Elements of Moral Functioning in Sport and School

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Elements of Moral Functioning in Sport and School

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A Thesis/Dissertation Submitted to The Graduate School at the University of Missouri-St. Louis in partial fulfillment of the requirements for the degree  
Doctor of Philosophy in Education

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Abstract

Moral functioning is complex and implicates numerous cognitive and affective processes. Drawing upon Rest’s four-component model of moral functioning and more recent dual-process accounts of cognition, the current study examined a model of moral functioning in both sport and school contexts. Specifically, drawing upon the empirical record, a model of moral functioning was proposed and tested wherein moral identity influenced the adoption of specific contesting orientations, which, in turn, influenced prosocial and antisocial behaviors, both directly and indirectly via moral foundations and moral disengagement. Fit of the model was moderately strong in both contexts, though significant contextual differences emerged, both in terms of interrelationships between moral variables and in intra-individual variability within moral variables. Findings suggested that moral identity, a partnership approach to contesting, and moral foundations that emphasize care and fairness were associated with reduced antisocial behavior across contexts, while a war approach to contesting and moral disengagement were associated with increased antisocial behavior across contexts. Thus, practitioners concerned with athletes’ moral behavior may do well to: 1) promote the importance of moral concerns to the athlete’s self-identity; 2) highlight the cooperative and mutually-beneficial aspects of contests; and, 3) emphasize the importance of the moral values of care and fairness.
Dedication

This work is dedicated to my beloved family and friends, both those still with me and those who have found a greater peace.
Acknowledgements

Large and complex undertakings (as dissertations inevitably are) cannot be completed without the aid and assistance of many people. In my case, it would be almost impossible to overstate how essential such help has been; quite literally, I would not be in this position without the wisdom, patience, and kindness of my family, my committee, and many other friends and colleagues. Dr. Cody Ding has always been there to answer my questions about statistical matters large and small, from the day I first met him in a class I was destined to drop (I realized that I needed at least one graduate course in statistics before I tackled regression analysis for the first time!). I could not have imagined five years ago that I would be able to understand, let alone conduct, the kinds of analyses used in this study, and my ability to do so rests largely on his shoulders. Dr. Wolfgang Althof encouraged me to think both broadly and deeply about the relation between research, research design, and experience in classes and in the numerous conversations over coffee we’ve had over the years. My thinking about research would not be half as diverse or rigorous without him. Dr. Marvin Berkowitz has provided invaluable guidance in my journey of understanding moral functioning and character education, always challenging me to be precise in both thought and expression. The (not so tiny) voice in my head that wonders, “Does this really stand up to scrutiny,” is indebted to him, and causes me not infrequently to ask myself, “What would Marvin say?” I would also like to thank my family and friends for their support, love, and encouragement through this process, including my wife, Rachel, our three children, Miriam, Joanna, and Charlotte, my mother, Marilyn, and my ‘best friend forever’, Dan. Finally, I would like to especially thank Dr. David Shields and Dr. Brenda Bredemeier,
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Chapter 1 – Problem Statement and Review of the Literature

Over the better part of thirty years playing soccer, I witnessed countless examples of both the virtues and the vices of competitive sport. Some participants learned to genuinely respect and appreciate their opponents, even as they strove to win the game. Others, however, developed an increasingly callous disregard for opponents’ basic physical and psychological welfare. The issue of moral functioning in sport hasn’t gone unresearched (Boardley & Kavussanu, 2011; Kavussanu & Roberts, 2001; Shields & Bredemeier, 1995). Indeed, the empirical record suggests that student-athletes’ moral functioning differs based upon context, becoming more egocentric during sport participation (Bredemeier, 1995; Bredemeier & Shields, 1984). Although a substantial body of research has accumulated, much remains to be known. Most studies have focused on conscious cognitive processes like moral reasoning (Bredemeier & Shields, 1984), goal orientation (Kavussanu & Roberts, 2001), and moral disengagement (Boardley & Kavussanu, 2007), or on overt pro- and antisocial behaviors (Kavussanu, Boardley, Sagar, & Ring, 2013). However, moral functioning has several potential components beyond these constructs (e.g., moral interpretation, intuitive moral judgments, and moral self-concept). Examining contextual differences in a broader array of moral functioning components and elucidating their relationship to positive sport moral functioning would both improve our understanding in this area and potentially empower those who care about the educational mission of intercollegiate athletics to preserve its moral and character development value. Thus, the current study seeks to extend our understanding of effective moral functioning in sport, and thus how competitive processes could function to support both achievement and character.
Problem Statement

Competition is integral to many systems in nature and human societies. From natural selection in evolution to the economic and socio-political competition within and between nations, the lives of organisms on Earth are often structured around competition for scarce resources. Competition in the form of games and contests of skill even pervades human recreational activities. While the benefits of competition are often lauded, as successful companies make the most efficient use of resources or the highest-performing individuals receive the most plaudits and rewards, competitive pressures and moral functioning are uneasy bedfellows. A large body of evidence suggests that individuals are often induced to behave immorally in the pursuit of the rewards brought by competitive success (Kohn, 1992).

Moral and ethical issues abound in competitive sport, issues which are particularly salient where sport and education are conjoined, as in US intercollegiate athletics. Unlike their professional counterparts, intercollegiate athletics exist not only for entertainment but also for educational purposes. When student-athletes behave poorly on the field, they undermine the positive developmental purposes of athletics and call into question the role of athletics at academic institutions. Accusations of systematic academic fraud, low graduation rates, illegal payment of athletes and cover-ups of illicit behaviors raise serious questions about the degree to which academics and major collegiate athletics can coexist (James & Bowen, 2001). Weighed against this are the countless instances in which student-athletes learn valuable lessons and build moral character though pursuing their sport.
These ambivalent examples of moral functioning in sport are a problem given the prominent role sport plays in US schools and broader society. Indeed, the stakeholders in intercollegiate sport in the US – athletes, coaches, college administrators, even society at large – stand to benefit significantly from improving our understanding of positive moral functioning in sport. When athletes give in to the temptation to cheat and aggress, they are not simply engaging in poor moral conduct, they also threaten the integrity of competitive sport, undermine its potential to promote positive character for others, and put their own moral development in jeopardy. Thus, helping athletes maintain high moral functioning as they enter the sport context seems important, if sport is to fulfill its potential as a positive force in character and moral development (Shields & Bredemeier, 2011b).

There are significant impediments to achieving this goal, however. Sport places some unique stresses on moral functioning, and moral failure can occur at a number of different places in the moral functioning process. Rest (1984) has suggested that at least four individual processes are implicated in moral functioning, the disruption of any of which can induce moral failure: At a minimum, individuals must (1) morally interpret the situation, including the moral consequences to others of potential courses of action; (2) make a moral judgment about the right course of action; (3) summon sufficient moral motivation to act on one’s judgment; and, finally, (4) deploy the psychological competencies necessary to consistently follow through on behaving morally. A context, like sport, entails challenges for each of these four processes, creating distinct points of failure that can derail moral functioning.
The first challenge, of course, is the adversarial structure of competitive sports, a process in which the success of one party implicitly entails the failure of another. Kohn (1992, p. 4) has termed this “mutually-exclusive goal attainment.” Due in large part to this structure, in sport egocentric or self-interested behavior is not only accepted, but expected and lauded – within limits – in order to win the contest (Bredemeier & Shields, 1986a). Ensuring that differences in moral functioning are limited to that which is permitted within the sport context, while not exceeding it, is nontrivial but not insurmountable. Athletes’ moral interpretation of the sport context may be one key to overcoming this obstacle. The structure of competitive sport entails both asymmetric rewards and mutual benefit (Shields & Bredemeier, 2009, 2010a) and focusing on the mutual benefits of sport may be beneficial to moral functioning (Shields & Bredemeier, 2010b, 2011a). Indeed, Shields and Bredemeier (2010b) have suggested that individuals must interpret the nature and purpose of a contest (like sport) in order to give it meaning, and that such interpretations may entail different socio-moral relationships with other contest participants, with implications for other moral functioning processes (e.g., moral judgment). They outline two different conceptual foundations for interpreting the socio-moral dimensions of contests, called contesting orientations. In the first, contests are understood as partnerships that focus on shared benefits; in the second, they are understood as wars or battles. It seems likely that learning more about athletes’ moral interpretation of the sport context will facilitate our understanding of moral functioning in sport.

A second impediment concerns the cognitive demands of the moral judgment process in sport. During a contest, athletes are focused primarily on competing, and not
on making sound moral decisions. Put simply, cognitive resources are already stressed during competition, and decision-making related to the contest is prioritized. Moreover, the speed with which moral judgments must often be made in sport precludes systematic, in situ moral reflection. Athletes need to ‘think fast’ in sport, and this extends to their moral judgment. Recent work in cognitive science, however, suggests that this kind of ‘thinking fast’ isn’t merely a matter of trying to speed up our conscious, cognitive processes, but reflects a qualitatively different cognitive processing system (Evans, 2008; Kahneman, 2011). In these dual-process accounts of cognition, judgment can derive from either slow, conscious, rational deliberation (system/type 2); or fast, unconscious, intuitive deliberation (system/type 1). Indeed, Haidt (2001) has suggested that fast, intuitive processes are primary in moral functioning, identifying five different bases or ‘foundations’ that energize our moral intuitions (Graham et al., 2011). Given the nature of sport, fast, unconscious, Type 1 moral judgment processes like moral intuition may be useful in explaining athletes’ moral behavior in sport. By extension, given the interaction between moral interpretation and moral judgment, discovering moral interpretations of sport that are related to minimal regressions in intuitive moral judgment may be of great practical utility. Although the unconscious intuitive judgment process is difficult to measure directly, an important first step could be taken by examining the five values that Haidt and colleagues have asserted underlie such moral intuitions, including their contextual differences and relation to moral functioning in sport.

A third impediment to maintaining effective moral functioning in sport involves moral motivation and self-regulation. Theories, like Haidt’s Moral Foundations Theory (MFT; Graham et al., 2011; Haidt, 2001), that argue for the primacy of unconscious
processes in moral functioning are often short on details about how individuals take charge of their moral lives in order to become more moral people (Gibbs, 2013; Narvaez, 2010). Most moral change is assumed to be the result of exposure to conflicting moral intuitions via social interaction, the affective response to which stimulates a primarily subconscious re-evaluation of one’s own moral intuitions (Haidt, 2001). Finding that moral intuitions are important predictors of moral behavior would be of little practical utility without examining how individuals can actively promote their own and others’ moral development, thereby taking some degree of responsibility for – and control over – their fast, intuitive moral judgments and moral behaviors. The process of moral self-improvement, out of necessity, must often begin with slow, conscious, rational processes; moral agency presupposes some form of conscious intentionality (Bandura, 2006).

Two promising approaches in this area both involve motivations that impact moral self-regulation: Moral disengagement (Bandura, 1999), and moral self-concept or ‘moral identity’ (Blasi, 1984). On the one hand, moral disengagement involves the conscious decision to ‘turn off’ moral self-regulation, which may happen due to a strong, competing, non-moral motive (Rest, 1984). Typically, moral disengagement involves cognitively restructuring an immoral action to make it appear moral, thus lessening an individual’s anticipated guilt, which serves as a motivational deterrent to immoral behavior (Bandura, 1991, 1999). Frequent moral disengagement can have unwelcome consequences for the moral functioning process (Boardley & Kavussanu, 2009, 2011; Kavussanu, Ring, & Kavanagh, 2015), and may reduce the effect of moral judgments on moral action. On the other hand, individuals with a high moral identity have integrated moral concerns into their core self-concept, and the desire to avoid abrogating moral self-
concept provides a strong, self-regulatory motive (Hardy & Carlo, 2005). In fact, moral identity may be a protective factor that reduces the likelihood of moral disengagement (Shields, Funk, & Bredemeier, 2015b), possibly by increasing the experience of anticipatory guilt, which can exert a powerful motivative force (Kavussanu, Stanger, & Ring, 2015).

A fourth challenge involves ensuring that individuals follow-through on their intentions to act morally in sport, and will persevere in enacting those moral judgments through whatever difficulties may arise. Conscientiousness and grit, for example, may help individuals maintain the courage of their convictions, and the associated effort necessary, over longer periods of time (Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009). In this area, it is also important that researchers have examined actual behavior (Kavussanu, Seal, & Phillips, 2006), and not just orientations to behavior (e.g., sportspersonship; Vallerand, Briere, Blanchard, & Provencher, 1997). In particular, Kavussanu, Boardley, and colleagues’ approach to moral behavior in sport, which distinguishes between behaviors towards opponents and behaviors towards teammates, is particularly promising (Boardley & Kavussanu, 2009; Kavussanu & Boardley, 2009b; Kavussanu, Stanger, & Boardley, 2013; Sage, Kavussanu, & Duda, 2006).

Taken together, these observations suggest that an account of moral functioning in sport must involve the integration of several processes or components. As the review of the literature will show, substantial efforts have been made to address some components of moral functioning in sport, as well as the differences and similarities in moral functioning between sport and other contexts. For example, researchers have found
significant differences between sport and general-life moral reasoning (Bredemeier & Shields, 1984; Kavussanu, Boardley, et al., 2013), and that poor moral functioning is related to aggression (Bredemeier, 1994), cheating (D’Arripé-Longueville, Corrion, Scoffier, Roussel, & Chalabaev, 2010) and other antisocial behaviors (Corrion, Long, Smith, & D’Arripé-Longueville, 2009; Stanger, Kavussanu, Boardley, & Ring, 2013). Unfortunately, much of the most influential research in the field (Bredemeier, 1994, 1995; Bredemeier & Shields, 1986b; Bredemeier, Weiss, Shields, & Cooper, 1986; Bredemeier, Weiss, Shields, & Shewchuk, 1986) predates recent work on dual-process cognition in cognitive science (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001; Evans, 2008; Kahneman, 2011), and thus has focused on conscious, rational processes, like moral reasoning, rather than on unconscious, intuitive-affective processes (e.g., moral intuitions, empathy). Moreover, studies that examine more than two of Rest’s four components are scarce, and none have yet tested a model linking moral interpretation, judgment, motivation, and behavior, or examined the degree to which variables’ relations hold across contexts.

A Logic Model for Moral Functioning

Broadly speaking, the study’s approach to moral functioning relies on a modified version of Rest’s (1984) four-component model of moral functioning mentioned above, which incorporates dual-process accounts of cognition and which acknowledges the influence of moral motivation both at the beginning of the moral functioning process and after a moral judgment is made (Figure 1). Specifically, all four processes (interpretation, judgment, motivation, follow-through) are considered essential in producing moral behavior; in addition, all four may be influenced by both fast, unconscious cognitions and
slow, conscious cognitions. Although each component can exert a direct influence on moral behavior, they do have a nominal temporal sequence, and temporally antecedent components may also exert some influence on downstream components (Rest, 1984). These components also roughly overlap with Berkowitz’ (2011, p. 153) definition of character as the “set of psychological characteristics that motivate and enable the individual to function as a competent moral agent.”

**Updating Rest’s integrative four-component model of moral functioning.**

Ongoing research on cognition and moral functioning suggests some modifications to Rest’s model. Subsequent work has emphasized, for example, two different aspects of the moral interpretation component, which are distinguished in the current study as ‘moral sensitivity’ and ‘moral interpretation’ (Narvaez, 1991). Moral sensitivity involves the degree to which individuals are sensitive to the moral dimensions of experience. As Narvaez (1991, p. 359) notes, “In order for moral behavior to be possible, a person must perceive the presence of a moral dilemma.” Perceiving that the current situation has moral dimensions is a necessary antecedent to subsequent moral processing, including moral interpretation. There are many factors that could be associated with higher moral sensitivity, including moral motivation structures, like moral identity and empathy, each of which could help trigger the initial awareness that a situation has moral features.

This leads to a second modification of Rest’s model that acknowledges that not all moral motivation variables will activate at the same point in the moral functioning process. In fact, it is telling that Rest (1984) listed empathy twice in his model: first in moral interpretation and second in moral motivation. In other words, motivational
constructs like moral identity and empathy may be operative from the beginning of the moral functioning process, and exert influence on subsequent components, including other forms of moral motivation and self-regulation (e.g., moral disengagement) that are activated only after a moral judgment has been made. While it is theoretically possible that moral disengagement may also be activated early in the process, its main function is to disengage self-regulatory mechanisms once a moral judgment has been reached, possibly because the moral judgment conflicts with a strong, non-moral motive.

Finally, not explicitly included in Rest’s model is the outcome of the moral functioning process: moral behavior. Although examining behavior is essential if we are to understand sport’s impact on the moral functioning process, it is distinguishable from moral functioning processes just as cooking is distinguishable from the meal that the cook has produced. In the current study, moral behavior is framed as the outcome of moral functioning processes delineated by Rest.

Here it is important to briefly note that there is disagreement concerning what constitutes ‘moral behavior’. Moral behavior can mean, variously, behaviors that: 1) simply lie in the moral domain (as opposed to those that do not, e.g., I absently scratched my beard as I contemplated writing this line); 2) are prosocial, regardless of an actor’s intent; and, 3) are the result of intentionally ‘moral’ cognitive activity (conscious or unconscious). At heart, the issue is one of intentionality. For some researchers, moral behavior must involve some degree of purposeful moral agency or action, else individuals’ ultimate culpability for their behavior – and the ‘moral’ status of the behavior – is threatened (Bandura, 2006). In other words, if behaviors are merely the automatic, unconscious output of neurobiological processes, then how can they be right
or wrong? Moreover, behaviors that are intentional, but performed for non-moral reasons, may not necessarily be moral, even if they entail positive or prosocial outcomes. Others suggest that such fears are unwarranted, and that moral agency at the level of the person will not be undermined by fundamentally non-agentic explanations of behavior at the level of neurobiology (Pinker, 1999). While philosophically important, the debate concerning what constitutes ‘moral’ behavior is tangential to the purposes of the study. However, two points should be clearly made: 1) the study uses the term ‘moral behavior’ to encompass the behavioral outcomes (i.e., both prosocial and antisocial behaviors) of the moral functioning process, and 2) the logic model of moral functioning articulated herein includes both conscious and unconscious processes that are ultimately assumed to be under agentic control, imperfect as that control may be. In this, the model borrows from Narvaez and Lapsley’s (2005) work on moral expertise, which suggests that unconscious, system/type 1 processes can be consciously trained or ‘tuned’ via conscious self-regulatory and self-improvement processes.

Ultimately, the study takes the position that moral behavior and moral functioning processes collectively describe human moral functioning in a holistic sense. Thus, the overarching logic model of moral functioning for the current study, presented in Figure 1, includes moral interpretation (divided into moral sensitivity and moral interpretation), moral judgment, moral motivation (acknowledging motivational processes that may activate at the beginning of the moral functioning process), moral follow-through, and moral behavior. As can be seen in Figure 1, the current study’s measured constructs encompassed three of the four major components of Rest’s model (interpretation, judgment, and motivation) as well as moral behavior.
Dual-process models of cognition.

While Rest (1984, p. 30) acknowledges that some factors important to moral functioning (e.g., empathy) may be aroused quickly, prior to “extensive cognitive encoding,” he did not explicitly integrate a dual-process model of cognition (understandable, given the timeline of research on dual-process cognition). In recent years, there has been an increasing interest in the effect of non-conscious cognitive processes on judgment and action (Bargh et al., 2001; Bargh & Shalev, 2012). Kahneman (2011), Bargh (2011), and Evans (2008), among others, have suggested that the mind’s cognition can be separated into two distinct processing systems. The first (‘system’ or ‘type’ 1) is unconscious, automatic, intuitive, fast, and high capacity. These processes allow for quick, automatic judgments, and, in some accounts, are highly integrated with our affective responses. The second (‘system’ or ‘type’ 2) is conscious, volitional, rational, slow, and low capacity. This is what we normally term ‘thinking’; it represents our conscious, rational thoughts, and allows for careful, logical reasoning (though it is also impacted by our affective responses).

The current study takes the position that both processes are required for adequate descriptive accounts of moral functioning (Gibbs, Moshman, Berkowitz, Basinger, & Grime, 2009). As suggested above, it also takes the position that system 2 processes such as conscious reasoning and reflection, remain particularly critical for understanding how individuals, both individually and collectively, improve their moral functioning and become better, more effective moral agents (Blasi, 2009). Indeed, as the quote from Berkowitz, (2011) cited above reminds us, the goal of understanding the moral functioning process is to promote increased moral agency. As will become clear,
however, much of the research on the relationship between moral functioning and sport predates work on dual-process cognition that may be helpful. Indeed, most work on sport and moral functioning fails to account for a dual-process model of cognition. Thus, in addition to contextualizing the extant and current research in terms of a comprehensive model of moral functioning, it is important to situate it in relation to a broader understanding of cognitive functioning.

Jointly, Rest’s model and dual-process accounts of cognition also provide a bi-dimensional framework from which the extant literature on sport’s impact on moral functioning can be examined and categorized. Studies can be classified both by the component(s) of moral functioning they address and by the type(s) of cognitive processes they examine. In essence, this allows for a synthesis of the literature on sport moral functioning in the context of what is currently known about cognitive and moral functioning processes.

**Review of the Literature.**

The literature concerning sport and moral functioning is broad and deep, showing considerable functional and theoretical diversity. Functionally, researchers have utilized both qualitative and quantitative methods to examine moral functioning in athlete and non-athlete populations across a wide variety of ages and sports (e.g., Bredemeier & Shields, 1984, 1986a; Kavussanu, Boardley, et al., 2013). Theoretically, research has been grounded, variously, in two moral psychology theories: structural developmental theory (SDT; Haan, 1983; Kohlberg, 1963; Piaget, 1932) and social cognitive theory (SCT; Bandura, 1969, 1991, 2001). This has led researchers to focus on specific variables (e.g., moral reasoning, moral disengagement, moral behavior), as well as
specific components in the moral functioning process (e.g., moral judgment, moral motivation), to the exclusion of others.

Such research forms the main subject of the literature review, which is divided into four primary sections, organized around the three relevant components in Rest’s (1984) model of moral functioning (i.e., moral interpretation, moral judgment, moral motivation) and moral behavior, as these provide a useful framework for situating the research and documenting both important findings and gaps. In each section, research on contextual differences and similarities in moral functioning, as well as relationships to moral behavior, will be addressed. Finally, a summary of the literature review will be provided, along with the study’s purpose and research questions.

It is important to note that significant research has also been done on non-moral motivations and their relation to moral behavior in sport, including achievement goal theory (Gano-Overway, Guivernau, Magyar, Waldron, & Ewing, 2005; Lemyre, Roberts, & Ommundsen, 2002; Nicholls, 1989), and self-determination theory (Chantal, Robin, Vernat, & Bernache-Assollant, 2005; Deci & Ryan, 2008a, 2008b; Vallerand & Losier, 1994). This literature has included research on interpretations of the motivational climate of a particular sport context (Laparidis, Papaioannou, Vretakou, & Morou, 2003; Miller, Roberts, & Ommundsen, 2004; Ommundsen, Roberts, Lemyre, & Treasure, 2003). In the sections on moral interpretation and moral motivation, this research will be mentioned as it reveals how moral functioning is embedded within – and can be influenced by – broader cognitive functioning. However, as the focus of the current study is on moral functioning, the literature review is most strongly focused on moral functioning constructs.
Moral Interpretation and Sport

Rest (1984, p. 29) suggested that the first step in the moral functioning process involved “imagining the possible courses of action in a situation and tracing out the consequences…in terms of how they affect the welfare of all the parties involved.” As noted above in the discussion of the current study’s moral functioning logic model, it is possible to distinguish two facets of the moral interpretation process: moral sensitivity and moral interpretation. Moral sensitivity involves differences in the degree to which an individual recognizes that a situation calls for moral processing. In other words, Reynolds (2008, p. 1028) writes, “moral sensitivity is an individual’s ability to identify moral issues when they exist.” Interpretation of the consequences of particular courses of behavior for the welfare of others then begins when the individual has apprehended the presence of a moral problem (Narvaez, 1991).

The extant research on these facets of moral interpretation in sport is quite sparse, and only Shields and Bredemeier (2009, 2011a) have tackled the issue directly (although it is also important to note that substantial work has been done on non-moral interpretation of sport contexts). As will be shown, no work yet has addressed the issue of contextual differences in contesting orientations, though Shields et al., have examined differences in moral attentiveness. Moreover, no study has yet examined the relations among moral interpretation, moral judgment, moral motivation, and moral behavior in a single model, nor has the issue of cross-contextual stability of interrelations among moral functioning variables been addressed.
Contesting orientations in sport.

Contesting theory (CT; Shields & Bredemeier, 2009, 2011) is grounded in the work of Lakoff and colleagues (Lakoff, 2008; Lakoff & Johnson, 1980) on conceptual metaphors and cognition. While traditional literary metaphors and conceptual metaphors share some basic features, they operate quite differently. Where literary metaphors invite the reader to consider the similarities and differences between the two linked constructs for the purposes of artistic enjoyment and enlightenment, conceptual metaphors are foundational, often unconscious, cognitive schema that structure an individual’s understanding of a construct and thus their behavior toward it. When Jaques opines, “All the world’s a stage,” in As You Like It, for example, Shakespeare is not suggesting that the similarities between a theatre stage and life actually structure our understanding of life, with the result that individuals unconsciously act as if they are an actor in a play in real life. While it is possible that someone would have the LIFE-IS-STAGE conceptual metaphor, it is not Shakespeare’s intent to suggest this. Conceptual metaphors, on the other hand, mean “understanding and experiencing one kind of thing in terms of another” (Lakoff & Johnson, 1980, p. 5), with the result that we act toward both in similar ways.

