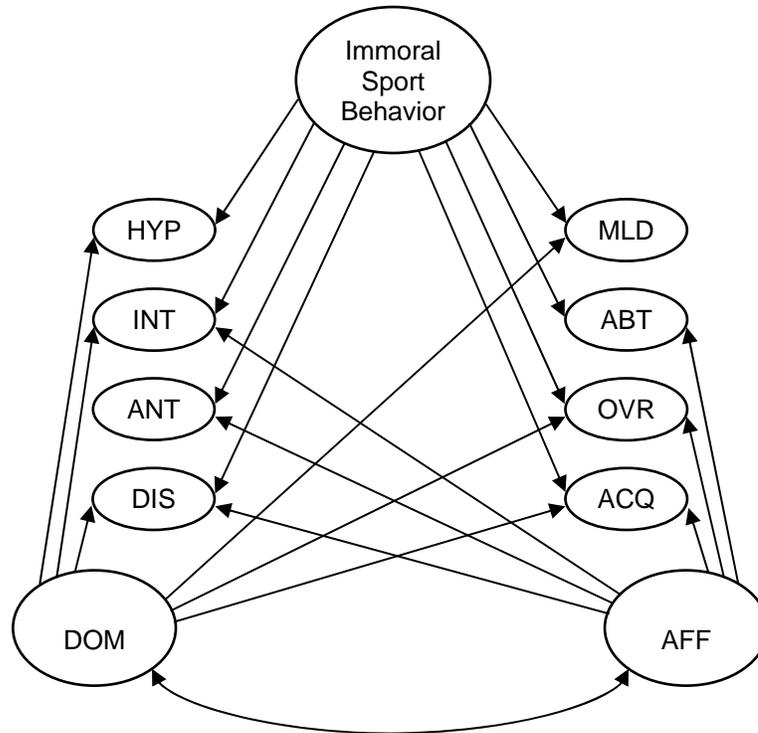


Figure 4. Simplified Structural Model of Interpersonal Unsportspersonlike Behavior

Note. HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic; DOM=Dominance; AFF=Affiliation.

As discussed previously, Interpersonal Theory identifies eight categories of interpersonal behavior that vary in dominance and affiliation, implying that the construct is multidimensional. Thus, the scale is expected to have eight dimensions representing interpersonal unsportspersonlike behavior. Formulation of the hypothesized model shown in Figure 4 was derived from the principle of Interpersonal Theory that holds that interpersonal behavior varies in dominance and affiliation. In this model, unsportspersonlike behavior is represented as a multidimensional construct with hypercompetitive behavior (Hyp), intimidating behavior (Int), antisocial behavior (Agg),

disrespectful behavior (Dis), acquiescent behavior (Acq), overly accommodating behavior (Ovr), abetting behavior (Abt), and melodramatic behavior (Mld) operating as distinct factors. Although not shown in Figure 2, each of the items was loaded onto their specified factor. In addition, dominance and affiliation along with a general unsportspersonlike behavior factor are also represented by these factors.

To examine the hypothesized structure and to rule out alternative structures, a series of models were tested. The first analysis examined the fit of a one-factor model where all items loaded onto a single higher order dimension of unsportspersonlike behavior. In accordance with Interpersonal Theory, the results showed an inadequate fit of the model to the data (Table 9, row 1) suggesting the need for respecification. The second analysis then tested the fit of items loading onto higher order factors of dominance and affiliation as specified by Interpersonal Theory. As expected, the results showed an inadequate fit of the model to the data (Table 9, row 2) again suggesting the need for respecification. The third analysis examined a correlated eight-factor model where all items loaded onto their respective category of unsportspersonlike behavior. Initial results indicated that four items (Hyp6, Dis1, Acq5, and Mld5), although significant, had error values that accounted for more of the variance in the model than the items themselves. As a result, these items were deleted and the model was retested. Results indicated this model had acceptable fit (Table 9, row 3).

Based on these results the next step was to test whether the eight-factor model was both unsportspersonlike and interpersonal. The first model tested the uncorrelated eight-factor model loading onto a higher order of unsportspersonlike behavior. Again, results demonstrated only marginal fit (Table 9, row 4). The second model examined the

theorized eight-factor model with higher order factors of dominance and affiliation. The results improved slightly from that of the previous model (Table 9, row 5), but were still only marginally acceptable. The third model tested the theorized model (as displayed in Figure 2) with the eight factors loading onto unsportspersonlike behavior as well as dominance and affiliation. In accordance with Interpersonal Theory, this model had the best fit of the three higher-order models (Table 9, row 6).

Table 9. Structural Model Fit Indices

	χ^2 (df)	NFI	NNFI	CFI	RMSEA (90% CI)
1-Factor	3374.92 (665)**	.47	.49	.52	.10(.10-.11)
2-Factor	3062.26 (647)**	.52	.53	.57	.09(.09-.10)
8-Factor	1271.76 (629)**	.81	.87	.89	.05(.04-.06)
8-Factor 1	1934.87 (656)**	.69	.76	.77	.07(.07-.08)
8-Factor 2	1853.68 (651)**	.71	.77	.79	.07(.07-.08)
8-Factor 3	1284.63 (424)**	.80	.87	.88	.06(.05-.06)

Note. 1-Factor = Elevation; 2-Factor = Affiliation & dominance; 8-Factor 1 = 8-categories correlated; 8-Factor 2 = 8-categories with higher order factor of elevation; 8-Factor 3 = 8-categories with higher order factors of affiliation, dominance, and elevation; SMC = squared multiple correlation; NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation; CI = confidence interval.

** = $p < .01$

In summary, the eight-factor correlated model produced results similar to those of the second-order model and achieved an acceptable level of fit for all the indices. However, the theorized second-order model appeared to combine the best fit with the most interpretable and theoretically-sensible model parameters providing support the

content validity of the SUB. Thus, 38-item eight-factor model with higher order factors of general unsportspersonlike behavior and affiliation and dominance combined the best fit to the data, outperforming both the one-factor and two-factor higher order models. These 40-items were used to represent the SUB throughout the rest of this study.

4.4.3 Convergent validity among unsportspersonlike behaviors. Convergent validity between the various unsportspersonlike measures and the SUB were also examined. More specifically, convergent validity was determined by examining correlations between SUB scores and the scores of the various measures which were predicted to be related to categories of the SUB (i.e., MSOS, AMDYSQ, AQ, CAAS, HAS). Cronbach's alpha was calculated for each scale and listed in Table 10. Reliability (α) ranged between the scales from .24 for the agreeableness subscale of the BFI to .91 for the AQ. Reliability was unacceptable across the subscales of the BFI as well as for the negative approach subscale of the MSOS. In addition it appeared that, although the BIDR demonstrated acceptable reliability as a whole scale, the subscales did not. As such, all BFI, negative approach, self-deceptive enhancement, and impression management subscales were dropped from further analysis.

The criterion for convergent validity between these measures and SUB scores was correlations that were significantly and substantially different from zero. "Substantial" magnitude can vary, of course. In attempting to see how the SUB compares to measures of similar constructs, lower end correlations were expected, because different measures are being compared (even when they are measuring the same construct). In other words, significant correlations between like constructs were expected, but these should not be

“perfect” correlations, and as the SUB was developed to measure unsportspersonlike behavior differently and more effectively than previous measures.

As can be seen from the correlations in Table 11, substantial convergent validity coefficients were obtained for nearly all of the measures. Significant correlations ranged from $-.37$ to $.53$. Most notably, dominant and hostile SUB behaviors were more related to measures of unsportspersonlike behavior than the submissive and affiliative categories of SUB behavior. This was expected as other measures of unsportspersonlike behavior do not assess submissive or affiliative behaviors.

These relationships, although informative, may be confounded by the general factor of unsportspersonlike behavior (i.e., an indication that participants reported elevated responses across all categories of the SUB). By controlling for general unsportspersonlike behavior, the relationships between individual categories of unsportspersonlike behavior and related factors can be more clearly examined. It is common to ipsatize participants' scores on interpersonal measures loading onto a general factor, to control for that general factor (Alden et al., 1990). As such, the next step of the validation process was to ipsatize SUB scores in an attempt to control for the general unsportspersonlike behavior factor; thus, a subject's transformed score on a given item reflects the extent to which the behavior is considered unsportspersonlike by that participant, relative to the other SUB items. Essentially, the ipsatization process removes variance that is not interpersonal in nature (Wiggins, Steiger, & Gaelick, 1981).

Table 10. Chapter Four and Five Scale Reliability Estimates

Measure	α	
	Chapter 4	Chapter 5
AMDYSQ		
Acceptance of Cheating	.83	.78
Keeping Winning in Proportion	.66	.86
Acceptance of Gamesmanship	.68	.68
AQ	.91	.88
Physical Aggression	.85	.71
Verbal Aggression	.74	.73
Hostility	.78	.79
Anger	.78	.63
AGQ-S		
Performance-approach	.79	.82
Mastery-approach	.81	.82
Performance-avoidance	.78	.78
Mastery-avoidance	.84	.84
BFI		
Extraversion	.61	.64
Agreeableness	.24	.34
Conscientiousness	.27	.35
Neuroticism	.58	.63
Openness	.53	.76
BIDR	.70	.67
Self-deceptive Enhancement	.65	.50
Impression Management	.49	.65

(table continues)

Table 10. Chapter Four and Five Scale Reliability Estimates

Measure	α	
	Chapter 4	Chapter 5
CAAS	.87	.88
Competitive Anger	.82	.82
Competitive Aggression	.79	.88
HAS	.81	.84
IIP-C		
PA	.77	.79
BC	.77	.80
DE	.80	.87
FG	.84	.85
HI	.87	.87
JK	.77	.75
LM	.73	.75
NO	.71	.75
MSOS		
Respect for Social Conventions	.82	.83
Respect for Rules and Officials	.78	.73
Respect for Commitment	.80	.75
Respect for Others	.78	.74
Negative Approach	.51	.42

Note. CAAS = Competitive Anger and Aggression Scale; AQ = Aggression Questionnaire; HAS = Hypercompetitive Attitudes Scale; MSOS = Multidimensional Sportspersonship Scale; AMDYSQ = Attitudes toward Moral Decisions in Youth Sport Questionnaire; BIDR = Balanced Inventory of Desirable Responding; AGQ-S = Achievement Goal Questionnaire for Sport; IIP-C = Inventory of Interpersonal Problems – Circumplex; BFI = Big Five Inventory.

Table 11. Convergent Validity Correlations Between SUB Scores and Related Measures

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. HYP	1.00												
2. INT	.70**	1.00											
3. ANT	.73**	.73**	1.00										
4. DIS	.53**	.50**	.58**	1.00									
5. ACQ	.13*	.10 [†]	.16**	.19**	1.00								
6. OVR	.32**	.39**	.40**	.48**	.24**	1.00							
7. ABT	.41**	.46**	.49**	.46**	.61**	.42**	1.00						
8. MLD	.48**	.53**	.54**	.40**	.49**	.35**	.67**	1.00					
9. SUB	.73**	.78**	.78**	.69**	.56**	.62**	.80**	.78**	1.00				
10. RSC	-.28**	-.29**	-.35**	-.32**	-.15**	-.14*	-.27**	-.22**	-.36**	1.00			
11. RRO	-.37**	-.45**	-.42**	-.31**	.01	-.23**	-.34**	-.30**	-.42**	.61**	1.00		
12. RC	-.18**	-.22**	-.28**	-.42**	-.19**	-.30**	-.35**	-.31**	-.40**	.62**	.57**	1.00	
13. RO	-.18**	-.25**	-.23**	-.09	.00	.03	-.09	-.12*	-.18*	.52**	.40	.31	1.00
14. NA	.21**	.15**	.27**	.35**	.06	.08	.19	.22**	.22**	-.14*	-.17**	-.15**	.09

(table continues)

Table 11. (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13
15. MSOS	-.26**	-.33**	-.33**	-.26**	-.09	-.17**	-.27**	-.25**	-.36**	.83**	.76**	.73**	.73**
16. PAgg	.38**	.44**	.48**	.26**	.04	.11	.28**	.28**	.37**	-.27**	-.39**	-.16**	-.14*
17. VAgg	.32**	.30**	.37**	.20**	-.10	.06	.15**	.23**	.24**	-.20**	-.35**	-.10	-.09
18. H	.29**	.22**	.31**	.25**	.02	.16**	.18**	.16**	.27**	-.16**	-.24**	-.07	-.11 [†]
19. Ang	.34**	.35**	.39**	.28**	.04	.11 [†]	.20**	.26**	.32**	-.29**	-.38**	-.22**	-.12*
20. AQ	.41**	.42**	.49**	.29**	-.01	.13*	.24**	.31**	.37**	-.28**	-.43**	-.16**	-.13*
21. CAng	.46**	.52**	.45**	.27**	-.01	.03	.21**	.30**	.39**	-.20**	-.40**	-.13*	-.24**
22. CAgg	.47**	.65**	.57**	.38**	.04	.29**	.41**	.38**	.55**	-.34**	-.50**	-.25**	-.24**
23. CAAS	.53**	.68**	.59**	.37**	.03	.17**	.35**	.40**	.54**	-.31**	-.51**	-.24**	-.29**
24. AC	-.28**	-.28**	-.27**	-.33**	-.24**	-.16**	-.36**	-.25**	-.38**	.35**	.34**	.41**	.23**
25. KWP	.26**	.23**	.25**	.22**	.18**	.06	.31**	.22**	.28**	-.26**	-.23**	-.26**	-.11*
26. AG	-.27**	-.39**	-.31**	-.24**	-.02	-.14*	-.19**	-.24**	-.32**	.11 [†]	.29**	.11 [†]	.13*
27. HAS	.43**	.48**	.44**	.30**	.04	.00	.25**	.29**	.40**	-.22**	-.33**	-.10	-.24**

(table continues)

Table 11. (continued)

	14	15	16	17	18	19	20	21	22	
14. NA	1.00									
15. MSOS	.16**	1.00								
16. PAgg	.29**	-.23**	1.00							
17. VAgg	.22**	-.17**	.54**	1.00						
18. H	.15**	-.14*	.42**	.45**	1.00					
19. Ang	.34**	-.22**	.65**	.47**	.49**	1.00				
20. AQ	.36**	-.22**	.85**	.77**	.71**	.82**	1.00			
21. CAng	.25**	-.24**	.42**	.41**	.39**	.47**	.53**	1.00		
22. CAgg	.22**	-.36**	.57**	.36**	.28**	.42**	.53**	.57**	1.00	
23. CAAS	.26**	-.36**	.56**	.43**	.36**	.49**	.59**	.89**	.89**	1.00

(table continues)

Table 11. (continued)

	14	15	16	17	18	19	20	21	22	23	24	25	26
24. AC	-.16**	.37**	-.24**	-.14*	-.13*	-.24**	-.24**	-.15*	-.24**	-.25**	1.00		
25. KWP	.27**	-.20**	.31**	.10	.13*	.29**	.27**	.16**	.26**	.26**	-.53**	1.00	
26. AG	-.13*	.16**	-.27**	-.33**	-.19**	-.19**	-.32**	-.32**	-.32**	-.37**	.31**	-.09	1.00
27. HAS	.34**	-.19**	.38**	.41**	.38**	.45**	.50**	.64**	.41**	.60**	-.21**	.26**	-.34**

Note. HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic; RSC=Respect for social conventions; RRO=Respect for rules and officials; RO=Respect for opponents; NA=Negative approach toward participation; MSOS=Sportsmanship; VAgg=Verbal aggression; Ang=Anger; H=Hostility; AQ=General Aggression; HAS=Hypercompetitive attitudes.

† = $p < .08$. * = $p < .05$. ** = $p < .01$.

As detailed in Table 12, convergent validity predictions were reasonably supported. Controlling for generalized unsportspersonlike behavior, ipsatized results indicated that in general, the SUB categories were tapping the intended behaviors. Hypercompetitive behavior scores were significantly positively related to hypercompetitive attitude scores ($r = .20, p < .01$). Intimidating behavior scores were most significantly positively related to both general and sport aggression scores ($r = .24$ to $r = .51, p < .01$). Antisocial behavior scores were significantly negatively related to competitive anger scores ($r = -.13, p < .05$). Disrespectful behavior scores were most significantly related to a negative approach to participation and to low respect for commitment ($r = .20, p < .01$; $r = -.14, p < .05$ respectively). Acquiescent behavior scores, while unrelated to many of the other measure in the full correlation, were significantly positively related to a respect for rules and officials ($r = .29, p < .01$) and low sport and general aggression ($r = -.19$ to $r = -.34, p < .01$). Overly deferential behavior scores were most significantly related to respect for others ($r = .21, p < .01$) and low competitive anger and hypercompetitive attitudes ($r = -.32$; $-.37, p < .01$ respectively). Abetting behavior scores were most significantly related to keeping winning in proportion and low competitive anger ($r = .13$; $-.14, p < .05$ respectively). Finally, melodramatic behavior scores, contrary to predictions, were significantly positively related to competitive anger and aggression scores ($r = .13, p < .05$).

In general, there were significant, though modest, relationships between the SUB scores and other measures of unsportspersonlike behavior. Relationships between the SUB categories of unsportspersonlike behavior and hypothesized subscales of other measures were generally as predicted, with the exception of melodramatic behavior

scores which were more hostile than predicted. The overall correlation between the full scales (i.e., SUB and MSOS, AQ, CAAS, HAS) were all significant ($p < .01$) demonstrating that unsportspersonlike behavior can be assessed more broadly than previous measures.

Table 12. Ipsatized SUB Category and Related Unsportspersonlike Behavior Correlations

	1	2	3	4	5	6	7	8
1. iHYP	1.00							
2. iINT	.29**	1.00						
3. iANT	-.35**	-.31**	1.00					
4. iDIS	.04	-.05	-.42**	1.00				
5. iACQ	-.48**	-.55**	.57**	-.34**	1.00			
6. iOVR	-.23**	-.21**	-.29**	.10	-.14*	1.00		
7. iABT	-.42**	-.26**	.38**	-.29**	.31**	-.19**	1.00	
8. iMLD	-.26**	-.13*	.47**	-.46**	.19**	-.34**	.21**	1.00
9. RSC	-.01	-.15*	-.01	-.05	.05	.15*	-.02	-.04
10. RRO	-.08	-.30**	.06	.02	.29**	.09	-.06	-.08
11. RC	.17**	-.03	.00	-.14*	.07	-.03	-.06	-.12*
12. RO	-.07	-.19**	-.03	.05	.07	.21**	.02	-.09
13. NA	.04	.03	.00	.20**	-.14*	-.09	-.07	.03
14. MSOS	.01	-.20**	.00	.02	.11	.12*	-.05	-.11 [†]
15. PAgg	.14*	.36**	-.09	-.04	-.24**	-.20**	-.02	.03
16. VAgg	.17**	.24**	-.10	.02	-.29**	-.15*	-.04	.10
17. H	.13*	.10	-.08	.09	-.19**	-.01	-.03	-.02
18. Ang	.15*	.29**	-.13*	.03	-.20**	-.15*	-.09	.03

(table continues)

Table 12. Ipsatized SUB Category and Related Unsportsmanlike Behavior Correlations

	1	2	3	4	5	6	7	8
19. AQ	.19**	.34**	-.11	.01	-.30**	-.17**	-.07	.05
20. CAng	.25**	.43**	-.08	-.03	-.29**	-.32**	-.14*	.12 [†]
21. CAgg	.08	.43**	-.13*	-.06	-.31**	-.14*	.02	.09
22. CAAS	.19**	.51**	-.10	-.07	-.34**	-.28**	-.08	.13*
23. AC	.03	-.11 [†]	-.02	-.02	-.03	.14*	-.09	-.08
24. KWP	.07	.10	.08	-.05	.01	-.18**	.13*	.05
25. AG	-.04	-.21**	.06	.00	.13*	.12*	.03	-.08
26. HAS	.20**	.31**	-.01	.03	-.20**	-.37**	-.01	.09

Note. iHYP=ipsatized Hypercompetitive; iINT=ipsatized Intimidating; iANT=ipsatized Antisocial; iDIS=ipsatized Disrespectful; iACQ=ipsatized Acquiescent; iOVR=ipsatized Overly Deferential; iABT=ipsatized Abetting; iMLD=ipsatized Melodramatic; RSC=Respect for social conventions; RRO=Respect for rules and officials; RO=Respect for opponents; NA=Negative approach toward participation; MSOS=Sportsmanship; VAgg=Verbal aggression; Ang=Anger; H=Hostility; AQ=General Aggression; HAS=Hypercompetitive attitudes.

[†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

4.4.4 Convergent validity among interpersonal behaviors. Having provided support for the validity of the unsportsmanlike like nature of the SUB, convergent validity between the SUB and the IIP-C were next examined in an attempt to initially validate the interpersonal nature of the SUB. Convergent validity was determined by examining correlations between SUB category scores and the scores of the IIP-C octants, as they were predicted to relate to the categories of the SUB. To the extent to which interpersonal behaviors reflect interpersonal unsportsmanlike behaviors, the SUB categories should be related to corresponding categories of interpersonal problems. Table

13 shows the correlations between the subscales of the SUB and IIP-C generally confirmed to these predictions as well. Specifically, IIP-C dominance, vindictive, and nonassertive scores had their highest positive correlation with hypercompetitive ($r = .41, p < .01$), intimidating ($r = .48, p < .01$), and acquiescent ($r = .31, p < .01$) behavior scores respectively. IIP-C cold, socially inhibited, and intrusive scores had correlations of a similar magnitude with antisocial ($r = .38, p < .01$), disrespectful ($r = .31, p < .01$), and melodramatic ($r = .42, p < .01$) behavior scores respectively. Correlations between IIP-C overly accommodating scores and overly deferential behavior scores as well as between IIP-C self-sacrificing scores and abetting behavior scores were slightly lower ($r = .24; .19, p < .01$ respectively).