According to CT participants interpret contests in one of two ways, i.e., via one of two conceptual metaphors, called ‘contesting orientations’: contest-is-partnership or contest-is-war (Shields & Bredemeier, 2009, 2010b, 2011a). In the former, contests are understood as partnerships and opponents are understood as valued partners who facilitate success by providing the challenge necessary to improve; in the latter, contests are understood as fights or wars, and opponents are understood as enemies who stand in the way of success (Shields & Bredemeier, 2010b). Among other important entailments,
contesting orientations help to structure a participant’s moral interpretation of the contest by placing them in a specific socio-moral relationship with their opponent(s) (Shields & Bredemeier, 2011a). When opponents are understood as enemies, this entails very different socio-moral obligations than when they are understood as partners. More specifically, enemies are less likely to be extended basic moral and ethical concern (e.g., care, fairness) than partners. Thus, contesting orientations are theoretically implicated in the moral functioning process in sport (specifically, moral interpretation), and a small, but growing body of research supports this assertion.

**Contesting orientations, moral functioning, and moral behavior.**

Although the theory underpinning contesting orientations was developed some time ago (Shields & Bredemeier, 2009), it has only been recently that a sport-specific measure has been developed and validated (Shields, Funk, & Bredemeier, 2015a). As part of this validation work, Shields et al. (2015a) examined the relationship between contesting orientation and several sport and non-sport moral variables, including elements of moral motivation such as empathy, moral identity, and moral disengagement, as well moral behavior, including sportspersonship. Findings indicated that partnership orientation was associated with higher empathy, moral identity, and sportspersonship, as well as lower moral disengagement. Conversely, war orientation was associated with higher moral disengagement, but lower empathy and reductions in one dimension of sportspersonship, respect for opponents (Shields et al., 2015a). Subsequent work examining predictors of moral disengagement tended to confirm these findings (Shields, Funk, & Bredemeier, 2015b). Specifically, partnership orientation was again found to be related to higher empathy and moral identity, and lower moral disengagement; war
orientation was related to lower empathy and moral identity, and higher moral disengagement.

There is also some evidence to indicate a specific link between contesting orientations and other aspects of moral interpretation (Shields, Funk, & Bredemeier, in press-a; Shields et al., 2015b). An essential precursor of moral interpretation is the active perception of the moral dimensions of an experience, something Reynolds (2008, p. 1028) has called moral attentiveness: “the extent to which one chronically perceives and considers morality and moral elements in his or her experiences.” Although similar to moral sensitivity, moral attentiveness is distinct, according to Reynolds, for its more active, agentic nature: while moral sensitivity lies waiting to be activated, moral attentiveness is an unconscious, but active, tendency to see events and situations in moral terms (Reynolds, 2008). Interestingly, Shields et al. (2015b) found that significant differences existed in athletes’ general life and sport-specific moral attentiveness. Furthermore, partnership orientation was linked to higher moral attentiveness, in both contexts, while war orientation was linked to lower general life moral attentiveness (Shields et al., 2015b). Unfortunately, only moral attentiveness was measured for both contexts, leaving open the issue of contextual differences in contesting orientations themselves.

In addition to moral attentiveness, Shields et al. (in press-a) have found that contesting orientations relate to how college students interpret the emotional state of an athlete. Specifically, when viewing images of athletes playing their sport, students unconsciously primed with a war orientation attributed more negative emotions to the athletes than those unconsciously primed with a partnership orientation (Shields et al., in
press-a). Thus, it appears that an athlete’s contesting orientation is related to their interpretations of others’ emotional states, which may also impact athletes’ moral functioning.

Contesting orientations have also been linked to facets of the moral judgment process. In their study of the relationship between moral foundations and contesting orientations in US college athletes, for example, Shields, Funk, and Bredemeier (2016b) found that partnership orientation was positively related to both individualizing and binding foundations, while war orientation was only related to binding foundations (positively). Thus, it appears that adopting a war orientation may emphasize in-group concerns, while adopting a partnership orientation may balance both in-group concerns and regard for the well-being of all individuals. This is unsurprising given that the two contesting orientations (as discussed above) involve different socio-moral relationships among sport participants (Shields & Bredemeier, 2009). Also, this evidence suggests that contesting orientations can help solve the dilemma of balancing the mutually-exclusive benefits of sport with the mutual benefits, perhaps leading to improved treatment of out-groups (i.e., opponents).

Finally, before proceeding, it is important to acknowledge the large body of research that exists on athletes’ non-moral interpretations of the sport context, specifically perceived motivational climate (e.g., Duda & Nicholls, 1992; Gano-Overway et al., 2005; Laparidis et al., 2003; Pensgaard & Roberts, 2000), which involves the way in which success is defined in an achievement context. This literature has generally found that interpretations of the sport context that prioritize normative definitions of success (versus internally-referenced definitions of success), are associated with poor
sport behaviors, including poor sportspersonship (Ommundsen et al., 2003; Stornes & Ommundsen, 2004) and observed antisocial behaviors (Kavussanu, Seal, & Phillips, 2006). This research illustrates both the importance of individual interpretation for moral behavior and how non-moral constructs can impact moral behavior.

**Summary of moral interpretation in sport.**

Relationships are important for how we morally interpret a situation or context, including our perceptions about the rights of others, and our obligations to them (Rai & Fiske, 2011). While contesting orientations have both moral and non-moral implications, they place contest participants into specific socio-moral relationships with one another, guiding their moral interpretations of the sport context (Shields & Bredemeier, 2009). Though nascent, the extant literature suggests that contesting orientations are important for the manner in which athletes morally interpret the sport context (Shields, Funk, & Bredemeier, in press-a; Shields et al., 2015b). In addition, unsurprisingly, contesting orientations have implications for moral functioning in sport, and may possibly help to explain differences in sport and non-sport moral functioning (Shields et al., 2015a, 2015b). This is consistent with literature that suggests that moral functioning is embodied in evolved social-cognitive processes (Fiske & Haslam, 1996; Fiske & Tetlock, 1997; Rai & Fiske, 2011) and that it is expressed and developed through our relationships with others (Berkowitz, 2009, 2011; Berkowitz, Battistich, & Bier, 2008).

Existing studies on contesting orientations in sport have three significant limitations, however. First, none have addressed the issue of contextual differences. It seems likely that the moral interpretation of a contest setting may vary based on context, and the nature of any contest or contest-like features in the context. Second, while the
studies have examined the relations between contesting orientations and constructs representing several of Rest’s four components, including interpretation, judgment, and motivation, none have examined these relations in an integrated model. Third, no study has yet examined the degree to which the relations exhibited between contesting orientations and other moral variables are stable across contexts.

**Moral Judgment and Sport**

Although the review of the literature began by examining moral interpretation in sport, Rest’s second process – moral judgment – is arguably the most natural location to begin, as the earliest and most important studies on sport moral functioning are in this area. Whereas moral interpretation focuses on exploring the implications potential actions have for the welfare of others, moral judgment analyzes and synthesizes this information to determine “what course of action would best fulfil a moral ideal,” in other words, “what ought to be done in the situation” (Rest, 1984, p. 30). Several theoretical approaches have emerged in the broader literature on moral psychology, including learned social norms (Bandura, 1969), structural-developmental moral reasoning (Kohlberg & Puka, 1994; Levine, Kohlberg, & Hewer, 1985), and intuitive moral judgment (Haidt, 2001). Generally, research on moral reasoning has supported a significant, if at times modest, relation between more mature forms of reasoning and moral behavior (Blasi, 1980). The literature on the relation between intuitive moral judgments and moral behavior is less well-developed, though intuitions favoring loyalty to in-groups, deference to authority, and maintaining standards of purity have been linked to antisocial behaviors toward out-groups (I. H. Smith, Aquino, Koleva, & Graham, 2014).
In sport, researchers have most often operationalized moral judgment using Lawrence Kohlberg’s structural-developmental account of moral reasoning, with studies focused on differences in sport and non-sport moral reasoning, as well its consequences. Specifically, Bredemeier and Shields conducted several studies based on Haan’s (1983) adaptation of Kohlberg’s work, which emphasizes the use of moral reasoning to negotiate situational moral balances with others (Bredemeier, 1985, 1994, 1995, Bredemeier & Shields, 1984, 1986a, 1986b). In addition to this research, a very limited number of studies have utilized Haidt’s model of intuitive-affective moral judgments in relation to the sport context (Balish & Caron, 2015; Shields et al., 2016b; Winegard & Deaner, 2010). Collectively, these studies represent the work done in sport on Rest’s moral judgment component.

**Moral reasoning in sport.**

Although extant studies of moral reasoning in sport have been grounded in Haan’s (1983) model of interactional morality, they owe a significant debt to Kohlberg’s structural-developmental approach (Kohlberg & Hersh, 1977; Kohlberg, Levine, & Hewer, 1994; Levine, Kohlberg, & Hewer, 1985). Briefly, Kohlberg suggested that the ability to reason about moral issues, specifically justice, developed through an invariant sequence of stages. Each successive stage entailed greater cognitive-structural sophistication, resulting in the capacity to craft increasingly adequate solutions to moral dilemmas, i.e., entailed the development of an increasingly adequate capacity to determine the most moral course of action in a given situation.

Specifically, building upon the work of Piaget (see Reimer, Paolitto, & Hersh, 1990), Kohlberg theorized that six stages exist, each with its own distinct structure of
reasoning, grouped into three levels (Power, Higgins, & Kohlberg, 1989). Preconventional moral reasoning relies at first on punishment by authority figures and powerful others (Stage 1) and then on self-interest and individual exchange (Stage 2) when determining what is morally right. Conventional moral reasoning focuses less on overt punishment or reward, but rather is founded first on interpersonal ties and the desire to be perceived as a ‘good’ person by important others (Stage 3) and then on fulfilling one’s social and societal obligations and upholding social order (Stage 4). Finally, post-conventional morality first takes a perspective in which the institutions and laws of society are seen as a social contract, which generally should but upheld but which are subject to change when they contravene basic rights (Stage 5), and then transforms into a more explicitly principled perspective in which universal human rights and justice define one’s moral obligations, and the validity of a society’s implied social contract derives from these principles (Stage 6).

Kohlberg’s work did much to popularize the structural-developmental approach to moral psychology, in which morality was not simply a philosophical debate over values and character, but also a question of developmental maturity (Reimer, Paolitto, & Hersh, 1990). Not only could the contents of moral arguments be evaluated but also the underlying structural modes of reasoning about moral dilemmas that individuals employed. Haan’s (1983) approach, detailed below, is different in many ways, but retains the focus on underlying structural modes of moral reasoning and the development thereof.
**Haan’s Interactional Morality.**

According to Haan (1978, 1983), Kohlberg’s theory (which involves the sophistication with which one reasons deductively and logically, eventually from deontological principles) is well suited to resolving hypothetical dilemmas posed by philosophers, but ill-suited to the normal, everyday morality that people actually practice. Moreover, such a formulation of moral maturity favors a specific group (i.e., white males from industrial societies, who have achieved formal operations as defined by Piaget). Haan proposes an alternate foundation for moral maturity, namely the ability to dialogically negotiate and enact increasingly sophisticated moral balances with others, which she terms "interpersonal" or "interactional" morality (Haan, 1978, p. 287). From an epistemological perspective, moral truth is constructed (not rule-based), and dependent upon "people's consensus about social realities," with five different stages or "levels" in moral maturation, each providing for increasingly sophisticated, differentiated, and adequate moral balances (Haan, 1978, p. 289).

When at Level 1 (usually very young children) the individual cannot differentiate between themselves and others and are therefore unable to engage in genuine moral dialogue. In other words, they cannot negotiate moral balances with others, but either conform or refuse to conform to others’ desires. Children, for example, note the displeasure of close caregivers, and may try to align their actions with the caregiver's preferences. Conversely, when experiencing displeasure at the actions of a caregiver, the child may try to "punish" the caregiver through contrarian behavior (Haan, 1978, p. 288). At Level 2 (again, usually children), an individual can differentiate between him/herself and other people but has a limited understanding of others’ motivations and thoughts,
expecting them to mimic his/her own egocentric motivations. The individual's expectations of moral balance are rigid, and involve an exact, "concrete" reciprocity, based on how the individual him/herself would (or did) act (Haan, 1978, p. 288). In other words, moral balance is achieved via appropriately matching behaviors (e.g., countering a harmful act with a commensurately harmful act, a generous act with a generous act, etc.), as seen from the individual's perspective. Collectively, Bredemeier and Shields (1986a, p. 260) termed Levels 1 and 2 as the “assimilative phase,” as they both reflect fundamentally egocentric approaches to negotiating moral balance.

In contrast, at Level 3 the individual recognizes that all are part of a larger group, and must act morally to maintain group harmony and be good people. The individual’s idea of moral balance is facile, however, and ignores many complexities of situation and individual need, prioritizing the maintenance of group harmony. They also naively expect others to negotiate moral balances honestly and believe that they themselves are always honest and forthright in moral dialogue, while moral balance is still achieved through "concrete" exchanges (Haan, 1978, p. 288). The individual progresses at Level 4 to see her/himself as one morally important person among others of equal moral importance, all of who have similar moral rights and obligations. They understand that not all moral dialogues are honest and forthright, and that individuals have different motivations, needs, and desires. To produce fair outcomes under these conditions, the development of moral balances should be governed by society-wide rules, which provide protection against those engaging in dishonest moral dialogue. Thus, the individual tends to over-emphasize following society's rules for moral balancing, resulting in a "legalistic" approach (Haan, 1978, p. 288). Bredemeier and Shields (1986a, p. 260) termed these
levels as “accommodative phase,” as they tend to privilege others’ (or group) needs over individual concerns.

Finally, in Level 5, the individual recognizes that moral balance must be adaptive, sensitive to all parties’ needs and fully reciprocal. The emphasis is less on procedure, rule-following, or strict adherence to principle, but rather on flexibility in achieving truly equitable moral balances. They also understand that they themselves play a role in moral imbalance, as do others, and can forgive both the self and others for this. Finally, they recognize that creating and maintaining truly equitable moral balances is “everybody’s business all the time” (Haan, 1978, p. 289). Bredemeier and Shields (1986a, p. 260) termed Level 5 as the “equilibrative phase,” as it represents the attempt to fully balance both the individual’s and others’ needs.

*Moral reasoning and sport.*

In work that is now foundational to the field, Bredemeier and Shields drew on Haan’s (1978, 1983) five-level model of dialogic moral balancing to conduct a series of studies investigating differences in sport and general life moral reasoning, as well as the relation between moral reasoning and aggression (Bredemeier, 1985, 1994, 1995, Bredemeier & Shields, 1984, 1986a, 1986b). The findings of these studies carry special significance, as they were among the first to demonstrate contextual differences in moral reasoning. First, Bredemeier and Shields found significant differences in non-sport and sport moral reasoning, with differences emerging as early as 6th/7th grade (Bredemeier, 1995), though the effect was most consistent in collegiate athletes (Bredemeier & Shields, 1984, 1986a, 1986b). Specifically, participants tended to endorse more egocentric reasoning in sport than in general life contexts (Bredemeier & Shields, 1984),
with level 2 (assimilative) reasoning significantly more prevalent in the sport context, and levels 3, 4 (both accommodative), and 5 (equilibrative), significantly less prevalent (Bredemeier & Shields, 1986a).

Complex relations between moral reasoning and gender, age, and specific sport participation also emerged. At the high school level, females demonstrated significantly more mature moral reasoning than males in both contexts, yet these differences were not present in a sample of college athletes (Bredemeier & Shields, 1986b). In the study referenced above, however, male college athletes did exhibit a greater reliance on level 2 – and less reliance on level 3 – reasoning than did female college athletes when reasoning about sport moral dilemmas specifically (Bredemeier & Shields, 1986a). This may indicate that gender differences in moral reasoning maturity, and preferential moral reasoning tendencies in sport, may vary by gender and age. For example, females’ moral reasoning may mature more quickly in adolescence, with males catching up later but still more likely to regress in the sport context.

Sport participation itself may also be related to moral reasoning maturity, interacting with age (or perhaps length of time spent competing in the sport). At the high school level, for example, athletes and non-athletes did not differ on either general life (or sport) moral reasoning (Bredemeier & Shields, 1986b). Yet collegiate non-athletes displayed significantly more mature moral reasoning than collegiate athletes in both settings (Bredemeier & Shields, 1986b). This latter effect turned out to be sport-specific, as collegiate non-athletes and swimmers’ sport moral reasoning did not significantly differ from each other, but both were significantly higher than their basketball counterparts (Bredemeier & Shields, 1986b). It is possible that the specific features of a
sport contest affect its relation to moral reasoning, and that this relation changes as individuals age or spend more time participating in that sport. Generalizing from sport contests, it could be that contexts have different contest or contest-like features that affect moral reasoning in that context.

Finally, although the research indicates that contextual differences in moral reasoning are present, there were also significant similarities in sport and non-sport moral reasoning. For example, high-school and college participants most often used accommodative (level 3 & 4) reasoning in response to both general life and sport moral dilemmas, a trend most pronounced for females and college students (Bredemeier & Shields, 1986a). Moreover, where examined, correlations between sport and non-sport moral reasoning were found to be significant and very strong, indicating a substantial amount of shared variance (Bredemeier, 1995). Thus, there may be a great deal of commonality in moral functioning across contexts, despite the significant differences detailed here.

Although these results are complicated, it is possible to draw a few conclusions concerning the relation between sport and moral reasoning. First, the research demonstrates clearly that contextual differences between sport and non-sport moral reasoning are possible, and that these may be influenced by gender, age, and specific sport participation. Research on contextual differences between sport and non-sport moral judgment would do well to control for these factors. Second, the empirical record shows a substantial, significant relation between sport and non-sport moral reasoning. This tends to support the conclusions of Bredemeier and Shields (1986a, p. 258), who noted that sport moral reasoning appeared to be a “situationally operative subset” of
normal moral reasoning. The research raises an intriguing possibility: namely, that sport moral functioning could be viewed as a ‘situationally operative subset’ of general moral functioning. Much remains to be known, however, about the differences and similarities between sport and non-sport moral functioning.

*Relationships between moral reasoning and moral behavior in sport.*

In addition to these early studies examining contextual differences in sport and non-sport moral reasoning, Bredemeier, Shields and colleagues began to investigate the relationship between moral reasoning and moral behavior in sport (Bredemeier, 1985, 1994; Bredemeier, Weiss, Shields, & Cooper, 1986). Specifically, they examined the relationship between moral reasoning and: 1) judgments about the acceptability of intentionally injuring an opponent during play (Bredemeier, 1985); 2) aggression in both general life and sport contexts (Bredemeier, Weiss, Shields, & Cooper, 1986); and, 3) tendencies to act in aggressive, assertive, or submissive ways in both general life and sport contexts (Bredemeier, 1994). Combined, these studies added substantially to what is known about the relationship of moral reasoning to antisocial sport behaviors, with findings that were consistent with their prior work (Bredemeier, 1995; Bredemeier & Shields, 1984, 1986a, 1986b).

Broadly speaking, findings indicated that increases in moral reasoning maturity predicted a reduced acceptance of antisocial sport behaviors. In a sample of high-school and college basketball players, for example, both general life and sport moral reasoning were found to correlate negatively with acceptance of intentionally injurious acts, with sport moral reasoning the stronger predictor (Bredemeier, 1985). In fact, this relationship held true across two conditions, as athletes were asked to judge the acceptability of such
acts both away from their sport, after the moral dilemma interview (the ‘hypothetical’ condition); and immediately after a contest (the ‘engaged’ condition). Relationships between moral reasoning and acceptability judgments were strongest for the ‘hypothetical’ condition, and males endorsed injurious behavior to a greater degree than females (Bredemeier, 1985). The negative relationship between moral reasoning maturity and antisocial behaviors was also found in a much younger sample of 4th through 7th graders, where both general life and sport moral reasoning were negative correlates of aggressive action tendencies (Bredemeier, 1994). Indeed, both forms of reasoning negatively predicted aggressive action tendencies in both sport and in daily life (i.e., both forms of reasoning held predictive utility for both contexts). Consistent with the research on the acceptability of injurious behavior, sport moral reasoning was a somewhat stronger negative predictor of aggressive action tendencies in sport than general moral reasoning, though the differences were not large (Bredemeier, 1994).

Finally, in addition to predicting decreased acceptance of antisocial behaviors, increased moral reasoning maturity was found to be positively related to assertiveness (Bredemeier, 1994).

Age, gender, and sport differences were also evident in these results. Findings indicated, for example, that males exhibited higher levels of aggression than females, older children exhibited more aggression than younger children, and participants in higher contact sports exhibited more aggression than participants in lower contact sports (Bredemeier, Weiss, Shields, & Cooper, 1986). In addition, there was some evidence that sport contact level and gender interacted in their relations to moral reasoning maturity. Specifically, athletes participating in the highest level of contact available for
their gender (high-contact for males, medium-contact for females) demonstrated lower moral reasoning maturity than did their peers of the same gender. Specifically, high-contact sport participation negatively related to moral reasoning maturity for males, while medium-contact sport participation was negatively correlated with moral reasoning maturity for females (Bredemeier, Weiss, Shields, & Cooper, 1986). This suggests that sport moral reasoning may be related to the features of the specific sport context, like contact level.

Finally, while sport moral reasoning was the strongest predictor of sport moral behavior, non-sport moral reasoning also proved to be a significant predictor as well. Specifically, general life moral reasoning maturity was found to be a significant negative predictor of the acceptability of intentionally injurious acts (Bredemeier, 1985) and aggression action tendencies (Bredemeier, 1994). Indeed, sport and general life moral reasoning maturity levels showed strong positive correlations (Bredemeier, 1985) as did sport and general life action tendencies (Bredemeier, 1994). These are consistent with the prior work of Bredemeier, Shields, and colleagues suggesting both significant differences and strong overlap between general life and sport moral reasoning. This points to another deficit in the literature, however: it has not systematically investigated the differences in the relations between moral variables (e.g., the moral judgment -> moral behavior link) across contexts. Moral functioning may vary contextually both in terms of its constituent components and in terms of the interrelations of those components.
Summary of research on moral reasoning.

Bredemeier and Shields’ initial findings were provocative and demonstrated several significant differences between general life and sport moral functioning. First and foremost, individuals’ moral reasoning tended to be less mature and more egocentric in sport than in daily life. Second, these contextual differences were broad-based (if complicated), occurring in athletes and non-athletes, males and females, and high school and college students alike. Third, differences in moral reasoning maturity were, however, not uniformly distributed, but differed in their specifics by athletic status, school level, and gender. Specifically, developmental issues are apparent, with a broad trend toward greater divergence between sport and non-sport moral reasoning in older populations. As Bredemeier (1995, p. 460) notes, “children in the 4th and 5th grades were reasoning, on the average, at Level Two…. It may be that for those children who have not yet attained this third level of development [Level Three], the egocentrism inherent in competitive sport does not sufficiently contrast with their everyday life morality to produce a reasoning divergence.” Moreover, in addition to age-related developmental concerns, the importance of gender is also highlighted by these findings, with males tending to exhibit more contextual ‘regression’ in moral reasoning than females; indeed, gender and development may be intertwined with regard to moral reasoning. Fourth, and finally, while clear differences in moral reasoning in sport and general life emerged, there remained substantial overlap between the two, indicating that an individual’s baseline, general life moral functioning remains important for their sport moral functioning.

Some important conclusions can be drawn, and some specific points made concerning the gaps in the literature. First and foremost, as significant and seminal as
these studies are, it is important to note that they addressed only parts of Rest’s integrated model of moral functioning (moral judgment, and moral motivation indirectly via demographic variables), and did so by exploring system/type 2 cognitive processes (conscious moral reasoning differences). To be fair, both limitations were a function of the era in which the studies were done: Dual-process accounts of cognition had not made their way into moral psychology, and much of moral psychology was focused on cognitive-developmental moral reasoning.

It is also important to note that cognitive-developmental approaches to moral functioning do not specifically exclude unconscious, system/type 1 cognitive processes, merely that these have not been reflected in the literature. Gibbs et al. (2009, p. 275), for example, have suggested that “the interplay of conscious and unconscious processes is in fact central to the cognitive developmental approach.” Indeed, Narvaez’s Triune Ethics Theory (TET) has made an initial attempt to create an intuitive-affective (system/type 1) account of moral functioning that can be integrated with Kohlberg’s theory of conscious cognitive development (Narvaez & Vaydich, 2008). The focus of research drawing on structural developmental frameworks, however, has been clearly on conscious, system/type 2 cognitive processes.

Second, despite a consistent pattern in which clear, substantial commonality exists between sport and general life moral reasoning, subsequent research has largely ignored this issue: These studies also represent the single most substantial body of research on contextual differences and similarities between sport and non-sport moral functioning. The vast majority of subsequent work has focused directly on moral functioning in sport, whether approaching it from a socio-cognitive or dual-processing perspective. In this,
Element of Moral Functioning in Sport and School

Researchers have appeared to pay close attention to one aspect of Bredemeier and Shields’ findings (i.e., significant differences in sport and non-sport moral judgments) to the exclusion of another important aspect of their findings (i.e., the significant similarities between sport and non-sport moral judgments). In particular, research could more broadly examine contextual differences and similarities in specific moral constructs, as well as in the pattern of their interrelations.

Moral foundations and sport.

By far, the largest body of research on moral judgment in sport involves system/type 2 conscious processes, like moral reasoning, discussed above. However, a limited body of work has drawn upon Haidt’s moral judgment framework, which integrates both system/type 1 unconscious cognitive processes and system/type 2 conscious processes. Specifically, Moral Foundations Theory (MFT) evolved out of the work done by Haidt and his colleagues on a social-intuitionist account of the moral judgment process (Graham et al., 2011; Haidt, 2001; Haidt & Joseph, 2004). Haidt’s theory owes a significant debt to research on dual-process cognition (Bargh, 2011; Evans, 2008) that has shown that judgment and goal pursuit is not always a conscious act (Bargh et al., 2001).

Briefly, contrary to CDT (which Haidt, 2008, p. 66, terms the ‘main line’ in moral psychology), in MFT the moral judgment process is most often not driven by conscious, rational processes, but rather unconscious, intuitive-affective processes (Haidt, 2008). Although there are some instances in which conscious judgment is exercised, the primary function of conscious cognitions is to justify, post-hoc, the intuitive decision that has already been made (Haidt, 2001). Similarly, although conscious, rational thought may at
times determine moral judgment and behavior, this happens quite infrequently according to MFT; as Haidt (2001, p. 819) notes:

“People may at times reason their way to a judgment by sheer force of logic, overriding their initial intuition. In such cases reasoning truly is causal and cannot be said to be the ‘slave of the passions’. However, such reasoning is hypothesized to be rare, occurring primarily in cases in which the initial intuition is weak and processing capacity is high.”

Rather, Haidt suggests that interpersonal moral discourse is the key feature of most moral change. Specifically, such discourse makes a person aware of an alternative set of moral intuitions concerning a specific moral situation, and gradually these new intuitions are integrated or discarded (Haidt, 2001).

Haidt and his colleagues searched for systematicity in the underlying intuitive-affective bases of moral judgment (Haidt & Graham, 2007), identifying five ‘moral foundations’ that represent different areas of moral concern: harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, and purity/sanctity (Graham et al., 2011). Throughout this manuscript, these are referred to as Harm, Fairness, In-group, Authority, and Purity. Briefly, the ‘harm/care’ dimension involves sensitivity to others’ basic physical and emotional welfare and is characterized by the ability to feel compassion for others’ suffering, while fairness/reciprocity involves concerns for “fairness and justice” as well as “reciprocal altruism” (Haidt & Graham, 2007, p. 104). Individuals can also have intuitions concerning “recognizing, trusting, and cooperating with members of one’s…ingroup while being wary and distrustful of members of other
groups,” termed ingroup/loyalty, as well as respect for authority and “virtues related to…respect, duty, and obedience,” termed authority/respect (Haidt & Graham, 2007, p. 105). Finally, intuitions involving purity/sanctity sensitize individuals to others who are deemed “debased [or] impure” based upon appearance, conduct, or some other facet of behavior (Haidt & Graham, 2007, p. 106).

A significant component of MFT concerns the differences between individualizing (i.e., harm, fairness) and binding (i.e., in-group, authority, purity) moral intuitions. The former emphasizes the importance of individuals as objects of moral concern, and thus concern for individual harm, rights and reciprocity predominates. The latter emphasizes the importance of social units like family or community as objects of moral concern, and those intuitions that serve to delineate and reinforce mutual obligation, interdependence, and social order predominate because they serve to preserve these communities (Graham et al., 2011). Moral foundations have been examined most often in the context of political ideology and discourse (e.g., Haidt, Graham, & Joseph, 2009; Weber & Federico, 2013), utilizing the Moral Foundations Questionnaire (MFQ) developed by Graham et al. (2011), but some limited work has been done in sport (e.g., Winegard & Deaner, 2010), which will be discussed below.

*Moral foundations and moral functioning in sport.*

While the foundations do not represent specific judgments, they do represent the values framework that undergirds Haidt’s fast, intuitive-affective moral judgment process, and they may have particular salience for the sport context. The theory has yet to provoke much serious attention in sport, however, as only three studies applying moral foundations to the sport domain are extant (Balish & Caron, 2015; Shields et al., 2016b;
Winegard & Deaner, 2010). Even though the extant literature is quite sparse, a few important points can be made.

First, moral foundations appear to be related to in-group/out-group dynamics in sport (and other contexts). In their study of sport fandom in US college students, for example, Winegard and Deaner (2010) found that the loyalty foundation was the strongest correlate of sport identification, and that only loyalty and gender were significant predictors of fandom (specifically, males showed higher sport identification than females). This makes theoretical sense as the loyalty foundation is part of the set of binding foundations identified by Haidt (2001), and, as it is central for maintaining group cohesion, it shares considerable conceptual overlap with sport fandom. Given that sport contains explicitly defined in-groups (and out-groups) it is unsurprising to see loyalty associated with fandom. Research outside sport has shown that binding foundations (of which loyalty is a component) interact with moral identity to predict behavior toward out-groups; specifically that increased endorsement of the binding foundations predicted a greater acceptance of torture, unless coupled with a high moral identity (I. H. Smith, Aquino, Koleva, & Graham, 2014). Indeed, individuals may engage in “morality shifting,” moving from individualizing foundations toward binding foundations, when reacting to the unethical behaviors of in-group members (Leidner & Castano, 2012, p. 83). Broadly, too, this work is consistent with other research on moral foundations outside sport, which demonstrates the importance of moral foundations for understanding partisan dynamics between the major political movements (Haidt & Graham, 2007; Haidt et al., 2009; Koleva, Graham, Iyer, Ditto, & Haidt, 2012). In-group favoritism is assumed, and, in a limited way, acceptable in the sport context, but, as Bredemeier and
Shields (1986a, p. 258) have noted, “fundamental moral claims…are not negated.” Yet it may be possible that excessive endorsement of the loyalty foundation could lead to antisocial behaviors directed toward out-group members.

Second, empirical findings suggest that different moral interpretations of the sport context may make different intuitive-affective moral judgments salient. Specifically, as detailed above in the review of research on contesting orientations, Shields, Funk, and Bredemeier (2016b) found that both individualizing and binding foundations were positively related to partnership contesting orientation, while only binding foundations were positively related to a war contesting orientation. Thus, unsurprisingly, there appear to be clear links between moral interpretative and moral judgment constructs.

Finally, moral foundations appear to be related to moral disengagement in sport, though the meaning of the relationship may be culturally-dependent. Specifically, Balish and Caron (2015) found that individualizing moral foundations were negatively – and binding foundations positively – related to moral disengagement in sport, and both were significant predictors of responses to sport moral dilemmas. However, participants from what Balish and Caron (2015) defined as collectivist cultures, were more likely to endorse binding foundations than participants from individualistic cultures, and thus more likely to endorse moral disengagement. This suggests that care must be taken in assuming a cross-cultural normative basis for interpreting sport moral functioning (Balish & Caron, 2015). Overall, however, these results suggest clear links between intuitive moral judgment processes and moral motivation, and hint that the individualizing foundations may tend to prevent moral disengagement. If so, athletes high in
individualizing foundations may be more likely to value the ‘fundamental moral claims’ of out-groups.

**Summary of moral foundations in sport.**

Overall, very little research has been done on moral foundations in the context of sport. What has been done, however, hints that the moral foundations may be essential for understanding the degree to which athletes’ commitment to their in-group (i.e., their team) may be related to antisocial behaviors toward out-groups (i.e., opponents). Binding foundations may relate to poor treatment of out-groups, while individualizing foundations may reduce the tendency to morally disengage, thereby reducing the likelihood of antisocial behaviors directed at opponents. Indeed, as will be seen below, research on prosocial and antisocial behavior in sport has found differences between the predictors/correlates of behaviors directed at opponents versus those directed at teammates, suggesting that important differences in moral functioning exist depending on the other person’s status as an insider or outsider (Boardley & Kavussanu, 2010; Kavussanu & Boardley, 2009b). Combined, these results suggest that moral functioning in sport may differ depending upon the nature of the relationship involved, and that binding and individualizing foundations may be particularly suited to elucidating these differences. Finally, it is important to note that the binding and individualizing foundations exhibited significant relationships to contesting orientations, and contesting orientations may help to explain why particular foundations become salient in sport.

**Summary of moral judgment in sport.**

In summary, moral judgment is clearly important for understanding moral functioning in sport. Findings have demonstrated differences in sport and non-sport
moral reasoning, specifically that moral reasoning in sport tends to be less mature (Bredemeier & Shields, 1984, 1986a, 1986b). Less mature moral reasoning has, in turn, been linked to aggression and acceptance of intentionally injurious sport behaviors (Bredemeier, 1985; Bredemeier, Weiss, Shields, & Cooper, 1986). Turning to the values that underlie Haidt’s (2001) intuitive moral judgment theory, binding moral foundations have been linked to the acceptance of aggressive, inhumane acts against outsiders (I. H. Smith et al., 2014). Second, studies examining contextual differences and similarities in moral judgment have focused on conscious moral reasoning (Bredemeier, 1995; Bredemeier & Shields, 1984, 1986a, 1986b; Bredemeier, Weiss, Shields, & Cooper, 1986). Constructs derived from unconscious, intuitive-affective moral judgment theories, such as moral foundations (Graham et al., 2011), have yet to be examined extensively, and contextual differences in the foundations has not yet been addressed. Third, while links between moral judgment, moral motivation, and moral behavior have been examined, the contextual stability of such relationships has yet to be examined.

**Moral Motivation/Self-Regulation and Sport**

Although the cognitive developmental work of Bredemeier and Shields helped to spark interest in sport moral functioning, much subsequent research took a social-cognitive approach, with a greater emphasis on social interaction, moral behavior and the self-regulatory and motivational processes necessary for successful moral agency (Bandura, 1990, 1991, 2001). Researchers also largely turned away from examining contextual differences in moral functioning between sport and non-sport contexts, preferring sport-specific examinations of moral functioning. In particular, work on Rest’s 3rd process – moral motivation – increased substantially (Boardley & Kavussanu,
2008a, 2011), as did work on the end product of moral functioning, i.e., moral behavior (Kavussanu & Boardley, 2009b).

Briefly, if the first and second components of Rest’s model (interpretation and judgment) involve perceiving a moral dilemma, tracing the effects of potential actions on others’ welfare, and making a judgment as to the correct, moral course of action, the third component involves summoning sufficient motivation to act on the moral choice, and not some competing alternative. Essentially it involves “deciding what one actual intends to do by selecting among competing values,” including moral and non-moral values (Rest, 1984, p. 32). Various sources of moral motivation have been posited in the broader moral psychology literature, including empathy (Davis, 1983; Hoffman, 1981), integrity (Schlenker, 2008; Schlenker, Weigold, & Schlenker, 2008), and the related concept of moral identity (Aquino & Reed, 2002; Blasi, 2009; Hardy & Carlo, 2005, 2011), as well as moral disengagement (Bandura, 1990; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996b). One aspect of this research has been motivated by the desire to explain the modest relationship between moral judgment and moral behavior (Aquino & Reed, 2002), and indeed moral motivations have generally proved important in understanding moral behavior (e.g., Aquino, Reed, Thau, & Freeman, 2007; Cikara, Bruneau, & Saxe, 2011; Duan & Hill, 1996; Reed, Kay, Finnel, Aquino, & Levy, 2016; Schlenker, 2008; I. H. Smith, Aquino, Koleva, & Graham, 2014), if not always more so than other moral constructs (Hertz & Krettenauer, 2016).

As noted in the opening to this chapter, and as might be surmised by the wide variety of constructs that have been researched, moral motivation can be divided into at least two facets, with ramifications for when they are likely to be operating during the
moral functioning process. Some constructs, such as moral disengagement, involve the
selective de-activation of self-regulatory motivations, in the face of strong non-moral
motives, and are likely to be most active once a moral judgment has been made (Bandura,
Barbaranelli, Caprara, & Pastorelli, 1996a). Others, like moral identity, involve a
qualitative kind of motivation (in this case, the importance of moral concerns to one’s
sense of self), that are likely to be active both prior to and after moral judgments are
made (Blasi, 1993). In fact, moral identity is quite likely to be activated as soon as an
individual apprehends that the current situation poses a moral problem. In sport, research
on the moral disengagement process has dominated approaches to moral motivation and
self-regulation (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996a), although moral
identity (Aquino & Reed, 2002) has also occasionally been studied.

Moral disengagement in sport.

Bandura’s (1990) influential social-cognitive account of moral motivation and
self-regulation suggests that individuals are conscious agents who regulate their own
moral conduct by observing, evaluating, and reacting to their own behaviors (anticipated
and real). More specifically, individuals self-regulate through the conscious exertion of
“self-reactive influence,” usually by administering “self-sanctions” for immoral conduct
(Bandura, 1990, pp. 27–28). Thus, in Bandura’s model, individuals themselves are
responsible for generating much of their own moral motivation through these self-
sanctions. Most often, the self-sanction providing the moral motivation is derived from
the anticipatory guilt associated with contemplating an act one would normally consider
to be immoral (Bandura et al., 1996a).
This affective response, however, can be turned off, and often must be if an individual decides to engage in an immoral or harmful act, a process Bandura (1996a, p. 364) has termed “moral disengagement.” Bandura identified several ways in which individuals preempted the experience of anticipatory guilt in order to effectively disengage their self-regulatory systems, which fall into four categories: 1) cognitively re-interpreting the act as moral, 2) casting doubt on one’s culpability for the act or diffusing culpability, 3) ignoring or minimizing the negative consequences of the act for others, and, 4) dehumanizing or blaming the individual hurt by the act (Bandura, 1990; Bandura et al., 1996a). Moral disengagement has been extensively studied, both in general life contexts via the Moral Disengagement Scale (MDS; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996b), and in sport contexts via the Moral Disengagement in Sport Scale (MDSS) and the Moral Disengagement in Sport Scale–Short (MDSS-S), both developed by Boardley and Kavussanu (2007, 2008a).

Moral disengagement seems well positioned to describe the impact sport has on moral motivation via the self-regulatory process. It is possible that entering the sport context prompts a change in individuals’ evaluation of when and where it is appropriate to feel anticipatory guilt for one’s actions. Indeed, this would appear necessary, as one aspect of sport involves the structured pursuit of a mutually-exclusive goal (i.e., winning) in which the rights and needs of opponents are not considered equally. Each of the four categories of disengagement is salient in the sport context: e.g., cognitively re-construing cheating as aiding teammates (a worthy cause) or ‘evening’ the playing field; minimizing one’s role in the team’s unfair play; arguing that taunting and verbal abuse don’t really
hurt anyone; or blaming an opponent after intentionally injuring them, because he/she ‘deserved’ it.

Although moral disengagement may be important for understanding moral motivation, it fundamentally involves turning off or ignoring positive moral motivation, and there are some weaknesses to this approach. A refusal to bypass self-regulatory processes does not automatically imply the presence of a strong motivation to act morally. An individual may, for example, only infrequently disengage their moral self-regulatory processes, but their baseline feelings of anticipatory guilt are weak. Similarly, an individual could merely not notice the moral dimensions of an experience (moral attentiveness; Reynolds, 2008), or moral concerns may not be central to their self-image (Blasi, 1984), resulting in the self-regulatory process never engaging properly (and thus, needing no cognitive re-construal to disengage). However, as is documented below, overall moral disengagement has proven to be extremely important for understanding moral functioning in sport.

*Moral disengagement and sport.*

Work examining differences and similarities in moral disengagement between sport and non-sport contexts is extremely limited. To some degree, in their efforts to establish the MDSS’ convergent and discriminant validity, Boardley and Kavussanu (2007) provided the first insights into this issue by examining the relationship between the MDS and the MDSS. The quite strong correlation between the sport and non-sport measures indicated substantial common and unique variance across contexts, consistent with Bredemeier and Shields’ (1984, 1986a, 1986b) work on the effect of sport on moral
reasoning. Unfortunately, Boardley and Kavussanu did not determine if there were statistically significant differences in moral disengagement between the two contexts.

Kavussanu, Boardley, Sagar, and Ring (2013) conducted the only other investigation of contextual differences in moral disengagement, in UK collegiate athletes, as they picked up the issue of ‘bracketed morality’ in sport, raised by Bredemeier and Shields (1986a). The primary purpose of the study was to examine differences in athletes’ moral behavior in sport and school contexts, but contextual differences in moral disengagement, as well as the degree to which changes in moral disengagement predicted changes in prosocial and antisocial behavior, were also studied. Specifically, Kavussanu, Boardley et al. (2013) found that participants demonstrated higher moral disengagement in sport than in school, and that larger differences in moral disengagement positively predicted larger differences in antisocial behavior.

Like the results of Bredemeier and Shields for moral reasoning, the limited extant research paints a picture of both significant contextual differences between moral disengagement and significant overlap. In terms of shared variance, the strong correlation between the MDS and MDSS reported by Boardley and Kavussanu (2007) equates to roughly a 50% overlap. Although Kavussanu et al. (2013) did not compute the correlation between the two scales they utilized, the difference in means between the two moral disengagement scales was not large. These studies also highlight the importance of examining contextual differences in moral functioning processes (and not just sport moral functioning), as these may be important in explaining changes in moral behavior.

Finally, it is important to note that contextual differences in moral disengagement have not been examined in US collegiate athletes. In comparison to their UK counterparts, US
intercollegiate athletics more often serve as developmental pipelines for professional
sport, which provides a very different context for moral functioning in sport.

*Relationship between moral disengagement and moral behavior in sport.*

A much larger body of research has been built on the relationship between moral
disengagement and moral behavior in sport (Boardley & Kavussanu, 2011). Specifically,
researchers have examined moral disengagement’s relationship to aggression (Traclet,
Moret, Ohl, & Clémence, 2015), cheating (D’Arrip-Longueville et al., 2010), and other
prosocial and antisocial sport behaviors (Boardley & Kavussanu, 2009, 2010; Hodge &
Gucciardi, 2015; Hodge & Lonsdale, 2011). In addition, quite frequently moral
disengagement has been examined as a potential mediator between other sport or moral
constructs and sport behavior (Boardley & Kavussanu, 2009, 2010; D’Arrip-
Longueville et al., 2010). In synthesizing this literature, two broad conclusions can be
drawn.

First and foremost, while extant research suggests that moral disengagement is
important for understanding moral behavior in sport, the strength of the relationship
appears to depend upon the precise nature of the behavior, with moral disengagement
linked most strongly to antisocial behaviors. The widely-used Prosocial and Antisocial
Behavior in Sport Scale (PABSS; Kavussanu & Boardley, 2009), for example,
distinguishes between prosocial and antisocial behaviors, as well as whether behaviors
are directed at teammates or opponents. Moral disengagement has demonstrated a strong,
positive relationship to antisocial behaviors toward opponents across several studies
(Boardley & Kavussanu, 2009, 2010; Hodge & Gucciardi, 2015; Hodge & Lonsdale,
2011; Stanger et al., 2013). Findings indicate that its relationship to antisocial behaviors
toward teammates, however, is somewhat less strong, while only weak or non-significant relationships to prosocial behaviors have been found (Boardley & Kavussanu, 2009, 2010; Hodge & Gucciardi, 2015; Hodge & Lonsdale, 2011), even in studies not using the PABSS (D’Arripe-Longueville et al., 2010). Furthermore, moral disengagement has been linked to specific antisocial behaviors, such as cheating (D’Arripe-Longueville et al., 2010), as well as to judgments of the acceptability of aggression (Traclet et al., 2015).

Second, research suggests that moral disengagement serves as a significant mediator between other sport or moral variables and moral behavior. Indeed, many of the studies referenced above included meditational analyses (Boardley & Kavussanu, 2009, 2010; D’Arripple-Longueville et al., 2010; Hodge & Gucciardi, 2015; Hodge & Lonsdale, 2011; Stanger et al., 2013; Traclet et al., 2015). Specifically, moral disengagement has been found to partially mediate the relationship between: a) perceptions of the coach’s ability to promote good character and antisocial teammate behaviors (Boardley & Kavussanu, 2009); b) controlling teammate and controlling coach environments and antisocial teammate and opponent behaviors (Hodge & Gucciardi, 2015); c) the relationship between negative affective self-regulation and both judgments concerning the acceptability of cheating and the likelihood to cheat, for females (D’Arripple-Longueville et al., 2010); and, finally, d) perceptions of coach and team norms and beliefs about the acceptability of hostile aggression (Traclet et al., 2015). In fact, moral disengagement was found to fully mediate relationships between: a) perceptions of the coach’s ability to promote good character and both prosocial and antisocial opponent behaviors (Boardley & Kavussanu, 2009); b) perceptions of the value of toughness and antisocial teammate and opponent behaviors (Boardley & Kavussanu, 2010); and, c)
controlled motivation and antisocial behaviors (Hodge & Lonsdale, 2011). Finally, as mentioned above, evidence exists that contextual changes in moral disengagement mediates the impact of sport on moral behavior (Kavussanu, Boardley, et al., 2013).

As a final note, a variety of factors serve as potential antecedents of moral disengagement. Relationships between moral disengagement and constructs identified in these meditational studies ranged from weak to moderately strong, with negative affective self-regulation exhibiting the strongest relationship (D’Arripe-Longueville et al., 2010). Indeed, both moral identity and partnership and war orientation have demonstrated significant relationships to moral disengagement, despite controlling for a number of other moral variables (e.g. moral attentiveness), and may be important antecedents (Shields et al., 2015b). It is possible that some form of moral disengagement is necessary, for example, immediately prior to engaging in antisocial behavior. This is one reason why, in the logic model for the current study (Figure 1), and in the proposed model of moral functioning tested (Figure 2), moral disengagement is situated just prior to moral behavior.

*Summary of moral disengagement in sport.*

Thus, extant research makes quite clear the importance of accounting for moral disengagement in explaining moral behavior in sport, particularly antisocial behaviors. Indeed, the strength of the associations found between moral disengagement and antisocial opponent behaviors coupled with the breadth of its mediating influence warrant its inclusion in any study purporting to explain moral functioning in sport, especially one utilizing the PABSS to measure moral behavior. This pattern is unsurprising, given that the social cognitive model of self-regulation in general, and moral disengagement in
particular, are focused on the inhibition (or lack thereof) of antisocial, transgressive behaviors, not on the promotion of prosocial/positive behaviors.

Second, moral disengagement also appears to play a significant role in the relationship of other sport moral variables and prosocial and antisocial behavior in sport. In particular, it is a potential mediator of antecedent components in Rest’s model, like moral interpretation and moral judgment. Further, as noted previously, positive moral motivations that may have activated earlier in the moral functioning process (e.g., moral identity) may also influence moral disengagement. In fact, both contesting orientations and moral identity have demonstrated relations to moral disengagement.

Third, given the strong relation between general life moral disengagement and sport moral disengagement, and the strong relation of both to prosocial and antisocial behavior in each context (Kavussanu, Boardley, et al., 2013), it is also possible that moral disengagement’s role in moral functioning is stable across contexts. This appears particularly important to investigate, as moral constructs that are stable in their influence on moral behavior across contexts would seem to provide the most leverage in promoting character. Unfortunately, while there is significant empirical evidence linking moral disengagement to moral behavior in both general life and sport contexts, no study has formally examined the degree to which these relations are stable in the same sample.

Two additional weaknesses in the literature can be identified. First, from the perspective of those interested in the moral functioning of US athletes, is that the majority of the research on moral disengagement has been done outside the US. As indicated above, the specific context of intercollegiate athletics in the US differs from many other countries, particularly the UK, where much of the research has taken place.
Second, it must be noted that moral disengagement focuses on conscious self-regulation, and, while it may be possible that some parts of the disengagement process are effected through subconscious, system/type 1 processes, the theory clearly suggests that disengagement is a volitional act (Boardley & Kavussanu, 2011). In fact, Boardley and Kavussanu (2011, p. 93) state quite clearly: “moral disengagement…involves the selective inhibition of moral standards…. Moral disengagement is volitional, that is individuals can choose to morally disengage or not.” Thus, the study of moral disengagement has largely contributed to the system/type 2 literature on sport moral functioning.

Combined, this suggests that future studies will do well to measure moral disengagement in both contexts, to determine: a) the degree to which its relations to prosocial and antisocial behaviors are stable across contexts; and, b) the degree to which its relations to antecedent moral constructs are stable across contexts. It may also be particularly important to examine moral disengagement in US intercollegiate athletics more closely, and to include examination of system/type 1 cognitive processes. Indeed, this study seeks to address some of these gaps in the literature.

*Moral identity and sport.*

Given that disengagement has demonstrably stronger relationships to antisocial behavior than prosocial behavior, an important question remains: What additional motivational factors prompt athletes to engage in prosocial behaviors? To some degree work on moral identity might answer this question, as it provides a form of moral motivation not directly tied to justifying antisocial behavior. Drawing from CDT, SCT, and social identity theory Aquino and Reed (2002) have built upon the work of Blasi
(1984, 1993, 2009) and others to suggest that individuals vary in the degree to which moral concerns are central to their self-concept, or identity. In terms of its positioning in social-cognitive theory, moral identity represents the adoption of specific standards, which are used to judge actions (and activate anticipatory guilt when considering potential actions). Yet it also contains elements related to self-observation and self-reaction: Not only are specific standards important, but it is important for the individual to live out those standards by consciously aligning one’s actions with one’s beliefs (Aquino & Reed, 2002). Most often, moral identity has been measured using the Moral Identity Scale (MIS) developed by Aquino & Reed, (2002).

It is important to note that both Aquino and Reed (2002), and Blasi (1984), make some fundamental assumptions about the nature of moral identity. First and foremost, while the specific beliefs upon which individuals base their moral identity will vary somewhat, there is significant commonality in the fundamental components of the moral domain upon which moral identity is based. Second, individuals will vary in the degree to which their moral identity is important to their overall self-concept, i.e., “the ideal of being a good or moral person may occupy different levels of centrality in people’s self-concepts” (Aquino & Reed, 2002, p. 1424). Finally, both have argued vigorously that moral identity is the prime motivating force in moral functioning, as moral interpretation, moral judgment, and the ability to follow through on one’s decisions have little importance in the absence of motivational force to drive the process (Aquino & Reed, 2002; Blasi, 1984). In other words, having the capacity to be moral is irrelevant without the will to do so.
Moral identity may help to explain moral functioning in both sport and non-sport contexts. High moral identity may, for example, help athletes maintain their moral standards in sport (e.g., help to perceive sport situations in moral terms, reflect on them, and self-regulate). However, it is also possible that the standards comprising an athlete’s moral identity merely shift as they enter sport (like the shifting bases of moral foundations, found by Leidner & Castano, 2012). Regardless, accounting for the impact of sport on moral functioning requires accounting for the differing levels of moral motivation experienced by athletes, and not just their propensity to disengage their self-regulatory processes.