Results examining the ipsatized categories of interpersonal unsportsmanlike and interpersonal behavior are detailed in the upper half of Table 13 and conform to most predictions. Hypercompetitive behavior scores were significantly negatively related to scores of nonassertive interpersonal problems ($r = -.12, p < .05$) although, unrelated to the predicted domineering interpersonal problem scores. Intimidating behavior scores met the predicted pattern of relations in that they were significantly positively related to vindictive interpersonal problem scores ($r = .18, p < .01$) and negatively related to overly accommodating interpersonal problem scores ($r = -.28, p < .01$). Antisocial behavior scores did not meet the predicted pattern of relationships, but instead were negatively related to domineering ($r = -.20, p < .01$) and intrusive interpersonal problem scores ($r = -.13, p < .05$). Disrespectful behavior scores were positively related to overly accommodating interpersonal problem scores as predicted. Contrary to predictions, however, it was also positively, rather than negatively related to intrusive interpersonal

problem scores ($r = .21$; $16, p < .01$ respectively). Acquiescent behavior scores met the predicted pattern of relationships with positive and negative relations to nonassertive and domineering interpersonal problem scores respectively ($r = .18$; $-.22, p < .01$). Overly deferential behavior scores were positively related to accommodating interpersonal problem scores ($r = .21, p < .05$). Abetting behavior scores did not meet the predicted pattern of relationships in that they were unrelated to cold and self-sacrificing interpersonal problem scores. Finally, Melodramatic behavior scores were negatively related to socially-inhibited interpersonal problem scores ($r = -.17, p < .01$), as predicted, but unrelated to IIP-C NO scores. Overall, this pattern of relationships suggests a strong interpersonal nature to the SUB, although in some categories, scores comprising the SUB do not reflect the corresponding interpersonal problems scores.

4.4.5 Concurrent validity of SUB scores and achievement goals. The next step of the validation process examined how the SUB was able to concurrently predict achievement goals. Concurrent validity was determined by examining correlations between SUB scores and AGQ-S scores. As with the examinations of convergent validity, correlations between general SUB scores, category scores, and ipsatized category scores were examined. Overall, interpersonal unsportsmanlike behavior was significantly negatively related to mastery-approach goal scores ($r = -.26, p < .01$). Results between the category scores and achievement goals are displayed in Tables 14. In terms of the ipsatized categories of behavior, hypercompetitive behavior scores were positively related to approach-valenced goal scores ($r = .23, p < .01$) where as overly accommodating behavior scores were negatively related to performance-approach goals

($r = -.20, p < .01$). These results provide strong support for the concurrent validity of the SUB.

Table 13. Ipsatized and Unipsatized SUB and IIP-C Convergent Validity Correlations

	1	2	3	4	5	6	7	8
1. HYP	1.00	.29**	-.35**	.04	-.48**	-.23**	-.42**	-.26**
2. INT	.70**	1.00	-.31**	-.05	-.55**	-.21**	-.26**	-.13*
3. ANT	.73**	.73**	1.00	-.42**	.57**	-.29**	.38**	.47**
4. DIS	.53**	.50**	.58**	1.00	-.34**	.10	-.29**	-.46**
5. ACQ	.13*	.10 [†]	.16**	.19**	1.00	-.14*	.31**	.19**
6. OVR	.32**	.39**	.40**	.48**	.24**	1.00	-.19**	-.34**
7. ABT	.41**	.46**	.49**	.46**	.61**	.42**	1.00	.21**
8. MLD	.48**	.53**	.54**	.40**	.49**	.35**	.67**	1.00
9. iipcPA	.41**	.44**	.50**	.38**	.12*	.25**	.32**	.38**
10. iipcBC	.40**	.48**	.52**	.38**	.26**	.24**	.44**	.43**
11. iipcDE	.31**	.34**	.38**	.28**	.29**	.18**	.38**	.37**
12. iipcFG	.19**	.18**	.21**	.31**	.27**	.18**	.24**	.23**
13. iipcHI	.03	.01	.05	.25**	.31**	.23**	.17**	.12*
14. iipcJK	.09	.01	.06	.27**	.30**	.24**	.16**	.11 [†]
15. iipcLM	.11*	.08	.13*	.25**	.26**	.27**	.19**	.21**
16. iipcNO	.34**	.32**	.34**	.35**	.27**	.29**	.33**	.42**
17. IIPC	.69**	.74**	.76**	.66**	.57**	.57**	.81**	.80**

(table continues)

Table 13. (continued)

	9	10	11	12	13	14	15	16
1. HYP	.09	.03	-.03	-.05	-.12*	-.06	-.08	.05
2. INT	.18**	.18**	.02**	-.10 [†]	-.21**	-.28**	-.20**	-.04
3. ANT	-.20**	-.09**	.01	-.07	-.04	-.07	-.07	-.13*
4. DIS	.17**	.07	.01	.21**	.21**	.21**	.15*	.16**
5. ACQ	-.22**	-.09	.08	.11 [†]	.18**	.18**	.12*	-.04
6. OVR	.03	-.06	-.05	.06	.19**	.21**	.24**	.11 [†]
7. ABT	-.18**	-.07	.00	-.11 [†]	-.10	-.13*	-.11 [†]	-.18**
8. MLD	-.17**	-.18**	-.12*	-.17**	-.19**	-.25**	-.18**	-.11 [†]
9. iipcPA	1.00	.62**	.41**	.30**	.11 [†]	.16**	.17**	.52**
10. iipcBC	.70**	1.00	.70**	.50**	.30**	.23**	.15*	.38**
11. iipcDE	.55**	.75**	1.00	.67**	.48**	.36**	.29**	.26**
12. iipcFG	.35**	.53**	.67**	1.00	.72**	.61**	.43**	.20**
13. iipcHI	.10t	.29**	.43**	.67**	1.00	.76**	.56**	.22**
14. iipcJK	.14*	.23**	.32**	.55**	.73**	1.00	.74**	.38**
15. iipcLM	.25**	.22**	.30**	.39**	.47**	.65**	1.00	.49**
16. iipcNO	.62**	.53**	.39**	.25**	.20**	.35**	.51**	1.00
17. IIPC	.51**	.54**	.45**	.30**	.20**	.21**	.27**	.48**

Note. Ipsatized results are listed in the upper half of the correlation table and general results are listed in the lower half of the table; HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic; SUB=Scale of Interpersonal Unsportsmanlike Behavior; iipcPA=Controlling; iipcBC=Vindictive; iipcDE=Cold; iipcFG=Inhibited; iipcHI=Nonassertive; iipcJK=Accommodating; iipcLM=Self-Sacrificing; iipcNO=Intrusive; IIP-C=Interpersonal problems.

[†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

Table 14. AGQ-S and Unipsatized and Ipsatized SUB Concurrent Validity Correlations

	PAP	MAP	PAV	MAV
PAP	1.00			
MAP	.43**	1.00		
PAV	.41**	.24**	1.00	
MAV	.31**	.38**	.33**	1.00
HYP	.06	-.05	.10	.02
INT	.02	-.19**	-.03	-.15*
ANT	.04	-.13*	.10	-.08
DIS	-.13*	-.18**	.09	-.01
ACQ	-.07	-.13*	.05	-.01
OVR	-.21**	-.27**	-.01	-.04
ABT	-.09	-.20**	.06	-.05
MLD	-.08	-.16**	.03	.02

Note. PAP = Performance approach goals; MAP = Mastery approach goals; PAV = Performance avoidance goals; MAV = Mastery avoidance goals; SUB = Scale of interpersonal unsportspersonlike behavior; HYP = Hypercompetitive; INT = Intimidating; ANT = Antisocial; DIS = Disrespectful; ACQ = Acquiescent; OVR = Overly Deferential; ABT = Abetting; MLD = Melodramatic; SUB = Scale of Interpersonal Unsportspersonlike Behavior.

† = $p < .75$. * = $p < .05$. ** = $p < .01$.

4.4.6 Discriminant validity of SUB scores. Discriminant validity was determined by examining correlations between the total and category SUB scores and social desirability scores. Because the various categories of interpersonal unsportspersonlike behavior examined vary with respect to the nature of that behavior, a range of discriminant validity coefficients was expected. For example, it was expected that

hostile-dominant behaviors were more likely than submissive-affiliative behaviors to be viewed negatively and, as such, associated with socially desirable behavior. Hostile-dominant behaviors therefore provide a more stringent test of discriminant validity. Results indicated that general interpersonal unsportspersonlike behavior scores were unrelated to social desirability. None of the unipsatized scale scores was associated with social desirability. With the exception of hypercompetitive ($r = .17, p < .01$), antisocial ($r = -.14, p < .05$), and abetting behavior scores ($r = -.15, p < .05$), discriminant validity coefficients between ipsatized category scores and social desirability were largely nonsignificant, indicating that the SUB and its categories are relatively distinct from social desirability.

4.4.7 Gender, sport, and experience related findings. The subjects in this study were male and female athletes from a wide variety of sports and a large range of experience. This study examined whether participants differed on interpersonal unsportspersonlike behavior as a function of gender, sport type (as examined by contact level), or years of competitive experience. To compare group differences, the Bonferroni correction for the nine tests (eight for ipsatized scores, $p < .006$) was used in post hoc analyses. ANOVA analyses indicated sex differences on interpersonal unsportspersonlike behavior ($F(2, 245) = 11.57, p < .01, \eta = .29$). Specifically, men displayed significantly higher levels of interpersonal unsportspersonlike behavior than women ($M = 2.21$ vs. 1.89). Additional sex differences were apparent for some of categories of interpersonal unsportspersonlike behavior as displayed in Table 15. However, when categories of interpersonal immoral sport behavior were ipsatized, men only reported higher

intimidating ($F(2,245) = 10.20, p < .01, \eta = .28$) and lower acquiescent behavior scores ($F(2,245) = 5.69, p < .05, \eta = .21$).

Similar differences in category scores were evident based on experience. Athletes with eight or more years of competitive experience reported significantly higher intimidating ($F(2,298) = 5.00, p < .01, \eta = .17$) and antisocial ($F(2,298) = 3.63, p < .05, \eta = .15$) behavior scores and tended to report higher hypercompetitive, acquiescent, and melodramatic behavior scores ($p < .08$) than athletes with three or less years of competitive experience. Again however, when category scores were ipsatized, more experienced athletes (eight or more years) reported only significantly higher intimidating behavior scores ($F(2,270) = 6.44, p < .01, \eta = .28$), but lower acquiescent ($F(2,270) = 6.01, p < .01, \eta = .21$) and melodramatic ($F(2,270) = 3.07, p < .05, \eta = .15$) than less experienced athletes (three or less years).

In terms of the levels of contact, athletes with more experience in collision sports reported higher levels of interpersonal unsportsmanlike behavior than athletes in non-contact sports ($F(2,273) = 5.35, p < .01, \eta = .19$). Specifically, athletes with experience in collision sports reported significantly higher hypercompetitive ($F(2,299) = 9.90, p < .01, \eta = .25$), intimidation ($F(2,301) = 14.60, p < .01, \eta = .29$), and antisocial ($F(2,301) = 9.81, p < .01, \eta = .25$) behavior scores than athletes experienced in contact and noncontact sports. In addition, athletes with contact sport experience reported significantly higher intimidating behavior scores than athletes in noncontact sports. Finally, athletes with collision sport experience reported higher overly deferential behavior scores than noncontact sport athletes ($F(2,275) = 5.35, p < .05, \eta = .12$). When interpersonal unsportsmanlike behavior categories were ipsatized, contact level

significantly influenced hypercompetitive ($F(2,273) = 3.34, p < .05, \eta = .16$), intimidating ($F(2,273) = 5.41, p < .01, \eta = .20$), and antisocial ($F(2,273) = 4.81, p < .01, \eta = .19$) behavior scores such that athletes with experience in collision sports reported higher levels of these hostile and dominant interpersonal unsportsmanlike behaviors than athletes with experience in noncontact sports. In addition, athletes experienced in noncontact sports reported significantly higher acquiescent behavior scores than athletes experienced in contact and collision sports ($F(2,273) = 6.34, p < .01, \eta = .21$), and higher abetting behavior scores than athletes with experience in collision sports ($F(2,273) = 3.08, p < .05, \eta = .15$).

Table 15. Sex Related Differences in Interpersonal Unsportsmanlike Behaviors

	df	F	η
HYP	(2, 268)	11.49**	.28
INT	(2, 269)	23.05**	.38
ANT	(2, 269)	17.99**	.34
DIS	(2, 269)	2.56†	.14
ACQ	(2, 277)	1.04	.09
OVR	(2, 247)	5.28**	.20
ABT	(2, 268)	2.69†	.14
MLD	(2, 267)	4.75**	.19

Note. HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic.

† = $p < .08$. * = $p < .05$. ** = $p < .01$.

4.5 Discussion

The purpose of this study was to systematically develop an instrument to measure a wider range of interpersonal unsportspersonlike behaviors in competence-based physical activities and to take the first steps in demonstrating its convergent, discriminant, concurrent, and structural validity. For the first time, items have systematically been generated within a theoretical framework to create a more accurate and comprehensive list of interpersonal unsportspersonlike behaviors. To produce these items, the study drew on unsportspersonlike behaviors from previous research assessing moral and immoral sport behavior (Bredemeier, 1975, 1995; Conroy et al., 2001; Fisher & Bredemeier, 2000; Gibbons et al., 1995; Heinila, 1974; Lee et al., 2007; Vallerand et al., 1997), surveying athletes' impressions of immoral behaviors (Stornes, 2001; Stuart, 2003), and rating immoral behaviors observed in sport settings (Butler, 2000; Stornes, 2001). The generated items were refined and validated by confirmatory factor analyses. Large, diverse, and unique samples were collected and used to demonstrate the utility of this measure across a range of competence-based physical activities rather than to a single sport or to team sports.

4.5.1 SUB structure. Inasmuch as Interpersonal Theory details eight categories of interpersonal behavior, items were developed and tested within a model comprised of eight dimensions. Results from this study revealed that unsportspersonlike behavior, as measured by the SUB, is best conceptualized as having eight dimensions, varying on the twin factors of dominance and affiliation. Although reliability was acceptable for seven of the eight factors, CFA results indicated that some factors could be better specified, namely the categories of hypercompetitive and melodramatic behavior. The factor of

abetting behavior did not demonstrate an acceptable fit. It appeared that the poor fit was a result of differential responding based on the stem of the item – hard v. easy. It seems that asking participants how hard and easy it is for them to engage in behaviors resulted in a separate clustering of responses, with easy items clustering together in one group, and hard items clustering in another.

Because of this, it may be necessary to reevaluate the response scale. The “easy for me to” stem may have been confusing, especially since it was asked as “how easy is it for you to do socially undesirable things.” Either this stem could be changed to ask participants about engaging in these behaviors too much (e.g., “I engage in socially undesirable behaviors too much”) reflecting the IIP-C more closely. Or, hard and easy items could be used as separate scales. Another possibility is this. Because responses to other categories of behavior did not indicate the same level of clustering, this category may need to be retested in future work. If the same problem occurs, it would be prudent to examine the specific content of the items and experiment with revisions, as necessary.

Following the confirmation of the first-order factors, the hierarchical nature of the SUB was examined. Although empirical support for multidimensionality is not essential for a multidimensional scale to be theoretically superior to a unidimensional scale (Bollen, 1989), the current findings resonate well with other conceptual approaches to examining interpersonal behavior as well as unsportspersonlike behavior. Results supported the presence of a second-order unsportspersonlike behavior factor, indicating that all mechanisms are part of one overriding construct. The presence of a higher-order factor increases the utility of the SUB, allowing it to be used as either a measure of general unsportspersonlike behavior, or as a measure of the eight subscale constructs. In

addition, the presence of two higher-order factors of dominance and affiliation were also confirmed. This is consistent with Interpersonal Theory and scales developed in that tradition (e.g., IIP-C).

This is the first research to report an eight factor first-order structure of unsportspersonlike behavior. Other scales assessing sport ethics have displayed two-factor (e.g., MSOS, Gano-Overway et al., 2005; CAAS, Maxwell & Moores, 2007), three-factor (e.g., AMDYSQ, Lee et al., 2007), four-factor (e.g., MSOS, Chantal et al., 2004; Dunn & Causgrove-Dunn, 1999), five-factor (MSOS, Vallerand et al., 1997), and six-factor structures (e.g., MDSS, Boardley & Kavussanu, 2007). The inconsistency in the number of factors reported between the present work and past research is noteworthy for three main reasons. First, the varied factors that have been found to represent sport ethics suggest that previous measures, namely the MSOS, may have some psychometric problems as has been repeatedly noted (e.g., Chantal et al., 2004; Dunn & Dunn, 1999; Gano-Overway et al., 2005; Lemyre et al., 2002; Miller et al., 2004; Ommundsen et al., 2003; Ryska, 2002). Second, with the exception of the MDSS, previous measures appear to assess important, but fragmented, pieces of sportspersonship. Currently no one measure has assessed a more comprehensive range of behavior. Third, with the exception of the MDSS, previous measures are not theoretically based. In the present study Interpersonal Theory was applied to specify and test a more complete range of unsportspersonlike behaviors than have previously been identified. Despite the different factor structures identified in these different measures, most studies have successfully used the total scale score in their analyses, suggesting that the presence of one overriding construct is common in sportspersonship.

4.5.2 Construct validity. The initial construct validity of the SUB was demonstrated by providing evidence for convergent, concurrent, and discriminant validity for the overall scale, and some subscales. Convergent validity of the SUB was indicated by (a) the positive relationship between unsportspersonlike behavior and general aggression, competitive anger and aggression, and hypercompetitiveness, and (b) the negative relationship between unsportspersonlike behavior and sportspersonship. Convergent validity of the subscales was supported by the moderate correlations between the SUB categories and the corresponding IIP-C categories as well as the small to moderate correlations between factors when the general factors of sportspersonship and interpersonal problems were controlled. The concurrent validity of the MDSS was evidenced by negative associations between mastery-avoidance goals and unsportspersonlike behavior. The ability of the SUB to concurrently predict these theoretically related constructs supports its usefulness in future research. Finally, discriminant validity was evident for the SUB as indicated by the null relationship with social desirability.

In addition, the categories of interpersonal unsportspersonlike behavior measured aspects of sportspersonship as predicted, indicating that in general, the SUB categories are tapping the intended behaviors. These findings provide other evidence for the suitability of the SUB as a measure of unsportspersonlike behavior. First, the relationships between the SUB and hypercompetitive behaviors were stronger than those between sportspersonlike and these behaviors and between attitudes toward unsportspersonlike behavior and these measures. This suggests that the interpersonal measure developed in the present studies has greater analytical ability in the context of

sport than have the previous measures. Second, this study demonstrated that certain subscales were more strongly related to both sportpersonship behaviors and interpersonal behaviors than others. For example, when controlling for general unsportpersonlike behavior, intimidating behavior had the strongest positive associations with physical aggression, anger, competitive anger, competitive aggression, and problems with vindictiveness and the strongest negative associations with respect for opponents. Third, with only three exceptions, there were small to moderate associations for SUB categories with the theoretically appropriate IIP-C counterparts.

Concurrent validity was evidenced by the negative correlations between interpersonal unsportpersonlike behavior and mastery goals. Although previous research findings examining achievement goals and sportpersonship are mixed, this finding is consistent with research that has found unsportpersonlike behavior to be negatively related to mastery goals (Kavussanu, 2006; Kavussanu *et al.*, 2006). This finding is interesting as interpersonal unsportpersonlike behavior was expected to be related to the desire to outperform others, although this relation has been unclear in previous research (see Table 2, performance goals). Instead, it seems that unsportpersonlike behavior is negatively related to a desire to improve performance and task mastery rather than normative comparisons. In other words, it appears that athletes engaging in unsportpersonlike behavior may not find the goal of achieving skill mastery through sport as rewarding and instead find it acceptable to engage in mediocre sport conduct. Interestingly, when examining the ipsatized categories, hypercompetitive behavior was related to approach goals, suggesting that hypercompetitive athletes are concerned both with improving their performance relative to previous performances and with

outperforming others. On the other hand, the negative relation between overly deferential behavior and performance-approach goals suggests that overly deferential individuals were willing to let others outperform them. And, the relation between intimating behavior and performance goals approached significance, indicating that perhaps individuals willing to engage in hostile-dominant behaviors are focused on outperforming others (performance-approach goals) but are also concerned with not being outperformed by others (performance-avoidance goals). This supports the idea that different unsportspersonlike behaviors may have different consequences for the way in which individual will attempt to achieve competence.

Finally, discriminant validity was evident for general interpersonal unsportspersonlike behavior and all the subscales, with the exception of hypercompetitive behavior, as indicated by the low magnitude of the relationships of socially desirable behavior. This level of discriminant validity is very encouraging, at least with respect to the validity of the interpersonal unsportspersonlike behavior construct in comparison with other unsportspersonlike ratings both in this study and in previous research (e.g., Lee et al., 2007). For example, in the present study participants' desire for impression management, self-deceptive enhancement, or their general perceived social desirability of responding was related to their attitudes toward moral decision making, sportspersonship, hypercompetitive attitudes, and aggression.

Together, these findings provide strong support for suitability of the SUB over other measures of sportspersonship. However, three issues warranting further attention remain. First, while the categories of unsportspersonlike behavior were generally related to both general and sport-related sportspersonship (e.g., hypercompetitive attitudes,

general aggression, competitive anger and aggression, low levels of sportspersonship, and amoral decision making), submissive and affiliative SUB behaviors were less related to measures of unsportspersonlike behavior than the dominant and hostile categories of SUB behavior. This is most likely due to the fact that these behaviors have not been empirically examined in sport before. While hypercompetitive behavior as measured by the SUB was related to hypercompetitive attitudes measured by the HAS and intimidating behavior was related to competitive anger and aggression, there are currently no measures of acquiescent, overly deferentially, abetting, or melodramatic behavior in sport. Alternatively, it could be argued that submissive and affiliative behaviors are not as central to unsportspersonlike behavior as hostile-dominant behaviors. However, disrespectful behavior which is a submissive (albeit hostile) behavior and acquiescent behavior which is a submissive behavior do not have the same problem. Consequently, I am inclined to believe the issue of magnitude lies not in the nature of the behavior but in the lack of comparative measures. I believe that it is important not to discount these behaviors without further study as the inclusion of these unexamined behaviors opens new possibilities for the study of unsportspersonlike behavior and may serve to develop a more comprehensive model of unsportspersonlike behavior. And in doing so may help to clear up some of the ambiguous findings surrounding the sportspersonship literature.