*Moral identity, emotion and moral behavior in sport.*

Comparatively little research has investigated the relationship between moral identity and sport moral functioning, though a handful of studies provide some initial insights. Specifically, researchers have examined the relationship between moral identity and sport enjoyment (Sage & Kavussanu, 2010), startle response when seeing transgressive sport behavior (Kavussanu, Willoughby, & Ring, 2012), and prosocial and antisocial behaviors (Kavussanu, Stanger, & Ring, 2015; Sage, Kavussanu, & Duda, 2006), all in UK athletes. Although quite preliminary, these findings suggest that moral identity may be important for explaining moral functioning in sport.

First, moral identity is clearly important for explaining both prosocial and antisocial behaviors in sport, though currently it seems little better than moral disengagement in explaining prosocial behaviors. For example, Kavussanu and Duda (2006) found moderately strong, negative correlations between moral identity and both judgments of the acceptability of antisocial behavior and actual antisocial behavior, but
failed to find a significant relationship between moral identity and prosocial behavior. Similarly, other research has found consistent, modest negative relationships between moral identity and antisocial behavior (Kavussanu, Stanger, & Boardley, 2013; Kavussanu, Stanger, et al., 2015). There is some evidence to suggest a link between moral identity and prosocial behaviors, however. In providing further evidence of the validity of the PABSS, Kavussanu, Stanger, and Boardley (2013) found modest positive correlations with prosocial behaviors toward opponents (though not prosocial behaviors toward teammates).

In addition, moral identity has also been linked to both positive and negative emotions in sport. Sage and Kavussanu (2010), for example, found that moral identity predicted the experience of happiness, or eudaimonia, in sport, while Kavussanu et al. (2012) found that moral identity was linked to increased experience of negative emotions in response to seeing images of moral transgressions in sport. This suggests that moral identity may have a more balanced role to play in providing moral motivation in sport, by providing both positive and negatively valenced motivational experiences. Indeed, given that moral disengagement measures the propensity to disengage anticipatory guilt, moral identity may assist in assessing the strength with which an athlete might experience anticipatory guilt when not morally disengaging. Moral identity also reflects what Bandura (2006, p. 171) has termed “proactive” moral agency, which involves actively engaging in ‘humane’ behaviors (as opposed to merely eschewing inhumanity).

**Summary of moral identity and sport.**

Athletes may vary significantly in how important moral concerns are to their self-concept (i.e., their moral identity), with significant consequences for their moral
functioning both in and outside sport. Unfortunately, moral identity has been under-researched in the sport context, particularly in the US. Extant research has shown significant relationships to moral behavior and both positive and negative emotions in sport, only in UK athletes however. Much more research is necessary on the role of moral identity and other forms of moral motivation if moral functioning in sport is to be fully understood.

Indeed, although the current study does not address this issue, it may be profitable to examine the degree to which moral identity differs either in content or in importance to self-concept between sport and non-sport contexts. Operationalizing a sport-specific measure of moral identity is non-trivial however, due to the subtle, but significant changes in moral norms between sport and non-sport contexts (Bredemeier & Shields, 1986a). As a result, in the current study moral identity has been measured globally, not contextually. Still, it is possible that a global measure of moral identity has stable relations to both non-sport and sport moral functioning constructs, and may, like moral disengagement, provide a point of high leverage for moral functioning across contexts.

**Summary of moral motivation/self-regulation in sport.**

Social-cognitive approaches to studying moral motivation have predominated in sport, with moral disengagement being most widely investigated. While moral disengagement appears to be very important for explaining antisocial sport behavior, and in mediating the effects of other variables, its relationship to prosocial behaviors is significantly weaker. Part of this may be due to its origins as a mechanism for disengaging the self-regulatory process in order to allow an individual to morally transgress without the associated anticipatory guilt (Bandura et al., 1996a).
Ultimately, when examining the impact of moral motivation in moral functioning, additional constructs are required beyond moral disengagement, as it fails to account for the ways in which individuals’ baseline moral motivations may vary. Moral identity offers some degree of promise in this area. In addition, both the moral identity and moral disengagement literature have been largely limited to examinations of non-US athlete populations. Given importance differences in the collegiate sport contexts in different countries, examining moral disengagement and moral identity in US college athletes would address a significant gap in the literature. In addition, determining if their relations to other moral variables are stable in both sport and non-sport contexts would be important for understanding how much leverage they provide practitioners in promoting positive moral functioning.

**Moral Behavior and Sport**

Although Rest’s original model did not formally include moral behavior as a separate component, it would be incorrect to assume that it was not intended as the implicit end point to the moral functioning process his model describes (Rest, 1984). Just as a recipe instructs individuals in how to produce a gourmet meal, Rest’s framework is centered on what individuals need to do to produce moral behavior. As Rest (1984, p. 26) notes, “the psychologist’s interest in ‘moral behavior’ should be understood to be an interest in the pattern of behavior in real-life contexts with attention to the inner processes that produced the behavior.” Indeed, in the preceding sections those ‘inner processes’ (and some of their relations to behavior) have been reviewed.

Prosocial and antisocial behaviors in sport have been investigated in several different forms. At various times, researchers have focused on aggression (Bredemeier,
Weiss, Shields, & Cooper, 1986; Stephens & Bredemeier, 1996), ‘good’ and ‘bad’ sport behaviors (e.g., Shields, Bredemeier, LaVoi, & Power, 2005; Shields, LaVoi, Bredemeier, & Power, 2007), or cheating (D’Arripé-Longueville et al., 2010; Shields, Bredemeier, Gardner, & Bostrom, 1995). Kavussanu and Boardley (2009b) advanced the field considerably, both conceptually and in terms of measurement when they created the Prosocial and Antisocial Behavior in Sport Scale (PABSS). Although researchers have continued to target specific prosocial or antisocial variables for study, the PABSS has served as a unified, compact, well-validated measure covering much of the same ground (Kavussanu & Boardley, 2009b).

Kavussanu and Boardley’s (2009b) approach to moral behavior in sport makes an important theoretical contribution: It accounts both for the type of behavior (i.e., prosocial or antisocial) as well as for the target of the behavior (i.e., teammate or opponent). Both distinctions are particularly important in the context of competitive sport. Specifically, the distinction between prosocial and antisocial behaviors is crucial for sport, because the context of sport, as noted above, allows for some degree of legitimated egoistic behavior (Bredemeier & Shields, 1986a). In other words, more limited prosocial behaviors are to be expected in sport; when playing soccer, for example, one does not typically share the ball with the other team, nor is one in moral default for not so doing. No less important is Kavussanu and Boardley’s (2009b) distinction between behaviors that target teammates and those that target opponents. Athletes have very different socio-moral relationships with teammates and opponents – the moral obligations and responsibilities to each are different – and social relationships are very important for understanding moral functioning (Fiske & Haslam, 1996). Thus,
Kavussanu and Boardley’s approach to moral behavior is particularly well-suited to sport contexts.

As hinted at above, a large amount of the literature already reviewed also involved moral behavior in sport, whether measured via the PABSS, or in some other form (e.g., specific cheating or aggression measures). As other constructs important to the current study have been discussed, so have their relationships to moral behavior. The details of that research will not be repeated here, only referenced (in a more concise form) where appropriate. Of specific interest in this section of the literature review are those studies that have examined contextual differences in sport and non-sport prosocial and antisocial behavior, as this relates to the purpose of the current study. Of tangential importance is providing a summary of studies addressing the antecedents or predictors of prosocial and antisocial behavior in sport not already addressed above.

**Sport and prosocial and antisocial behaviors.**

Research on contextual differences in sport and non-sport prosocial and antisocial behaviors is scant: Only one study has specifically addressed the issue. Discussed above in terms of its results related to moral disengagement, Kavussanu et al.’s (2013) work was primarily designed to compare sport and school prosocial and antisocial behaviors in two related studies. Several important findings can be highlighted.

First, unsurprisingly, both the sport context and gender were related to athletes’ moral behavior. Specifically, Kavussanu et al. (2013) found that athletes demonstrated more antisocial (and less prosocial) behaviors toward sport opponents than toward students, as well as more prosocial behaviors toward sport teammates than toward students, suggesting that some of the contextual differences involve the distinct kinds of
relationships that are present in each context. Second, the specific sport context was also found to relate to moral behavior, as participants in high-contact sports demonstrated higher antisocial behaviors toward opponents than did participants in medium-contact sports. Third, in terms of gender differences, males demonstrated higher antisocial behavior toward both opponents and teammates than females, while females, on the other hand, demonstrated more prosocial behaviors toward opponents than males. Fourth, once again, significant commonality emerged between non-sport and sport moral functioning, with strong relationships between sport and school moral behavior scales. Finally, as reported above, contextual changes in moral disengagement were found to partially mediate the relationship between school and sport antisocial behaviors.

Several points stand out in the research. First and foremost, across both studies substantial correlations between sport and school moral behaviors were found. In terms of variance, behaviors in the two contexts shared approximately 17% to 36% variance. As with moral reasoning and moral disengagement, behaviors in the two contexts demonstrate substantial differences, but also similarities. This suggests once again that there may be significant stability in some moral constructs and their interrelations across contexts. Finally, the research hints at a potentially critical distinction in moral functioning in sport: Not only may individual sport contexts relate to moral functioning, but also participants may function differentially based on their relationship with others within the sport (e.g., teammate or opponent).

**Predictors of prosocial and antisocial behavior in sport.**

Much of the research on the predictors of prosocial and antisocial behavior in sport relevant to the study has been covered in prior sections. Contesting orientations
(Funk, Shields, & Bredemeier, 2016; Shields, Funk, & Bredemeier, in press-a), moral reasoning (Bredemeier, 1994), moral foundations (I. H. Smith et al., 2014), moral disengagement (Kavussanu, Stanger, & Boardley, 2013; Traclet, Romand, Moret, & Kavussanu, 2011; Tsai, Wang, & Lo, 2014), and moral identity (Aquino, Freeman, Reed, Felps, & Lim, 2009; Sage, Kavussanu, & Duda, 2006; I. H. Smith et al., 2014) have all demonstrated relationships to moral behaviors. Results tend to suggest that partnership contesting orientations, mature moral reasoning, individualizing moral foundations, and moral identity are associated with higher prosocial behavior and lower antisocial behaviors. Conversely, war contesting orientation, less mature moral reasoning, binding foundations, and moral disengagement are associated with higher antisocial behaviors.

In this section two additional points need to be made regarding the literature on the predictors of prosocial and antisocial behavior in sport. First, although a great deal of research effort has been expended investigating the relationship of goal orientations to prosocial and antisocial sport behavior, empirical evidence suggests these relationships are modest, at best (e.g., Barkoukis, Lazuras, Tsorbatzoudis, & Rodafinos, 2011; Boardley & Kavussanu, 2010; Kavussanu & Boardley, 2009; Sage et al., 2006; Sage & Kavussanu, 2007, 2008). Thus, although comparatively less attention has been afforded to the constructs of moral disengagement and moral identity, results suggest that they are more important than goal orientations in the prediction of prosocial and antisocial sport behavior. Third, research in this area has largely focused on the moral judgment (Bredemeier, 1994; Bredemeier, Weiss, Shields, & Cooper, 1986) and motivation (Boardley & Kavussanu, 2009) components of Rest’s model, not the moral interpretation component.
For example, Boardley and Kavussanu’s (2009, 2010) work on moral disengagement and prosocial and antisocial sport behaviors, reviewed above, demonstrated the strong link between moral disengagement and antisocial behaviors, particularly antisocial behaviors toward opponents across two separate studies. The results of Stanger, et al. (2013) indicated similar utility for moral disengagement in predicting antisocial sport behavior, with quite strong relations evident. Additional work by Kavussanu, Stanger, and Boardley (2013), further validating the PABSS, also indicated the strong predicative utility of moral disengagement for antisocial behaviors toward opponents. Placed in the context of the research on goal orientations that has found more modest relations (e.g., Sage et al., 2006; Sage & Kavussanu, 2007, 2008), moral disengagement has demonstrated more potential as a predictor of antisocial behavior in sport than goal orientations.

This is arguably unsurprising. Prosocial and antisocial sport behaviors lie at the terminus of the moral functioning process, and goal orientations represent orientations to achievement, not morality, and primarily seek to explain achievement behaviors (but cf. Shields & Bredemeier, 2007). Both moral disengagement and moral identity, on the other hand, are deeply embedded in the moral functioning process and literature (Bandura, 1990; Blasi, 1984). That these two constructs would demonstrate greater empirical usefulness in explaining moral behavior in sport is to be expected. In studying prosocial and antisocial sport behavior, inclusion of these variables seems important if we are to fully articulate how moral functioning in sport works.

Finally, the literature on the predictors of moral behavior in sport also shows a decided lack of interest in Rest’s first component – moral interpretation. Some research
has addressed moral judgment in the form of moral reasoning (Bredemeier, 1994; Bredemeier, Weiss, Shields, & Cooper, 1986), and moral motivation in the form of moral disengagement (Boardley & Kavussanu, 2009) and moral identity (Kavussanu, Stanger, et al., 2015). Yet even less has addressed the issue of moral interpretation (see Shields et al., 2015b, for an exception). Furthermore, predictors in the extant research derive from either the cognitive/structural developmental tradition (moral reasoning) or the socio-cognitive tradition (moral disengagement, moral identity), which emphasize conscious, volitional cognitions in the moral functioning process. There is limited work examining constructs theoretically derived from system/type 1, unconscious, rapid cognitive processes.

**Summary of the Review of the Literature**

Differences and similarities in sport and non-sport moral functioning has received some attention from researchers, though little in recent years. Much of this work has focused on two components of Rest’s model of moral functioning – moral judgment and moral motivation – as well as moral behavior, while the moral interpretation component has been largely ignored. Furthermore, early work on moral judgment in sport stemmed from the cognitive developmental tradition established by Piaget (Piaget, 1932) and Kohlberg (Kohlberg, 1963; Kohlberg & Hersh, 1977), which emphasized the role of conscious, volitional moral reasoning in moral judgment and action. Later work on moral motivation has drawn from the socio-cognitive tradition, built on the work of Bandura and others (Aquino & Reed, 2002; Bandura, 1991, 2001), which emphasized the volitional components of moral self-regulation in engaging moral motivation.
More recently, advances in cognitive science have suggested that the brain utilizes both conscious and non-conscious cognitions, including making unconscious judgments and choices (Bargh, 2011; Bargh et al., 2001). In translating these findings to moral psychology, Haidt and colleagues (Graham et al., 2011; Haidt, 2001, 2008) have challenged the role of conscious, volitional processes in making moral judgments. Unfortunately, little attention has been paid to fast, unconscious processes in examining differences and similarities in sport and non-sport moral functioning. Such processes appear particularly suited to explaining the role of moral interpretation and moral judgment in sport. In particular, differences in contesting orientations (Shields & Bredemeier, 2009, 2011a) and moral foundations (Graham et al., 2011; Haidt, 2001) may play a significant role in how the moral interpretative and judgment processes, respectively, differ between sport and non-sport contexts.

Additionally, while significant differences between sport and non-sport moral functioning have emerged, the review of the literature shows that strong relationships exist between general life and sport moral functioning. Indeed, strong cross-context correlations exist for moral disengagement and prosocial and antisocial behavior (Kavussanu, Boardley, Sagar, & Ring, 2013), and substantial overlap in moral reasoning (Bredemeier, 1995; Bredemeier & Shields, 1984). This raises the possibility that sport and non-sport moral functioning may have substantial commonality. An integrated model of moral functioning, which addresses multiple components of moral functioning, remains to be tested across contexts however. Studies have largely focused on contextual differences in specific moral variables, and not contextual differences (or similarities) in the interrelations among moral variables.
In summary, moral functioning has a number of interrelated components that draw upon numerous cognitive and affective processes (Rest, 1984), some of which have been more extensively studied in sport than others (Shields & Bredemeier, 2007). Research has demonstrated significant contextual differences and similarities in several important moral functioning constructs (e.g.; moral reasoning, Bredemeier & Shields, 1984, 1986a; moral disengagement and behavior, Kavussanu, Boardley, Sagar, & Ring, 2013), but studied constructs have been largely tied to system/type 2 conscious cognitive processes. Extant studies have also typically examined relations between only one or two of Rest’s four components and moral behavior, and they have not systematically examined the stability of those relationships across contexts. An integrated model of moral functioning that includes the influences of moral interpretation, moral judgment, and moral motivation on behavior has not yet been tested.

**Study Purpose and Research Questions**

The current study seeks to improve our knowledge concerning contextual differences and similarities in moral functioning in three ways. First, based on the empirical record, a model of moral functioning has been proposed wherein moral identity influences the adoption of specific contesting orientations, which, in turn, influence prosocial and antisocial behaviors, both directly and indirectly via moral foundations and moral disengagement (Figure 2). Investigations of differences in moral functioning between sport and other contexts have been largely limited to differences between – or relations among – specific variables (e.g., moral reasoning, moral behavior), and have not examined a model of moral functioning that integrates moral interpretation, judgment, motivation, and behavior, in multiple contexts.
Second, extant research has not systematically examined the stability of relationships among moral variables across contexts in a single sample, or the degree to which an integrated model of moral functioning equally fits multiple contexts. By examining the structural stability (i.e., the stability of all the posited relationships) of the proposed model across school and sport contexts the study seeks to provide new insights and identify moral constructs that have stable, strong relations to positive moral behavior across contexts, which could be leveraged to build effective character-building interventions for sport.

Third, the study will examine contextual differences and similarities in contesting orientations (part of moral interpretation) and moral foundations (values that underlie Haidt’s, 2001, model of fast, unconscious moral judgment). These constructs have their theoretical foundations in system/type 1 unconscious processes, which have been under-represented in research. In so doing, the study will advance our understanding of the relations between conscious system/type 2 processes (e.g., moral identity, moral disengagement), and unconscious system/type 2 processes (e.g., contesting orientations, moral foundations). Such cross-process relations may prove important for fully understanding moral functioning, both within and outside sport.

**Research questions and hypotheses.**

Three critical researchable questions have been developed to govern the study’s inquiry into contextual differences in collegiate student-athletes’ moral functioning, along with several specific hypotheses. Where research questions and hypotheses involve model fit, acceptable fit has been assessed as models with a comparative fit index (CFI) ≥ .90, normed χ² (χ²/df) ≤ 3.0, root mean square error of approximation (RMSEA) ≤ .08,
and standard root mean residual (SRMR) ≤ .10, while good fit has been assessed as models with CFI ≥ .95, $\chi^2/df \leq 2.0$, RMSEA ≤ .05, and SRMR ≤ .08 (Schweizer, 2010). Where formal tests of statistical significance have been used to test null hypotheses, the level of significance has been set at $\alpha = .05$.

Research Question #1 (RQ1): Does the proposed model of moral functioning (Figure 2) fit the observed data in sport and school contexts?

$H^I_0$: The proposed model of moral functioning does not meet acceptable fit characteristics for sport and school contexts (i.e., CFI < .90, $\chi^2/df > 3.0$, RMSEA > .08, SRMR > .10).

$H^I_a$: The proposed model of moral functioning meets acceptable fit characteristics for sport and school contexts (i.e., CFI ≥ .90, $\chi^2/df \leq 3.0$, RMSEA ≤ .08, SRMR ≤ .10).

Research Question #2 (RQ2): Does the proposed model of moral functioning exhibit measurement and structural invariance across sport and school contexts?

$H^2_0$: The proposed model of moral functioning does not exhibit measurement and structural invariance across sport and school contexts (i.e., $\beta_{\text{sport}} \neq \beta_{\text{school}}$ for one or more item loadings and relationships).

$H^2_a$: The proposed model of moral functioning exhibits measurement and structural invariance across sport and school contexts (i.e., $\beta_{\text{sport}} = \beta_{\text{school}}$ for all item loadings and relationships).
Research Question #3 (RQ3): Do participants’ contesting orientations, moral foundations, moral disengagement, and prosocial and antisocial behaviors differ significantly between school and sport contexts?

\( H^0_3: \) Participants’ contesting orientations, moral foundations, moral disengagement, and prosocial and antisocial behaviors do not differ between sport and school contexts (i.e., \( \mu_{\text{sport}} = \mu_{\text{school}} \) for all measured variables).

\( H^3_a: \) One or more of participants’ contesting orientations, moral foundations, moral disengagement, and prosocial and antisocial behaviors differs between sport and school contexts (i.e., \( \mu_{\text{sport}} \neq \mu_{\text{school}} \) for one or more measured variables).

In addition to these research questions and primary hypotheses, the proposed model of moral functioning allowed for the examination of multiple individual relationships between the measured variables. Specific hypotheses for these relations have not been advanced, but expectations and the resultant findings have been summarized in Table 11.
Chapter 2 – Methods

Design

A correlational design was used to address the study’s research questions, utilizing structural equation modeling (SEM) to test a model of moral functioning against the observed data. At this stage, only limited research has been done on the relationship between contesting orientations, moral foundations, and the other moral functioning processes measured in the current study. Thus, determining the best entry point for an experimental manipulation from among these variables may be premature. Specifically, while the current study proposes a model of moral functioning with a clear sequence of influences among the study variables (i.e., moral identity -> contesting orientations -> moral foundations -> moral disengagement -> prosocial and antisocial behaviors), psychological functioning can have recursive features that can complicate experimental designs (which Rest, 1984, acknowledged when articulating his model). Given these conditions, a correlational design affords the opportunity to test the proposed model with non-experimental data, across multiple settings. Finding that the theoretically expected relationships delineated by a model hold true in cross-sectional data provides a solid empirical grounding for subsequent experimental research.

Sampling

A convenience sample was drawn from National Association of Intercollegiate Athletics (NAIA) student-athletes in their senior year, who competed in officially-sanctioned Fall sports, and who participated in the online portion of the NAIA’s student-athlete sportspersonship education program, Champions of Character (CoC). An analysis of the power of the study’s planned main inferential tests (mean difference, regression) using estimates of the effect sizes (i.e., H₀) based on prior research and possible final sample sizes was conducted (Hinkle,
In this analysis, the Type 1 error rate ($\alpha = .05$), Type 2 error rate ($\beta = .20$) and null hypotheses were set, and estimates of the alternate hypotheses, standard errors, and standard deviations were then made based on the effect sizes found in Kavussanu, Boardley, Sagar, and Ring (2013), which is the most recent study on collegiate athletes’ contextual differences in the moral functioning across school and sport contexts. Power analysis indicated that a sample of approximately 300 would yield a recommended $\beta$ to $\alpha$ ratio of 4:1, resulting in a power of .80 (Hinkle et al., 2003).

**Participants**

A total of 600 athletes actual responded, of which 565 (94%) provided consent, while 83 failed to complete a sufficient portion (> 75%) of the survey, and 246 met the exclusion criteria of the MFQ or MFQS (explained below). An additional 22 univariate and multivariate outlier cases were identified and removed. Final participants were N = 214 (55.1% female, 43.9% male, 0.9% undeclared) student-athletes, aged 19-25 ($M = 21.13, SD = .91$), of multiple racial/ethnic identities (77.6% White/Caucasian, 7.5% Black/African-American, 8.9% Hispanic/Latino/a, 0.9% Asian/Asian-American, 0.9% Native Pacific Islander, 3.3% Multi-Racial/Multi-Ethnic, 0.9% Other/Undeclared), participating in NAIA Fall sports ($n_{\text{cheerleading}} = 8, n_{\text{cross-country}} = 16, n_{\text{football}} = 49, n_{\text{soccer}} = 89, n_{\text{volleyball}} = 49, n_{\text{other/missing}} = 3$), who had competed in their sport for $M = 11.25$ ($SD = 4.53$) years.

**Measures**

Several different components of moral functioning and other variables were measured in the study, some of which were measured in two contexts (e.g., moral foundations, moral disengagement). With one exception, all instruments used in this study have been developed and used in prior, published research. Measures of contesting orientation, moral foundations, moral
identity, moral disengagement, and prosocial and antisocial behavior will be discussed in separate sections. Where fit characteristics of factor models have been presented, acceptable fit has been assessed as models with a comparative fit index (CFI) $\geq .90$, normed $\chi^2 (\chi^2/df) \leq 3.0$, root mean square error of approximation (RMSEA) $\leq .08$, and standard root mean residual (SRMR) $\leq .10$, while good fit has been assessed as models with CFI $\geq .95$, $\chi^2/df \leq 2.0$, RMSEA $\leq .05$, and SRMR $\leq .08$ (Schweizer, 2010).

**Demographic variables.**

Age, gender, sport, and years of competitive experience were collected and used as control variables in the study, along with race/ethnicity and class year which were not used in the analyses. Sport contact level was operationalized via a dichotomous dummy-coded variable. Specifically, low contact sports (cheerleading, cross-country, volleyball) were coded “1,” while medium to high contact sports (football, soccer) were coded “2.” Similarly, gender was represented by a dummy coded dichotomous variable, with male participants coded “1” and female participants coded “2.” Age and years of competitive experience were used without transformation as they represented natural interval-level variables. The measure containing the demographic variables can be found in Appendix 1A.

**Contesting orientations.**

The Contesting Orientations Scale (COS) was used to assess participants’ orientations toward the contest-is-partnership and contest-is-war conceptual metaphors, hereafter referred to as partnership and war orientations. Developed by Shields, Funk, and Bredemeier (2015a), the COS contains twelve statements, six for each conceptual metaphor, with which respondents rate their agreement on a five-point, Likert scale anchored by 1 – *strongly disagree* and 5 – *strongly agree*. Scores for partnership and war orientations are created, by calculating the mean of the six
items for that subscale. Items accessing a partnership orientation include, “In tight contests, I want my opponents to be at their best,” and, “The purpose of competition is to bring out the best in everyone.” Items accessing a war orientation include, “When I compete, my opponent is my enemy,” and, “Sport is a fight to see who is best.”

The COS has demonstrated excellent factor validity, good concurrent and discriminant construct validity, as well as acceptable to very good internal consistency in US collegiate student-athletes (e.g., Shields, Funk, & Bredemeier, in press; Shields et al., 2015a; Shields, Funk, & Bredemeier, 2015b). In initial development and validation, Shields, Funk, and Bredemeier (2015a) examined the scale’s factor structure, gender invariance, and concurrent construct validity across three studies. In the first and second studies, EFA and CFA conducted on separate samples (high school student-athletes, and undergraduate collegiate athletes, respectively) supported a two-factor structure, resulting in a final, twelve-item measure with strong fit characteristics (CFI = .97, RMSEA = .047, SRMR = .074). In the third study, both the factor structure and the measure’s gender invariance were examined. The two-factor model again demonstrated good fit characteristics (CFI = .97, RMSEA = .053, SRMR = .049) and tests indicated the measure to have strong, though not strict, gender invariance, providing further support for the measure’s factor validity. In addition, convergent concurrent validity was examined via the COS’ relationship to empathy, moral identity, and moral disengagement. Partnership orientation generally correlated with positive moral functioning, while war orientation either correlated negatively or was unrelated to positive moral functioning, supporting the measure’s construct validity. Finally, in subsequent research using the measure, both the partnership (.76 - .85) and war (.87 - .90) subscales have shown acceptable to very good internal consistency (Shields et al., in press, 2015a, 2015b).
For the current study, the COS was modified to measure individuals’ contesting orientations in an academic/school setting. This was done by modifying both the instructions and the original COS items to clearly reference the school context. For example, the instructions were modified from, “The following sentences reflect a variety of viewpoints about competition and sports” to “The following sentences reflect a variety of viewpoints about competition in academic settings.” Similarly, the wording of specific items was altered slightly (e.g., from “In tight contests, I want my opponents to be at their best,” to “In difficult classes, I want my classmates to be at their best”). CFA was performed to assess the factor structure of the resulting Contesting Orientations Scale for Academics (COSA), with results reported below (Table 1). Reliability indices for the scales of both measures were good (α ≥ .85; Table 2). The COS and COSA full measures can be found in Appendix 1B.

**Moral foundations.**

The thirty-item Moral Foundations Questionnaire (MFQ) (Graham et al., 2011) was used to assess the moral foundations underlying respondents’ moral intuitions. The MFQ consists of five subscales, each of which represents a unique underlying continuum along which moral intuitions may vary: harm/care, fairness/reciprocity, in-group/loyalty, authority/respect, and purity/sanctity. These are hereafter referred to as *harm, fairness, in-group, authority,* and *purity*. The MFQ has two sections.

In the first section, respondents are presented a series of statements, for which they are asked to rate how relevant each statement is to their process of deciding right from wrong. Respondents’ answers are provided on a six-point, Likert scale anchored by 0 – *not at all relevant* to 5 – *extremely relevant*. Sample items for each foundation include, “Whether or not someone suffered emotionally” for harm; “Whether or not some people were treated differently
than others” for fairness; “Whether or not someone’s action showed love for his or her country,” for in-group; “Whether or not someone showed a lack of respect for authority,” for authority; and, “Whether or not someone violated standards of purity and decency,” for purity.

In the second section, respondents are asked to rate their level of agreement with a series of statements on a six-point, Likert scale, anchored by 0 – *strongly disagree* to 5 – *strongly agree*. In this section, sample items for each foundation include, “Compassion for those who are suffering is the most crucial virtue,” for harm; “Justice is the most important requirement for a society,” for fairness; “People should be loyal to their family members, even when they have done something wrong” for in-group; “Respect for authority is something all children need to learn,” for authority; and, “People should not do things that are disgusting, even if no one is harmed” for purity.

Two items assess if a participant should be excluded from data analysis, one in each section. When deciding whether something is right or wrong, rating “Whether or not someone was good at math” ≥ 3 leads to exclusion. Conversely, when indicating their level of agreement or disagreement, rating “It is better to do good than to do bad” ≤ 2 leads to exclusion.

Two distinct kinds of scores can be calculated from the MFQ, both of which may be utilized in the current study, depending on their respective internal consistencies. First, scores for individual foundations may be calculated by averaging a respondent’s answers to each of the items addressing that foundation. Second, the care and fairness foundation scores may be averaged into a single, higher-order *individualizing* foundations score, while the loyalty, authority, and purity foundations may be averaged into a single, higher-order *binding* foundations score. Haidt and colleagues have suggested that the individualizing foundations represent respect and concern for the rights and needs of the individual during a moral
interaction, while the binding foundations represent concern and respect for the rights and needs of the group (Graham et al., 2011).

Research has generally supported the validity and reliability of the MFQ, though the internal consistency of some sub-scales frequently has been below suggested thresholds. Where this has occurred, however, the internal consistency of the ‘individualizing’ and ‘binding’ scores has been found adequate and has been utilized. Development of the measure indicated that a five-factor structure produced the best fit characteristics (RMSEA = .046), though it should be noted that the developers did not provide several typical close-fit indicators (e.g., CFI, SRMR), making it difficult to fully assess model fit (Graham et al., 2011). The second-best fitting model included the two, higher-order factors mentioned above (‘individualizing’ and ‘binding’ 2nd order factors), and had reasonable fit characteristics (RMSEA = .047). Initial internal consistencies for the five subscales ranged from poor to good (α = .65 -.84), with the harm (α = .69) and fairness (α = .65) exhibiting scores below the generally accepted threshold of .70, while test-retest reliabilities of the five subscales were similar to their internal consistencies, ranging from .68 for fairness to .82 for purity. In an independent confirmation of the MFQ’s factor structure, Davies, Sibley, and Jiu (2014) also found a five-factor model to provide the best fit, but it demonstrated only fair fit characteristics (CFI = .83, RMSEA = .063, SRMR = .065), and both the harm (α = .65) and fairness (α = .61) subscales demonstrated somewhat poor internal consistency. Other studies have upheld the internal consistency of these subscales, however, especially when they have been combined into ‘individualizing’ and ‘binding’ higher-order scales (Napier & Luguri, 2013).

Finally, for the purposes of the current study, the MFQ was modified to assess an individual’s moral intuitions/foundations concerning sport, creating the Moral Foundations
Questionnaire for Sport (MFQ-S). This was done by modifying both the instructions and the original MFQ items to clearly reference the sport context. For example, the instructions were modified from, “When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?” to “When you decide whether something is right or wrong when competing, to what extent are the following considerations relevant to your thinking?” Similarly, the wording of specific items was altered slightly (e.g., from “Whether or not someone did something to betray his or her group,” to “Whether or not someone did something to betray his or her team”). CFA was performed to assess the factor structure of the MFQ-S, including both two- and five-factor models, as well as a hierarchical model in which five first-order factors load on to two second-order factors. Results are reported below (Table 1). After CFA results, both measures demonstrated good reliability ($\alpha \geq .81$) when aggregated into individualizing and binding foundations scores (Table 2). The MFQ and the proposed MFQ-S full measures can be found in Appendix 1C.

Moral identity.

In order to measure the moral identity of participants, the internalization subscale of Aquino and Reed’s (2002) Moral Identity Scale (MIS) was utilized. This subscale assesses the degree to which moral concerns are judged to be important components of an individual’s self-concept. Respondents are presented with a list of common moral traits (e.g., caring, fair, honest, hard-working), and then asked to imagine how a person having those traits would feel, think, and act. They are subsequently asked to rate their agreement with a set of statements on a five-point, Likert scale anchored by 1 – strongly disagree and 5 – strongly agree. Statements include, “It would make me feel good to be a person who has these characteristics,” “Being someone who has these characteristics is an important part of who I am,” and “I strongly desire to have these
characteristics.” An overall moral identity internalization score is calculated by averaging the responses of participants to the five statements.

Research has generally supported the validity and reliability of the measure and its associated subscales (e.g., Aquino & Reed, 2002; O’Reilly, Aquino, & Skarlicki, 2015; Reynolds & Ceranic, 2007). In initial work, Aquino and Reed (2002) examined the measure’s factor and construct validity, as well as its predicative utility, across several samples and studies. Specifically, factor validity was established via EFA and CFA in separate samples (undergraduate college students and adult college alumni, respectively). EFA supported a two-factor structure to the scale, while CFA confirmed the two-factor structure of the scale and resulted in a ten-item final scale with reasonably strong fit characteristics (RMSR = .03, CFI = .95). Subsequently, convergent validity was examined by correlating the MIS with an implicit measure of moral identity, while discriminant validity was examined via the MIS’ relationship to the ostensibly unrelated constructs of self-esteem and social anxiety. Finally, internal consistency of the internalization subscale of the MIS has been acceptable to very good (α = .79 to .86) across multiple studies (Aquino, Reed, Thau, & Freeman, 2007; Hardy, Bean, & Olsen, 2014; O’Reilly et al., 2015; Reed & Aquino, 2003; Reynolds & Ceranic, 2007). The measure demonstrated good reliability (α = .82; Table 2) in the current study. The full measure can be found in Appendix 1D.

**Moral disengagement.**

The Moral Disengagement in Sport Scale – Short (MDSS-S; Boardley & Kavussanu, 2008) was utilized to assess participants’ endorsement of moral disengagement strategies in sport, while the modified version of the Moral Disengagement Scale (MDS; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996) created by Kavussanu, Boardley, Sagar, and Ring.
(2013) was utilized to assess their moral disengagement in the school context. The MDSS-S consists of eight items, each of which represents one of the eight moral disengagement mechanisms identified by Bandura et al. (1996a), which are intended to preemptively exculpate ourselves for immoral conduct: moral justification, euphemistic language, advantageous comparison, displacement of responsibility, diffusion of responsibility, disregarding/distorting consequences, dehumanization, and attribution of blame. Unlike in the full scale, the MDSS-S is not designed to measure each of these eight mechanisms independently, but rather provide a short, global indicator of an individual’s overall propensity for moral disengagement. Thus, a single moral disengagement score is calculated by averaging the responses to all eight items. The eight items are statements with which respondents rate their agreement on a seven-point, Likert scale, anchored by 1 – *strongly disagree* and 7 – *strongly agree*. Sample items include, “It is okay for players to lie to officials if it helps their team,” “Players that get mistreated have usually done something to deserve it,” and, “A player should not be blamed for injuring an opponent if the coach reinforces such behavior.”

In constructing and validating the MDSS-S, Boardley and Kavussanu drew upon their work on the full Moral Disengagement in Sport Scale (MDSS; Boardley & Kavussanu, 2007). Specifically, they selected sixteen (two for each of the eight mechanisms) of the thirty-two items in the full measure for use in developing the shortened version of the scale. Subsequent EFA and CFA analyses resulted in a single-factor, eight-item scale with acceptable to good fit characteristics in two different samples (sample 1, CFI = .96, RMSEA = .06, SRMR = .041; sample 2, CFI = .98, RMSEA = .046, SRMR = .033), and similarly good internal consistencies (sample 1, (α = .80; sample 2, (α = .85). Concurrent construct validity was also strong, as the new measure exhibited the expected correlations with prosocial and antisocial sport behavior (r =

.59, and -.35, respectively). Subsequent use of the MDSS-S has tended to support the scale’s acceptable to very good internal consistency ($\alpha = .73$ to .91) across a number of different studies (Boardley & Jackson, 2012; Boardley & Kavussanu, 2010; D’Arripe-Longueville et al., 2010; Kavussanu, Boardley, et al., 2013; Shields et al., 2015a, 2015b; Stanger et al., 2013).

As indicated above, Kavussanu et al. (2013) modified the MDS to create a shorter scale measuring generalized endorsement of moral disengagement mechanisms, specifically designed for the university context, hereafter referred to as the Moral Disengagement Scale for University – Short (MDSU-S). Like the MDSS-S, the MDSU-S contains eight items, one for each mechanism of disengagement, modified from the original for use in a college or university setting. For example, the original MDS item, “Insults among children do not hurt anyone,” was changed to “Insults among students do not hurt anyone.” Similarly, the original item, “It is okay to insult a classmate because beating him/her is worse,” was changed to “It is okay to insult a fellow student because hitting him/her is worse.” Other items include, “Students cannot be blamed for misbehaving if their friends pressured them to do it,” and “Some students deserve to be treated like animals.” The eight items were presented as a series of statements with which respondents were asked to agree or disagree on a seven-point, Likert scale anchored by 1 – strongly disagree and 7 – strongly agree. CFA for a single-factor structure showed reasonable, though not particularly strong, fit (CFI = .91, RMSEA = .096, SRMR = .051), and the internal consistency of the scale was very good ($\alpha = .91$) in Kavussanu et al.’s research. In the current study, both the MDSS-S and MDSU-S demonstrated good reliability ($\alpha \geq .87$; Table 2). The full MDSS-S and MDSU-S can be found in Appendix 1E.

Prosocial and antisocial behavior.
Prosocial and antisocial behavior in sport was measured via the Prosocial and Antisocial Behavior in Sport Scale (PABSS), while the modified version of the PABSS developed and utilized by Kavussanu et al. (2013) was used to assess prosocial and antisocial behavior in a school context, hereafter referred to as the Prosocial and Antisocial Behavior in Academics Scale (PABAS). The PABSS consists of twenty items, assessing four different dimensions of prosocial and antisocial sport behavior: prosocial teammate behavior, prosocial opponent behavior, antisocial teammate behavior, and antisocial opponent behavior. These dimensions are associated with four, three, five, and eight items respectively, which are averaged to create subscales representing the degree to which a respondent endorses that dimension. The items are statements of prosocial and antisocial sport behaviors, for which respondents rate the frequency with which they have engaged in such behaviors on a five-point, Likert scale anchored by 1 – never to 5 – very often. Prosocial teammate items include, “Encouraged a teammate,” and “Congratulated a teammate for good play,” while prosocial opponent items include, “Helped an injured or hurt opponent,” and “Asked to stop play when an opponent was injured or hurt.” Similarly, antisocial teammate items include, “Verbally abused a teammate,” and “Swore at a teammate,” while antisocial opponent items include, “Tri‌ed to injure an opponent,” and “Deliberately fouled an opponent.”

Validity and reliability of the PABSS has been good. Initial development and validation by Kavussanu and Boardley (2009b) occurred across two studies, resulting in a twenty-item, four-factor scale which demonstrated good model fit characteristics (CFI = .95, RMSEA = .073, SRMR = .067), in addition to reasonable gender and sport invariance. Convergent and discriminant validity were established in a separate sample, as the relationship of the PABSS’ subscales evinced the appropriate relationships to empathy and goal orientation. Finally, internal
consistencies found by Kavussanu and colleagues were acceptable to good ($\alpha = .73$ to .86) for all four subscales, across both samples. Kavussanu, Stanger and Boardley (2013) conducted further validation of the scale, verifying its factor structure, convergent and discriminant validity, and test/re-test reliability. Subsequent studies have confirmed the internal consistency of the PABSS subscales, with levels again ranging from acceptable to very good ($\alpha = .78$ to .90) across several studies (Boardley & Jackson, 2012; Boardley & Kavussanu, 2010; Stanger et al., 2013).

Finally, the PABAS was adapted by Kavussanu et al. (2013) to assess prosocial and antisocial behavior in a university context, while maintaining a high degree of compatibility with the original PABSS. Items from the original PABSS were altered, primarily by replacing each occurrence of either ‘teammate’ or ‘opponent’ with *student*, but other slight alterations were also made. The original four dimensions were retained, leading to four separate subscales: prosocial teammate-student, prosocial opponent-student, antisocial teammate-student, and antisocial opponent-student. These four scales mirror their counterparts in the PABSS. For example, prosocial teammate-student items include, “Encouraged a student,” and “Congratulated a student for good work,” while prosocial opponent-student items include, “Helped a student who was hurt,” and “Sought help for a student who was hurt.” Similarly, antisocial teammate-student items include, “Verbally abused a student,” and “Swore at a student,” while antisocial opponent-student items include, “Tried to injure a student,” and “Deliberately hurt a student.” As with the PABSS, respondents were asked to rate the frequency with which they engaged in each action on a five-point, Likert scale anchored by 1 – *never* and 5 – *very often*. In Kavussanu et al.’s (2013) study, CFA indicated that the PABAS demonstrated acceptable factor validity, with adequate, but not strong, model fit (CFI = .94, RMSEA = .104, SRMR = .085), while internal consistencies of the scales ranged from very good to excellent ($\alpha = .88$ to .93). In the current study the scales
of both measures demonstrated adequate reliability ($\alpha \geq .75$) once antisocial opponent and teammate behaviors were aggregated into a single scale (Table 2). The full PABSS and PABAS measures can be found in Appendix 1F.

**Procedures**

In the following section, brief explanations of data collection, data cleaning, and data analysis procedures are given. All of the procedures and practices presented herein have already been successfully tested and implemented in prior published studies (Shields et al., 2015a, 2015b, 2016b).

**Data collection.**

Data were collected online, via SurveyMonkey, at the beginning of the 2016-2017 school year. Specifically, as student-athletes participating in the CoC program returned to school and logged into the NAIA’s online student-athlete education system (part of their regular school activities), they were presented with the opportunity to participate in the studies being conducted by the author. Those who chose to do so were forwarded to the SurveyMonkey site, where they were provided an online consent form. The consent form contained the full description of the research project, its associated risks and benefits to the potential participant, procedures for ensuring the confidentiality and anonymity of the collected data, and assurances that participation is voluntary and participants may withdraw at any point prior to the submission of an article for publication. As part of the consent form, respondents also affirmed that they were eighteen years of age or older. Only those participants who consented to the study and affirmed their age was greater than eighteen were taken to the survey instruments; all others were presented with a screen thanking them for their interest in the study, though they declined – or were ineligible – to participate.
All collected data was de-identified (i.e., lacking any personally-identifiable information) beyond a single unique identifying code assigned to each student-athlete by the NAIA. The researcher does not have access to any personally identifiable information associated with that code, nor does the NAIA have access to the research data associated with that code. Thus, there is a clear separation of the research data from personally-identifiable information. Data have been housed on a secure computer, the contents of which are password-protected.

**Data cleaning.**

Non-consenting cases \((n = 35)\) and duplicate entries \((n = 7)\) were removed, as were cases \((n = 83)\) that had completed less than 75% of the survey. In addition, a substantial number of respondents \((n = 246)\) met the exclusion criteria for the MFQ or MFQ-S. Briefly, these instruments each contain two disqualifying questions. The first asks respondents to rate how important someone’s math ability is when judging right and wrong, and the second asks respondents to rate their level of agreement with the statement “It is better to do good than do bad (in school/when competing).” Respondents who rate the first too high \((\geq 3)\) or the second too low \((\leq 2)\) are excluded. An additional 22 univariate and multivariate outlier cases were identified and removed. Finally, data were examined for implausible and/or out-of-range responses, but no cases exhibited these qualities and none were removed.

**Data analysis.**

**Missing data analysis.**

Missing data can serve as a source of significant bias, especially when more than 5% of the overall data are missing (Tabachnick & Fidell, 2007). At the heart of the issue is the degree to which the sample, and thus the test statistic(s) computed from it, is representative of the population from which the sample was drawn: The larger the portion of missing data, the greater
the risk that the sample misrepresents the population in some way. The ultimate validity of the research, both internal and external, is affected by the manner in which missing data are handled (Enders, 2010).

Missing data can take on several forms: missing completely at random (MCAR), missing at random (MAR), and not missing at random (NMAR). Though most forms of analysis work best when data are MCAR, some are robust to MAR (Baraldi & Enders, 2010). The difficulty lies in determining which missing data mechanism is present in the data, as the various mechanisms are only partially testable (Enders, 2010). Several methods have been advanced for handling missing data, from case-deletion procedures, to advanced maximum likelihood methods (Baraldi & Enders, 2010). The preferred methods are those that operate well under either MCAR or MAR conditions, while providing the most robust results with NMAR possible.

Currently there are two clearly preferred methods: multiple imputation and maximum likelihood estimation (Enders, 2010, 2013). In the former, iterative regression analyses are used to predict missing data from complete data, generating up to twenty complete data sets to account for sampling variability. In the second, the parameters of analyses (e.g., $r, B$) are estimated directly, in iterative steps designed to find the parameter that is most likely to have been produced by the current data. In the study, data were first examined for missing data patterns/mechanisms. Maximum likelihood estimation was then utilized during the SEM analyses (MLE is robust under all missing data conditions and is the most parsimonious in terms of steps, which reduces the potential for simple calculation errors). Multiple imputation was used for the MANOVA analysis, however, as MLE estimation is not available via SPSS.
**Preliminary analyses.**

Prior to conducting the main analyses (detailed below), confirmatory factor analyses were performed on the two measures not previously used in published research, the MFQ-S and the COSA, to establish their basic factorial validity. All instrument scales were then examined for internal consistency and revised, if necessary. Preliminary analyses were then performed to determine if scale variables met the assumptions of multivariate regression analysis (e.g., normality), and zero-order correlations computed.

**Main Analyses.**

In terms of the main analyses, the study addressed multiple research questions, and required a data analysis plan that was reflective of these goals. In order to address the first and second research questions structural equation modeling (SEM) has been used to evaluate the proposed moral functioning models (Kline, 2011; Maruyama, 1998). SEM provides some benefits over a regression-based approach. First, utilizing latent variable models allows for an estimation of each variable’s measurement error (i.e., the amount of variance in the construct not accounted for by the items used to assess it). Second, it is more parsimonious as it allows for the simultaneous examination of multiple relationships, each of which would require individual regression analyses. Thus, while assessing the overall fit of the moral functioning model, SEM allows for an assessment of all significant relationships between model variables as well.

Specifically, structural models were created examining the proposed model (Figure 2) for both sport and school contexts. The sport model utilized moral identity in addition to the sport context variables (e.g., sport contesting orientations, sport moral foundations, sport moral disengagement and sport prosocial and antisocial behaviors). The school model utilized moral identity in addition to the school context variables. In addition to examining the overall fit of
each model separately (RQ1), an analysis was performed that constrained first measurement items (i.e., item loadings on factors) to be equal across contexts, and then structural items (i.e., pathways between latent constructs/variables) to be equal across contexts to address the issue of contextual stability in the relations between moral variables (RQ2).

In order to answer the third research question (RQ3), a 2x2x2, Context x Gender x Sport Contact Level, mixed within- and between-subjects multivariate analysis of variance (MANOVA) was performed, in which context serves as the within-subjects’ independent variable, gender and sport contact level serve as between-subjects’ independent variables, and responses to the contesting orientations, moral foundations, moral disengagement, and prosocial and antisocial behavior scales serve as the dependent variables. In addition, a series of follow-up univariate analysis of variance (ANOVA) were performed to assess specific contextual, sport contact level, and gender differences, as well as any differences due to interactions between these variables (Meyers, Gamst, & Guarino, 2006; Tabachnick & Fidell, 2007). Context served as a within-subjects variable, while gender and sport contact level were between-subjects variables. Gender was coded “1” for males and “2” for females, while sport contact was coded “1” for low- and “2” for medium/high-contact sports.
Chapter 3 – Results

Results were largely, though not unequivocally, in line with expectations. First, results of the missing data analysis and preliminary analyses (e.g., measure CFAs, correlations, scale reliabilities) will be presented. Next, the results of the SEM analysis, including the overall fit of the model in each context and the degree to which the model exhibited measurement and structural invariance across contexts, will be presented. Finally, results of the MANOVA investigating mean differences in the moral functioning variables across contexts will be provided.

Missing Data Analysis

Missing data analysis indicated that 63.08% of cases provided complete data and only 2.49% of total values were missing. In addition, no substantive patterns were evinced in the missing data. Under these circumstances, it is likely that any missing data handling mechanism (deletion, regression, multiple imputation, etc.) would provide similar results (Tabachnick & Fidell, 2007). MLE and multiple imputation were still used, however, as they represent ‘best practices’ in the field (Baraldi & Enders, 2010; Enders, 2010).

Specifically, prior to testing the proposed structural models, a saturated model was created in AMOS which created full information maximum likelihood (FIML) estimations for all item covariances. These FIML estimates of item covariances were then used as input for subsequent structural models, producing ML estimates of all model variables (e.g., regression/path coefficients, correlations, item factor loadings). FIML estimates were used for both the models testing the main research questions and for CFA models. For the MANOVA, SPSS multiple imputation procedures were used to create twenty data sets, and pooled results for the MANOVA and follow-up ANOVAs have been presented.
Preliminary Analyses

Initially, scales that had not been used or validated in prior research were subjected to CFA. The standard, two factor (partnership and war) model of the Contesting Orientations Scale for Academics (COSA) exhibited acceptable, if not particularly strong, fit characteristics (Table 1): Comparative fit index (CFI) = .94, normed $\chi^2/df = 2.67$, root mean square error of approximation (RMSEA) = .09, and standard root mean residual (SRMR) = .069. None of the three standard theoretical models of the Moral Foundations Questionnaire for Sport (MFQ-S), however, evinced acceptable fit: 1) five-factor CFI = .73, $\chi^2/df = 2.91$, RMSEA = .095, SRMR = .091; 2) five-factor hierarchical, CFI = .73, $\chi^2/df = 2.92$, RMSEA = .095, SRMR = .094; 3) two-factor, CFI = .70, $\chi^2/df = 3.11$, RMSEA = .099, SRMR = .094 (Table 1). As discussed above, the Moral Foundations Questionnaire (MFQ), upon which the MFQ-S was based, contains two separate response sets, however, with Part 1 asking participants to rate how important factors are when judging right and wrong, while Part 2 asks subjects level of agreement with specific statements. To determine if the two parts were operating as effectively separate measures, the standard five-factor model was examined for each part individually. Part 1 exhibited acceptable fit characteristics (CFI = .93, $\chi^2/df = 2.38$, RMSEA = .081, SRMR = .053), though Part 2 did not (CFI = .78, $\chi^2/df = 3.36$, RMSEA = .105, SRMR = .093). Accordingly, only responses to Part 1 were used in subsequent analyses.