Second, the categories of antisocial, abetting, and melodramatic behavior could benefit from further examination as they do not fully converge with theoretically matched interpersonal problems. Melodramatic behavior, for example, was more hostile than predicted. This may have been due to the generally hostile-dominant theme to all the factors, but it indicates a need for further examination. Another reason for the lack of

convergence for these three factors could be that as the items for these categories are currently written, these interpersonal unsportspersonlike behaviors are not quite addressing the intended interpersonal behaviors. Another possible explanation is that athletes who engage in some interpersonal unsportspersonlike behaviors may not have corresponding interpersonal problems. Overall however, findings indicate that all of the SUB behaviors reflect interpersonal behavior, but future work should further examine the nature of this relation.

Third, the higher inter-correlations between some of the SUB categories indicated some redundancy between the subscales assessing the behaviors represented by these categories, namely, hypercompetitive, intimidating, and antisocial behaviors. Clearly, these categories share a considerable amount of variance with each other, indicating low levels of discriminant validity within the scale itself which could lead to a limited ability of these categories to differentially predict outcome variables. Despite the high intercorrelations, the magnitude is such as to suggest that there is still a significant amount of variance that is specific to each. In addition, when general unsportspersonlike behavior was controlled for, the magnitude of these associations were much smaller, and in the case of hypercompetitive and antisocial behavior, reversed in direction. It seems likely then that the variance these categories of behavior share is less problematic than it initially seems. In addition, the behaviors measured by these categories operate at different levels of agency and communion, as proposed by Interpersonal Theory, and the items comprising the categories were indicated to be different by the interpersonal experts who assessed the item. Finally, these categories show different patterns of relationships with other sportspersonship and interpersonal behavior measures. Thus,

these categories of behavior remained separate in the present studies and it can be concluded that the scales measure distinct but related constructs but further examination of these constructs is warranted.

4.5.3 Gender, sport type, and experience. Findings indicated that males, athletes with experience in collision sports, and athletes with more than eight years of sport experience displayed higher levels of hostile-dominant behaviors and lower levels of submissive behaviors. Previous research has not found consistent relations between gender and unsportspersonlike behavior (e.g., (McCutcheon, 1999; Miller et al., 2004; Ryska, 2002). Males and those athletes with experience in collision sports were the athletes with eight or more years of experience in this sample. This is consistent with the suggestion that longer involvement in sport is related to lower sportspersonship (Papp & Prosztoka, 1995). Also consistent with the literature, the trend for increased interpersonal unsportspersonlike behavior by both length and breadth of experience may support the notion of an in-sport socialization process (Boardley & Kavussanu, 2007; Kavussanu, Seal, & Phillips, 2006).

These findings are also consistent with interpersonal theorizing that dominant behaviors are prototypically masculine and agentic behaviors are prototypically feminine (Bakan, 1966; Wiggins, 1991). It may not be that males are more unsportspersonlike than females, but that each gender has particular unsportspersonlike behaviors that they tend to engage in. As the current study is the first to incorporate an interpersonal model with unsportspersonlike behavior, predictions can be made about gender differences in sportspersonship. And, by applying interpersonal theorizing to unsportspersonlike behavior and differentiating the eight proposed categories of behavior, it is possible that

some of the inconsistencies in the sport literature regarding sex differences in unsportspersonlike behavior could be cleared up, although this remains to be determined.

4.5.4 Limitations. This study has three major limitations. First, the measure is unable to account for unethical behaviors that are specific to particular sport or team contexts and periods in time. As the aim of this study was to develop a general measure that can be applied to a range of athletic contexts, it includes only those behaviors that are identified in previous research and interpersonal in nature. No other empirical sources of moral norms for sport have been used, such as moral development, moral disengagement, perceived social norms or values, or the standards or rules of specific sports or teams. Although the study presented support for using theory and previous research as a useful source for generating and identifying items on the individual level, the question remains whether other legitimate sources for unethical behavior would not have led to other items. So far, however, the chosen level of abstraction of the items in the measure allows for a certain degree of flexibility to accommodate different situations and different contexts. Furthermore, the sample of 40-items covers a wider range of behavior than has been previously assessed in a single measure. Finally, the categories of items selected were based on the theoretical groundings of Interpersonal Theory which details a comprehensive range of interpersonal behavior. It is unlikely that other items assessing other interpersonal unsportspersonlike behaviors would fall outside of this range.

The second limitation concerns the reliance on self-reporting of unsportspersonlike behaviors. A first risk in this regard concerns the subjectivity of respondents' interpretation of items. If definitions of unsportspersonlike behavior vary across competitive levels, teams, sports, gender, and even individuals, the question arises

as to what is measured: the frequency of the type of unethical behavior that is examined or what respondents regard as unethical? The answer is probably both. However, in an attempt to avoid contamination of the results with the normative beliefs of respondents, I formulated the items as clearly as possible and tested them extensively, although it is quite probable that some contamination remains. Additionally, rather than asking how often individuals engage in unsportspersonlike behaviors, the questions were formulated to assess the degree of difficulty individuals had engaging in the behaviors. In future research, this issue could be clarified by asking respondents to indicate to what extent they perceive the behavior described as unethical, something which was done in business ethics by Newstrom and Ruch (1975).

A second risk in self-reporting is that the reports of unsportspersonlike behavior are affected by social desirability of responding. Other measures of sportspersonship (e.g., MSOS, AMDYSQ, and CAAS) were influenced by the social desirability of responding. Although, findings indicated that this was not such a concern of the SUB, reliability estimates for the subscales of the BIDR did not demonstrate acceptable levels of reliability. Future research should continue to examine this as individual reports of unethical behaviors may be confounded by a readiness to present oneself in a favorable light according to perceived social norms and values.

A third limitation concerns the interpretation of the information provided by respondents. Three problems were encountered in this regard. First, mean scores for the behaviors were clustered toward the lower end of the response scale.

Second, and related, is that the questions for each category of behavior were phrased as something that was either easy or hard for the respondent to do. For example,

for the category of abetting behavior, “It is hard for me to resist helping someone gain an unfair advantage in a competition,” and “It is easy for me to help a teammate gain an unfair advantage to ensure their success in a competition.” When participants responded, in general, they tended to indicate that this was only slightly hard to resist, but also that it was not easy to do. These responses seem contradictory. One option for the scale would be to phrase the questions with only one stem; for example only asking how hard it is to engage in that category of behavior. For a second option, future research could compare the frequency of reported unsportspersonlike behavior examined by means of the questionnaire with other sources available in a team, such as misconduct reporting from coaches, parents, or other players, or direct observations of unsportspersonlike behaviors.

The third related issue is the cross-sectional nature of the data. Participants completed all measures simultaneously thus pre-empting the disclosure of temporal relationships between unsportspersonlike behavior and achievement goals. Accordingly, future studies should examine the longitudinal relation between these variables in order to confirm the predictive ability of the SUB.

4.6 Conclusion

Although unsportspersonlike behaviors have been examined in sport (e.g., Lee et al., 2007; Maxwell & Moores, 2007; Boardley & Kavussanu, 2007; Vallerand et al., 2007), to date no study has investigated a broad range of unsportspersonlike behavior or unsportspersonlike behavior from an interpersonal perspective. The present research sought to fill this gap by developing an interpersonal measure of unsportspersonlike behavior. Findings provided strong psychometric support for the SUB and indicated that unsportspersonlike behavior can be viewed as an interpersonal phenomenon.

Additionally, a broader range of behaviors seem to comprise unsportspersonlike behavior than previously examined.

Overall, the examination of construct validity of interpersonal unsportspersonlike behavior by comparing unsportspersonlike behavior with interpersonal problems as assessed by the IIP-C, other measures of sportspersonlike and unsportspersonlike behavior as assessed by the HAS, AQ, CAAS, AMDYSQ, and MSOS, social desirability of responding assessed with the BIDR, and achievement goals as assessed by the AGQ-S yielded clear results: (1) interpersonal unsportspersonlike behavior demonstrated clear convergent validity with hypercompetitive attitudes, aggressive behavior, amoral decision making, and low sportspersonship, (2) interpersonal unsportspersonlike behavior demonstrated clear convergent validity with interpersonal problems, (3) interpersonal unsportspersonlike behavior demonstrated clear discriminant validity with social desirability of responses, (4) interpersonal unsportspersonlike behavior demonstrated concurrent validity with competence-based goals.

Validating a construct, however, is almost never final (Robinson & Bennett, 1995). Only by conducting multiple studies can evidence be provided to support or weaken the validity of a particular measure. More research is therefore required to confirm the validity of the new measure of interpersonal unsportspersonlike behavior in competence-based physical activity contexts and its eight categories.

CHAPTER 5 – SUB DEVELOPMENT AND REVALIDATION

5.1 Purpose

Chapter four provided evidence that the hierarchical model with eight first-order factors and three second-order factors offered the most satisfactory fit for the SUB. As noted, there were some issues warranting further attention and the validation of a construct is almost never final (Robinson & Bennett, 1995). It is only through multiple studies that evidence can be provided to support the validity of a particular measure. Additionally, because the results of CFA can be sample specific, it is recommended that data from an independent sample are tested with CFA to confirm factor structures (Fabrigar et al., 1999). As such, the overarching purpose of this study was to cross-validate the SUB measure in an independent sample. The first purpose was to confirm the factor structure identified in the chapter four. The second purpose was to examine the content validity of the instrument through the provision of evidence relating to concurrent, convergent, and discriminant validity.

5.2 Hypotheses

Seven series of predictions are made. First, the structure of the SUB should be reconfirmed to have eight first-order and three second-order factors. Second, adjacent SUB categories should be positively correlated. Third, the SUB should be related to other measures of sportspersonship. Fourth, the SUB categories should be related to the corresponding categories of the IIP-C. Fifth, individuals' interpersonal unsportspersonlike behavior should be related to their achievement goals. Sixth, interpersonal unsportspersonlike behavior should be unrelated to socially desirable

responses. Seventh, SUB categories should plot onto interpersonal space. These hypotheses are detailed in chapter four, Table 6.

5.3 Participants

As in the previous study, this investigation focused on undergraduate students with a recent history of or current engagement in recreational and organized competitive sport. Again, participants were required to have a minimum of two years of recent competitive sport involvement and to have participated in sport within the past two years. Participants were informed of the two-year requirement when recruited and sport experience was screened in the demographic questions. Participant data not meeting the sport experience requirement ($n = 14$) were not included in analysis or in the reporting of participant characteristics.

A total of 424 students meeting the sport requirement criteria participated in the present investigation, ranging in age from 18 to 42 years ($M = 21.10$, $SD = 2.15$ years). The participants were drawn from a variety of sports classes and teams including but not limited to basketball, soccer, wrestling, racquetball, cycling, ultimate, squash, tennis, golf, swimming, cross country, track, equestrian, ballroom dance, martial arts, baseball/softball, football, hockey, gymnastics, volleyball, fencing, crew, and lacrosse. The sample included 176 men, and 226 women, with 22 individuals not providing their gender. In general participants were dominantly Caucasian. Most participants reported experience in a variety of both team and individual sports. These sports were classified as collision (e.g., football, wrestling, hockey), contact (e.g., basketball, soccer, lacrosse, ultimate, field hockey), and noncontact (e.g., track, swimming, tennis, volleyball). Participants also reported a variety of levels they currently or previously participated in

ranging from recreationally organized and intramural sports collegiate level (club, DI, DII, DIII) and national or professional level sports. The percent of participants reporting each of these characteristics are displayed in Table 16. Sample characteristics from chapter four are also listed for purposes of comparison.

Table 16. Participant characteristics for Chapters Four and Five

Participant Characteristic	% Reported	
	Study 2	Study 3
<i>Gender</i>		
Male	38	42
Female	46	53
<i>Race/Ethnicity</i>		
White/European American	80	81
African American	3	6
Asian American	2	4
Hispanic	3	3
Other	4	2
<i>Experience</i>		
≥ 6 Years	68	70
<i>Contact Level</i>		
Noncontact	37	28
Contact	26	12
Collision	13	2
Multiple	20	58

(table continues)

Table 16. (continued)

Participant Characteristic	% Reported	
	Study 2	Study 3
<i>Team</i>		
<i>Structure</i>		
Team	24	35
Individual	23	19
Both	43	39
<i>Level of Participation</i>		
Recreational	27	40
Intramural	35	32
Collegiate	30	27
National/Professional	3	1

5.4 Procedures

Following clearance by the university's institutional review board, kinesiology professors and sport instructor were contacted regarding participation of their students in the study. Data from all participants were collected outside of their designated class or training sessions in classroom on campus. Before completing the questionnaire, all respondents were informed that the survey examined sporting attitudes, that honesty in responses was vital to the success of the study, and that they should complete the questionnaire with their main competitive team sport in mind. It was also explained that all responses were not linked to their identity and would be used only for research purposes.

In addition to completing the newly developed SUB items, and to test the SUB construct validity, participants also completed extant measures of unsportsmanlike behavior (in and out of sport) which are conceptual prototypes of the proposed categories of interpersonal unsportsmanlike behavior. Personality measures were also completed as interpersonal unsportsmanlike behavior is theorized to be a recurrent interpersonal disposition. Finally, a measure of social desirability of responses was completed as unsportsmanlike behavior is potentially socially undesirable. It is hypothesized that scores on the immoral sport behavior scale will be related to scores from established measures assessing similar types of sportsmanship (i.e., hypercompetitive, aggressive, etc.). As noted previously, these hypotheses are detailed in Table 6.

5.5 Measures

Participants completed six scales assessing immoral behavior including the newly developed SUB. As three areas of interpersonal immoral sport behavior have yet to be examined, there are no existent measures assessing these behaviors to serve as conceptual prototypes. For the SUB, two types of items were included in the scale: behaviors that are “hard for you to do” and that “are easy for you to do.” Responses were made on a scale ranging from A (*not at all*) to E (*extremely*).

The Aggression Questionnaire (AQ; Buss & Perry, 1992) measured individual general aggressive tendencies. Using a scale ranging from 1 (*extremely uncharacteristic of me*) to 5 (*extremely characteristic of me*), participants rated how strongly each of the statements apply to them. The scale consists of 4 factors: physical aggression (PA, “if somebody hits me, I hit back”); verbal aggression (VA, “I often find myself disagreeing with people”); anger (A; “when frustrated, I let my irritation show”); and hostility (H,

“when people are especially nice, I wonder what they want”). The total score for aggression is the sum of the factor scores. Internal consistencies of the AQ in the current study were low to moderate. Cronbach’s α for the full scale equaled .88 and ranged from .63 for A to .79 for H.

The 12-item Competitive Aggressiveness and Anger Scale (CAAS; Maxwell & Moores, 2007) was used to measure sport specific aggression. The CAAS consists of two subscales of anger and aggression. Items include statements such as “I become irritable if I am disadvantaged during a match” and “It is acceptable to use illegal physical force to gain an advantage,” measuring anger and aggression respectively. Ratings are made on a five-point scale with higher scores representing greater severity (1 = not at all severe to 5 = extremely severe). In the current study, Cronbach’s alpha for the CAAS equaled .88. The subscales of competitive anger and aggression had acceptable levels of reliability as well ($\alpha = .82$ and $.88$ respectively).

Ryckman, Hammer, Kaczor, and Gold’s (1990) 26-item Hypercompetitive Attitude Scale (HAS) was used as an assessment of excessive. Respondents used a 5-point continuum ranging from 1 (never true of me) to 5 (always true of me). Items include statements such as “It’s a dog eat dog world,” “If you don’t get the better of others, they will surely get the better of you,” and “Failure or loss in competition makes me feel less worthy as a person.” Internal consistency for the HAS current study was $\alpha = .84$.

Relations with other measures of moral sport behavior were examined with the MSOS, a 25-item measure used to assess athletes’ orientations towards the sportpersonship dimensions (Vallerand et al., 1996). The MSOS provided scores for

respect and concern for opponents (i.e., “I help the opponent get up after a fall”, $\alpha = .83$), respect for rules and officials (i.e., “I respect the rules”, $\alpha = .73$), respect for social conventions (i.e., “When I lose, I congratulate the opponent whoever he or she is”, $\alpha = .75$), respect for full commitment toward participation (i.e., “During practices, I go all out”, $\alpha = .74$), and a negative approach towards sport participation (i.e., “If I make a mistake during a crucial time of the match, I get angry”, $\alpha = .42$). Participants rated how self-descriptive each item is on a 5-point Likert-type scale ranging from 1 (*does not correspond at all to me*) to 5 (*corresponds exactly to me*).

The AMDYSQ (Lee et al., 2007), is a new measure of unsportspersonlike behavior which provides scores for Acceptance of Cheating (i.e., “I would cheat if I thought it would help me win”), Keeping Winning in Proportion (i.e., “It’s OK to lose sometimes because in life you don’t win everything”), and Acceptance of Gamesmanship (i.e., “Sometimes I try to wind up the opposition.”). Participants rated how much they agree or disagree with items on a 5-point Likert-type scale ranging from 1 (*Strongly agree*) to 5 (*Strongly disagree*). Internal consistencies of these scales were adequate ($\alpha = .78$; $\alpha = .86$; $\alpha = .68$, respectively).

The 44-item Big Five Inventory (BFI; John & Srivastava, 1999) was used to measure five broad personality traits – Openness (i.e., “I see myself as someone who is original, comes up with new ideas”), Conscientiousness (i.e., “I see myself as someone who does a thorough job”), Extraversion (i.e., “I see myself as someone who is talkative”), Agreeableness (i.e., “I see myself as someone who is helpful and unselfish with others”), and Neuroticism (i.e., “I see myself as someone who is depressed, blue”). BFI items were developed from definitions of expert and observer ratings of personality,

and verified by subsequent factor analysis (John, 1990). Items are scored using a 5-point, Likert scale that ranges from 1 (*disagree strongly*) to 5 (*agree strongly*). BFI scales include 8–10 items each, and demonstrated low internal consistency (α range = .34 to .76, mean α = .54).

The IIP-C, is a 64-item inventory reflecting a wide range of interpersonal problems (Alden et al., 1990), and was used to assess category level structural convergence. Two types of items are included in the IIP-C: interpersonal behaviors that are “hard for you to do” (e.g., “It is hard for me to trust people”) and interpersonal behaviors that “you do too much” (e.g., “fight with other people too much”). The 64 items make up eight scales (eight items each) that represent a circumplex of interpersonal problems around the dimensions of dominance and affiliation. In the current study, alpha coefficients for the eight scales ranged from .75 to .87.

The 40-item Balanced Inventory of Desired Responses (BIDR; Paulhus, 1991) was used to assess participants’ social desirability of responses. Participants indicated their agreement with the statements on a 7-point scale, ranging from 1 (*not true*) to 7 (*very true*). The BIDR includes two subscales, with the Impression Management (IM) subscale tapping the impression management dimension and the Self-Deception Enhancement (SDE) subscale tapping the self-deception dimension. Both subscales consist of 20 items. Sample items of the IM subscale include “I have received too much change from a salesperson without telling him or her” and “I have some pretty awful habits.” Sample items of the SDE subscale include “I have not always been honest with myself” and “I never regret my decision.” The scale is counterbalanced so that there are

equal numbers of positively and negatively keyed items. Internal consistency, measured by Cronbach's alpha for both IM and SDE were low ($\alpha = .50, .65$ respectively).

Achievement motivation was assessed with the 2×2 Achievement Goals Questionnaire for Sport (AGQ-S; Conroy, Elliot, & Hofer, 2003). The AGQ-S provides scores for mastery-approach ("It is important to me to perform as well as I possibly can"), mastery-avoidance ("I worry that I may not perform as well as I possibly can"), performance-approach ("It is important to me to do well compared to others"), and performance-avoidance ("My goal is to avoid performing worse than everyone else") achievement goals in sport (a complete listing of items in the AGQ-S is available from Conroy et al.). Participants were asked to reflect on their *current* goals for swimming and to rate each item on a scale ranging from *not at all true of me* (-3) to *very true of me* (+3). The AGQ-S scales demonstrated acceptable internal consistency (α range = .78 to .84)

5.6 Results

5.6.1 Preliminary analyses. A total of 48-items were tested – the 46 items identified in the previous study were reexamined in this study with an additional two slightly reworded items from this item pool. Once again, before testing the factor structure and validity of the SUB, a two-stage process was used to measuring item fit in their respective interpersonal category. First, the average interitem correlation was calculated. Interitem correlations are a straightforward measure of internal consistency and can be a more useful index than coefficient alpha. Thus, the interitem correlations within each of the eight unsportspersonlike categories were examined and any item that was correlated less than .15 with the other items in its category was dropped (Clark & Watson, 1995). Based on this analysis seven items were dropped. Next, the internal

consistency (using Cronbach's α) of the full scale and the eight subscales was examined. Internal consistency (α) for the full SUB was .90 and ranged from .69 to .80 for the eight subscales. Items comprising each factor, factor reliability coefficients, as well as item means and standard deviations are detailed in Table 17. Two items, italicized in Table 17, represent those items which did not contribute to increasing the internal consistency of the scale and were dropped. These are both items which had been identified as problematic in the previous study were dropped based on this analysis. Internal consistencies calculated with (α 1) and without (α 2) these items are detailed in Table 17. The remaining 39 items were used in the following analyses.