All scales were then examined for sufficient internal reliability via Cronbach’s Alpha ($\alpha$). Results are presented in Table 2. The Moral Identity Scale (MIS, $\alpha = .82$) exhibited sufficient reliability ($\alpha \geq .70$), as did the partnership ($\alpha = .85$) and war ($\alpha = .89$) subscales of the Contesting Orientations Scale (COS). The harm ($\alpha = .81$), fairness ($\alpha = .76$), in-group ($\alpha = .85$), and binding foundations ($\alpha = .81$) scales of the MFQ-S exhibited sufficient reliability, while the authority ($\alpha$
and purity ($\alpha = .50$) scales did not. The Moral Disengagement in Sport Scale – Short (MDSS-S, $\alpha = .87$), as well as the antisocial behaviors toward opponents ($\alpha = .83$), antisocial behaviors toward teammates ($\alpha = .78$), prosocial behaviors toward opponents ($\alpha = .75$), and prosocial behaviors toward teammates ($\alpha = .81$) scales of the Prosocial and Antisocial Behavior in Sport Scale (PABSS) all demonstrated adequate reliability. Furthermore, both the partnership ($\alpha = .87$) and war ($\alpha = .91$) subscales of the COSA exhibited sufficient reliability ($\alpha \geq .70$). The harm ($\alpha = .74$), binding foundations ($\alpha = .78$) scales of the MFQ exhibited acceptable reliability, while the fairness ($\alpha = .68$), in-group ($\alpha = .56$), authority ($\alpha = .61$), and purity ($\alpha = .41$) of the MFQ did not. In addition, the Moral Disengagement Scale for University – Short (MDSU-S, $\alpha = .89$) exhibited acceptable reliability. The prosocial behaviors toward opponents ($\alpha = .82$), prosocial behaviors toward teammates ($\alpha = .89$) scales of the Prosocial and Antisocial Behaviors in Academics Scale (PABAS) demonstrated adequate reliability, while the antisocial behaviors toward opponents ($\alpha = .60$) and the antisocial behaviors toward teammates ($\alpha = .66$) of the PABAS did not. In accordance with prior literature and theory, the five moral foundations scales were aggregated into two, higher-order foundations: harm and fairness were averaged to form the individualizing foundation, while authority, in-group, and purity were averaged to form the binding foundation. In addition, due to the limited theoretical differences between the ‘opponent’ and ‘teammate’ antisocial behavior items of the PABAS, they were aggregated into a single antisocial behavior scale. To match this for the purposes of the proposed moral functioning model, these two subscales were also merged for the PABSS. Final scales all demonstrated adequate internal consistency (Table 2).

The normality of the scales was then examined. In general, scales were sufficiently normal to proceed with analysis, exhibiting no major violations of normality (skewness/kurtosis
Two scales—school antisocial behavior (kurtosis = 3.72) and sport prosocial teammate behavior (kurtosis = 3.00)—demonstrated somewhat leptokurtic distributions, but were not excessively non-normal, and so were retained in the analyses.

Finally, descriptive statistics and zero-order correlations were calculated among all study variables (Table 2). Moral identity was largely associated with higher moral functioning in both contexts (e.g., higher moral foundations and prosocial behaviors, lower moral disengagement and antisocial behaviors). In terms of intra-context relationships, consistent with prior research (Funk, Shields, & Bredemeier, 2016; Shields et al., 2015a) partnership and war contesting orientations demonstrated a moderate positive correlation within each context, with partnership orientations generally associated with higher moral functioning (e.g., higher moral identity, moral foundations, and prosocial behaviors; lower moral disengagement) and war orientations either unrelated to, or associated with lower, moral functioning (e.g., higher moral disengagement and antisocial sport behaviors). Similarly, individualizing and binding moral foundations were positively correlated in each context, while both foundations were—largely—related to higher moral functioning (e.g., higher moral identity and prosocial behaviors, less moral disengagement and antisocial behaviors), though the binding foundation showed little relationship to moral behavior in the school context.

Most study variables showed substantial cross/inter-contextual consistency, though predictor variables tended to demonstrate greater consistency across contexts than outcome variables. Specifically, individualizing and binding moral foundations as well as moral disengagement evinced the strongest inter-contextual correlations ($r > .70$), though all variables demonstrated significant, positive inter-contextual correlations ($r > .49$). Shared variance
between contexts ranged from a low of approximately 24% (prosocial teammate behaviors) to a high of 62% (individualizing foundations).

**Model Fit and Contextual Invariance of the Proposed Moral Functioning Model**

SEM was then used to address the first and second research questions, assessing the fit of the proposed model of moral functioning (Figure 2) in both sport and school contexts (RQ1, Table 9), as well as the degree to which the model displayed measurement and structural invariance across contexts (RQ2, Table 10). Overall fit for the model was moderate in both contexts: Three fit indices met thresholds for good (e.g., $\chi^2/df \leq 2$) or acceptable fit (e.g., RMSEA $\leq .08$, SRMR $\leq .10$), but model CFIs were well below the thresholds of .90/.95. Thus, the alternate hypothesis for RQ1 ($H^1_a$) received only partial support, and the null hypothesis ($H^1_0$) could not be fully rejected. Invariance testing, indicated that modest, but significant, measurement ($\Delta \chi^2 = 187.44, p < .01$) and structural ($\Delta \chi^2 = 317.59, p < .01$) variances existed across contexts. Here the alternative hypothesis for RQ2 ($H^2_a$) received no formal support support, and again the null hypothesis ($H^2_0$) could not be rejected. Despite moderate overall model fit, significant relations emerged in each context, many of which were largely stable across contexts. Thus, it seems likely that some relations are contextually invariant, while others are not.

In the sport context, significant relationships emerged between variables in each of the model’s components – interpretation, judgment, motivation, and behavior (Figure 7). Moral identity, for example, was directly and positively related to partnership orientation, both individualizing and binding foundations, and prosocial teammate behavior, while being directly and negatively related to moral disengagement. Significant negative, indirect relationships to antisocial behaviors and prosocial teammate behaviors were also in evidence, via moral
disengagement. Thus, interestingly, the direct influence of moral identity on prosocial teammate behavior differed in valence from its indirect influence.

In terms of contesting orientations, partnership orientation evinced direct, positive relationships to both individualizing and binding foundations, as well as significant, negative indirect relationships to moral disengagement, prosocial teammate behaviors, and antisocial behaviors. Conversely, war orientation was positively and directly related to moral disengagement, but negatively directly related to individualizing foundations. These relationships created the opposite pattern of indirect relationships compared to partnership orientation: War orientation was positively linked to prosocial teammate behaviors as well as antisocial behaviors.

Besides the relationships to antecedent variables detailed above, individualizing foundations were directly negatively related to moral disengagement, resulting in significant negative indirect relationships to prosocial teammate behaviors and antisocial behaviors. Binding foundations, however, did not evince any significant downstream relationships. Finally, moral disengagement exhibited positive relationships to prosocial teammate behaviors and antisocial behaviors (the latter particularly strong), but none of the variables included in the model significantly predicted prosocial opponent behaviors.

Turning to the school context, here again several significant relationships emerged between model variables (Figure 8). Moral identity again exhibited direct, positive relationships to partnership orientation and individualizing foundations, and a direct, negative relationship to moral disengagement, but no direct relationships to other variables emerged (including the link to binding foundations and prosocial teammate behaviors found in the sport context). Significant positive indirect relationships emerged to prosocial teammate and prosocial opponent behaviors
via partnership orientation, however, as well as a significant negative indirect relationship to antisocial behaviors via moral disengagement.

As with the sport context, in the school context partnership orientation demonstrated positive, direct relationships to both individualizing and binding foundations, as well as a significant, negative indirect relationship to antisocial behaviors. In addition, partnership orientation also exhibited direct, positive relationships to both prosocial teammate and prosocial opponent behaviors, and a negative, direct relationship to moral disengagement in the school context. Also, like the results for the sport context, war orientation again evinced a negative, direct relationship to individualizing foundations as well as a positive, direct relationship to moral disengagement, and a significant, positive indirect relationship to antisocial behaviors (via moral disengagement) in the school context. Neither individualizing nor binding foundations exhibited any significant downstream relationships in the school context, however, while moral disengagement was only associated with antisocial behaviors (the relationship to prosocial teammate behaviors found in the sport context was not present).

**Contextual Differences in Moral Functioning Variables**

To address the third research question regarding contextual differences between sport and school moral functioning variables (RQ3), a 2x2x2 context*gender*sport contact level MANOVA was performed. Multivariate tests indicated main effects for context, gender, and sport contact level, as well as context*gender and context*contact interactions, with the strongest effect size ($\eta^2 = .55$) evinced by context (Table 3). The follow-up univariate analysis for context revealed significant differences between sport and school functioning for all but one variable, individualizing foundations (Table 4). Thus, the alternate hypothesis for RQ3 ($H^3_a$) received substantial support, and the null hypothesis ($H^3_o$) could be rejected in all but one case.
In general, participants reported lower moral functioning in sport than in school, demonstrating higher war contesting orientation, binding moral foundations, moral disengagement and antisocial behavior, as well as lower individualizing moral foundations and prosocial opponent behavior. These effects were not uniform, however, as participants also reported higher partnership contesting orientations and prosocial teammate behaviors in sport than in school.

Main effects for gender and sport contact level were more circumscribed. Univariate analyses indicated only three variables differed significantly by gender (Table 5), while only one differed significantly for sport contact level (Table 6). Specifically, males reported higher moral disengagement and antisocial behavior than females, as well as lower prosocial teammate behaviors. Similarly, participants in medium/high-contact sports reported higher antisocial behaviors than participants in low-contact sports.

These main effects were superseded by two-way interactions in four cases: context*gender interactions for (1) moral disengagement and (2) antisocial behaviors (Table 7), as well as two context*contact interactions for (3) antisocial behaviors and (4) prosocial opponent behaviors (Table 8); no three-way interactions were present (Table 3). Regarding the former, while both males and females reported higher moral disengagement and antisocial behavior in the sport context, the difference was greater for males (Figures 3 and 4). The context*contact interaction for antisocial behavior demonstrated a similar pattern: Although both participants in low- and medium/high-contact sports reported higher antisocial behaviors in sport than in school, the difference was greater for medium/high-contact participants (Figure 5). Conversely, while both groups also reported lower prosocial opponent behaviors in the sport context, the difference was greater for low-contact participants (Figure 6).
Chapter 4 – Discussion

The first purpose of the study was to examine and compare an integrated model of moral functioning (Figure 2) in both sport and school contexts (RQ1), including the degree to which the proposed model fit the data and whether the hypothesized relationships among the variables demonstrated cross-contextual stability (RQ2). Fit of the moral functioning model was moderate in both sport and school contexts, with fit indices demonstrating nearly identical values in both contexts. Specifically, in both cases, one measure of model fit – normed chi-square ($\chi^2/df$) – met the threshold for ‘good’ fit, with two others (RMSEA and SRMR) marginally acceptable, and one (CFI) unacceptably low (Table 9). Invariance tests indicated, moreover, that modest, but significant differences existed in the modeled measurement and structural relations (Table 10).

Combined, these analyses also allowed for the simultaneous examination of the variables’ interrelationships, and for some comparisons to be drawn concerning similarities and differences in moral functioning between the two contexts. In particular moral identity, partnership orientation, and individualizing foundations were implicated in positive moral functioning, while war orientation and moral disengagement were implicated in poor moral functioning, in relations that were largely stable across contexts. However, several differences also emerged which may partially account for the lack of formal model invariance between the sport and school contexts. Specifically, relations between moral identity, partnership orientation, and individualizing foundations toward prosocial behaviors were not contextually uniform, nor was the relation between partnership orientation and moral disengagement. Further, moral disengagement exhibited stronger relations to antisocial behaviors in the sport context, where a small, positive
relation to prosocial behaviors toward teammates was also observed that was not present in the school context.

Secondly, the study sought to illuminate the contextual differences in endorsement of the measured variables, in particular, contesting orientations and moral foundations, which previously had not been examined in both sport and school contexts. Results indicated that participants found both partnership and war contesting orientations, as well as binding foundations, more salient in the sport context than in the school context. Also, consonant with theory and prior results, moral disengagement, antisocial behaviors, and prosocial behaviors toward teammates were higher in the sport context, while prosocial behaviors toward opponents were lower.

First possible explanations for the relatively mediocre model fit characteristics in the two contexts will be examined (RQ1). Second, reasons for the model’s lack of contextual invariance will be investigated, including a discussion of the implications of variables’ interrelations for effective (or ineffective) moral functioning, and the degree to which the relations were stable (or not) across contexts (RQ2). Finally, contextual differences in the measured variables themselves will be discussed (RQ3).

**Model Fit in School and Sport Contexts**

There are several possible explanations for the relatively moderate overall model fit in each context (RQ1), including both measurement and model specification issues. First, the poor functioning of the MFQ/MFQ-S measures may have reduced model fit. The adapted MFQ-S did not function as expected, which limited the model’s ability to accurately capture individualizing and binding foundations. Indeed, the MFQ itself may be flawed, as extant research on it has shown mixed results. For example, Aharoni, Antonenko, and Kiehl (2011) found that the scales
exhibited alpha levels below acceptable thresholds (< .70); Baril and Wright’s (2012) results were similar. Indeed, although Davies, Sibley, and Jiu (2014) concluded that the five-factor model demonstrated ‘good’ fit to the data, the fit characteristics they presented (significant $\chi^2$, $\chi^2/df$ well in excess of 2.0, RMSEA in excess of .06) did not provide particularly strong support for such an assertion.

A related factor concerns the measurement of prosocial and antisocial behaviors. Although Kavussanu, Boardley, et al. (2013) obtained reasonably satisfactory results modifying the PABSS to address the school context (e.g., scale reliabilities ranged from .88 to .93), here again CFA model fit was not particularly strong ($\chi^2_{(164)} = 745.68, p < .05, \text{CFI} = .94, \text{RMSEA} = .10, \text{SRMR} = .09$). Indeed, the unacceptable reliability of the two school antisocial behavior scales found in the current study may reflect a deeper problem in attempting to adapt a sport-based behavior measure to a non-sport context, especially if the retention of the distinction between sport opponents and teammates is desired. Thus, the model for each context (sport and school) contained at least one measure that under-performed, likely affecting the ability of each model to obtain good fit. Combined, the problems adapting the MFQ and PABSS to a secondary context also likely contributed to the differences in the measurement model found during the invariance tests (more on this below). What is clear is that measurement issues likely contributed substantially to deficiencies in model fit in both contexts.

Second, a linear causal model was specified, in which moral identity was an antecedent cause of contesting orientations, which were in turn antecedent causes of moral foundations, moral disengagement, and behavior. Although Rest’s four-component model implied such a linear relationship, he acknowledged that components of the model may at times exert reciprocal influence (Rest, 1984), a fact which is denoted in Figure 1 by dashed lines. Indeed, Shields and
Bredemeier, in articulating contesting theory, acknowledged that contesting orientations were likely to be integrated with other constructs in ways that allowed for such reciprocal activation (Shields & Bredemeier, 2009, 2011a). It seems likely that the major components of moral functioning are integrated in complex ways not fully supported by current modeling techniques.

This observation leads to a third possibility, namely that the model itself may simply be too broad. While testing an integrated, multi-component model of moral functioning is appealing, each individual component identified in the model (e.g., moral interpretation, moral judgment, etc.) is a complex process that may involve numerous factors. In the current study, for example, the assessment of moral interpretation was limited to contesting orientations, whereas the assessment of moral judgment was limited to orientations toward moral foundations. Numerous factors that are implicated in moral interpretation and judgment, such as moral attentiveness (Reynolds, 2008), and moral reasoning maturity (Kohlberg & Hersh, 1977; Power et al., 1989) were not included. A similar critique can be applied to the processes affecting moral motivation – both proactive and reactive. Indeed, while the empirical record demonstrates the importance of moral identity and moral disengagement, related factors such as empathy (Davis, 1980, 1983) and integrity (Schlenker, 2008; Schlenker, Weigold, & Schlenker, 2008) are likely also important to the moral motivation process. In the end, the proposed model may have been too broad to provide sufficient depth and accuracy of treatment to each individual component of moral functioning, limiting its ability to properly fit the data.

Model Contextual Invariance

Though overall fit was moderate in each context, the model also allowed for formal invariance testing as well as simultaneous examination of the variables’ interrelationships (RQ2), which illuminated some similarities and differences in moral functioning between the two
contexts (Figures 7 and 8, Tables 11 and 12). Overall, some significant relations remained relatively stable while others varied substantially, with statistical tests indicating that the model was not contextually invariant (not unexpected in such a large, complicated model). In fact, the root causes of the proposed model’s failure to demonstrate contextual invariance are likely similarly complex. General factors related to the model will be addressed first, followed by an examination of specific similarities and differences in the variables’ interrelations. Here again, some of the issues raised above (e.g., measurement, model complexity) likely contributed substantially to the proposed model’s lack of invariance.

**General modeling factors.**

One explanation for the lack of contextual invariance in model fit may, of course, again involve the very complexity of the proposed model itself. Analyzing the model tested over 100 relations, including both relations between latent variables as well as relations between measurement items and the latent variables, making it increasingly probable that one or more relations were not completely stable across contexts. Indeed, the model contained thirty-one (31) individual direct relations between the measured variables, as well as 60+ relations between individual measurement items and their related latent variables. This may have deteriorated fit even as it served to elucidate each context’s subtle, unique moral functioning features.

Second, issues regarding measurement that affected model fit in each context (discussed above) may have also affected the stability of the model’s relations. Indeed, tests showed some measurement variance in addition to structural variance. Specifically, the provenance of the model’s sport moral functioning variables (e.g., contesting orientations, prosocial and antisocial behaviors derived initially from sport) may have limited their immediate applicability to the school context. Although school can, and at times does, have some contest-like features,
contesting orientations are tied most strongly to contexts with explicit contests, or contest-like features (Shields & Bredemeier, 2009, 2010b, 2011a). Similarly, the prosocial and antisocial behavior scales used in the study were derived from the Prosocial and Antisocial Behavior in Sport Scale, a measure specifically designed to address a distinction – viz., between opponents and teammates – that does not normally obtain in school settings (Kavussanu & Boardley, 2009a). Here again, measurement must be precise if the subtleties of complex processes are to be modeled accurately.

Third, prosocial and antisocial behaviors themselves may (and likely do) have unique antecedent processes. Bandura (1999, 2002) has argued that morality involves both ‘proactive’ and ‘inhibitive’ components. Engaging in prosocial acts and refraining from antisocial acts are almost certainly not psychologically equivalent, though they both fall under the domain of moral functioning. In some sense, two different psychological processes are being tested simultaneously in the proposed model: antecedent processes to prosocial behaviors, and antecedent processes to antisocial behaviors. For example, while moral disengagement may be used to both deflect an obligation to act prosocially as well as to justify breaking a prohibition to act antisocially, it seems likely from the empirical evidence that it is a more significant factor in the latter process. Indeed, as mentioned in the literature review, moral disengagement evinces stronger relations to antisocial behaviors than to prosocial behaviors (Boardley & Kavussanu, 2009, 2010; Hodge & Gucciardi, 2015; Hodge & Lonsdale, 2011; Stanger et al., 2013). In fact, researchers have noted that even this basic distinction between prosocial and antisocial behaviors may need further clarification for the sport context, where each type of behavior may often be directed at either teammates or opponents (Kavussanu & Boardley, 2009a, 2009b). In this area, moral disengagement has exhibited its strongest relations to antisocial behaviors toward
opponents (Boardley & Kavussanu, 2009, 2010; Hodge & Gucciardi, 2015; Hodge & Lonsdale, 2011; Stanger et al., 2013). Thus, a single model was likely too complex and rigid to accommodate differences in antecedents to the multiple behavioral outcome variables.

**Contextual similarities and differences in moral functioning processes.**

In addition to these general modeling and measurement factors, a number of specific relations between latent variables differed across contexts and may have contributed to the model’s lack of structural invariance. The relation between war orientation and moral disengagement was stronger in sport than in school, for example, as was the latter’s relation to antisocial behaviors. Conversely, partnership orientation’s significant relations to prosocial behaviors in the school context were not present in sport, and the moderate direct relation between it and moral disengagement in school disappeared, replaced by a weaker, indirect relation via the individualizing foundations. Finally, the positive indirect relations between moral identity and both prosocial behaviors (via partnership orientation) found in the school context was replaced by a strong, direct relation to prosocial behaviors toward teammates, and no significant relation to prosocial behaviors toward opponents, in the sport context.

Despite these differences, results also suggested that there are several important links between each of Rest’s components of moral functioning – interpretation, judgment, motivation, and action – that appear to be relatively stable across contexts. Specifically, moral identity, partnership orientation, and the individualizing foundations may support effective moral functioning by inhibiting moral disengagement and antisocial behavior. Indeed, moral identity and partnership orientation were associated with reductions in negative outcomes in both contexts. War orientation and moral disengagement, on the other hand, may undermine effective moral functioning, as they displayed relatively strong, stable relations to antisocial behaviors.
emerging in each context. First, the relationships involved in effective moral functioning will be examined, including both promoting prosocial behaviors and inhibiting antisocial behaviors. Second, the variables involved in ineffective moral functioning (i.e., factors that increase the likelihood of antisocial behaviors) will be discussed.

Moral identity, partnership orientation, individualizing foundations and effective moral functioning.

The positive links between moral identity and partnership orientation found in both settings is in line with prior research (e.g., Shields et al., 2015a, 2015b), though the relationship evinced in the current study is somewhat stronger. These findings may indicate that individuals high in moral identity (i.e., for whom moral concerns are highly salient and central to self-concept) are more likely to interpret the contest dimensions of a context in ways that preserve what Bredemeier and Shields (1986a, p. 258) have termed the “fundamental moral claims” of participants. Of the two contesting orientations, partnership orientation is theoretically the more likely to support such claims, as it conceptualizes both teammates and opponents as necessary, equal partners in the contest, aiding in one’s self-improvement and enjoyment (Shields & Bredemeier, 2009, 2011a).

In turn, both moral identity and partnership orientation were associated with higher individualizing foundations. One explanation for the moral identity/individualizing foundations relationship may lie in how Aquino and Reed conceptualized the moral domain, and thus how the MIS was designed to activate moral identity. Specifically, a number of researchers have argued that issues of justice and/or care lie at the core of the moral domain (Gibbs, 1979; Kohlberg & Hersh, 1977; Noddings, 2008; Rest & Turiel, 1963), and Aquino and Reed (2002) deliberately drew upon this tradition, as well as others, when defining and developing their
measure of moral identity. As a result, of the values used in the MIS to activate moral identity – i.e., caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, kind – many are strongly linked to the individualizing foundations of care and fairness. Although Aquino and Reed (2002, p. 1424) have argued that the principle of “spreading activation” should allow a selected subset of moral values to activate moral identity across a broader domain of moral values, it seems plausible that the MIS would exhibit stronger, more consistent relationships to the moral values it most directly activates.

Similarly, the finding that partnership orientation is related to higher individualizing foundations is consistent with both theory and prior research. Here again, the features of partnership orientation – i.e., conceptualizing opponents as valued partners – emphasize the ‘fundamental moral claims’ mentioned above, and may help to ensure that moral intuitions about harm/care and fairness remain active and salient in the sport experience (Shields & Bredemeier, 2009, 2010b, 2011b). Indeed, partnership orientation has been consistently linked to positive moral functioning in the literature (Funk et al., 2016; Shields et al., 2015a, 2015b, 2016a, 2016b; Shields, Funk, & Bredemeier, 2018), and has been specifically linked to individualizing foundations (Shields et al., 2016b).

The negative relationships evinced by this trio to moral disengagement in the sport context – and by moral identity and partnership orientation in the school context – aligns with both theory and research. Moral identity, for example, may directly inhibit moral disengagement, as both are conceptually tied to moral motivation processes and are directly linked through their shared association with anticipatory guilt (Kavussanu, Stanger, et al., 2015; Stanger et al., 2013). Moral identity provides an important moral motivation, as acting in accordance with one’s moral values supports one’s moral self-concept, while abrogating such
values undermines it (Hardy & Carlo, 2005). As a result, individuals high in moral identity may experience higher levels of anticipatory affective self-sanctions like guilt, making such feelings harder to ‘disengage’. In fact, both moral self-concept and the anticipated abrogation of moral self-concept have been linked to the heightened experience of negative moral emotions such as guilt (Krettenauer & Johnston, 2011; Stets & Carter, 2012), while anticipated guilt has been shown to mediate both moral identity’s and moral disengagement’s relationships to antisocial sport behaviors (Kavussanu, Stanger, et al., 2015; Stanger et al., 2013).

A second explanation for the negative relationship between moral identity and moral disengagement is more direct: in attempting to maintain their moral self-concept, individuals high in moral identity may simply be more on guard against the cognitive distortions of moral disengagement. Moral identity has been linked, for example, to increased mindfulness (Ruedy & Schweitzer, 2011) and reflective moral attentiveness (Reynolds, 2008; Shields et al., 2015b). It seems possible that a strong moral self-concept tends to undermine a global orientation toward moral disengagement. Indeed, as Shields et al. (2015b, p. 654) note, “Chronically engaging in reflective moral processes, and building one’s identity through those reflections, may increase the likelihood that one will ‘see through’ the inherent distortions of moral disengagement and thus reduce the propensity to disengage.” In other words, moral identity may directly defeat or defuse moral disengagement mechanisms because it ensures that moral concerns remain highly salient to the individual’s motivation.

Additionally, by promoting partnership orientation and emphasizing moral intuitions centered on care and fairness, moral identity may humanize others, making it more difficult for individuals to morally disengage. Indeed, moral identity has been consistently linked with preserving moral rights. Aquino, Reed and colleagues, for example, have examined the
humanizing potential of moral identity in several studies, finding that individuals high in moral identity were more likely “to show concern for the needs and welfare of out-groups” (Reed & Aquino, 2003, p. 1275) and were less likely to “rationalize retaliatory aggression” (Aquino et al., 2007, p. 388). Thus, it appears possible that moral identity’s ‘humanizing’ influence may be effected via its activation of humanizing moral interpretations and moral judgments, ultimately reducing the likelihood that the individual will morally disengage.