5.6.2 CFA. In line with the *a priori* approach taken in the previous study, CFA was performed separately on each of the eight category scales in order to obtain close-fitting scales to serve as the foundation for the 8-factor model first. CFA analyses were performed with AMOS 16.0 (Arbuckle, 2006). A combination of absolute (i.e., χ^2 , RMSEA) and relative (i.e., NFI, NNFI, CFI) fit indices were used to evaluate model fit with values above .90 for the latter indices indicating good model fit, whereas values above .95 indicate excellent model fit (Bentler, 1990). RMSEA values of .08, .05, and .00 were interpreted as indicating acceptable, good, and exact fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). The results of these analyses are presented in Table 18. All items significantly loaded onto their specified category of interpersonal unsportsmanlike behavior and were included in the full CFA analyses.

Table 17. Reconfirmed SUB Items, Descriptive Statistics, and α Coefficients

Category	Study 2 Item	Study 3 Item Revision/Replacement	Study 2		Study 3		
			M (SD)	α	M (SD)	α 1	α 2
Hypercompetitive				.72		.80	.80
HYP1	It is easy for me to strive for personal success at any cost in a competition.		2.49 (1.22)		2.38 (1.17)		
HYP2	In a competition, it is easy for me to put my chance for victory before the success of others.		2.49 (1.11)		2.37 (1.17)		
HYP3	It is easy for me to bend or break the rules if it would help me to win.		1.64 (0.97)		1.64 (0.88)		
HYP4	It is easy for me to compete with others so that I can win at any cost.		2.21 (1.23)		2.38 (1.17)		
HYP5	It is easy for me to justify cheating when my success is on the line.	When winning is at stake, it is easy for me to adopt a "win at all costs" attitude.	1.66 (0.94)		2.61 (1.24)		
HYP6	When competing, it is easy for me put my personal success before that of others.	<i>It is easy for me to justify cheating when my success is on the line.</i>	2.82 (1.23)		1.60 (0.89)		

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (SD)	α	M (SD)	α 1
Intimidating				.74		.74
INT1	It is hard for me to refrain from retaliating against an opponent to settle a score.		2.41 (1.20)		2.31 (1.09)	
INT2	When winning is at stake, it is easy for me to deliberately inflict pain on others in a competition.		1.87 (1.14)		1.72 (1.01)	
INT3	When winning is at stake, it is easy for me to threaten others who block my goals.		2.30 (1.19)		1.97 (1.05)	
INT4	It is easy for me to retaliate against others when I've been wronged in a competition.		2.49 (1.16)		2.39 (1.11)	
INT5	It is easy for me to exploit other competitors for personal gains in a competition.		2.09 (1.13)		2.06 (1.01)	

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (<i>SD</i>)	α	M (<i>SD</i>)	α 1
Antisocial				.70		.70
ANT1	It is hard for me to support a teammate who might outperform me in a competition.		1.64 (0.86)		1.65 (0.87)	
ANT2	When winning is at stake, it is hard for me to be supportive of others if it will reduce my chances for success.		2.15 (1.03)		2.14 (1.03)	
ANT3	It is hard for me to share credit with others for successes.		1.45 (0.79)		1.45 (0.79)	
ANT4	It is hard for me to cooperate with others during a competition.		1.46 (0.75)		1.46 (0.75)	
ANT5	When success is on the line, it is hard for me to sacrifice my performance by working with others.		1.93 (0.98)		1.93 (0.97)	

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (<i>SD</i>)	α	M (<i>SD</i>)	α 1
Disrespectful				.72		.69
DIS1	It is easy for me to display myself as easily beatable to undermine opponents' efforts in a competition.		2.37 (1.17)		2.12 (1.11)	
DIS2	It is easy for me to forfeit a competition to avoid sure defeat.		1.66 (1.05)		1.48 (0.81)	
DIS3	In a close competition, it is easy for me to fake an injury to deny others the opportunity to outperform me.		1.58 (1.00)		1.50 (0.86)	
DIS4	It is easy for me to create obstacles for myself so I have ready excuses in case I lose a competition.		1.86 (0.99)		1.91 (1.03)	
DIS5	It is easy for me to make-up excuses for my losses.		2.03 (1.05)		2.22 (1.07)	

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3		
			M (SD)	α	M (SD)	α 1	α 2
Acquiescent				.81		.74	.75
ACQ1	It is hard for me to assert myself when I am being taken advantage of in a competition.		2.46 (1.24)		2.14 (1.03)		
ACQ2	It is hard for me to protect my rights to a fair competition.		2.30 (1.41)		1.61 (0.83)		
ACQ3	It is hard for me to defend my rights to a fair competition when they are threatened.		2.33 (1.32)		1.83 (0.97)		
ACQ4	It is hard for me to stand up for what I think is right during a competition.		2.23 (1.34)		1.52 (0.79)		
ACQ5	It is easy for me to overlook situations where opponents compete unfairly.	<i>It is easy for me to overlook situations where opponents compete unfairly.</i>	1.78 (1.01)		1.75 (0.98)		
Overly Deferential				.79			.75
OVR1	In a competition, it is easy for me to sabotage my performance to help someone else shine.		1.73 (0.98)		1.65 (1.01)		

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (<i>SD</i>)	α	M (<i>SD</i>)	α 1
Overly Deferential						
OVR2	It is easy for me to sacrifice my performance for the good of others in a competition.		2.11 (<i>1.00</i>)		2.00 (<i>1.06</i>)	
OVR3	It is easy for me to neglect my performance in the interest of another competitor's success.		1.88 (<i>1.02</i>)		1.82 (<i>1.03</i>)	
OVR4	It is easy for me to forfeit a match to let another competitor who needs the victory win.		1.70 (<i>1.11</i>)		1.79 (<i>1.17</i>)	
OVR5	It is easy for me to withhold effort in a competition to benefit another person.		1.91 (<i>1.05</i>)		1.73 (<i>0.88</i>)	

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (<i>SD</i>)	α	M (<i>SD</i>)	$\alpha 1$
Abetting				.76		.75
ABT1	It is hard for me to stop myself from helping another person bend the rules in a competition.	It is hard for me to resist helping someone gain an unfair advantage in a competition.	2.17 (<i>1.28</i>)		1.73 (<i>1.00</i>)	
ABT2	It is easy for me to help others to bend or break the rules in a competition.		1.67 (<i>0.98</i>)		1.66 (<i>1.08</i>)	
ABT3	It is easy for me to help a friend gain an unfair advantage to ensure their success in a competition.		1.72 (<i>0.95</i>)		1.59 (<i>0.87</i>)	
ABT4	It is easy for me to illegally increase another person's chance for victory in a competition.		1.34 (<i>0.73</i>)		1.75 (<i>0.93</i>)	
ABT5	It is hard for me to turn down a request to help someone gain an unfair advantage in a competition.		2.28 (<i>1.37</i>)		1.44 (<i>0.78</i>)	

(table continues)

Table 17. (continued)

Category	Study 2 Item	Study 3 Item Revision	Study 2		Study 3	
			M (<i>SD</i>)	α	M (<i>SD</i>)	α 1
Melodramatic				.76		.76
MLD1	It is hard for me to maintain my composure so I don't create a scene when winning is at stake.		2.50 (1.24)		1.80 (0.91)	
MLD2	When winning is at stake, it is hard for me to keep from attracting others attention with my emotional displays.		2.19 (1.20)		1.62 (0.80)	
MLD3	It is hard for me to exhibit self-control so I don't distract my opponent's attention in a competition.		2.25 (1.16)		1.79 (1.00)	
MLD4	It is hard for me to refrain from distracting my opponent by overreacting during competitions.		2.07 (1.13)		1.60 (0.86)	
MLD5	When competing, it is easy for me to attract attention by overreacting to my mistakes.		1.85 (1.00)		1.80 (0.95)	

Table 18. Structural Model Fit Indices

Category	Item	R ²	SMC	$\chi^2(df)$	NFI	NNFI	CFI	RMSEA (90% CI)
Hypercompetitive				25.66(5)**	.95	.92	.96	.10 (.06-.12)
	Hyp1	.63	.40					
	Hyp2	.63	.40					
	Hyp3	.50	.25					
	Hyp4	.74	.55					
	Hyp5	.69	.47					
Intimidating				13.96(5)*	.97	.95	.98	.07 (.03-.11)
	Int1	.58	.34					
	Int2	.63	.39					
	Int3	.57	.32					
	Int4	.62	.38					
	Int5	.62	.38					
Antisocial				33.22 (5)**	.90	.83	.91	.12 (.08-.15)
	Agg1	.62	.38					
	Agg2	.58	.33					
	Agg3	.59	.35					
	Agg4	.50	.25					
	Agg5	.54	.29					
Disrespectful				16.90 (5)*	.95	.92	.96	.08 (.04-.12)
	Dis1	.44	.20					
	Dis2	.42	.17					
	Dis3	.54	.29					
	Dis4	.70	.50					
	Dis5	.67	.44					

(table continues)

Table 18. (continued)

Category	Item	R ²	SMC	$\chi^2(df)$	NFI	NNFI	CFI	RMSEA (90% CI)
Acquiescent				2.49 (2)	.99	.99	.99	.02 (.00-.10)
	Acq1	.51	.26					
	Acq2	.75	.56					
	Acq3	.73	.53					
	Acq4	.64	.41					
Overly Deferential				17.01 (5)**	.96	.94	.97	.08 (.04-.12)
	Ovr1	.71	.50					
	Ovr2	.52	.27					
	Ovr3	.59	.35					
	Ovr4	.53	.26					
	Ovr5	.68	.46					
Abetting				48.74 (5)**	.90	.81	.91	.14 (.11-.14)
	Abt1	.44	.20					
	Abt2	.45	.20					
	Abt3	.66	.43					
	Abt4	.75	.57					
	Abt5	.71	.50					
Melodramatic				8.92 (5)	.98	.98	.99	.04 (.00-.09)
	Mld1	.59	.34					
	Mld2	.69	.48					
	Mld3	.60	.36					
	Mld4	.75	.57					
	Mld5	.47	.22					

Note. * = $p < .05$. ** = $p < .01$.

Next, CFA was performed on four predetermined models: (a) the 39-item, eight-factor first order correlated model; (b) the hierarchical model with eight first-order factors and one second order factor; (c) the hierarchical model with eight first-order factors and two second-order factors; and the hierarchical model with eight first-order factors and three second-order factors confirmed in the previous study. The results of these analyses are presented in Table 19.

Table 19. Measurement Model Fit Indices

	$\chi^2(df)$	NFI	NNFI	CFI	RMSEA (90% CI)
1-Factor	2929.48(740)**	.50	.54	.57	.08(.08-.09)
2-Factor	2646.04(720)**	.55	.59	.62	.08(.07-.08)
8-Factor	1536.49(712)**	.74	.82	.84	.05(.05-.06)
8-Factor 1	1431.82(663)**	.75	.83	.84	.05(.05-.06)
8-Factor 2	1655.53(728)**	.72	.80	.82	.06(.05-.06)
8-Factor 3	1272.37(653)**	.78	.86	.87	.05(.05-.06)

Note. 1-Factor = Elevation; 2-Factor = Affiliation & dominance; 8-Factor 1 = 8-categories correlated; 8-Factor 2 = 8-categories with higher order factor of elevation; 8-Factor 3 = 8-categories with higher order factors of affiliation, dominance, and elevation.

** = $p < .01$.

The first model tested was the eight-factor correlated first-order, 39-item model. The results showed a good model fit (Table 19, row 1). The second and third models tested were the one- and two-factor second-order models (Table 19, rows 2 and 3 respectively). As expected the fit of both were similar to that the first model. The fourth model tested was the three-factor second order model which achieved the best fit (Table

19, row 4). As this model also had a theoretical basis, it combined the most interpretable and theoretically-sensible model parameters with a reasonable fit. Based on this, the hierarchical model was accepted. Factor loadings and error variances for the 39-items are presented in Table 20.

In the measurement of multidimensional facets of unsportspersonlike behavior thus far, each category of unsportspersonlike behavior was represented each of the items though to measure that variable. CFA procedures testing the validity of the indicator variables indicated that the measurement model was operating adequately. Thus, having confirmed the factor structure of the items, one final model was examined based on the theorized hierarchical model. For this simplified model, a factor score represented by the mean of all items designed to measure a particular category was calculated in order to examine the structural model free from measurement indicators. Thus, the indicator variables in this case each represented one factor of the SUB with eight indicators in total; each representing one category of unsportspersonlike behavior was used to measure the hypothesized structural model. This method eliminated the explicit use of latent variables representing the categories of unsportspersonlike behavior in the modeling of observed data. It is important to note that this method loses information because the calculated scale score used for each factor is subsequently treated as if it observed the factor perfectly which is not true. That being said, results demonstrated a very good fit of the structural model of interpersonal unsportspersonlike behavior ($\chi^2(7) = 14.72, p < .05$; NFI = .99; NNFI = .97; CFI = .99; RMSEA = .05).

Table 20. Factor Loadings of the Final SUB Model

Factor	Item	R ²	Standardized R ²	SMC
Hypercompetitive				
	Hyp1	1.00	.54	.38
	Hyp2	.96**	.52	.39
	Hyp3	.32**	.23	.44
	Hyp4	1.27**	.68	.57
	Hyp5	1.18**	.60	.48
Intimidating				
	Int1	1.00	.49	.35
	Int2	.58**	.31	.39
	Int3	.69**	.35	.35
	Int4	1.22**	.59	.44
	Int5	.75**	.37	.44
Antisocial				
	Ant1	1.21**	.50	.34
	Ant2	1.59**	.55	.39
	Ant3	1.00	.46	.30
	Ant4	.69**	.33	.31
	Ant5	1.20**	.44	.31
Disrespectful				
	Dis1	.43**	.20	.20
	Dis2	.16	.10	.23
	Dis3	.31**	.19	.35
	Dis4	1.30**	.50	.48
	Dis5	1.00	.63	.55

(table continues)

Table 20. (continued)

Acquiescent				
	Acq1	1.01**	.48	.26
	Acq2	1.17**	.70	.56
	Acq3	1.30**	.66	.53
	Acq4	1.00	.63	.42
Overly Deferential				
	Ovr1	1.00	.57	.48
	Ovr2	.76**	.42	.27
	Ovr3	.98**	.55	.38
	Ovr4	.98**	.48	.28
	Ovr5	.77**	.51	.48
Abetting				
	Abt1	-.61 [†]	-.15	.25
	Abt2	-.44	-.10	.23
	Abt3	.65**	.18	.46
	Abt4	1.19**	.32	.60
	Abt5	1.00	.32	.48
Melodramatic				
	Mld1	.97**	.45	.28
	Mld2	.96**	.50	.46
	Mld3	1.00	.44	.38
	Mld4	1.06**	.52	.52
	Mld5	.50**	.22	.28

Note. [†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

5.6.3 *Convergent validity among unsportspersonlike behaviors.* Convergent validity between the various unsportspersonlike measures and the SUB were also examined. Specifically, convergent validity was determined by examining correlations between SUB scores and the scores of the various measures which are predicted to related to categories of the SUB and have been used in previous research or were recently developed (i.e., MSOS, AMDYSQ, AQ, CAAS, HAS). As is the previous study, significant correlations between like constructs were expected, but these were not expected to be “perfect” correlations as the SUB was developed to measure unsportspersonlike behavior from a new and different perspective.

As can be seen from the correlations in Table 21, substantial convergent validity coefficients were obtained for nearly all of the measures. With the exception of acceptance of gamesmanship, general unsportspersonlike behaviors was related to all measures of sportpersonship as expected with correlations ranging from $-.46$ to $.57$ ($p < .01$). For the most part, both general and ipsatized category correlations, demonstrated substantial convergent validity as predicted.

For the ipsatized results, hypercompetitive behavior scores were most strongly related to hypercompetitive attitudes ($r = .19, p < .01$), respect of commitment ($r = .23, p < .01$), and low respect for others ($r = -.21, p < .01$). Intimidating behavior scores were most related to physical and verbal aggression ($r = .42; .30, p < .01$) and competitive anger and aggression ($r = .39; .53, p < .01$). Although antisocial behavior scores were related to a negative approach ($r = .10, p < .05$), they were also negatively related to competitive aggression ($r = -.17, p < .01$). Predictions were met for disrespectful scores with the most substantial correlations between these scores and negative approach ($r =$

.18, $p < .01$), as well as low respect for commitment scores ($r = -.23, p < .01$).

Acquiescent behavior scores were negatively related to general aggression and competitive anger and aggression ($r = -.36; -.37, p < .01$ respectively) and most positively related to respect for rules and officials ($r = .24, p < .01$). Overly deferential behavior scores were most positively and negatively related to respect for others and competitive anger and aggression scores respectively ($r = .34; -.30, p < .01$). Abetting behavior scores were most related to low respect for rules and officials ($r = -.16, p < .01$) and low acceptance of cheating scores ($r = -.17, p < .01$). Finally, melodramatic behavior scores were most related to anger and competitive anger and aggression scores ($r = .23; .21, p < .01$ respectively).

Table 21. Reconfirming Convergent Validity Correlations Between SUB Scores and Related Measures

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. SUB	1.00												
2. HYP	.65**	1.00											
3. INT	.74**	.61**	1.00										
4. ANT	.64**	.33**	.40**	1.00									
5. DIS	.72**	.34**	.41**	.38**	1.00								
6. ACQ	.43**	.01	.03	.29**	.25**	1.00							
7. OVR	.53**	.15**	.20**	.13**	.41**	.27**	1.00						
8. ABT	.75**	.40**	.47**	.34**	.50**	.21**	.37**	1.00					
9. MLD	.73**	.40**	.58**	.46**	.42**	.20**	.22**	.52**	1.00				
10. MSOS	-.33**	-.22**	-.32**	-.23**	-.17**	-.10 [†]	-.06	-.31**	-.31**	1.00			
11. RSC	-.34**	-.20**	-.24**	-.30**	-.24**	-.10 [†]	-.11*	-.28**	-.29**	.77**	1.00		
12. RRO	-.46**	-.34**	-.46**	-.28**	-.23**	-.08	-.17**	-.42**	-.67**	.73**	.52**	1.00	
13. RC	-.36**	-.02	-.15**	-.28**	-.39**	-.22**	-.27**	-.33**	-.24**	.64**	.51**	.48**	1.00
14. RO	-.12*	-.23**	-.26**	-.12*	.02	.02	.20**	-.10*	-.19**	.70**	.36**	.36**	.15**
15. NA	.24**	.10*	.12*	.25**	.29**	.09 [†]	.07	.17**	.13**	.28**	-.04	-.06	-.11*
16. AQ	.41**	.30**	.48**	.38**	.27**	-.08	.07	.28**	.39**	-.15**	-.18**	-.30**	-.11*
17. PAgg	.41**	.32**	.53**	.25**	.23**	-.06	.11*	.31**	.36**	-.19**	-.18**	-.34**	-.11*

(table continues)

Table 21. (continued)

	14	15	16	17	18	19	20	21	22	23	24	25	26
14. RO	1.00												
15. NA	.22**	1.00											
16. AQ	-.10*	.29**	1.00										
17. PAgg	-.13**	.16**	.79**	1.00									
18. VAgg	-.02	.18**	.79**	.49**	1.00								
19. Ang	-.09 [†]	.24**	.83**	.57**	.57**	1.00							
20. H	-.09 [†]	.32**	.75**	.43**	.40**	.54**	1.00						
21. CAAS	-.27**	.25**	.58**	.55**	.42**	.49**	.35**	1.00					
22. CAng	-.23**	.28**	.52**	.39**	.39**	.45**	.40**	.87**	1.00				
23. CAgg	-.25**	.16**	.49**	.56**	.34**	.41**	.21**	.87**	.53**	1.00			
24. AC	.05	-.09 [†]	-.02	-.01	-.01	-.05	-.04	-.13**	-.09 [†]	-.13**	1.00		
25. KWP	.01	.16**	.14**	.19**	.05	.15**	.06	.14**	.07	.17**	-.15**	1.00	
26. AG	.07	-.04	-.05	-.03	-.08	-.04	.02	-.16**	-.11*	-.18**	.35**	.34**	1.00
27. HAS	.04	.13**	.25**	.19**	.21**	.21**	.18**	.18**	.21**	.15*	.11*	-.04	.04

(table continues)

Table 21. (continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13
18. VAgg	.25**	.26**	.35**	.14**	.15**	-.19**	.05	.17**	.25**	-.04	-.07	-.19**	.00
19. Ang	.32**	.23**	.37**	.19**	.23**	-.06	.05	.26**	.38**	-.15**	-.16**	-.27**	-.11*
20. H	.32**	.15**	.24**	.30**	.27**	.09 [†]	.05	.19**	.29**	-.09 [†]	-.15**	-.15**	-.14*
21. CAAS	.56**	.44**	.69**	.35**	.33**	.01	.10*	.36**	.52**	-.33**	-.31**	-.49**	-.21**
22. CAng	.39**	.35**	.49**	.32**	.24**	-.00	-.02	.17**	.38**	-.22**	-.23**	-.35**	-.12*
23. CAgg	.57**	.42**	.70**	.30**	.34**	.02	.19**	.44**	.52**	-.35**	-.30**	-.49**	-.24**
24. AC	-.14**	-.12**	-.08	-.10 [†]	-.13**	.04	.03	-.18**	-.10 [†]	.11*	.15**	.10*	.09 [†]
25. KWP	.20**	.13**	.14**	.14**	.13**	-.03	.18**	.21**	.13**	-.11*	-.18**	-.18**	-.17**
26. AG	-.07	-.09	-.14**	.02	-.05	.04	.05	-.11*	-.13**	.06	.06	.08	-.02
27. HAS	.20**	.26**	.21**	.12*	.10 [†]	-.05	.09	.10 [†]	.14**	.20**	.20**	.06	.17**

Note. SUB=Scale of Interpersonal Unsportspersonlike Behavior; HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic; MSOS=Sportspersonship; RSC=Respect for social conventions; RRO=Respect for rules and officials; RO=Respect for opponents; NA=Negative approach toward participation; AQ=General Aggression; VAgg=Verbal aggression; Ang=Anger; H=Hostility; HAS=Hypercompetitive attitudes

[†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

5.6.4 Convergent validity among interpersonal behaviors. Having provided support for the validity of the unsportspersonlike like nature of the SUB, convergent validity between the SUB categories and the IIP-C octants were next examined in an attempt to initially validate the interpersonal nature of the SUB. Convergent validity was determined by examining correlations between SUB scores and the scores of the IIP-C octants as they were predicted to relate to the categories of the SUB. As displayed in Table 22, SUB categories generally had small to moderate associations with related IIP-C categories.