Such a conclusion is supported by partnership orientation’s theoretical foundations (Shields & Bredemeier, 2009, 2011a), and the evidence relating it to lower moral disengagement (Shields et al., 2015a, 2015b). Certainly, the conceptual core of partnership orientation is profoundly humanizing, and de-emphasizes the in-group/out-group dynamics of a contest. Although no specific relationship to prosocial opponent behaviors in sport was found, partnership orientation has been consistently linked to respect for opponents in other research (Funk et al., 2016; Shields et al., 2015a). Similarly, individualizing foundations’ emphasis on core moral issues like harm/care and fairness may make it more difficult for individuals to activate specific moral disengagement mechanisms, e.g., dehumanization, minimizing consequences, or favorable comparisons, that involve deactivation of norms of caring and fairness (Bandura et al., 1996a). Indeed, individualizing foundations have been found to positively predict condemnation of extreme antisocial behaviors (e.g., torture) toward out-groups (I. H. Smith et al., 2014), and, as mentioned above, there is some evidence to suggest that they represent our most ‘core’ moral claims (Wright & Baril, 2011).

Given the nature of these three constructs – moral identity, partnership orientation, and individualizing foundations – and their interrelationships, their relationship to lower antisocial behaviors via moral disengagement makes sound theoretical sense. Moral identity, for example,
exerts influence to prevent an individual from abrogating their moral self-concept. Frequent antisocial behavior may make it difficult for many to maintain their moral self-concepts, given how central care and justice are to the moral domain (Gibbs, 1979; Kohlberg & Hersh, 1977; Noddings, 2008; Rest & Turiel, 1963). Antisocial behaviors quite frequently – if not altogether exclusively – violate norms of care and justice. For example, several of the antisocial items utilized in the PABSS (e.g., verbal abuse, physical intimidation, and deliberate injury) clearly violate basic moral claims of caring and/or fairness (Bredemeier & Shields, 1986a). Similarly, it appears difficult to reconcile either a partnership orientation or individualizing foundations with transgressive behaviors toward others. The same theoretical features of these two constructs that explain their negative relationship to moral disengagement also pertain here. Namely, partnership orientation emphasizes the interdependence of athletes, their status as equal partners in a mutually-beneficial endeavor, and thus tends to emphasize basic moral claims (Shields & Bredemeier, 2009, 2010b, 2011a). Partnerships become something else entirely when individuals regularly transgress against one another. The same can be said for the individualizing foundations, which emphasize intuitive norms of care and fairness (Graham et al., 2011). Certainly the antisocial behaviors enumerated in the PABSS represent the antithesis of care (Kavussanu & Boardley, 2009a).

It is also somewhat interesting to note that no direct paths of influence to antisocial behavior were exhibited between any antecedent construct other than moral disengagement. One possible interpretation is that some form of moral disengagement is necessary to engage in antisocial behaviors, i.e., we tend not to consciously harm others without justifying why it is permissible to do so. This assumes the conscious, cognitive approach to how moral disengagement functions (e.g., Boardley & Kavussanu, 2011) implied by Bandura’s (1990)
description of the process. On the other hand, moral disengagement could function, as Haidt (2001) suggests of moral reasoning, as a post-hoc process, meant to justify decisions that were made outside our conscious awareness. Such a discussion raises three critical issues regarding the construct of moral disengagement that have yet to be fully explored: 1) When (or can) moral reasoning legitimately conclude that an antisocial action is moral, without devolving into moral disengagement?; 2) To what degree is the moral disengagement process a conscious, volitional act, and to what degree unconscious?; and, 3) Does moral disengagement always occur after moral judgment has been rendered, or does it distort the moral judgment process itself (either consciously or unconsciously)? There is little doubt that many times, when individuals morally disengage, they are not listening to their ‘best self’. But much remains to be understood concerning how, when, and why the process occurs.

Yet, despite these similarities in processes associated with positive moral functioning, significant contextual differences emerged that likely prevented the proposed model from demonstrating formal invariance. In terms of promoting prosocial behaviors, for example, the results present a much less contextually uniform picture. Only moral identity was linked positively to prosocial behaviors towards teammates in sport, though moral identity and partnership orientation were linked to both prosocial behavior toward teammate items and prosocial behavior toward opponent items in the school context (admittedly where there was little conceptual difference between the two). Yet none of the antecedent variables in the sport model were significantly related to prosocial opponent behaviors.

Regarding the moral identity -> prosocial behavior relationship, the inconsistent results mirror the broader literature on the subject. Several studies have linked moral identity to charitable behaviors (Reed, Aquino, & Levy, 2007; Reed, Kay, Finnel, Aquino, & Levy, 2016;
Winterich, Mittal, & Aquino, 2013), and a meta-analysis of studies indicated that moral identity had a modest, positive association with moral behavior (Hertz & Krettenauer, 2016). Yet the same meta-analysis concluded that moral identity fared no better than many other psychological constructs in predicting moral behavior. Moreover, results linking moral identity to prosocial and antisocial sport behaviors have also been somewhat conflicting. Sage, Kavussanu, and Duda (2006), for example, found no relationship between moral identity and prosocial sport behaviors. On the other hand, Kavussanu, Stanger, and Boardley (2013) found modest correlations with prosocial opponent behaviors but not prosocial teammate behaviors.

One possible explanation for these erratic results is that moral identity must be activated to influence the moral functioning process, and it is but one facet of an individual’s self-concept. Aquino and Reed (2002, p. 1425) consciously grounded their conceptualization of moral identity in social identity theory, and they specifically note that “people possess multiple social identities that become more or less salient in different contexts.” Particularly in the sport context, the degree to which moral identity is salient – as opposed to athletic identity (Cieslak, 2005), for example – remains an open question. In addition, problems with moral awareness/moral sensitivity (i.e., recognizing that a situation poses a moral problem) could lead to moral identity remaining un-activated (Narvaez, 1991; Reynolds, 2008). Inconsistent activation of the moral identity self-schema would plausibly lead to inconsistent results.

This observation highlights a serious deficiency in the field: little to no attention has been paid to operationalizing moral identity specifically for the sport context. Given the different behavioral norms in sport, its acceptance of limited egocentrism (Bredemeier & Shields, 1986a), and the oppositional goals of the contest structure (Johnson & Johnson, 1989; Kohn, 1992), careful consideration of the meaning of moral identity in sport is warranted. This is not to
suggest that an individual’s general moral identity would bear no relationship to their sport moral identity, nor does it imply that they cannot share similar conceptual and theoretical foundations. Analogous to what Bredemeier and Shields (1986a, p. 258) have argued concerning moral reasoning in sport, it seems likely that sport moral identity would be a “situationally operative subset” of general moral identity.

These issues may also explain the lack of any relationship, direct or indirect, between moral identity and prosocial opponent behaviors in sport. As noted above, some empirical research suggests that moral identity has the capacity to expand the “circle of moral regard” to include out-groups (Aquino et al., 2007; Reed & Aquino, 2003), and, indeed moral identity was positively related to prosocial opponent behaviors via partnership orientation in the school domain. The absence of a similar relationship in the sport context tends to support the possibility that moral identity is not activated in the same fashion across both contexts, or that one’s moral identity is understood and enacted differentially across contexts. While investigating age-related differences in moral identity across three contexts (work, family, community/society), for example, Krettenauer, Murua, and Jia (2016, p. 973) make a crucial observation, which deserves to be included in its entirety:

"Moral identity needs to be conceptualized as a flexible and context-dependent self-structure that nonetheless evidences some consistency across situations…. Accessibility of moral schemas can systematically vary across social contexts depending on the demand characteristics that predominate in a particular area of life (e.g., family, workplace). As a consequence, moral identity may evidence context specificity. At the same time, individuals encounter similar moral demands across a range of situations (e.g., being
honest, fair, and dependable to family members and coworkers), which provides a foundation for cross-context consistency of moral identity.”

Krettenauer et al.’s findings may also help explain the somewhat inconsistent relationship between moral identity and prosocial sport behavior found in the literature. Specifically, they found that the context-differentiation in an individual’s moral identity varied, curvilinearly, with age: Context differentiation in moral identity increased from ages 14 to 25, and declined slowly thereafter. Intriguingly, this suggests that developmental and life-span effects may render adolescent and college-age sport participants most liable to form context-specific moral identities. Given that most research on moral identity in sport has been conducted in these groups, using a measure not specifically designed for the sport context, it may not be surprising to see such inconsistent results. In fact, these observations highlight the need to consider how adolescents and young adults understand and experience moral identity in the sport context. The possibility exists that the moral ‘bracketing’ in sport found by Bredemeier and Shields (1995; 1986a, 1986b) in their work is not equally strong in all age groups.

More difficult to explain is the lack of a positive relationship between partnership orientation and the prosocial behaviors in the sport context (though positive relationships to both prosocial teammate and opponent items were present in the school context), particularly prosocial opponent behaviors. After all, partnership orientation explicitly figures opponents as partners, and was derived from theory expressly designed to address the sport context (Shields & Bredemeier, 2009, 2010b, 2011a). It is possible that measurement issues may be partly to blame. Only three items of the PABSS address prosocial opponent behaviors, and those reveal the complexities in adequately operationalizing prosocial behaviors towards opponents in the sport context. Two items involve ensuring that an injured opponent receives timely assistance, while
the third refers only vaguely to ‘helping’ an opponent (Kavussanu & Boardley, 2009a); this could be problematic given the differences in the ways athletes interact with opponents in sport.

Specifically, the PABSS measures actual, self-reported behaviors, not intent or orientation, and the primary sports represented in the current study – cheerleading, cross country, football, soccer, volleyball – do not afford athletes equal opportunities to help injured opponents. Two sports, football and volleyball, offer frequent breaks, which allow injuries to be addressed without the intervention of the athletes. A third sport, cross-country, does not require that the overall race be stopped to address an individual’s injury, and athletes may be spread out over enough territory to make stopping the overall race impractical. Soccer is the lone significant sport wherein a) play is continuous, and, b) injuries require play to be stopped. Unfortunately, as was the case regarding team vs. individual sports, there were insufficient participants to conduct a true sport-by-sport analysis of the moral functioning model.

Second, as discussed previously, sport involves some ‘legitimated’ egocentrism (Bredemeier & Shields, 1986a) and, given the particular opportunities individual sports afford, it may be difficult to generally operationalize prosocial opponent behaviors. Analogous to the situation with moral identity, more exploration of what prosocial behaviors would (and should) be considered obligatory in the sport context is needed. Actions like complementing an opponent’s play, exchanging expressions of concern for potential injury, etc., may need to be explored as the sport context limits the possibilities for overt prosocial behaviors. Indeed, such measures may need to be crafted with the contexts of individual sports specifically in mind to be relevant.

The lack of a relationship between partnership orientation and prosocial teammate behaviors is also an odd finding, given partnership orientation conceptualizes all sport
participants (both teammates and opponents) as partners (Shields & Bredemeier, 2009, 2011a). Indeed, partnership orientation has been linked to positive sportspersonship orientations in previous studies (Funk et al., 2016; Shields et al., 2015a). The finding is doubly odd, given the way in which the PABSS operationalizes prosocial teammate behaviors, which is largely in terms of giving positive competency/performance feedback to teammates. Given that athletes high in partnership orientation exhibit an appreciation for the mutually-beneficial aspects of sports, it is reasonable to expect that they would report these kinds of behaviors more frequently. However, examination of the COS reveals that the items assessing partnership orientation overwhelming involve the athlete’s relationship to opponents, not to teammates (Shields et al., 2015a). It is possible that athletes’ appreciation of the role opponents play in providing the necessary challenge for their own personal development is distinct from feelings of obligation to treat teammates prosocially (or opponents for that matter). In any event, however, the relationship between partnership orientation and prosocial behaviors in sport requires more study.

Finally, a confluence of measurement issues – both of prosocial behaviors and of the moral foundations – may also explain the lack of a relationship between the individualizing foundations and prosocial behaviors in sport (at least prosocial opponent behaviors). Individualizing foundations are comprised of the care/harm and fairness foundations (Graham et al., 2011), and often the major way in which sport participants can show care and fairness toward opponents is via eschewing their antisocial counterparts (unfairness and harm). As Bandura (1999, 2002) has noted, morality involves both ‘proactive’ and ‘inhibitive’ components, both prescriptions and injunctions. Sport clearly involves the relaxation of many of the proactive/prescriptive obligations to engage in prosocial behaviors, as well as allowing for
limited antisocial behaviors within the defined rules of the sport, but many ‘inhibitive’ norms – e.g., injunctions against serious harm – are not relaxed (Bredemeier & Shields, 1986a). In short, the problematic relationships between moral identity, partnership orientation, and individualizing foundations and prosocial sport behaviors may stem from the difficulty in assessing the normative obligations for such behaviors as well as the complexity in operationalizing them in the sport context. This is the second issue highlighted in the introduction to the discussion above, which poses the question, “Certainly, these inconsistencies in positive moral functioning processes likely contributed to the finding that the proposed model lacked either measurement or structural invariance across the two contexts.

**War orientation, moral disengagement, and ineffective moral functioning.**

Apart from the relationship between moral identity, partnership orientation, and (occasionally) the individualizing foundations and positive moral functioning, the current study found that war orientation and moral disengagement were associated with poor moral functioning in both school and sport contexts. Specifically, war orientation was related to higher moral disengagement in both contexts, which, in turn, was related to higher antisocial behavior. While these results present a more consistent picture across contexts, they were not without some more subtle differences, viz., the war orientation -> moral disengagement -> antisocial behavior relations were substantially stronger in the sport context.

The positive association between war orientation and moral disengagement is consistent with prior research (Shields et al., 2015a, 2015b), and theory (Shields & Bredemeier, 2009, 2011a). War orientation entails understanding a contest as a war or conflict (Shields & Bredemeier, 2009), while moral disengagement mechanisms are particularly salient for contexts involving conflict (Aquino et al., 2007; McAlister, Bandura, & Owen, 2006). In making the
war- or conflict-like features of contests more salient, it is possible that war orientation tends to escalate conflict during contests, increasing the likelihood that the cognitive distortions associated moral disengagement are activated. Indeed, framing opponents as enemies can be dehumanizing (Shields & Bredemeier, 2009, 2011a), which is one important mechanism of moral disengagement (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996a) that is particularly salient for war and war-like conflicts (McAlister, Bandura, & Owen, 2006).

The relations between war orientation and moral disengagement and antisocial behavior are also consistent with several existing studies. During the development and validation of the COS, for example, war orientation was consistently related to lower sportspersonship (Funk et al., 2016; Shields et al., 2015a), while moral disengagement has been implicated in antisocial behavior across numerous studies in both sport (Balish & Caron, 2015; Boardley & Kavussanu, 2010; Kavussanu, Stanger, et al., 2013, 2015; Stanger et al., 2013) and other contexts (Christian & Ellis, 2013; Fontaine, Fida, Paciello, Tisak, & Caprara, 2014). As noted above, it seems plausible that cognitively structuring contest opponents as enemies allows individuals to more readily access moral disengagement mechanisms, particularly those that involve dehumanization (McAlister et al., 2006), and that some form of moral disengagement is necessary for most antisocial behavior (Bandura et al., 1996a). Thus, war orientation and moral disengagement may form an unhealthy synergy, which makes antisocial behavior significantly more likely in both contexts.

These relations, however, were substantially stronger in the sport context and this may have also contributed to the proposed model’s lack of invariance. In one sense, this finding is not terribly surprising. Sport clearly and consistently delineates an in-group and an out-group, and research has demonstrated that differences exist in the treatment of these two groups in sport
versus other life contexts. Specifically, Kavussanu, Boardley, et al., (2013) found that athletes displayed higher antisocial behavior toward opponents in sport than in school, as well as higher moral disengagement, coupled with higher prosocial behavior towards teammates in sport, findings that were replicated in the current study (and which are discussed below). With more clearly defined (and conflicting) in- and out-groups, sport may provide athletes more opportunities, and more incentives, to morally disengage. This process may be exacerbated by viewing opponents as enemies (Shields, Funk, & Bredemeier, 2015b).

Yet, the increased prevalence of antisocial behavior and moral disengagement in sport does not truly explain why the relation between these two constructs is stronger in sport than in school. In many ways, these are counter-intuitive findings. Sport, after all, entails a ‘bracketed morality’ which legitimizes some forms of antisocial behavior (Bredemeier & Shields, 1986a). By making a broader range of antisocial behaviors permissible, sport may nominally require less moral disengagement to justify such behaviors.

It seems most likely, however, that the difference in the strength of these relations may involve measurement issues. To maintain as much compatibility between items and scales as possible, Kavussanu, Boardley, et al., (2013), adapted sport-specific measures for prosocial/antisocial behavior and moral disengagement to the school context (the current study also utilized these instruments). Unfortunately, these adaptations may not have captured the nuance of the relations between moral disengagement and moral behaviors in the school context. Some antisocial behaviors, while lying outside the bounds of those behaviors legitimized in sport (e.g., “tried to injure an opponent,” “deliberately fouled an opponent”) are still clearly applicable to the sport setting in a way that their counterpart items (e.g., “tried to injure a student,” “deliberately hurt a student”) are not. Thus, the degree to which these statements represent
similar transgressions against the contextual norm is highly questionable. A much higher degree of moral disengagement is necessary to justify such behaviors in the school context – a level of moral disengagement likely not well represented in the current sample, given its low endorsement in both contexts.

A similar case can be made for the relation between war orientation and moral disengagement. Specifically, an adaptation of a sport-specific measure of contesting orientations may not have captured the nuances of what a ‘war orientation’ looks like in a school setting. Here again, the degree to which adopting a ‘war orientation’ to one’s relationships with other students is morally equivalent to adopting such an orientation in sport is questionable. Items such as “in sport, the goal is to conquer your opponent,” and “in academics, the goal is to conquer your classmates,” aren’t truly equivalent. Expressions of contesting orientations in contexts whose contest-like features are more subtle likely require more subtle items to measure them.

In all three instances – contesting orientation, moral disengagement, and prosocial/antisocial behaviors – substantial differences in norms and expectations between the sport and school contexts likely make measurement using a common set of items quite problematic. Adapted instruments always run the risk of increasing the ‘noise’ in the measurement process. Thus, in the current sample, the instruments may have simply worked better in the sport context to capture the ways in which war orientation is related to moral disengagement, and, in turn how moral disengagement is related to increased reports of moderately transgressive behaviors.

**Conclusions concerning contextual invariance of the proposed moral functioning model.**
In summary, although substantial overlap was found between the significant relationships in both models, and while the current results are consistent with the theory that moral functioning in sport is a “situationally operative subset” of general moral functioning (Bredemeier & Shields, 1986a, p. 258), sufficient differences likely exist between the two contexts and the associated processes affecting the various outcome variables to prevent the ‘good’ fit of a single model in both contexts. Ultimately, it may prove extremely difficult for a large moral functioning model to exhibit formal structural invariance across contexts. Future research could address the structural invariance of more limited components of the moral functioning process, examining in detail, for example, the invariance of the relations between war orientation, moral disengagement, and antisocial behaviors toward opponents. Conversely, the invariance of relations between moral identity, partnership orientation, and prosocial behaviors toward opponents could be examined.

**Contextual Differences in Moral Functioning Variables**

The third purpose of the study was to examine contextual differences in moral functioning between sport and school environments, particularly to determine if significant differences in contesting orientations and moral foundations existed across the contexts (RQ3). Indeed, the study represents the first time that contesting orientations and moral foundations have been measured simultaneously across two contexts. Except for individualizing foundations, all variables differed significantly between the two contexts. Six variables – partnership and war orientations, binding foundations, moral disengagement, antisocial behaviors, and prosocial behaviors toward teammates – were higher in the sport context, while only prosocial behavior toward opponent items were higher in the school context.

**Differences in contesting orientations (moral interpretation).**
The finding that war contesting orientation is higher in sport than in school highlights the different degree to which the two contexts are generally structured as contests. At heart, war orientation involves conceptualizing others in the context as enemies, who thwart or impede our personal success (Shields & Bredemeier, 2009, 2011a). Framed differently, a war orientation focuses on what Johnson and Johnson (1989, p. 6) have termed “negative interdependence, which results in individuals obstructing each other’s success.” Although classrooms are occasionally structured in ways that highlight such ‘negative interdependence’ they are usually more individualistic or cooperative in nature, i.e., places where the efforts of others either have little relevance or are supportive to our own (Johnson & Johnson, 1989). Given that the success of a student in the classroom is usually less subject to obstruction by fellow classmates than is the success of an athlete by their opponents, it is not surprising to find higher war orientation in sport than school.

Respondents also reported higher partnership orientation in sport than in school. On the one hand, viewing opponents as partners seems odd given the ostensible negative interdependence of many competitive sports. In virtually all competitive sport, two opponents cannot both win (Kohn, 1992, has termed this ‘mutually exclusive goal attainment’), though the degree to which they may directly obstruct each other’s efforts at success varies by the specific level of the sport’s physical interactivity. However, this result does offer support to one fundamental aspect of contesting theory: namely, that contests must be interpreted in order to gain meaning (Shields & Bredemeier, 2011a). In fact, the result may indicate that competitive sport highlights both the adversarial and mutually-beneficial aspects of contesting more strongly than the school environment. As noted above, school environments can often be more individualistic in their orientation, where students work alone toward personal goals, the
achievement of which neither positively nor negatively impacts other students, despite recent efforts to make them more cooperative (Johnson & Johnson, 1989, 1996; Johnson, Johnson, Holubec, & Roy, 1984; Johnson, Johnson, & Smith, 2007; K. Smith, Sheppard, Johnson, & Johnson, 2005). Even when generally supportive of each other’s learning, students are often evaluated individually, meaning that students’ academic success is not usually mutually exclusive. Still, while respondents did evince higher partnership orientation in sport, the difference was not especially large, and it was rather highly endorsed in both contexts, indicating that both contexts were viewed in a fundamentally cooperative light.

Finally, it is interesting to note that, despite sport’s more obviously adversarial structure, respondents still endorsed a partnership orientation more highly than a war orientation in sport, a finding that is consistent with several published studies (Funk et al., 2016; Shields et al., 2015a, 2015b, 2016b). Indeed, in both contexts, partnership orientation was preferred to war orientation. One potential explanation for this result lies in the composition of the sample: Here, as in prior studies on contesting orientation, the sample was drawn from National Association of Intercollegiate Athletics (NAIA) schools. NAIA institutions consciously offer a character-focused collegiate sport experience, via a national character-outreach program, called Champions of Character (CoC), specifically designed to promote ethical competition. It is possible that the effects of the CoC program entail an increased appreciation for a partnership approach to sport contests.

A second intriguing possible explanation for respondents’ greater endorsement of partnership orientation in both contexts is that preferences for contesting orientations may be tied to an underlying cognitive-developmental factor. Shields et al. (2016b) have argued that partnership orientation is more cognitively complex than war orientation, and hinted that it may
be more developmentally advanced. If partnership orientation is, in fact, more cognitively complex than war orientation, it may constitute the ‘preferred style’ of contesting once it emerges developmentally. The presence of – and preference for – a more advanced understanding of competitive contests does not automatically imply that it will be consistently employed, however. Indeed, findings concerning the increased use of egocentric reasoning in sport versus general life contexts are most consistent in collegiate athletes (Bredemeier & Shields, 1984, 1986a, 1986b). Just as Bredemeier and Shields (Bredemeier, 1994, 1995; Bredemeier & Shields, 1986b) demonstrated that an individual’s highest level of moral reasoning was not always employed in sport, future research may find that a general preference for partnership orientation may not always translate into the use of a partnership orientation during specific contests.

Ultimately, further research is needed to determine if the greater endorsement of partnership versus war orientation is due to the character education efforts of the NAIA, a broad preference of athletes for partnership-like contests, cognitive-developmental effects, or some other factor (e.g., self-presentation concerns). The current results suggest, however, that the adversarial structure of sport does not inherently inhibit athletes from accessing partnership orientation, and thus interpreting the moral dimensions of sport in a way that preserves all participants “fundamental moral claims” (Bredemeier & Shields, 1986a, p. 258). Thus, contextual influence on moral interpretation constructs like contesting orientations may be significant, but clearly are not the only factor in determining how an individual morally interprets a given situation or context.

**Differences in moral foundations (moral judgment).**
The finding that binding foundations are higher in sport than in school appears consistent with moral foundations theory, given that “the binding foundations encompass a group- or collective-oriented view of morality” (I. H. Smith et al., 2014, p. 2). More specifically, ingroup loyalty is one of the binding foundations’ three constituent lower-order foundations (Graham et al., 2011; Haidt, 2001) and it has particular salience for sport. Unlike school, the contest structure of sport contains clearly defined in- and out-groups. Unfortunately, the sample size was far too small to engage in an analysis comparing team and individual sports (the sample would have needed to include 200-250 participants for both team and individual sports, with a minimum total sample size of 400-500). Research has shown that binding foundations have been linked to the in-group/out-group processes of sport (Winegard & Deaner, 2010), including moral disengagement (Balish & Caron, 2015). In fact, as Bredemeier and Shields (1986a) have argued, “sport involves a ‘bracketed morality’, a legitimated, temporary suspension of the usual moral obligation to equally consider the needs and desires of all persons.” In sport, an athlete need not consider equally the ‘needs and desires’ of their opponent(s) during play. Within the boundaries of the sport contest, athletes legitimately prioritize loyalty to their in-group. Thus, it is unsurprising to see athletes rating the binding foundations somewhat more highly in sport than in school.