An examination of the ipsatized categories of interpersonal unsportspersonlike and ipsatized interpersonal problems indicated that the antisocial, disrespectful, and melodramatic behavior scores failed to meet predictions. This indicated that these categories of unsportspersonlike behavior may not tap the interpersonal problem they were expected to be associated with. Instead, antisocial behavior scores were most related to vindictive problem scores ($r = .22, p < .01$) and melodramatic behavior scores were most related to domineering problem scores ($r = .11, p < .05$). This finding was promising as these categories of interpersonal problems are adjacent to each of these unsportspersonlike behaviors. Abetting behavior scores were significantly negatively related to self-sacrificing problem scores ($r = -.13, p < .05$) indicating that these behaviors may be affiliative toward teammates or friends but hostile toward opponents. As predicted, hypercompetitive behavior scores were significantly negatively related to nonassertive problem scores ($r = -.28, p < .01$); intimidating behavior scores were significantly negatively related to overly accommodating interpersonal problem scores ($r = -.29, p < .01$); acquiescent behavior scores were related to domineering and nonassertive interpersonal problem scores ($r = -.09, p < .07$; $r = .36, p < .01$ respectively); and overly

deferential scores were marginally negatively related to vindictive interpersonal problem scores ($r = -.09, p < .09$). Overall, this pattern of relationships suggests that, although there are a few issues with the categories comprising the SUB, there is a strong interpersonal nature to the SUB.

5.6.5 Concurrent validity of SUB scores and achievement goals. The next step of the validation process examined how the SUB was able to concurrently predict achievement goals. Concurrent validity was determined by examining correlations between SUB scores and AGQ-S scores. As with the examinations of convergent validity, these correlations were examined between general SUB scores, category scores, as well as ipsatized categories. Results are displayed in Table 23. Overall, interpersonal unsportsmanlike behavior was negatively related to mastery-approach goal scores ($r = -.16, p < .01$). Approach-valenced goals were positively related to hypercompetitive and antisocial behavior scores and negatively related to overly accommodating and abetting behavior scores, when examining the ipsatized categories. Additionally, avoidance-valenced goals were positively associated with intimidating and antisocial behavior scores and negatively related to accommodating and abetting behavior scores.

Table 22. Reconfirming SUB Correlations with Interpersonal Problem Scores

	iipcPA	iipcBC	iipcDE	iipcFG	iipCHI	iipcJK	iipcLM	iipcNO
iipcPA	1.00							
iipcBC	.76**	1.00						
iipcDE	.58**	.76**	1.00					
iipcFG	.42**	.57**	.70**	1.00				
iipCHI	.25**	.36**	.52**	.71**	1.00			
iipcJK	.22**	.22**	.34**	.55**	.74**	1.00		
iipcLM	.33**	.25**	.30**	.44**	.52**	.70**	1.00	
iipcNO	.64**	.53**	.42**	.30**	.38**	.43**	.52**	1.00
HYP	.36**	.33**	.26**	.12**	.00	.00	.09 [†]	.25**
INT	.45**	.39**	.31**	.17**	.02	.01	.08	.31**
ANT	.42**	.43**	.28**	.24**	.19**	.12*	.18**	.32**
DIS	.41**	.38**	.33**	.26**	.21**	.18**	.20**	.38**
ACQ	.12*	.13*	.18**	.31**	.35**	.36**	.27**	.15**
OVR	.21**	.19**	.20**	.16**	.19**	.16**	.16**	.27**
ABT	.45**	.40**	.33**	.19**	.16**	.13*	.09 [†]	.38**
MLD	.47**	.40**	.31**	.21**	.16**	.09 [†]	.11*	.37**

Note. IIP-C=Interpersonal problems; iipcPA=Controlling; iipcBC=Vindictive; iipcDE=Cold; iipcFG=Inhibited; iipCHI=Nonassertive; iipcJK=Accommodating; iipcLM=Self-Sacrificing; iipcNO=Intrusive; SUB=Scale of Interpersonal Unsportsmanlike Behavior; HYP=Hypercompetitive; INT=Intimidating; ANT=Antisocial; DIS=Disrespectful; ACQ=Acquiescent; OVR=Overly Deferential; ABT=Abetting; MLD=Melodramatic.

[†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

Table 23. Reconfirming AGQ-S and Unipsatized and Ipsatized SUB Concurrent Validity Correlations

	PAP	MAP	PAV	MAV
SUB	-.00	-.16**	-.02	-.08
Hyp	.18**	.08	.03	-.03
Int	.08	-.02	-.05	-.07
Ant	.09	-.09 [†]	.04	.03
Dis	-.03	-.13*	.08	-.00
Acq	-.07	-.13*	.02	.01
Ovr	-.25**	-.24**	-.11*	-.15**
Abt	-.13*	-.25**	-.10*	-.18**
Mld	.06	-.09 [†]	-.04	-.05
iHyp	.25**	.21**	.06	.02
iInt	.10 [†]	.10 [†]	-.06	-.02
iAnt	.11*	.04	.09	.13*
iDis	-.06	-.05	.12*	.07
iAcq	-.07	-.03	.04	.06
iOvr	-.28**	-.16**	-.12*	-.12*
iAbt	-.14*	-.18**	-.11*	-.16*
iMld	.10 [†]	.05	-.03	.02

Note. PAP = Performance approach goals; MAP = Mastery approach goals; PAV = Performance avoidance goals; MAV = Mastery avoidance goals; SUB = Scale of interpersonal unsportspersonlike behavior; Hyp = Hypercompetitive; Int = Intimidating; Ant = Antisocial; Dis = Disrespectful; Acq = Acquiescent; Ovr = Overly Deferential; Abt = Abetting; Mld = Melodramatic; iHyp = ipsatized Hypercompetitive; iInt = ipsatized Intimidating; iAnt = ipsatized Antisocial; iDis = ipsatized Disrespectful; iAcq = ipsatized Acquiescent; iOvr = ipsatized Overly Deferential; iAbt = ipsatized Abetting; iMld = ipsatized Melodramatic.

[†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

5.6.6 Discriminant validity of SUB scores. Discriminant validity was determined by examining correlations between the total and category SUB scores and social desirability scores. General interpersonal unsportspersonlike behavior scores were negatively related to social desirability ($r = -.23, p < .01$). Excluding antisocial ($r = -.13, p < .05$) and overly deferential behavior scores ($r = .17, p < .01$), ipsatized relations demonstrated non-significant relations with social desirability. Further support for the discriminant validity of the SUB with social desirability was evidenced by the significant relations between social desirability scores and other measures including sportspersonship scores (MSOS, $r = .17, p < .01$), aggression scores (AQ, $r = -.30, p < .01$), competitive anger and aggression scores (CAAS, $r = -.28, p < .01$), acceptance of cheating (AMDYSQ, $r = .26, p < .01$), keeping winning in proportion (AMDYSQ, $r = -.21, p < .01$), and interpersonal problem scores (IIP-C, $r = -.24, p < .01$).

5.6.7 Gender, sport, and experience related findings. This study was comprised of men and women from a wide variety of sports and a large range of experience. As such, participants differences on interpersonal unsportspersonlike behavior as a function of sex, sport type (as examined by contact level), or years of competitive experience was examined. ANOVA analyses indicated gender differences on interpersonal unsportspersonlike behavior ($F(1, 280) = 15.19, p < .01, \eta = .20$) with men reporting significantly higher levels of interpersonal unsportspersonlike behavior than women ($M = 1.93$ vs. 1.76). In addition, men reported higher hypercompetitive ($F(1, 399) = 12.45, p < .01, \eta = .17$), intimidating ($F(1, 400) = 36.37, p < .01, \eta = .29$), overly deferential ($F(1, 394) = 11.04, p < .01, \eta = .17$), abetting ($F(1, 396) = 12.12, p < .01, \eta = .17$), and melodramatic ($F(1, 399) = 10.75, p < .01, \eta = .16$) behavior scores. When scale scores were ipsatized, results revealed that men reported higher intimidating behavior scores (F

(1, 379) = 28.67, $p < .01$, $\eta = .27$) and lower antisocial ($F(1, 379) = 13.74$, $p < .01$, $\eta = .19$) and acquiescent ($F(1, 379) = 16.63$, $p < .01$, $\eta = .23$) behavior scores than women.

In addition to these gender differences, the level of contact at which athletes were currently participating influenced SUB scores ($F(2,399) = 5.94$, $p < .01$, $\eta = .17$). More specifically, contact level significantly influenced hypercompetitive ($F(2,418) = 5.95$, $p < .01$, $\eta = .16$), intimidating ($F(2,419) = 15.90$, $p < .01$, $\eta = .27$), overly deferential ($F(2,417) = 6.13$, $p < .01$, $\eta = .17$), abetting ($F(2,413) = 6.10$, $p < .01$, $\eta = .17$), and melodramatic behavior ($F(2,418) = 8.92$, $p < .01$, $\eta = .20$). The nature of these differences, calculated using the Bonferroni correction tests ($p < .006$), is shown in Table 24. When these behaviors were ipsatized, contact level significantly influenced nearly all SUB category scores with the exception of hypercompetitive behavior.

Finally one's length of competitive sport experience significantly influenced intimidating ($F(4, 410) = 5.30$, $p < .01$, $\eta = .16$) and acquiescent ($F(4, 409) = 3.23$, $p < .05$, $\eta = .13$) behavior scores. Again, post hoc analyses using the Bonferroni correction indicated that, athletes with the most experience (eight or more years) reported significantly higher intimidating behavior scores than athletes with the least experience (three or less years; $M = 2.30$ vs. 2.18). On the other hand, athletes with the least competitive sport experience (three or less years) reported higher acquiescent behavior scores than athletes with more experience (four to seven years; $M = 1.85$ vs. 1.97). When ipsatized, athletes with the most sport experience (eight or more years) reported higher intimidating behavior scores than athletes with the least experience (three or less years; $F(2,390) = 7.07$, $p < .01$, $\eta = .19$), less disrespectful behavior than athletes with less experience (four to seven years; $F(2,390) = 3.57$, $p < .05$, $\eta = .13$), and less acquiescent

behavior than athletes with the least experience (three or less years; $F(2,390) = 4.84, p < .01, \eta = .16$).

Table 24. Contact Level Differences in Interpersonal Unsportspersonlike Behavior

Category	Level	Δ Mean	Ipsatized Δ Mean	Ipsatized F (2, 399)
<i>Hypercompetitive</i>				1.79
	Collision	Contact	-.13	.00
		Noncontact	.21*	.12
	Contact	Noncontact	.34**	.12
<i>Intimidating</i>				18.97**
	Collision	Contact	.08	.19*
		Noncontact	.43**	.34**
	Contact	Noncontact	.34**	.16 [†]
<i>Antisocial</i>				5.04**
	Collision	Contact	-.13	.00
		Noncontact	-.04	-.15*
	Contact	Noncontact	.08	-.15 [†]
<i>Disrespectful</i>				4.63**
	Collision	Contact	-.22*	-.12
		Noncontact	-.06	-.15**
	Contact	Noncontact	.16	-.04
<i>Acquiescent</i>				6.63**
	Collision	Contact	-.10	.02
		Noncontact	-.14	-.23**
	Contact	Noncontact	-.04	-.24*

(table continues)

Table 24. (continued)

Category	Level	Δ Mean	Ipsatized Δ Mean	Ipsatized F (2, 399)
<i>Overly Deferential</i>				3.00 [†]
	Collision	Contact	-.34**	-.18
		Noncontact	-.04	-.14
	Contact	Noncontact	.30**	.04
<i>Abetting</i>				2.94 [†]
	Collision	Contact	-.01	.11
		Noncontact	.22**	.11
	Contact	Noncontact	.23*	-.01
<i>Melodramatic</i>				3.03*
	Collision	Contact	-.13	-.03
		Noncontact	.20*	.10
	Contact	Noncontact	.33**	.12
<i>SUB</i>				
	Collision	Contact	-.12	
		Noncontact	.09	
	Contact	Noncontact	.20**	

Note. [†] = $p < .08$. * = $p < .05$. ** = $p < .01$.

5.7 Discussion

This study describes the psychometric properties and potential utility of a new self-report measure of interpersonal unsportsmanlike behavior, the SUB. The demonstration of construct validity of a measure is the ultimate objective of the scale development (Cronbach & Meehl, 1955). As construct validity cannot be inferred from a single set of observations, whether these pertain to a measure's factor structure or

correlations with other measures, the purpose of this study was to cross-validate both the factor structure of the SUB identified in the previous study as well as the construct validity of the instrument. The analysis of the scales reliability and validity used a specific procedure to examine measurement properties of the through the provision of evidence relating to internal consistency, factor structure, concurrent, convergent, and discriminant validity.

5.7.1 Reliability. The scales of the SUB were shown to have good internal and inter-item reliability. Based reliability analyses, some minor changes were made to the scale including deleting some of the items. In practically all cases, each individual item contributed positively to the reliability of the scale score (i.e., the α score would be lower if the item were deleted). Where this was not the case (for example with the following question, “It is easy for me to justify cheating when my success is on the line” in the hypercompetitive behavior subscale) the item was dropped. This improved the reliability of the hypercompetitive behavior subscale from the previous study. These items identified across the two scales were relatively consistent and deletions resulted in a slightly shorter scale (39 vs. 40 items), which is the desired outcome in the construction of questionnaires. Thus, the pre-condition for validity was met (Nunnally, 1978).

5.7.2 SUB structure. The structure of the SUB was cross-validated by retesting the interpersonal model of unsportspersonlike behavior confirmed in the previous study in this sample. In accordance with the two-step approach (Anderson & Gerbing, 1988), all SUB items loaded onto their specified category of interpersonal unsportspersonlike behavior. The fit of items on the categories of hypercompetitive and abetting behavior was of particular interest as these categories had the lowest fit in chapter four. Findings from the present study indicated that both subscales displayed good fit.

Following the confirmation of the eight-first order factors, the hierarchical nature of the SUB was established. Reconfirming and cross-validating the structure of the SUB suggests (a) that the structure of the SUB generalizes across samples; (b) increased confidence in the SUB's construct validity; and (c) that the assumptions of Interpersonal Theory are met. Results again supported the presence of a second-order unsportspersonlike behavior factor and of the interpersonal factors of dominance and affiliation. These findings are aligned with other conceptual approaches to examining interpersonal behavior as well as unsportspersonlike behavior. The presence of a second-order unsportspersonlike behavior factor indicated that all subscales are part of one overriding construct – unsportspersonlike behavior – which can be used either as a measure of general unsportspersonlike behavior or as a measure of the eight subscale constructs.

In addition, the presence of two higher-order factors of dominance and affiliation provided support for the interpersonal nature of unsportspersonlike behavior. Organizing unsportspersonlike behaviors around these factors provided a theoretically-based and more comprehensive measure. Previous measures appear to assess important, but fragmented, pieces of sportspersonship and with the exception of the MDSS, previous measures are not theoretically based. The confirmation of the factor structure of the SUB also indicates that there are a broader range of unsportspersonlike behaviors than previously examined. Submissive and affiliative behaviors, which have not previously been examined in the literature, appear to be previously overlooked aspects of unsportspersonlike behavior. Identifying these behavioral categories opens up new possibilities for study. With a broader, theoretically derived and empirically tested measure of interpersonal unsportspersonlike behavior in competence based physical

activity settings, more sophisticated studies of the antecedents and consequences of unsportspersonlike behavior can be conducted, yielding more reliable results. Different types of unsportspersonlike behavior may have different causes and different effects, as has been identified in unethical behavior in the workplace (Treviño & Weaver, 2003; Vardi, 2001), which, when proven, would further strengthen the criterion-validity of the measure. By drawing a distinction between eight categories of interpersonal unsportspersonlike behavior, the relationship between these types of behavior can be further examined which could lay the foundation for developing an understanding of the relation between different types of unsportspersonlike behavior.

These findings laid a foundation for furthering the understanding of unsportspersonlike behavior. However, there are some issues that warrant further attention. Although findings for the individual category models demonstrated better fit than in chapter four, there were some problems with items in the full model. “It is easy for me to forfeit a competition to avoid sure defeat,” no longer significantly loaded onto the disrespectful behavior category in the full model. In further considering the content of this item, it is not surprising that this item may behave “inappropriately” given that it is assessing forfeiting a competition while all other items loading onto this factor are assessing underhanded ways to gain an advantage in a competition. Additionally, two items of abetting behavior, “It is hard for me to resist helping someone gain an unfair advantage in a competition,” and “It is easy for me to help others bend or break the rules in a competition,” no longer significantly loaded onto the abetting behavior category in the full model. It is not apparent why this was the case. Perhaps it is related to the nature of abetting behavior. The items are, in a sense, more experimental than some of the other categories of behavior since friendly behaviors are not typically considered

unsportspersonlike. Along these lines, it could be that abetting behaviors do not reflect unsportspersonlike behavior. However, it is more likely that issues lie in the items rather than the conceptual framework. I say this because issues of justice, fair play, and harm are at stake in these situations just as they are with more traditional notions of poor sportsmanship. Regardless of the reason, these findings suggest future revision of these scales may be necessary.

5.7.3 Construct validity. Again, the construct validity of the SUB was demonstrated through evidence for convergent, criterion, and discriminant validity both for the overall scale and for the eight subscales. The SUB showed convergence with measures of interpersonal problems, hypercompetitive attitudes, general aggression, competitive anger and aggression, and low sportsmanship suggesting that (a) there is a strong interpersonal nature to unsportspersonlike behavior, (b) interpersonal unsportspersonlike behavior is assessing a variety of sportsmanship attitudes and (c) interpersonal unsportspersonlike behavior is a larger construct than aggression or cheating alone.

Interestingly, amoral decision making was unrelated to interpersonal unsportspersonlike behavior in the current study, and was negatively related to interpersonal unsportspersonlike behavior in the study reported in chapter four. The AMDYSQ is one of the newer measures of sportsmanship and with exception of the study reporting its development, has not been used in any published research to date. In the validation process, content validity of the AMDYSQ was assessed in relation to the MSOS. Although the authors found moderate correlations (Lee et al., 2007) there were no significant relations between the AMDYSQ and the MSOS in the current study. One explanation for this could be due to differences in the questionnaires used in the current

project and in the development of the AMDYSQ. The wording of some MSOS items was adapted in the AMDYSQ development studies (Lee et al., 2007). However, (a) it seems unlikely that wording changes would be that influential and (b) there was a significant relation between the AMDYSQ and MSOS in the previous study. In addition to the null relations between the AMDYSQ and the MSOS, in the current study, the AMDYSQ is unrelated to every other measure of sportspersonship as well.

These findings suggest that, the AMDYSQ may not be a reliable measure of sportspersonship for two reasons. First, the AMDYSQ does not appear to consistently measure sportspersonship. Second, when the AMDYSQ does appear to measure sportspersonship, it does not appear to measure antisocial attitudes as the authors suggest as it is positively related to the MSOS and negatively related to the SUB. Together these results demonstrate that (a) even with recent attempts to improve and expand the measurement of sportspersonship, the need for a more reliable measure of sportspersonship still exists and (b) the SUB appears to be a more reliable measure of sportspersonship than the AMDYSQ.

In terms of the categories of interpersonal unsportspersonlike behavior, results indicated that previously measured aspects of sportspersonship are reflected in the different categories of behavior. As predicted, categories of the SUB assessing aspects of sportspersonship previously identified and measured were related to those measures as well as to interpersonal behavior. Specifically, hypercompetitive behavior was related to hypercompetitive attitudes and low interpersonal problems of non-assertiveness or having no trouble expressing one's needs to others. These findings suggested that individuals engaging in hypercompetitive behaviors appeared to hold a win-at-all costs mentality and to have trouble allowing others an equal chance for success. Intimidating behaviors were

related to physical and verbal aggression and competitive anger and aggression as well as interpersonal problems of vindictiveness and a low concern for others. This finding suggested that these individuals bitterly compete with others in their bid to win-at-any cost. Although individuals engaging in antisocial behavior took a negative approach to sport participating, they did not seem to have minimal concern for others; yet individuals reporting antisocial behavior were willing to ignore and criticize others. Disrespectful behavior was related to a negative approach toward sport, a low respect for commitment and interpersonal problems of social avoidance or indifference toward others. This suggested that individuals engaging in disrespectful behavior ignore both social overtures and others. Together, these results indicated that these categories of behavior converged with aspects of sportpersonship and interpersonal behavior reasonably well.

The other four categories of the SUB have not been measured on a questionnaire in a research study before this series of studies. Thus, identifying and assessing these categories of behavior served to expand one's understanding of sportpersonship. Results indicated that these categories of behavior converged with aspects of sportpersonship and interpersonal behavior moderately well. Specifically, acquiescent behavior was related to low hypercompetitive attitudes, low levels of aggression, a respect for rules and officials, and interpersonal problems of non-assertiveness. These findings suggested that individuals engaging in acquiescent behavior tend to take directions from others and follow their lead. These individuals are quick to agree with others, yield to their viewpoint, and back down quickly.

Overly deferential behavior was related to a respect for one's opponents, low aggression, and interpersonal problems of being too selfless, affectionate, and connected with others. These findings suggested that individuals engaging in overly deferential

behavior tend to be taken advantage of by others by supporting their efforts rather than challenging their bid for success.

Abetting behaviors were related to a low respect for rules and officials indicating that individuals who would help others gain an unfair advantage are willing to disregard the guidelines of the sport to help others succeed. This behavior was not, related to interpersonal problems of excessive generosity or care for others as predicted, but seemed to center more on issues with control. This indicated that although abetting behavior was affiliative in the sense that it was directed toward another's success, individuals who engage in abetting behaviors may be doing so in an attempt to impose their desires on others.

Melodramatic behaviors were viewed as slightly more aggressive than expected and were related to a low respect for others. These findings suggested that individuals engaging in melodramatic behaviors may do so out of emotive outbursts of anger and aggression in an attempt to direct others attention and concern toward their plight.

Taken together, these results indicated that there is overlap between the SUB and other assessments of sportpersonship indicating these scales were measuring similar underlying construct. However, the relations with interpersonal problems and the unique variance between the ratings suggested that there are distinctions between the measures; most notably, that the SUB appears to be assessing unsportpersonlike behavior from a broader interpersonal perspective.

One issue in previous measurements of sportpersonship has been the relation between sportpersonship and achievement goals. Similar to previous research indicating that unsportpersonlike behavior is negatively related to mastery goals (Kavussanu, 2006; Kavussanu *et al.*, 2006) and unrelated to performance goals (Carpenter & Yates, 1997;

Fry & Newton, 2003; McCutcheon, 1999), this study found that unsportspersonlike behavior was negatively related to mastery-approach goals and unrelated to performance goals. It is consistently theorized that unsportspersonlike behavior should be related to performance goals, yet these findings have had the least conclusive results. This study approached the question of the concurrent influence of sportspersonship on achievement goals differently than any previous studies (a) by assessing sportspersonship from a broader perspective than has been previously examined and (b) through the examination of both approach- and avoidance-valenced achievement goals rather than the traditional approach of assessing only approach-valence goals. When controlling for general unsportspersonlike behavior, results indicated that distinguishing between the different categories of interpersonal unsportspersonlike behavior as well as between both goal-valence and competence striving, yielded a more detailed and explicable pattern of results. As in chapter four, hypercompetitive behavior was related to mastery-approach and performance-approach goals. This suggested that individuals who strive to “win-at-any cost” adopt goals both to strive for task mastery and to outperform others. Although intimidating behavior was unrelated to achievement goals in chapter four, similar to the association between hypercompetitive behavior and achievement goals, intimidating behavior was related to mastery-approach goals and marginally related to performance-approach goals. Perhaps individuals who are willing to dominate and harm others in an attempt to succeed, desire to perform to the best of their ability and, to some extent, demonstrate superiority relative to others. Antisocial behavior in the current study, but not in chapter four, was related to both performance-approach and mastery-avoidance goals suggesting that these individuals are concerned with outperform others while avoiding performing worse than they have previously performed. Avoidant behavior is

related to a mastery-avoidance goals suggesting that hostile-submissive athletes adopt goals to avoid appearing incompetent in relation to others. Acquiescent behavior was not related to any achievement goals; perhaps one reason that athletes would behave so submissively in sport is that they are not concerned with the outcome or their performance. Overly deferential behavior was negatively related to all achievement goals. Finally melodramatic behavior was marginally related to performance-approach goals suggesting that individuals who engage in excessive displays of emotion may do so in an attempt to outperform others. Clearly, by examining unsportspersonlike behavior from an interpersonal perspective and by differentiating achievement goals by both competence and valence, a more detailed and comprehensible pattern of behavior is apparent.

Having examined convergent and content validity the final step in the validation process of the SUB was to examine the discriminant validity of the measure. Although interpersonal unsportspersonlike behavior in general was negatively related to social desirability, when examining the categories of behavior, only antisocial and overly deferential behavior were related to social desirability. Specifically, it seems that participants did not want to be viewed as antisocial but did want to be viewed as overly deferential. Although in a perfect scenario, the scale would be unrelated to social desirability, the effects seen were small. In addition, virtually all other sportpersonship scales used in this study were related to social desirability. In the previous study, the SUB did discriminate from social desirable responding. Taken together – the small effect, the effects for the other measures, and the previous discriminant validity – these findings indicate that (a) the SUB is less influenced by social desirability of responding than previous measures, (b) overall, the SUB demonstrates reasonable discriminant validity, and (c) perhaps it is a function of the sample, rather than the measure itself that is

influencing this relation, although further testing is needed before conclusions regarding that proposition can be made.

5.7.4 Participant related differences. Although previous results have been mixed, males in this study reported higher levels of unsportspersonlike behavior than females. This finding is similar to research findings that males endorse more unsportspersonlike behaviors than females (Kavussanu & Roberts, 2001). When controlling for non-interpersonal variance, males reported engaging in more intimidating behavior and less antisocial and acquiescent behavior than females. This differentiation could help explain some of the previously mixed findings. By differentiating categories of interpersonal unsportspersonlike behavior, the different relations of these categories was examined and seems to provide a clearer view of interpersonal unsportspersonlike behavior.

In line with previous research suggesting a connection between higher levels of sport contact and aggression (Bredemeier et al., 1987; Conroy et al., 2001; Silva, 1983; Tucker & Parks, 2001), current findings indicated that athletes participating in collision sports engaged in more hostile-dominant behaviors than athletes participating in lower levels of contact. The current finding that noncontact sport athletes engage in more submissive-affiliative behaviors expand the scope of previous research and indicated that perhaps participating in contact or collision sports promotes hostile-dominant behaviors while noncontact sport supports hostile-submissive behaviors.

Finally, regardless of their length of experience, athletes engaged in unsportspersonlike behaviors; athletes with more experience in competitive sports engaged in more intimidating behavior than athletes with less experience who engages in more acquiescent behavior. Once again these findings support and extend previous findings indicating that, in addition to the finding that more experienced athletes accept

and engage in more aggressive acts (e.g., Gardner & Janelle, 2002; Silva, 1983), less experienced athletes engage in more non-assertive behavior. Overall the reported differences in behavior indicate that submissive and affiliative unsportspersonlike behaviors, which are previously unstudied, contribute to the gender, experience, and contact level differences in interpersonal unsportspersonlike behavior.

5.8 Conclusions

In sum, the results display eight behavioral categories, as detailed by Interpersonal Theory, ranging in their levels and blends of agency and communion. The goodness-of fit of the model was good as was the internal reliability of the subscales. The new measure correlated with related constructs and did not correlate with unrelated constructs. In this sense the SUB shares the advantages of other interpersonal measures in that it assessed a broad range of traits (in this case unsportspersonlike behavior) associated with different levels of dominance and affiliation. The results also indicated that there was a negative correlation between interpersonal unsportspersonlike behavior and the individuals' conceptions of and goals for self-improvement and task mastery. Finally, athletes who have experience in a wider variety of sports, who have more extensive experience, or who are male score demonstrably differently on the subscales than athlete who have only non-contact sport experience, who have less experience, or who are female. Overall, these results indicate that the SUB provides an initial set of interpersonal behavioral dimensions that can be used to directly assess unsportspersonlike behavior although further work is necessary to test the stability of this new measure.

CHAPTER 6 - DISCUSSION

A major objective of this research was to develop a theoretically based measure of unsportspersonlike behavior. The present series of investigations sought to answer some basic questions regarding the construct of interpersonal unsportspersonlike behavior and, in particular, to examine the construct validity of interpersonal unsportspersonlike behavior measurement. In so doing, a theoretical model of interpersonal behavior in sport was examined. It has been argued that the development of a measure requires at least a tentative theoretical model to guide the process (Hinkin, 1998). Although much of the research in the field stems from different theoretical perspectives, with the exception of the Moral Disengagement Scale (Boardley & Kavussanu, 2007), no other current measures of sportpersonship have a strong theoretical grounding. Developing sound scales is a difficult and time-consuming process (Schmitt & Klimoski, 1991), and it seems that researchers have relied heavily on the face validity of measures of sportpersonship that appear to capture the construct of interest. However, even when a measure appears to be valid, it may lack construct and/or criterion-related validity (Stone, 1978). Previous work has emphasized statistical analysis, but statistical significance is of little value if the measures utilized are not reliable and valid (Nunnally, 1978). Overall, it seems that previous sportpersonship scale development efforts have been fragmented and incomplete. Theoretical progress is not possible without adequate measurement (Korman, 1974; Schwab, 1980). In this regard, the SUB may surpass previous measures as an appropriate tool to enhance the understanding of unsportspersonlike behavior.

6.1 SUB Development and Content Validity

6.1.1 Step 1: Defining interpersonal unsportspersonlike behavior. The SUB showed promise for a variety of reasons. The first reason related to the definition of

unsportspersonlike behavior provided. In developing a theoretically-based measure of interpersonal unsportspersonlike behavior, it was first necessary to decide upon construct definitions, as there seems to be no consistent agreement on this subject. As discussed in chapter two, sportspersonship has been defined and operationalized in a number of ways, and researchers have struggled with the disparity among nomenclatures representing essentially the same behaviors. As a result, few generalizations can be made about the effects of sportspersonship on behavior. In chapter two, unsportspersonlike behavior was reconceptualized as an interpersonal construct defined from its core aspects of harm, injustice, and violations of others' rights. A clear definition of unsportspersonlike behavior was an important aid in the development a potential categories of wrongdoing in sport and allowed me to expand traditional understandings of poor sportspersonship.

6.1.2 Step 2: Conceptual development. Another reason the SUB showed promise lies in the theoretical basis of the measure. The second step of the development process, reported in chapter three, established the basis on which behaviors could be considered both unsportspersonlike and interpersonal. Unsportspersonlike behaviors were considered interpersonal in the sense that they are centered on harm and injustice to others. Behaviors comprising these aspects were said to vary in their levels of dominance and affiliation, as the scope of interpersonal theory is clearly delineated to represent agentic and communal motives, goals, and behavior. By applying Interpersonal Theory to sport ethics, (a) a variety of unsportspersonlike behaviors were organized around the major interpersonal characteristics of agency and communion and (b) a theoretically-plausible, empirically-testable model organizing these behaviors was developed.

6.1.3 Step 3: Category development. Theoretically grounding unsportspersonlike behavior in Interpersonal Theory provided a means of organizing unsportspersonlike

behavior and opened the door to previously unexamined behaviors. The third step of the scale-development process involved elucidating an interpersonal model of unsportspersonlike behavior that linked ideas in ethics and philosophy to social, personality, and sport psychology. An examination of the unsportspersonlike behaviors recognized in previous research identified behaviors in six of the eight categories of interpersonal behavior detailed by Interpersonal Theory. These eight categories were labeled as hypercompetitive, intimidating, antisocial, disrespectful, acquiescent, overly deferential, abetting, and melodramatic, based on the interpersonal behaviors they were believed to represent. Results of the pilot studies provided support for both the interpersonal nature of these categories and the existence of these categories of behavior in sport. This interpersonal representation of unsportspersonlike behaviors helped to organize the previously identified and assessed unsportspersonlike behaviors (e.g., negative approach toward the practice of sport, cheating, aggression) and opened up new behavioral attributes for study. Such a comprehensive framework recognizes and accommodates more diverse types of unsportspersonlike behavior than is the case with any other existing measure. In addition, this categorization provided a common metric which can integrate the various and diverse systems of sportpersonship. As such, this new measure is useful for examining interpersonal unsportspersonlike behavior as a more general phenomenon. While most other empirical research into sportpersonship addresses two or three unsportspersonlike behaviors in isolation, such as cheating and gamesmanship (Lee et al., 2007), competitive anger and aggression (Maxwell & Moores, 2007), or a negative approach to sportpersonship (Vallerand et al., 1997), the SUB assesses eight categories of behavior. Including more items in a measure of a behavioral construct can provide more valid and reliable information on the underlying theoretical

construct (Fisher & Locke, 1992). As a broader measure, the SUB also opens the door to more comparable and comparative research.

6.1.4 Step 4: Item development and testing. The fourth step in the development of the SUB was to generate and identify items that covered the construct of interpersonal unsportspersonlike behavior and to test the measure. A rigorous process of item development and selection offered support for the promise of the SUB. A panel of expert judges reviewed and established the content validity of items that were developed from previous measures of sportspersonship and the general themes of interpersonal unsportspersonlike. In chapters four and five I reported the development and testing of a 39-item instrument, consisting of eight subscales, and utilizing a five-point Likert-style response option set. Items assessed how hard or easy it was for sport participants to engage in given behaviors. The range of allowable responses ranged from “very hard” to “not at all hard” or “not at all easy” to “very easy.” The 39-items retained through the testing process were found to have the best combination of reliability as assessed by internal consistency. Two independent samples were used throughout this process, as it has been argued that, due to potential difficulties caused by common source/common method variance, it is inappropriate to use the same sample both for scale development and for assessing construct validity (e.g., Hinkin, 1995). In both the initial examination of the SUB reported in chapter four as well as in the secondary examination reported in chapter five, full SUB reliability was very good. In addition, the requirement of unidimensionality of each of the eight subscales was confirmed, and reliability of the subscales was acceptable across both studies. There seems to be a widespread misconception that unidimensionality can be established simply by demonstrating that a scale shows an acceptable level of internal consistency (Clark & Watson, 1995).

Inasmuch as the MSOS has suffered from a variety of psychometric issues, the AMDYSQ has not demonstrated convergent validity, and neither the MSOS nor the AMDYSQ has demonstrated subscale unidimensionality, the SUB appears, at least initially, to be a more reliable measure than previous measures of sportspersonship.

6.1.5 Step 5: Structural confirmation. Following the confirmation of the eight first-order factors, the hierarchical nature of the SUB was examined in chapters four and five. Results supported the presence of a second-order unsportspersonlike behavior factor, indicating that all eight categories are part of one overriding construct. In addition, results supported the presence of two higher-order factors of dominance and affiliation signifying the interpersonal nature of the behaviors. This finding was consistent with the theory that interpersonal behaviors vary in their levels of dominance and affiliation. The presence of a higher-order factor of general unsportspersonlike behavior increases the utility of the SUB, allowing it to be used either as a measure of general interpersonal unsportspersonlike behavior, or a measure of the eight subscale constructs. Chapter five cross-validated the hierarchical eight-factor structure in an independent sample and provided evidence of the stability of the measure.

This is the first research to report an eight-factor first-order structure of interpersonal unsportspersonlike behavior. Other sportspersonship scales have displayed either two- (Gano-Overway et al., 2005; Maxwell & Moores, 2007), three- (Lee et al., 2007), four- (Dunn & Dunn, 1999; Vallerand et al., 1997) or five-factor structures (Vallerand et al., 1996). One explanation for this inconsistency is that previous research has not had a theoretical basis informing the expected number of factors. In addition, previous scales have typically not examined the unidimensionality of subscales. This could explain why the MSOS, in particular, has been found to have a varying number of

factors (e.g., Dunn & Dunn, 1999; Gano-Overway et al., 2005; Vallerand et al., 1996; Vallerand et al., 1997). With the application of Interpersonal Theory to the study of unsportspersonlike behavior, new behavioral possibilities for study emerge.

6.1.6 Step 6: Construct validity. The sixth step of the development process investigated the construct validity of the SUB. Construct validity was first assessed by empirically testing the hypothesized relations, or convergent validity, among interpersonal unsportspersonlike behavior constructs and related constructs. In chapter four the initial evaluation of construct validity was examined through concurrent validity with criterion tests of sportspersonship (MSOS: Vallerand et al., 1997), aggression (AQ: Buss & Perry, 1992; CAAS: Maxwell & Moores, 2007), hypercompetitive attitudes (HAS: Ryckman et al., 1990), amoral decision making (AMDYSQ, Lee et al., 2007) and interpersonal problems (IIP-C: Alden et al., 1990). Findings reported in both chapters four and five suggested that interpersonal unsportspersonlike behavior is composed of aspects of these other areas of sportspersonship and characterized by interpersonal problems. This suggests that (a) there are interpersonal aspects of unsportspersonlike behavior and (b) that the SUB assesses unsportspersonlike behaviors more broadly than previous measures.

For at least three reasons, a broad construct of unsportspersonlike behavior consisting of specific interpersonal behaviors helps us to better understand and prevent unsportspersonlike behavior. First, behaviors within a category of interpersonal unsportspersonlike behaviors could have similar consequences, and an opposing category could have different consequences. For example, intimidating behavior, such as threatening others, could lead to physical aggression, while acquiescent behavior, such as letting others take advantage of you in a competition, could lead to decreased motivation

due to low levels of autonomy. Second, behaviors within areas of interpersonal unsportspersonlike behavior (e.g., hostile-dominance) could have similar causes whereas opposing categories (e.g., submissive-affiliation) could have different causes. For example, a high-stakes competition may increase hypercompetitive, intimidating, and antisocial behavior because of the pressure athletes feel to outperform others, whereas practice situations may increase submissive, overly deferential, or abetting behavior because of the pressure athletes feel to support their teammates. Third, if different behaviors with different causes and consequences are present, it could suggest that without a broad measure assessing these different areas of interpersonal unsportspersonlike behavior, a variety of different measures would be required for a more complete understanding of unsportspersonlike behavior.

In examining the relations between the SUB categories and other related sportpersonship behaviors, it was also important to draw distinctions between these behaviors. The importance of drawing a distinction between interpersonal unsportspersonlike behavior and other related constructs (e.g., aggression, and interpersonal problems) is that for the latter some well-developed measures are available. For example, the AQ is probably the most widely used measure of trait anxiety, and the IIP-C is a high-quality measure of interpersonal problems. Despite the usefulness of these measures however, researchers cannot simply adopt them to assess unsportspersonlike interpersonal behavior. Given the nature of the measure, subtle differences between types of behaviors may have significant consequences for its measurement, understanding, and prevention (e.g., Treviño & Weaver, 2003).

Concurrent validity also has to be established in the construct validation process (Nunnally, 1978). Two studies were conducted to determine the capacity of the new

measure to incrementally assess relevant outcomes. A critical choice in any construct validation effort is the selection of outcome variables. Achievement goals were selected as an important outcome because they indicate how athletes define and evaluate successful performance. The relationship between achievement goals and interpersonal unsportspersonlike behavior differed between general interpersonal unsportspersonlike behavior and the subscales. The new measure of interpersonal unsportspersonlike behavior showed a negative relationship with mastery-approach goals. This finding from chapters four and five suggests that individuals engaging in interpersonal unsportspersonlike behavior are generally unconcerned with personal improvement and task-mastery and perhaps believe that the “ends justify the means”. Consistent relations across the studies also indicated that individuals engaging in hypercompetitive behavior were focused on both improving their past performance and outperforming others. Individuals engaging in intimidating behavior were centered on improving or mastering their performance, while those engaging in overly deferential behaviors were concerned with avoiding performing worse than they had in the past. These findings provide support for the concurrent validity of the SUB.

The final test of construct validity involved discriminant validity. In chapter four it was determined that there were no strong social desirability effects, providing support for the validity of the SUB. In chapter five, the SUB was negatively related to social desirability, although this association did not appear to be substantial. The inconsistency, although perhaps due to the low reliability of the BIRD in these studies, suggests that further testing may be warranted. Overall, however, the SUB appears to have better discriminant validity from socially desirability of responding than other measures of sportspersonship as indicated both by the intercorrelations between the other measures of

sportsmanship assessed in this study and by previous studies that examined the effects of social desirability on the AMDYSQ (Lee et al., 2007). This is promising overall, as the studies for the convergent, concurrent, and the discriminant validity of the SUB supported the content validity of the measure.

6.1.7 Step 7: Participant-related differences. The final examination of the validity of the SUB tested the effects of gender, experience, and contact level on interpersonal unsportsmanlike behaviors. Findings reported in Chapter 4 indicated that males, athletes with experience in collision sports, and athletes with more than eight years of sport experience displayed higher levels of hostile-dominant behaviors and lower levels of submissive behaviors. In chapter five, I noted the confirmation of these results in an independent sample and extended them. Findings suggested that it is not just lower levels of submissive behavior that males, athletes with experience in collision sports, and athletes with longer sport experience report, but lower levels of hostile-submissive behaviors as well. These results, which are the first report on submissive behaviors, suggest that perhaps athletes with different sport experiences – whether they are related to gender, contact level, or experience differences – may be socialized through their experience to engage in different types of unsportsmanlike behavior. It seems that regardless of the participant-related differences, athletes report engaging in interpersonal unsportsmanlike behavior. The difference may be that as individuals are socialized into sport, they shift from submissive types of unsportsmanlike behavior to more dominant types of unsportsmanlike behavior.

At the same time, gender, contact level, and experience variables explained only a small proportion of the variance in interpersonal unsportsmanlike behavior. Clearly, there are other aspects that play a role in determining interpersonal unsportsmanlike

behavior. For example, additional personality characteristics such as interpersonal values, social competence, self-esteem, fear of failure, and emotionality (see Eisenberg & Fabes, 1998) may be influential in predicting interpersonal unsportspersonlike behavior.

Likewise, environmental variables such as motivational climate and moral atmosphere, may be important (Kavussanu, Roberts, & Ntoumanis, 2002; Stephens, 2000, 2001).

Furthermore, Interpersonal Theory itself may help explain some of this variance as men tend to show more behavioral dominance, whereas women tend to show more behavioral affiliation (e.g., Fehr & Broughton, 2001; Luxen, 2005).

6. 2 Limitations

Although the SUB shows great promise, the research reported here has notable limitations. Although studying interpersonal unsportspersonlike behavior in a university setting has produced important information on the construct of interpersonal unsportspersonlike behavior, future research will need to examine prevalence rates and the nature of unsportspersonlike behavior in other athletic samples.

In addition, the studies here examined athletic individuals in a wide range of sports and with a wide range of experience. While that should have aided in a large external validity of the construct, it was difficult to establish high levels of these behaviors in the sample. It may be that ratings of interpersonal unsportspersonlike behavior vary across sport, competitive level, and age group. The SUB was developed using participants from a number of individual and team sports, but no attempt was made to distinguish possible construct differences across sports. This decision was made for this study because a general measure of unsportspersonlike behavior was sought, one that could be used for virtually any type of sport. It may be useful to validate this assumption by comparing factor structures in selected sports. The last criticism is also true of sport

level; athletes in the current sample were certainly not elite performers and may not be truly representative of this group. Future work needs to look further at difference in experience and competitive level and perhaps compare prevalence rates across specific sports as well as different age groups.

Future work also is needed to further validate the SUB. The studies reported here should be regarded as the initial steps in developing and validating the SUB. Although findings are promising, it is important to continue this process as validation is almost never final (Robinson & Bennett, 1995). Additionally, concerns remain with some of the subscales, most notably that of abetting behavior. Before the soundness of this measure can be concluded, further studies examining the structure of the scale are necessary to provide evidence supporting or abating the validity of this measure. More research is therefore required to confirm the validity of the SUB.

Correlating the SUB with other measures of interpersonal behavior (e.g., CSIV; Locke, 2000) would help to reinforce its convergent validity. Discriminant-validity results need to be examined with caution. The BIDR did not demonstrate good reliability in these studies, so social desirability could be taken into account from a different perspective such as provided by the Marlowe-Crowne Social Desirability scale (MCSD; Crowne & Marlowe, 1960). Predictive validity is perhaps the most stringent test of an instrument's utility. Although concurrent validity was examined in relation to achievement goals, these results would be strengthened if they were assessed across time.

The SUB is intended as a trait-based measure. However, due to the unacceptable reliability estimates of the BFI, the relationship between traits and interpersonal unsportspersonlike behavior was not examined. Future research may benefit from examining this relation with a more reliable measure (e.g., NEO-FFI; Costa & McCrae,

1992). In addition, it is likely that unsportspersonlike behaviors fluctuate based on situational characteristics. For example, they may increase during a 'grudge' match, in a competition of particular importance, or in a team climate that reinforces unsportspersonlike behavior.

Other aspects of interpersonal unsportspersonlike behavior also warrant attention. Insights into the motivation of competitors and the role of moral disengagement may supply a better understanding of unsportspersonlike behavior in general. Analysis of human behavior requires accurate measurement that can be time consuming and costly if only observed behavior is considered. The development of accurate psychometric measures provides a partial solution to this problem. The scale produced here is potentially useful in the study of interpersonal unsportspersonlike behavior, but it requires further testing in various sports and populations of athletes.

Questionnaires are the most commonly used method of data collection in field research (Stone, 1978). Multiple scales have been developed to assess various attitudes, perceptions, or behaviors related to sportspersonship. However, measures are often used before adequate data exist regarding their reliability and validity (Schwab, 1980). Many researchers have drawn seemingly significant conclusions from the application of new measures only to have subsequent studies contradict their findings (e.g., Lee et al., 2007; Vallerand et al., 1996; Vallerand et al., 1997). Although there may be a number of substantive reasons for the fact that different researchers arrive at varying conclusions, perhaps the greatest difficulty in conducting survey research is assuring accuracy of measurement of the constructs under examination. The SUB was designed to reflect an athlete's propensity for unsportspersonlike behavior during competition. Therefore, correlations between poor SUB scores and frequency of observed unsportspersonlike

behavior should be positive. Also, assessments of peer or coach behavior could be correlated with self-assessments to provide further support for the representativeness of responses. In addition, alternatives to survey questionnaires such as ethnographic studies may help to dig beneath the surface exposed in survey research.

6.3 Practical Implications

Measuring unsportspersonlike behavior is essential if coaches, league officials, and administrators are to adopt measures to enhance the sportspersonship of the athletes and the teams. The instrument might be of use for both diagnosis and intervention. Athletes could be screened using the SUB to assess unsportspersonlike behaviors in general and what categories of behavior they struggle with. Coaches, parents, and/or sport psychologists could then intervene to reduce that specific behavior.

In this manuscript a measure was developed that covers a wide range of interpersonal unsportspersonlike behaviors. The outcome of the current research project is a 44-item questionnaire, clustered around eight interpersonal behaviors. Coaches could use this questionnaire, recognizing the limitations of the measure, by distributing it among team members. Athletes' responses could provide an overview into their level of unsportspersonlike behaviors based on their report, and also a break-down structured around interpersonal variables such as agency and communion. A coach then could determine which unsportspersonlike behaviors require attention and in what degree. The frequency of interpersonal unsportspersonlike behaviors can be evaluated in terms of seriousness, for example, the impact it may have on others as well as on the performance of the team, or how it compares to the observed frequencies within other teams or other athletes within the team.

6.4 Future Directions

It would be interesting to explore further whether different aspects of the motivational climate can predict support for unsportspersonlike behavior. I have argued that the more general construct of interpersonal unsportspersonlike behavior underpins the specific achievement goals that are brought to bear in sports settings. Initial findings indicated that individuals displaying different categories of interpersonal unsportspersonlike behavior related to their achievement goal adoption. Future investigations could include the perceived values and motivational climate of significant others and teams as independent factors that influence interpersonal unsportspersonlike behavior. Future research also could regress each type of interpersonal unsportspersonlike behavior on a measure of the motivational climate in the questionnaire to determine to what extent the motivational climate stimulates each type of interpersonal unsportspersonlike behavior and which aspects of the climate need to be improved to reduce the occurrence of interpersonal unsportspersonlike behavior. By conducting the survey again after actions have been taken, developments – and hopefully improvements – will become visible.

6.5 Conclusions

The SUB appears to be a sound instrument with a strong factor structure and content validity. The items that represent the constructs underlying the scales have undergone comprehensive statistical analyses to meet rigorous criteria. They represent important conceptual elements of those constructs. Specifically, following the steps of scale development recommended Clark and Watson (1995) a clear conceptualization of interpersonal unsportspersonlike behavior was defined. Items were identified to tap the construct of interpersonal unsportspersonlike behavior, and an over-inclusive initial item

pool was tested. After items were rated by experts to assure their interpersonal and unsportspersonlike nature, and all items were tested, along with variables that assess closely related constructs, on a heterogeneous sample representing a wide range of sports and levels of participation. In selecting scale items, unidimensionality requirements were met.

The SUB is suitable for use in investigations of previously unexplored dimensions of unsportspersonlike behavior. From this viewpoint, the process described throughout this manuscript has resulted in a new measure of interpersonal unsportspersonlike behavior that is theoretically grounded in its approach and differs in both content and structure from existing instruments. It accesses different facets of unsportspersonlike behavior than those measured by the MSOS, AMDYSQ, and CAAS in that it specifically addresses a broader range of behaviors than any one measure has assessed. While attitudes toward cheating, aggression, and sportspersonship have received direct treatment in the sport psychology literature (e.g., Lee et al., 2007; Stephens et al., 1997; Vallerand et al., 1997), this is the first time that a more comprehensive measure of unsportspersonlike behavior has been theoretically developed, tested, and reported.

REFERENCES

- Acton, G. S. (1998). Classification of psychopathology: The nature of language. *The Journal of Mind and Behavior, 19*, 243-256.
- Adams, R. S., & Tracey, T. J. (2004). Three versions of the Interpersonal Adjective Scales and their fit to the circumplex model. *Assessment, 11*, 263-270.
- Aicinena, S. (2007). Moral imperatives and modern sport. *Journal of Education and Human Development, 1*, retrieved November 3, 2008 from <http://www.scientificjournals.org/journals2007/articles/1045.htm>
- Alden, L. E., Wiggins, J. S., & Pincus, A. L. (1990). Construction of circumplex scales for the inventory of interpersonal problems. *Journal of Personality Assessment, 55*, 521-536.
- Ames, C. (1992). Classrooms: Goals, structures and student motivation. *Journal of Educational Psychology, 84*, 261-271.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*, 411-423.
- Arbuckle, J. L. (2006). Amos (Version 7.0) [Computer Program]. Chicago: SPSS.
- Bakan, D. (1966). *The duality of human existence*. Chicago: Rand McNally.
- Baron, R. A., & Richardson, D. R. (1994). *Human aggression* (2nd ed.). New York, NY: Plenum Press.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*, 226-244.

- Batson, C. D., O'Quinn, K., Fulty, J., Vanderplass, M., & Isen, A. M. (1983). Influence of self-reported distress and empathy on egoistic versus altruistic motivation to help. *Journal of Personality and Social Psychology, 45*, 706-718.
- Benjamin, L. S. (1974). Structural analysis of social behavior. *Psychological Review, 81*, 392-425.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238-246.
- Blair, S. (1985). Professionalization of attitude toward play in children and adults. *Research Quarterly for Exercise and Sport, 56*, 82-83.
- Boardley I. D., & Kavussanu, M. (2007). Development and validation of the moral disengagement in sport scale, *Journal of Sport and Exercise Psychology, 29*, 608-628.
- Boixados, M., Cruz, J., & Torregrosa, M. (2004). Relationships among motivational climate, satisfaction, perceived ability, and fair play attitudes in young soccer players. *Journal of Applied Sports Psychology, 16*, 301-317.
- Bollen, K. A. (1989). Structural equations with latent variables. New York: John Wiley & Sons.
- Boxill, J. (2003). *Sport Ethics: An anthology*. Malden, MA: Blackwell.
- Bredemeier, B. J. (1975). The assessment of reaction and instrumental athletic aggression. In, D. Landers (ed.), *Psychology of sport and motor behavior*. State College, PA: The Pennsylvania State University.
- Bredemeier, B. J. (1985). Moral reasoning and the perceived legitimacy of intentionally injurious sport acts. *Journal of Sport Psychology, 7*, 110-124.

- Bredemeier, B. J. (1995). Divergence in children's moral reasoning about issues in daily life and sport specific contexts. *International Journal of Sport Psychology, 26*, 453-464.
- Bredemeier, B. J. (1999). Character in action: The influences of moral atmosphere on athletes' sport behavior. In R. Lindor, & M. Bar-Eli (Eds.), *Sport psychology: Linking theory and practice* (pp. 247-259). West Virginia: Fitness Information Technology.
- Bredemeier, B. J., & Shields, D. L. (1984a). The utility of moral stage analysis in the investigation of athletic aggression. *Sociology of Sport Journal, 1*, 138-149.
- Bredemeier, B. J., & Shields, D. L. (1984b). Divergence in moral reasoning about sport and everyday life. *Sociology of Sport Journal, 1*, 348-357.
- Bredemeier, B. J., & Shields, D. L. (1986). Moral growth among athletes and nonathletes: A comparative analysis. *Journal of Genetic Psychology, 147*, 7-18.
- Bredemeier, B. J., & Shields, D. L. (1993). Moral psychology in the context of sport. In R. N. Singer, M. Murphey, & K. L. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 587-599). New York: Macmillan.
- Bredemeier, B. J. L., & Shields, D. L. (1998). Moral assessment in sport psychology. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measures*. Morgantown, WV: FIT Press.
- Bredemeier, B. J., Shields, D. L., Weiss, M. R., & Cooper, B. A. B. (1986). The relationship of sport involvement with children's moral reasoning and aggression tendencies. *Journal of Sport Psychology, 8*, 304-318.
- Bredemeier, B. J., Shields, D. L., Weiss, M. R., & Cooper, B. A. B. (1987). The relationship between children's legitimacy judgments and their moral reasoning,

aggression tendencies, and sport involvement. *Sociology of Sport Journal*, 4, 48-60.

Brown, D. E. (1991). *Human universals*. Philadelphia: Temple University Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newsbury Park, CA: Sage.

Byrne, B. M. (2001). *Structural equation modeling with AMOS: basic concepts, applications, and programming*, Lawrence Erlbaum, Mahwah, NJ.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.

Butler, L. F. (2000). Fair play: Respect for all. *Journal of Physical Education, Recreation, and Dance*, 71, 32-35.

Commission for Fair Play: Minister of State and Fitness and Amateur Sport, Government of Canada (1990). *Fair play for kids: A resource manual*. Ottawa, Ontario.

Carpenter, P. J., & Yates, B. (1997). Relationship between achievement goals and the perceived purposes of soccer for semiprofessional and amateur players. *Journal of Sport & Exercise Psychology*, 19, 302-311.

CBS Sports Online. (2003). Drugs and sport. Retrieved April 23, 2007, from <http://www.cbc.ca/sports/indepth/drugs/stories/top10.html>

Chantal, Y., & Bernache-Assolant, I. (2003). A prospective analysis of self-determined sport motivation and sportpersonship orientations. *Athletic Insight: the Online Journal of Sport Psychology*, 5. Retrieved February 3, 2006, www.athleticinsight.com.

- Chantal, Y., Robin, P., Vernat, J., & Bernache-Assolant, I. (2005). Motivation, sportpersonship, and athletic aggression: A mediational analysis. *Psychology of Sport and Exercise, 6*, 233-249.
- Christensen-Hughes, J. M., & McCabe, D. L. (2006). Academic misconduct within higher education in Canada. *The Canadian Journal of Higher Education, 36*, 1-21.
- Churchland, P. M. (1996). *The engine of reason, the seat of the soul: a philosophical journey into the brain*. Cambridge, MA: MIT Press.
- Churchland, P. M. (1998). Toward a Cognitive Neurobiology of the Moral Virtues. *Topoi, 17*, 83-96.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in scale development. *Psychological Assessment, 7*, 309-319.
- Coakley, J. (1990). Teaching the sociology of sport: It's more than a reflection of society. In D. L. Vanderwerken, (ed.), *Sport in the classroom: teaching sport-related courses in the humanities* (pp. 171-186). Cranbury, N.J: Associated University Presses.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Conroy, D. E., Elliot, A. J., & Hofer, S. M. (2003). A 2 x 2 achievement goals questionnaire for sport: Evidence for factorial invariance, temporal stability and external validity. *Journal of Sport & Exercise Psychology, 25*, 456-476.
- Conroy, D. E., Silva, J. M., Newcomer, R. R., Walker, B. W., Johnson, M. S. (2001). Personal and participatory socializers of the perceived legitimacy of aggressive behavior in sport. *Aggressive Behavior, 27*, 405-418.

- Colby, A., & Kohlberg, L. (1987). *The measurement of moral judgment* (Vols. 1-2). New York: Cambridge University Press.
- Costa, P. T., & McCrae, R. R. (1992). *NEO PI-R. Professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Cronbach, L. J., & Meehl, P. C. (1955). Construct validity in psychological tests. *Psychological Bulletin*, *52*, 281-302.
- Crowne, D. P., & Marlowe, D. (1960). "A New Scale of Social Desirability Independent of Psychopathology," *Journal of Consulting Psychology*, *24*, 349-354.
- Darley, J. M., & Batson, C. D. (1973). From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior. *Journal of Personality & Social Psychology*, *27*, 100-108.
- de Waal, F. (1996). *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, MA: Harvard University Press.
- Deford, F. (2008). *Blemish, anyone? Bets show dark side of tennis*. Retrieved September 17, 2008, from NPR Morning Edition.
- Dillon, W. R., & Goldstein, M. (1984). *Multivariate Analysis: Methods and Applications*. Wiley: New York.
- Dixon, N. (1999). On winning and athletic superiority. *Journal of the Philosophy of Sport*, *XIX*, 1-14.
- Duda, J. L. (1988). The relationship between goal perspectives, persistence and behavioral intensity among male and female recreational sports participants. *Leisure Sciences*, *10*, 95-106.

- Duda, J. D., Olson, L. K., & Templin, T. J. (1991). The relationship of task and ego orientations in sportsmanship attitudes and the perceived legitimacy of injurious acts. *Research Quarterly for Exercise and Sport*, 62, 79-87.
- Duggan, M., & Levitt, S. D. (2002). Corruption in sumo wrestling. *The American Economic Review*, 92, 1594-1605.
- Dunn, J. G. H., & Causgrove-Dunn, J. C. (1999). Goal orientations, perceptions of aggression, and sportpersonship in elite male ice hockey players. *The Sport Psychologist*, 13, 183-200.
- Dweck, C. (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040-1048.
- Ebbeck, V., & Gibbons, S. L. (2003). Explaining the self-conception of perceived conduct using indicators of moral functioning in physical education. *Research Quarterly for Exercise and Sport*, 74, 284-291.
- Edwards, L. K., Edwards, A. L., & Clark, C. L. (1988). Social desirability and the frequency of social-reinforcement scale. *Journal of Personality and Social Psychology*, 54, 526-529.
- Elliot, A. J., & Covington, M. V. (2001). Approach and avoidance motivation. *Educational Psychology Review*, 13, 73-92.
- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, 70, 461-475.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: Norton.
- Erikson, E. H. (1964). *Insight and responsibility*. New York: Norton.

- Fabrigar, L. R., Wegener, D. T., MacCallum, R.C., & Strahan, E. J. (1999). Evaluating the use of factor analysis in psychological research. *Psychological Methods, 4*, 272-299.
- Fehr, B., & Broughton, R. (2001). Gender and personality differences in conceptions of love: An interpersonal theory analysis. *Personal Relationships, 8*, 115-136.
- Fisher, L. A., & Bredemeier, B. J. (2000). Caring about injustice: The moral self-perceptions of professional female body builders. *Journal of Sport and Exercise Psychology, 22*, 327-344.
- Fisher, C. D., & Locke, E. A. (1992). The new look in job satisfaction research and theory. In: Cranny, C.J., Cain Smith, P. and Stone, E.F., Editors, 1992. *Job satisfaction: how people feel about their jobs*, Lexington, New York.
- Fitzgerald, L. F., & Hubert, L. J. (1987). Multidimensional scaling: Some possibilities for counseling psychology. *Journal of Counseling Psychology, 34*, 469-480.
- Fraleigh, W. P. (1984). *Right Actions in Sport: Ethics for Contestants*. Champaign, Ill.: Human Kinetics.
- Frankena, W. (1963). *Ethics*. Englewood Cliffs, NJ: Prentice-Hall.
- Fry, M. D., & Newton, M. (2003). Application of achievement goal theory in an urban youth tennis setting. *Journal of Applied Sport Psychology, 15*, 50-66.
- Gano-Overway, L. A., Guivernau, M., Magyar, T. M., Waldron, J. J., & Ewing, M. E. (2005). Achievement goal perspectives, perceptions of the motivational climate, and sportspersonship: Individual and team effects. *Psychology of Sport and Exercise, 6*, 215-232.

- Gardner, R. E., & Janelle, C. M. (2002). Legitimacy judgments of perceived aggression and assertion by contact and non-contact sport participants. *International Journal of Sport Psychology, 33*, 290-306.
- Gianluca, G. (2006). Social cognition and moral cognition in bullying: What's wrong? *Aggressive Behavior, 32*, 528-539.
- Gibbons, S. L., Ebbeck, V., & Weiss, M. R. (1995). Fair play for kids: Effects on the moral development of children in physical education. *Research Quarterly for Exercise and Sport, 66*, 247-255.
- Gifford, R. (1991). Mapping nonverbal behavior on the Interpersonal Circle. *Journal of Personality and Social Psychology, 61*, 279-288.
- Gill, D. (1986). Competitiveness among females and males in physical activity classes. *Sex Roles, 15*, 223-247.
- Gill, D. L. (2002). Gender and sport behavior. In, T. Horn (Ed.), *Advances in sport psychology (2nd ed., pp. 355-376)*. Champaign, IL: Human Kinetics.
- Gilligan, C. (1977). In a different voice: Women's conceptions of self and of morality. *Harvard Educational Review, 47*, 481-517.
- Greene, J., & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in Cognitive Science, 6*, 517-523.
- Guivernau, M., & Duda, J. L. (2002). Moral atmosphere and athletic aggressive tendencies in young soccer players. *Journal of Moral Education, 31*, 67-85.
- Gunn, B., & Rees, J. (2008). *Environmental review of integrity in professional tennis*. Retrieved September 19, 2008, from <http://www.itftennis.com/shared/medialibrary/>

- Haan, N. (1985). Processes of moral development: Cognitive or social disequilibrium? *Developmental Psychology, 21*, 996-1006.
- Haidt, J. (2001). The emotional dog and its rational tail. *Psychological Review, 108*, 814–834.
- Haidt, J., & Joseph, C. (2006). The moral mind: How five sets of innate intuitions guide the development of many culture-specific virtues, and perhaps even modules. In Carruthers, P. Laurence, S., and Stich, S. (eds.), *The Innate Mind, Vol. 3*.
- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality and Social Psychology, 65*, 613-628.
- Harris, J. A., (1997). A further evaluation of The Aggression Questionnaire: Issues of validity and reliability. *Behaviour Research and Therapy, 35*, 1047-1053.
- Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment. A functional approach to concepts and methods. *Psychological Assessment, 7*, 238-247.
- Heeren, J. W., & Requa, M. (2001). Winning Ways: Constructing Values on a Girls High School Field Hockey Team. *Journal of Sport & Social Issues, 25*, 417-429.
- Heinila, K. (1974). *Ethics of Sport Number 4*. Jyvaskyla, Finland: University of Jyvaskyla.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management, 21*, 967-988.
- Hogan, R., & Hogan, J. (1991). Personality and status. In D. G. Gilbert & J. Connolly (Eds.), *Personality, social skills, and psychopathology: An individual differences approach*. New York: Plenum Press.

- Hogan, R., & Roberts, B. W. (2000). A socioanalytic perspective on person/environment interaction. In W. B. Walsh, K. H. Craik, & R. H. Price (Eds.), *New directions in person-environment psychology* (pp. 1-24). Hillsdale, NJ: Lawrence Erlbaum.
- Hopkins, E. F., & Lantz, C. D. (1999). Sportsmanship attitude differences between defensive and offensive youth soccer players. *Physical Educator*, 56, 179-185.
- Hu, L. T., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). Thousand Oaks, CA: Sage.
- Hubert, L., & Arabie, P. (1987). Evaluating order hypotheses within proximity matrices. *Psychological Bulletin*, 102, 172-178.
- Hussman, B. F., & Silva, J.M. (1984). Aggression in sport: definitional and theoretical considerations. In, J. M. Silva & R. S. Weinberg (Eds.), *Psychological Foundations of Sport* (pp. 246-260). Champaign, IL: Human Kinetics.
- Jackson, D. N., & Helmes, E. (1979). Personality structure and the circumplex. *Journal of Personality and Social Psychology*, 37, 2278-2285.
- personality: *Theory and research*, 66-100. New York: Guilford Press.
- James, W. (1890). *The principles of psychology*. Cambridge, MA: Harvard University Press.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research (2nd ed., pp. 102-138)*. New York: Guilford.
- Jones, C., & McNamee, M. (2000). Moral reasoning, moral action, and the moral atmosphere of sport. *Sport, Education and Society*, 5, 131-146.

- Josephson Institute on Ethics. (2004). Report card on the ethics of American youth: Sportspersonship survey. Retrieved September 17, 2006, from <http://www.josephsoninstitute.org/reportcard/index.html>.
- Kavussanu, M. (2006). Motivational predictors of prosocial and antisocial behavior in football. *Journal of Sport Sciences, 24*, 575-588.
- Kavussanu, M., & Ntoumanis, N. (2003). Participation in sport and moral functioning: Does ego orientation mediate their relationship? *Journal of Sport & Exercise Psychology, 25*, 501-518.
- Kavussanu, M., & Roberts, G. C. (2001). Moral functioning in sport: An achievement goal perspective. *Journal of Sport & Exercise Psychology, 23*, 37-54.
- Kavussanu, M., & Spray, C. M. (2006). Contextual influences on moral functioning of male youth footballers. *The Sport Psychologist, 20*, 1-23.
- Kavussanu, M., Roberts, G. C., & Ntoumanis, N. (2002). Contextual influences on moral functioning of college basketball players. *The Sport Psychologist, 16*, 347-367.
- Kavussanu, M., Seal, A. R., & Phillips, D. R. (2006). Observed prosocial and antisocial behaviors in male soccer teams: Age differences across adolescence and the role of motivational variables. *Journal of Applied Sport Psychology, 18*, 1-19.
- Keating, J. W. (2003). Sportsmanship as a moral category. In Boxill (Ed.), *Sport ethics: An anthology* (pp. 63-72). Malden, MA: Blackwell.
- Keeler, L. A. (2007). The differences in sport aggression, life aggression, and life assertion among male and female collision, contact, and non-contact sport athletes. *Journal of Sport Behavior, 30*, 57-76.
- Kiesler, J. D. (1983). The 1982 interpersonal circle: A taxonomy for complimentary in human transactions. *Psychological Review, 90*, 185-214.

- Kiesler, D. J., Schmidt, J. A., & Wagner, C. C. (1997). A circumplex inventory of impact messages: An operational bridge between emotion and interpersonal behavior. In R. Plutchik & H. R. Conte (Eds.), *Circumplex models of personality and emotions* (pp. 221-244). Washington, DC, US: American Psychological Association.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*, 2nd edn. London: The Guildford Press.
- Kohlberg, L. (1981). *Essays on moral development: Vol. 1: The philosophy of moral development*. San Francisco: Harper & Row.
- Kohlberg, L. (1984). *Essays on moral development: Vol. 2: The philosophy of moral development*. San Francisco: Harper & Row.
- Kretchmar, R. S. (1975). From test to contest: An analysis of two kinds of counterpoint in sport. *Journal of Philosophy*, *II*, 23-30.
- Kretchmar, R. S., & Elcombe, T. (2007). In defense of competition and winning: Revising athletic tests and contests. In W. J. Morgan, *Ethics in Sport*, 2nd Ed. (pp. 181-194). Champagne, IL: Human Kinetics.
- Laforge, R., & Suczek, R. F. (1955). The interpersonal dimension of personality: An interpersonal check list. *Journal of Personality*, *24*, 94-112.
- Leary, T. (1957). *Interpersonal diagnosis of personality*. New York: Ronald Press.
- Lee, M. J., Whitehead, J., & Ntoumanis, N. (2007). Development of the attitudes to moral decision-making in youth sport questionnaire (AMDYSQ). *Psychology of Sport and Exercise*, *8*, 369-392.
- Lemyre, P. N., Roberts, G. C., & Ommundsen, Y. (2002). Achievement goal orientations, perceived ability, and sportpersonship in youth soccer. *Journal of Applied Sport Psychology*, *14*, 120-136.

- Lewin, K., Dembo, T., Festinger, L., & Sears, P. S. (1944). Level of aspiration. In J. Hunt (Ed.), *Personality and the behavior disorders* (pp. 333-378). Oxford, England: Ronald Press.
- Locke, K. D. (2000). Circumplex scales of interpersonal values: Reliability, validity, and applicability to interpersonal problems and personality disorders. *Journal of Personality Assessment, 75*, 249-267.
- Lorr, M., & McNair, D. M. (1963). An interpersonal behavior circle. *Journal of Abnormal & Social Psychology, 67*, 68-75.
- Luxen, M. F. (2005). Gender differences in dominance and affiliation during a demanding interaction. *Journal of Psychology, 139*, 331-347.
- Maxwell, J. P., & Moores, E. (2007). The development of a short scale measuring aggressiveness and anger in competitive athletes. *Psychology of Sport and Exercise, 8*, 179-193.
- May, R. A. B. (2001). The sticky situation of sportsmanship. *Journal of Sport and Social Issues, 25*, 372-389.
- McCabe, D., Butterfield, K., & Trevino, L. K. (2006). Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action. *Academy of Management, Learning, and Education, 5*, 294-306.
- McClelland, D. C., Atkinson, J. W., Clark, R. A., & Lowell, E. L. (1953). *The achievement motive*. Appleton-Century-Crofts, East Norwalk, CT.
- McCutcheon, L. E. (1999). The multidimensional sportspersonship orientations scale has psychometric problems. *Journal of Social Behavior & Personality, 14*, 439-444.
- Mead, M. (1937). *Cooperation and competition among primitive people*. New York: McGraw-Hill.

- Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*, 741-749.
- Miller, S. C., Bredemeier, B. J. L., & Shields, D. L. L. (1997). Sociomoral education through physical education with at-risk children. *Quest, 49*, 114-129.
- Miller, B. W., Roberts, G. C., & Ommundsen, Y. (2004). Effect of motivational climate on sportpersonship among competitive youth male and female football players. *Scandinavian Journal of Medicine & Science in Sports, 14*, 193-202.
- Miller, B., Roberts, G. C., & Ommundsen, Y. (2005). Effect of perceived motivational climate on moral functioning, team moral atmosphere perceptions, and the legitimacy of intentionally injurious acts among competitive youth football players. *Psychology of Sport and Exercise, 6*, 461-477.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67*, 371-378.
- Morrison, T. G., Kenny, P., & Harrington, A. (2005). Modern prejudice toward gay men and lesbian women: Assessing the viability of a measure of modern homonegative attitudes within an Irish context. *Genetic, Social, and General Psychology Monographs, 131*, 219-250.
- Mouratidou, K., Chatzopoulos, D., & Karamavrou, S. (2007). Moral development in sport context: Utopia or reality. *Hellenic Journal of Psychology, 4*, 163-184.
- Newstrom, J. W., & Ruch, W. A. (1975). Marketing Ethics of Management and the Management of Ethics, *MSU Business Topics, 31*.
- Nicholls, J. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.

- Nixon, H. L. (1980). Orientations toward sports participation among college students. *Journal of Sport Behavior, 3*, 29-45.
- Noar, S. M. (2003). The role of structural equation modeling in scale development. *Structural Equation Modeling, 10*, 622-647.
- Norman, W. T. (1967). On estimating psychological relationships: Social desirability and self-report. *Psychological Bulletin, 67*, 273-293.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Ommundsen, Y., Roberts, G. C., Lemyre, P. N., & Treasure, D. (2003). Perceived motivational climate in male youth soccer: Relations to social-moral functioning, sportspersonship and team norm perceptions. *Psychology of Sport and Exercise, 4*, 397-413.
- Ostrow, A. C. (2002). *Directory of psychological tests in the sport and exercise sciences*. Morgantown, WV: Fitness Information Technology, Inc.
- Papp, G., & Prisztoka, G. (1995). Sportsmanship as an ethical value. *International Review for the Sociology of Sport, 30*, 375-389.
- Paulhus, D. L. (1991). Measurement and control of response bias. In: J.P. Robinson, P.R. Shaver and L.S. Wrightsman, Editors, *Measures of personality and social psychology attitudes*, Academic Press, San Diego, CA, pp. 17-59.
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Lawrence Erlbaum Associates Inc. Publishers.
- Philips, J. D., & deLeon, L. (2005). Adversarial Ethics: Winning, losing, and playing the game. *Public Integrity, 7*, 169-180.
- Pilz, G.A. (1995). Performance sport: education in fair play? *International Review for the Sociology of Sport, 30*, 391-418.

- Pincus, A. L., & Ansell, E. B. (2003). Interpersonal theory of personality. In T. Millon & M. J. Lerner, *Handbook of psychology: Personality and social psychology, vol. 5* (pp. 209–229). New York: John Wiley & Sons, Inc.
- Price, J. L., & Mueller, C. W. (1986). *Handbook of organizational measurement*. Marshfield, Mass.: Pitman.
- Rasclé, O., & Coulomb, G. (2003). Aggression in youth handball: Relationships between goal orientations and induced motivational context. *Social Behavior and Personality, 31*, 21-34.
- Rawsthorne, L. J., & Elliot, A. J. (1999). Achievement goals and intrinsic motivation: A meta-analytic review. *Personality and Social Psychology Review, 3*, 326-344.
- Reed, D. R. C. (1997). *Following Kohlberg : Liberalism and the Practice of Democratic Community*. Notre Dame, IN: University of Notre Dame Press.
- Rest, J. R. (1984). The major components of morality. In, W. M. Kurtines & J. L. Gewirtz (Eds.), *Morality, moral behavior, and moral development* (pp. 25-39).
- Rest, J. R. (1994). *The hierarchical nature of moral judgment: A study of patterns of comprehension and preference of moral stages*. New York, NY: Garland Publishing, Inc.
- Robinson, S. L., & Bennett, R.J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal, 38*, 555-572.
- Robson, D. (2007). *Match fixing allegations put tennis officials on high alert*. Retrieved September 19, 2008, <http://www.usatoday.com/sports/tennis/>
- Roig, M., & Ballew, C. (1994). Attitudes toward cheating of self and others by college students and professors. *Psychological Record, 44*, 3-12.

- Ryan, N. (2007). NASCAR slams Waltrip for cheating. *USA Today*. Retrieved April 23, 2007, from http://www.usatoday.com/sports/motor/nascar/2007-02-14-waltrip_x.htm
- Ryckman, R. M., Hammer, M., Kaczor, L. M., & Gold, J. A. (1990). Construction of a Hypercompetitive Attitude Scale. *Journal of Personality Assessment*, *55*, 630-639.
- Ryska, T. A. (2002). Perceived purposes of sport among recreational participants: The role of competitive dispositions. *Journal of Sport Behavior*, *25*, 91-112.
- Ryska, T. A. (2003). Predicting prosocial intentions among young athletes: The mediating role of negative mood and comparative efficacy. *International Sports Journal*, *6*, 14-31.
- Sage, L., & Kavussanu, M. (2007). The effects of goal involvement in moral behavior in an experimentally manipulated competitive settings. *Journal of Sport and Exercise Psychology*, *29*, 190-207.
- Sage, L., Kavussanu, M., & Duda, J. (2006). Goal orientations and moral identity as predictors of prosocial and antisocial functioning in male association football players. *Journal of Sport Sciences*, *24*, 455-466.
- Schmidt, J. A., Wagner, C. C., & Kiesler, D. J. (1999). Psychometric and circumplex properties of the octant scale Impact Message Inventory (IMIC): A structural evaluation. *Journal of Counseling Psychology*, *46*, 325-334.
- Schmitt, N., & Klimoski, R. J. (1991). *Research Methods for Human Resource Management*. South Western Publishers.

- Seefeldt, V., & Martens, R. (1979). *Guidelines for children's sports*. In R. Martens and V. Seefeldt (Eds.), Washington, D.C. American Alliance for Health, Physical Education, Recreation and Dance.
- Senge, P. (1990). The leader's new work: Building learning organizations. *Sloan Management Review*, 22, 7-23.
- Shweder, R. (1990). In defense of moral realism: Reply to Gabennesch. *Child Development*, 61, 2060-2067.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The big three of morality (autonomy, community, and divinity), and the big three explanations of suffering. In Brandt, A. and Rozin, P. (eds.), *Morality and health* (pp. 119–169). Routledge, New York.
- Shields, D. L. L., & Bredemeier, B. J. L. (1995). *Character development and physical activity*. Champaign, IL: Human Kinetics.
- Shields, D. L. L., & Bredemeier, B. J. L. (2007). Sport and the development of the moral self. In D. Hackfort, J. Duda, & R. Lidor (Eds.), *Handbook of research in applied sport and exercise psychology*. Morgantown, WV: Fitness Information Technology.
- Shields, D. L., Bredemeier, B. J., Gardner, D. E., & Bostrom, A. (1995). Leadership, cohesion and team norms regarding cheating and aggression. *Sociology of Sport Journal*, 12, 324.
- Silva, J. M. (1983). The perceived legitimacy of rule violating behavior in sport. *Journal of Sport Psychology*, 5, 438-448.
- Simon, R. L. (2004). *Fair Play*. 2nd Ed. Boulder, CO: Westview Press.

- Sripada, C., & Stich, S. (2006). A framework for the psychology of norms. In P. Carruthers, S. Laurence & S. Stich, eds., *The Innate Mind: Culture and Cognition* (pp. 280-301). New York: Oxford University Press.
- Stephens, D. E. (2000). Predictors of likelihood to aggress in youth soccer: An examination of coed and all-girls teams. *Journal of Sport Behavior, 23*, 311-325.
- Stephens, D. E. (2004). Moral atmosphere and aggression in collegiate intramural sport. *International Sports Journal, 8*, 65-75.
- Stephens, D. E., & Bredemeier, B. J. (1996). Moral atmosphere and judgments about aggression in girls' soccer: Relationships among moral and motivational variables. *Journal of Sport and Exercise Psychology, 18*, 158-173.
- Stephens, D. E., Bredemeier, B. J., & Shields, D. L. L. (1997). Construction of a measure designed to assess players' descriptions and prescriptions for moral behavior in youth sport soccer. *International Journal of Sport Psychology, 28*, 370-389.
- Stephens, D. E., & Kavanagh, B. (2003). Aggression in Canadian youth ice hockey: The role of moral atmosphere. *International Sports Journal, 7*, 109-119.
- Stone, E. (1978). *Research methods in organizational behavior*. Glenview, IL: Scott, Foresman.
- Stornes, T. (2001). Sportspersonship in elite sports: On the effects of personal and environmental factors on the display of sportspersonship among elite male handball players. *European Physical Education Review, 7*, 283-303.
- Stornes, T., & Ommundsen, Y. (2004). Achievement goals, motivational climate and sportspersonship: A study of young handball players. *Scandinavian Journal of Educational Research, 48*, 205-221.

- Stuart, M. E. (2003). Moral issues in sport: The child's perspective. *Research Quarterly for Exercise and Sport*, 74, 445-454.
- Stuart M. E., & Ebbeck, V. (1995). The influence of perceived social approval on moral development in youth sport. *Pediatric Exercise Science*, 7, 270-280.
- Stuntz, C. P., & Weiss. (2003). Influence of social goal orientations and peers on unsportsmanlike play. *Research Quarterly for Exercise and Sport*, 74, 421-435.
- Suits, B. (1978). *The grasshopper: Games, life, and utopia*. Toronto: University of Toronto Press.
- Sullivan, H. S. (1953). *The Interpersonal Theory of Psychiatry*. New York: Norton.
- Tisak, M. S. (1995). *Domains of reasoning and beyond*. In R. Vasta (Ed.), *Annals of child development* (Vol. 11). London: Kingsley.
- Treviño, L. K., & Weaver, G. (2003). *Managing ethics in business organizations: Social scientific perspectives*. Stanford University Press.
- Trobst, K. K. (2000). An interpersonal conceptualization and quantification of social support transactions. *Personality and Social Psychology Bulletin*, 26, 971-986.
- Tsai, E., & Fung, L. (2005). Sportspersonship in youth basketball and volleyball players. *Athletic Insight: The Online Journal of Sport Psychology*, 7. Retrieved February 3, 2006, www.athleticinsight.com.
- Tucker, L. W., & Parks, J. B. (2001). Effects of gender and sport type on intercollegiate athletes' perceptions of the legitimacy of aggressive behaviors in sport. *Sociology of Sport Journal*, 18, 403-413.
- Turiel, E. (1983). *The Development of Social Knowledge*. Cambridge: Cambridge University Press.
- Universal declaration of human rights. (1949). General Assembly resolution 217 A (III).

- Vallerand, R. J., Briere, N. M., Blanchard, C., & Provencher, P. (1997). Development and validation of the multidimensional sportspersonship orientations scale. *Journal of Sport and Exercise Psychology, 19*, 197-206.
- Vallerand, R. J., Deshaies, P., & Cuerrier, J. P. (1997). On the effects of the social context on behavioral intentions of sportsmanship. *International Journal of Sport Psychology, 28*, 126–140.
- Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Briere, N. M., & Pelletier, L. G. (1996). Toward a multidimensional definition of sportsmanship. *Journal of Applied Sport Psychology, 8*, 89-101.
- Vallerand, R. J., & Losier, G. F. (1994). Self-determined motivation and sportsmanship orientations: An assessment of their temporal relationship. *Journal of Sport & Exercise Psychology, 16*, 229-245.
- Vardi, Y. (2001). The effects of organizational and ethical climates on misconduct at work. *Journal of Business Ethics, 2*, 325-37.
- Vidoni, C., & Ward, P. (2006). Effects of a dependent group-oriented contingency on middle school physical education students' fair play behaviors. *Journal of Behavioral Education, 15*, 81-92.
- Visek, A., Watson, J. (2005). Ice hockey players' legitimacy of aggression and professionalization of attitudes. *Sport Psychologist, 19*, 178-192.
- Weinberg, R. S., & Gould, D. (1999). *Foundations of sport and exercise psychology* (2nd ed.). Champaign, IL: Human Kinetics.
- Weiss, M. R., & Bredemeier, B. J. L. (1986). Moral development. In V. Seefeldt (Ed.), *Physical activity and human well-being* (pp. 374–390). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance.

- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology*, *37*, 395-412.
- Wiggins, J. S. (1982). Circumplex models of interpersonal behavior in clinical psychology. In P. C. Kendall & J. N. Butcher (Eds.), *Handbook of research methods in clinical psychology* (pp. 183-221). New York: Wiley.
- Wiggins, J. S. (1995). *Interpersonal Adjective Scales: Professional manual*. Odessa, FL: Psychological Assessment Resources.
- Wiggins, J. S. (1997). Circumnavigating Dodge Morgan's interpersonal style. *Journal of Personality*, *65*, 1069-1086.
- Wiggins, J. S., & Pincus, A. L. (1989). Conceptions of personality disorders and dimensions of personality. *Psychological Assessment*, *1*, 305-316.
- Wiggins, J. S., & Trobst, K. K. (1997). When is a circumplex an "interpersonal circumplex"? The case of supportive actions. In R. Plutchik & H. R. Conte (Eds.), *Circumplex models of personality and emotions* (pp. 57-80). Washington, DC: American Psychological Association.
- Zopito, M. A., Dane, A. V., Bosacki, S. L., & Ylc-Cura (2006). Direct and indirect bully-victims: Differential psychosocial risk factors associated with adolescents involved in bullying and victimization. *Aggressive Behavior*, *32*, 551-569.

Miranda P. Kaye

Department of Kinesiology
Pennsylvania State University
University Park, PA 16803

EDUCATION

- 2003 – 2009 **Pennsylvania State University (PSU)**, University Park, PA
Ph.D. candidate in Kinesiology
- 2001 – 2003 **Arizona State University (ASU)**, Tempe, AZ
M.S. in Kinesiology
- 1995 – 1999 **Cornell University**, Ithaca, NY
B.S. in Human Development and Family Studies (HDFS)

SELECTED EXPERIENCE

- 2008 – present **Faculty Instructor**, Kinesiology, PSU
- 2003 – 2008 **Graduate Teaching Assistant**, Kinesiology, PSU
- 2003 – 2004 **Graduate Volunteer**, PSU Womens' Indoor and Outdoor Track and Field
- 2003 – 2007 **Graduate Research Assistant**, Kinesiology, PSU
- 2001 – 2003 **Graduate Teaching Assistant**, Kinesiology, ASU
- 2002 – 2003 **Physical Education Teacher**, ASU Child Development Lab, AZ
- 2000 – 2003 **High School Coach**, Tempe High School, Tempe, AZ
- 2000 – 2001 **Kindergarten Teacher**, ASU Child Development Lab, AZ
- 1999 – 2000 **Lead Preschool Teacher**, HACAP HeadStart, Iowa City, IA
- 1998 – 1999 **Student Intern**, Cornell Early Childhood Program, Cornell University, Ithaca, NY

PUBLICATIONS

- Kaye, M. P.**, Conroy, D. E., & Fifer, A. (2008). Individual differences in incompetence avoidance: A comparison of multiple dimensions of perfectionism and fear of failure. *Journal of Sport and Exercise Psychology*, *30*, 110-132.
- Conroy, D. E., **Kaye, M. P.**, & Schantz, L. H. (2008). Quantitative research in sport & exercise psychology. In T. Horn (Ed.), *Advances in sport psychology 3rd ed.* (pp. 15-29). Champaign, IL: Human Kinetics.
- Conroy, D. E., **Kaye, M. P.**, & Fifer, A. (2007). Cognitive links between fear of failure and perfectionism. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *25*, 237-253.
- Conroy, D. E., Coatsworth, J. D., & **Kaye, M. P.** (2007). Consistency of fear of failure score meanings among 8-18 year old female athletes. *Educational and Psychological Measurement*, *67*, 300-310.
- Kaye, M. P.** & LeMasurier, G. C. (2006). Understanding and applying motivational theory in physical education in order to enhance participation and health status. *International Journal of Physical Education*, (*43*), 48-58.
- Conroy, D. E., **Kaye, M. P.**, & Coatsworth, J. D. (2006). Coaching climates and the destructive effects of avoidance achievement goals on situational motivation. *Journal of Sport and Exercise Psychology*, *28*, 69-92.

HONORS AND AWARDS

- 1998 Meining Book Award, Cornell National Scholars
- 1995 Cornell National Scholar