Another intriguing possibility is that the in-group binding foundation represents a less mature moral judgment, at least in terms of the cognitive-developmental tradition. For example, Baril and Wright (2012) found that the in-group moral foundation is linked to a more egocentric moral reasoning profile than the individualizing foundations, while Bredemeier and Shields (1984, 1986a, 1986b) have convincingly shown that athletes employ more egocentric (less mature) reasoning in sport than in daily life. Further, in an experimental study, Napier and
Luguri (2013) found that abstract (versus concrete) thinking was linked to higher individualizing foundations and lower binding foundations. Taken with the research discussed above, these results suggest that our most ‘moral’ intuitions may involve care and justice, and that these intuitions are developed in tandem with our conscious cognitive reasoning capacity, though cognitive development may play a greater role in this tuning than Haidt (2001, 2004; Haidt & Joseph, 2004) generally allows. Thus, respondents’ higher regard for binding foundations in sport may represent a reliance on less mature moral reasoning in that context.

However, it must be noted that Haidt (2004) argues against tying moral foundations to the cognitive-developmental model. Rather, he presents each foundation as an evolved area of ‘preparedness’ for moral thought, which is then subsequently ‘tuned’ through individual experience that is embedded in a particular society and culture (Graham et al., 2011; Haidt, 2001, 2004; Haidt & Joseph, 2011). This has some appeal when applying moral functioning to the sport context. To some degree the sport context simply entails a different set of acceptable moral norms, one which, as noted above, legitimizes limited egocentric behavior within the confines of the sport context (Bredemeier & Shields, 1986a). Yet Haidt’s approach completely lacks the notion of “development as the construction of a deeper or more adequate understanding not reducible to particular socialization practices or cultural contexts” (Gibbs et al., 2009, p. 271). As a result, it struggles to provide more than a merely descriptive account of moral functioning, and little basis for examining – and differentiating between – ‘good’ and ‘poor’ moral functioning.

In terms of contextual differences in individualizing foundations, endorsement was slightly lower in sport than school, but the difference was not statistically significant. This result seems odd given the nature of the individualizing foundations, which involve issues of harm/care
and fairness (Graham et al., 2011) and given that limited egocentrism is condoned in sport (Bredemeier & Shields, 1986a). Yet, issues of harm/care and fairness are still highly salient in sport. Indeed, as Bredemeier and Shields (1986a, p. 258) note, “fundamental moral claims – such as rights to health…are not negated” in sport.

It may also be possible that reductions in the valuation of harm/care and fairness are tied to the level of conflict that develops situationally in specific games/contests. Although truly injurious acts occur in sport to a greater degree than in many other life contexts, they still may not be generally condoned as ‘moral’ unless certain conditions are situationally met during play. Leidner and Castano (Leidner & Castano, 2012) found, for example, less reliance on individualizing foundations in situations of intergroup conflict, but their study focused on reactions to stories concerning the mistreatment and torture of prisoners in Iraq. It is possible that the level of conflict involved in most sport contests does not rise to a level sufficient to produce differences in the way that harm/care and fairness are valued.

Finally, the character-focused experience of NAIA collegiate athletics may have again influenced the results, motivating athletes to maintain similar levels of concern for others’ welfare across contexts. Conscious efforts to promote and exhibit character by athletes, coaches, and supporting personnel may help to ensure that NAIA athletes remain aware of their fundamental moral obligations during their sport experiences. Future research could assess the degree to which the US collegiate athletics experience varies, and the degree to which contextual differences in individualizing foundations are seen in different collegiate contexts.

Differences in moral disengagement (moral motivation) and prosocial and antisocial behaviors (moral behavior).
Findings for previously researched constructs – moral disengagement, prosocial and antisocial behaviors – were in line with prior research that has addressed their contextual differences. Specifically, the current findings confirm and extend the work of Kavussanu, Boardley, Sagar, and Ring (2013) with university students in the United Kingdom. Kavussanu and colleagues found that moral disengagement, antisocial behaviors, and prosocial teammate behaviors were higher in the sport context than the school context, while prosocial behaviors toward opponents increased. The current study replicated these results in a sample of university athletes in the United States. As indicated above, the sport context appears to highlight in-group/out-group dynamics (Winegard & Deaner, 2010), and this is evinced in the decrease of prosocial behavior toward outsiders coupled with the simultaneous increase in antisocial behaviors, prosocial teammate behaviors, and moral disengagement.

Limitations, Conclusions, and Future Directions

Limitations.

Although the current study contributes to the literature, it is not without limitations, which fall into two types: conceptual and methodological. Conceptually, the study is limited in its treatment of the overarching moral functioning process. While it incorporates elements of three of Rest’s components (moral interpretation, moral judgment, and moral motivation) and ties these to self-reported moral behavior, it does not address Rest’s fourth process: ego/personal competencies. Individual characteristics such as self-control are quite likely integral to translating moral intent into action, and these are not directly modeled in the current study. Second, there are conceptual limitations to the use of moral foundations as a measure of individuals’ moral intuitions. While Haidt (2001) theorizes that moral intuitions represent fast, system/type 1 processes, there is no reason that an individual’s moral foundations – the basis
upon which they base their moral judgments – could not be more rationally considered and adopted.

Finally, there are three significant methodological limitations. First, the use of a correlational design precludes definitive answers concerning causal relationships among the study’s variables. The decision to use such a design is a conscious choice, given the state of knowledge concerning contesting orientations and moral foundations in sport, but it is a limitation nonetheless. Second, as hinted at above, the way moral foundations were operationalized in this study (i.e., as a conscious, self-report measure) limits its usefulness as a measure of system/type 1 moral intuitions. Although these moral foundations are theoretically connected to system/type 1 processes, the MFQ and MFQ-S cannot directly measure such processes. Finally, third, numerous respondents were excluded from the analyses due to inappropriate responses to the exclusion items on either the MFQ or MFQ-S. This had the effect of making the total number of respondents used in the analyses (N = 214) quite marginal for the structural equation models being used. Under such conditions, the estimated path coefficients may be less stable, and care should be taken in interpreting them, especially given the issues encountered related to the measures themselves (some were derived from sport, but applied to school, and vice-versa).

Conclusions and future directions.

Despite these limitations, the current study generated valuable insights into – and contributions to our understanding of – moral functioning in sport and school contexts, with significant ramifications for future research in the field. The proposed model of moral functioning, while fitting each context only imperfectly (and though not invariant across contexts), confirmed the importance of each of Rest’s four components in the moral functioning
process, and allowed for the examination of numerous context-specific differences in how these components interrelate. While the issues raised in the discussion are complex, several key conclusions can be highlighted.

Measurement issues are crucial in cross-contextual studies of moral functioning, especially those that involve sport.

A recurring theme throughout the discussion of the results concerned the influence of the measurement instruments on subsequent model fit, invariance, and the interrelations of specific variables. In some sense it is obvious to point out that good measures are a prerequisite for producing valid, worthwhile research. Yet the measurement issues in the current study likely reflect an underlying issue with much of the research on moral functioning in sport, especially studies that compare it to functioning in other contexts: Subtle differences between sport and non-sport contexts must be addressed with care if they are to be measured correctly. Certainly, adapting the Moral Foundations Questionnaire to the sport context proved problematic, as did the adaptation of the Prosocial and Antisocial Behavior in Sport Scale (PABSS) to the school environment. But even in some cases, when the origin of the measures matched the context, key limitations in measurement emerged.

For example, of the three items used by the PABSS to measure prosocial behavior toward opponents, two reference helping a hurt opponent, while the third simply says, “tried to help an opponent.” There is very little conceptual depth to the manner in which the PABSS operationalizes prosocial behaviors toward opponents. Indeed, simply perusing the number of items the PABSS uses to assess each behavioral component indicates that it may be easier to operationalize antisocial behaviors toward opponents (8 items) than prosocial behaviors (3 items). Although this issue is most pronounced with prosocial behaviors toward opponents, it
affects the other scales as well. As discussed above, specific sports have different affordances for engaging in prosocial and antisocial behaviors towards opponents and teammates. When examining self-reported behaviors, these individual affordances need to be carefully weighed and considered.

Similarly, though moral identity was not measured contextually, the manner in which it is operationalized may influence how it performs in a sport context. Aquino and Reed’s (2002) measure places substantial emphasis on caring values (e.g., caring, compassionate, friendly, generous, helpful, kind) that may have altered significance in the sport context, where a certain amount of legitimated egocentrism is allowed (Bredemeier & Shields, 1986a). While many of these values are still salient in sport, their meaning may be transformed in subtle ways that the existing Moral Identity Scale fails to capture. These issues bring up a second important conclusion suggested by the current study’s findings.

**Greater attention to the question of how we define morality in sport is required.**

In line with other recent research (e.g., Kavussanu, Boardley, Sagar, & Ring, 2013), the current study lends general support to Bredemeier and Shields’ (1986a, p. 258) concept of ‘bracketed morality’ – i.e., that moral functioning in sport is a “situationally operative subset” of general moral functioning. In addition to the contextual differences in moral reasoning (Bredemeier & Shields, 1984), as well as moral disengagement and behavior (Kavussanu, Boardley, et al., 2013) that have been exhibited in prior work, the current study demonstrated differences in contesting orientation (Shields & Bredemeier, 2011a) and some moral foundations (Graham et al., 2011). Taken as a whole, differences have now been found in three of the four major components of Rest’s (1984) model of moral functioning – moral interpretation, moral judgment, and moral motivation – as well as moral behavior.
Yet sport provides individuals limited freedom from specific obligations and prohibitions while still maintaining one’s integrity as a moral athlete and person, and we have yet to fully examine what it means, specifically, to be a moral athlete. The measurement issues discussed above may reflect a general tendency in the field to gloss over the nuances of what constitutes moral behavior – and sound moral functioning – in sport. To use Bandura’s (1999, 2002) terminology to frame the question, what are our specific ‘proactive’ and ‘inhibitive’ moral obligations in sport? Are we required to stop play immediately for minor injuries, or only for major? If play will stop naturally (e.g., the finish of a point) soon, do we still have to abide by this obligation? Much research has avoided these kinds of issues by examining behaviors that are clearly outside the permissible (e.g., aggression, Chantal, Robin, Vernat, & Bernache-Assollant, 2005; Dunn & Causgrove Dunn, 1999; doping, Hodge, Hargreaves, Gerrard, & Lonsdale, 2013; Kavussanu, Hatzigeorgiadis, Elbe, & Ring, 2016; Lucidi, Grano, Leone, Lombardo, & Pesce, 2004), but ‘antisocial’ items on the PABSS tend to treat major (e.g., intentionally injuring an opponent) and minor (e.g., intentionally distracting an opponent) with equal weight. Is a fake in basketball or soccer an intentional attempt to distract an opponent, or is there a key difference between deception and distraction when it comes to moral behavior in sport? Are some actions morally permissible in one sport, but not another? Future researchers would do well to carefully consider the conceptual foundations of their definitions of morality in sport, and connect these to athletes’ own understandings of what constitutes moral sport behavior. This leads to a third conclusion.
More theoretical work and qualitative research is required on issues of measurement and the nature of morality in sport.

Much ink has been spilled examining the philosophical, psychological, and behavioral components of morality, in a discourse that has spanned millennia. As a result, there are numerous deep and rich theories concerning the components of morality, including moral reasoning (Kohlberg & Puka, 1994), moral identity (Blasi, 1980, 1984), empathy (Hoffman, 1990), intuitive moral judgments (Graham et al., 2011; Haidt, 2001), and social-cognitive theories of moral self-regulation (Bandura, 1991, 1999), just to name a few. Yet while many of these have been profitably applied to the sport context, their origins lie in theorizing about general moral functioning. Apart from the work of Bredemeier and Shields (1986a; Shields & Bredemeier, 1995), relatively little theoretical work has been done on the nature of morality in sport.

As mentioned in the introduction, the sport context entails specific challenges for moral functioning processes, specifically in the time constraints it can place on the moral interpretation and moral judgment processes. While fast, unconscious processes were not addressed directly in the study (the response-task for all measures involved conscious thought), both contesting orientations (Lakoff & Johnson, 1980) and moral foundations (Haidt, 2001) have their theoretical roots in such processes, and the current findings indicate that important contextual differences in moral variables and processes may not be limited to (relatively) slow, conscious thinking. Although substantial measurement issues will need to be addressed (i.e., creating a valid, reliable measure of sub-conscious, ‘intuitive’ moral intuitions, and contesting orientations), future research may be able to examine the role of fast, unconscious processes in sport moral functioning more directly. Such issues are also in need of greater theoretical exploration, as the
problems adapting the Moral Foundations Questionnaire demonstrate. Sport may entail subtle differences in the manner that intuitive moral values are understood.

In addition, more effort needs to be directed toward qualitative studies that examine how athletes define themselves morally in sport. Unfortunately, qualitative research on sport moral functioning is somewhat scarce (see Boardley, Grix, & Dewar, 2014; Long, Pantaleon, Bruant, & D’Arripe-Longueville, 2006; and Traclet, Romand, Moret, & Kavussanu, 2011, for some exceptions), though it was a key component of Bredemeier and Shields’ (1986a) initial work on bracketed morality. The conceptual, theoretical, and measurement issues in sport moral functioning raised in the current study strongly suggest that additional primary research into athletes’ experiences is warranted. Phenomenological studies of athletes’ perceptions of their sport moral identity and their experiences of sport-specific behavioral norms, in particular, would significantly enhance our understanding of how morality is experienced in sport. Such studies would also pave the way for improved measurement instruments in these areas. Ideally, theories of sport moral functioning would be grounded both in sound adaptations of general moral psychology and in the lived sport experiences of athletes themselves.

Greater attention also needs to be paid to contextual variations in the way moral variables are related.

The current study extended the concept of ‘bracketed morality’ in an important new direction by including an examination of the stability of the interrelations of moral variables across contexts. Contextual differences in endorsement of moral variables are important, but so too are differences in the ways these variables are related. Some of the investigated relations exhibited a fair degree of stability across contexts (e.g., the positive relation between moral identity and partnership orientation; the negative relation between moral identity and moral
disengagement), while others were demonstrably stronger in sport than in school (e.g., war orientation and moral disengagement; individualizing foundations and moral disengagement; moral identity and prosocial behaviors toward teammates), and still others weaker in sport than in school (e.g., partnership orientation and individualizing foundations). Such similarities and differences are important for fully understanding moral functioning in sport, and suggest that moral variables may be differentially effective across contexts in influencing behavior.

The efficacy of specific moral variables in influencing moral behavior across contexts is of particular importance to practitioners (e.g., coaches) who wish to extend the character benefits of sport beyond the immediate sport context: Relations that are highly stable across contexts provide both sport and non-sport practitioners with avenues to advance athletes’ general moral character in ways that will translate to the sport context. Moral identity and partnership orientation, for example, were important in both contexts for effective moral functioning. Thus, promoting a more cooperative interpretation of the contests and contest-like situations individuals encounter in their lives may help improve their ability to cope with those situations while maintaining high moral functioning. Similarly, encouraging individuals to make moral concerns central to self-concept may also have significant cross-contextual benefits. Conversely, the relation of both war contesting orientation and moral disengagement to antisocial behavior was significant in both contexts, though stronger in sport. Thus, de-emphasizing both constructs may also yield cross-contextual benefits.

These observations remind us, as researchers and as practitioners, that bracketed morality implies both contextual differences and similarities in moral functioning. Indeed, efforts to improve athletes’ general moral character may have a significant positive impact on their moral functioning in sport. Indeed, while the burgeoning literature on moral functioning in sport has
been a boon to those who are interested in promoting positive moral behavior in athletes, it would be well for researchers and practitioners alike to recall that moral functioning in sport is in some sense embedded within an individual’s broader moral functioning.

Yet as the stronger interrelations in the sport context between war orientation, moral disengagement, and antisocial behavior demonstrate, some constructs may become more important in a specific context. Partnership orientation similarly evinced stronger positive relations to prosocial behaviors (and a stronger negative relation to moral disengagement) in the school context. Ultimately, examinations of moral functioning need to elucidate both general factors with leverage across multiple contexts, as well as identifying focused factors that deliver high leverage within a specific context.

_Final words._

Moral functioning is a complex process, particularly so when considered in relation to multiple contexts, each with different affordances for moral thought and action. This study began by articulating four challenges for positive moral functioning in sport, keyed to the four components of Rest’s framework for moral functioning – moral interpretation, judgment, motivation, and follow-through/behavior. Findings suggest that contesting orientations may help overcome one of these challenges to positive moral functioning in sport by demonstrating how the socio-moral features of the sport context can be interpreted in ways that support positive moral functioning. Similarly, intuitive values concerning care and fairness – the components of individualizing foundations – may be a small part of the solution to the constraints on moral judgment in sport. More specifically, minimizing athletes’ tendencies to approach sport as a war or battle (and, in a more limited fashion, fostering a partnership approach), while promoting both moral identity and the individualizing foundations may significantly reduce athletes’ antisocial
behaviors in sport. Indeed, moral identity may also have a positive impact on prosocial behaviors toward teammates in the sport context. Although we still have more questions than answers when it comes to providing advice to coaches and parents, this just might be a good place to start.
Tables and Figures

Figure 1. A modified four-component model of moral functioning. Measured constructs are italicized.

Figure 2. Proposed model of moral functioning. Antisocial behaviors were aggregated due to low individual scale reliability.
Table 1

**Confirmatory Factor Analyses – Contesting Orientations Scale for School and the Moral Foundations Questionnaire for Sport**

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<th>CFI</th>
<th>RMSEA</th>
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<td>5 Factor – Standard</td>
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* p ≤ .05. ** p ≤ .01. *** p ≤ .001.
Table 2
*Descriptive statistics, zero-order correlations and alpha coefficients of study variables (N = 214)*

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<td>0.46***</td>
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<td>-0.14*</td>
<td>0.17*</td>
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<td>-0.34***</td>
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<td>-0.27***</td>
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<td>0.19*</td>
<td>0.45***</td>
<td>0.49***</td>
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| M   | 4.52 | 4.29 | 3.58 | 3.64 | 3.42 | 2.54 | 1.66 | 2.52 | 4.31 | 4.00 | 2.82 | 3.76 | 3.26 | 2.11 | 1.20 | 2.81 | 3.37 |
| SD  | 0.60 | 0.59 | 0.92 | 0.82 | 0.71 | 1.12 | 0.53 | 1.00 | 0.69 | 0.68 | 1.01 | 0.23 | 0.02 | 0.96 | 0.12 | 0.26 | 1.02 | 1.00 |

Scale reliability (Alpha) in parentheses on the diagonal.
* p ≤ .05.  ** p ≤ .01.  *** p ≤ .001
Table 3

*Context by Gender by Contact (2x2x2) MANOVA Multivariate Tests*

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<th>df₂</th>
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<td>203</td>
<td>.04</td>
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<td>8</td>
<td>203</td>
<td>.03</td>
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<td><strong>Within Subjects</strong></td>
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<td>203</td>
<td>.08</td>
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<td>.04</td>
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*p ≤ .05.  ** p ≤ .01.  *** p ≤ .001.
¹ Male coded “1,” females coded “2.”
² Low contact coded “1,” medium/high contact coded “2.”

Table 4

*Descriptive Statistics and ANOVA Univariate Results for Context*

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*p ≤ .05.  ** p ≤ .01.  *** p ≤ .001.
Table 5

*Descriptive Statistics and ANOVA Univariate Results for Gender*

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*p ≤ .05.  **  p ≤ .01.  *** p ≤ .001.

Table 6

*Descriptive Statistics and ANOVA Univariate Results for Sport Contact Level*

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*p ≤ .05.  **  p ≤ .01.  *** p ≤ .001.
Table 7

*Descriptive Statistics and ANOVA Univariate Results for Context*Gender Interactions*

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*p ≤ .05.  ** p ≤ .01.  *** p ≤ .001.
Table 8

*Descriptive Statistics and ANOVA Univariate Results for Context*Sport Contact Interactions*

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* p ≤ .05. ** p ≤ .01. *** p ≤ .001.
Figure 3. Context*Gender: Moral Disengagement

Figure 4. Context*Gender: Antisocial Behavior
Figure 5. Context*Sport Contact: Prosocial Opponent Behavior

Figure 6. Context*Sport Contact: Antisocial Behavior
Table 9

*Model fit: Moral functioning in sport and school*

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* p ≤ .05. ** p ≤ .01. *** p ≤ .001.

Table 10

*Measurement and structural invariance across contexts*

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<td>.044</td>
<td>.112</td>
</tr>
</tbody>
</table>

* p ≤ .05. ** p ≤ .01. *** p ≤ .001.
Figure 7. Moral functioning in sport path coefficients.  
* $p \leq .05$ (all others $p \leq .01$)

Figure 8. Moral functioning in school path coefficients.  
* $p \leq .05$ (all others $p \leq .01$)
Table 11

Summary of support for individual expectations

<table>
<thead>
<tr>
<th>Expectation</th>
<th>Support</th>
<th>Relevant Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral identity will positively relate to partnership and war contesting</td>
<td>Partial</td>
<td>Positive, similar strength, relation to partnership in both contexts. No relation to war in either context. Positively related to individualizing foundations in both contexts, similar overall strength. Positively related to binding foundations in both contexts, but weaker, indirect-only relation in school context.</td>
</tr>
<tr>
<td>Moral identity will positively relate to individualizing and binding</td>
<td>Partial</td>
<td>Moral identity was negatively related to moral disengagement in both contexts, but slightly weaker in sport, different indirect paths. Positively related to prosocial behaviors toward teammates in both contexts, but only indirectly in school.</td>
</tr>
<tr>
<td>Moral identity will negatively relate to moral disengagement</td>
<td>Full</td>
<td></td>
</tr>
<tr>
<td>Moral identity will negatively relate to antisocial behaviors toward</td>
<td>Partial</td>
<td>Partnership was positively related to both individualizing and binding foundations in both contexts, but did not evince stronger relationships to the former; relations were stronger in the school context. War orientation was negatively related to individualizing foundations in both contexts (similar strength), but was not related to binding foundations in either context.</td>
</tr>
<tr>
<td>teammate and opponents but positively relate to prosocial behaviors toward</td>
<td></td>
<td>Partnership orientation was negatively related to moral disengagement in both contexts, but a weaker indirect-only relation in sport. War orientation was positively related to moral disengagement in both contexts, but more strongly in sport.</td>
</tr>
<tr>
<td>teammates and opponents.</td>
<td></td>
<td>Partnership orientation was positively related to prosocial behaviors toward teammates in in school, but evinced a weak negative indirect relation in sport. War orientation was positively related to an aggregated antisocial behavior scale in both contexts, but more strongly in sport.</td>
</tr>
<tr>
<td>Partnership orientation will positively relate to both individualizing and</td>
<td>Partial</td>
<td>Individualizing foundations negatively related to moral disengagement only in the sport context (unrelated in school). Binding foundations were unrelated to antisocial behaviors in both contexts.</td>
</tr>
<tr>
<td>binding foundations, with stronger relationships to the former.</td>
<td></td>
<td>Individualizing foundations had a weak negative indirect relation to prosocial behaviors toward teammates in the sport context (unrelated in school; also, unrelated to prosocial behaviors toward opponents in both contexts). Binding foundations were unrelated to antisocial behaviors in both contexts.</td>
</tr>
<tr>
<td>War orientation will negatively relate to individualizing foundations but</td>
<td>Partial</td>
<td>Moral disengagement evinced a weak positive relation to prosocial behaviors toward teammates in sport (unrelated in school; also, unrelated to prosocial behaviors toward opponents in both contexts). It was positively (directly) related to aggregated antisocial behavior scale in both contexts, though more strongly in sport.</td>
</tr>
<tr>
<td>positively relate to binding foundations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership orientation will negatively relate to moral disengagement,</td>
<td>Partial</td>
<td></td>
</tr>
<tr>
<td>while war orientation will positively relate to moral disengagement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership orientation will positively relate to prosocial behaviors</td>
<td>Partial</td>
<td></td>
</tr>
<tr>
<td>toward teammates and opponents, while war orientation will positively</td>
<td>Partial</td>
<td></td>
</tr>
<tr>
<td>relate to antisocial behaviors toward teammates and opponents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individualizing foundations will negatively relate to moral disengagement</td>
<td>Minimal</td>
<td></td>
</tr>
<tr>
<td>while binding foundations will positively relate to moral disengagement.</td>
<td></td>
<td></td>
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<tr>
<td>Individualizing foundations will positively relate to prosocial</td>
<td>Minimal</td>
<td></td>
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<tr>
<td>teammate and opponent behaviors, while binding foundations will</td>
<td></td>
<td></td>
</tr>
<tr>
<td>positively relate to antisocial opponent behaviors.</td>
<td></td>
<td></td>
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<tr>
<td>Moral disengagement will negatively relate to prosocial</td>
<td>Partial</td>
<td></td>
</tr>
<tr>
<td>teammate and opponent behaviors, but positively relate to antisocial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>behaviors, while exhibiting stronger relationships to antisocial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>behaviors than prosocial behaviors.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 12

*Contextual Comparison of Model Path Coefficients*

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Sport</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral Identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnership Orientation</td>
<td>.60**</td>
<td>.50**</td>
</tr>
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<td>War Orientation</td>
<td>.08</td>
<td>-.09</td>
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<tr>
<td>Individualizing Foundations</td>
<td>.27**</td>
<td>.19*</td>
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<tr>
<td>Binding Foundations</td>
<td>.26**</td>
<td>.18</td>
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<td>Moral Disengagement</td>
<td>-.32**</td>
<td>-.34**</td>
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<td>Antisocial Behavior</td>
<td>.03</td>
<td>-.12</td>
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<tr>
<td>Prosocial Behavior to Opponents</td>
<td>.16</td>
<td>-.02</td>
</tr>
<tr>
<td>Prosocial Behavior to Teammates</td>
<td>.52**</td>
<td>.11</td>
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<tr>
<td>Partnership Orientation</td>
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<td></td>
</tr>
<tr>
<td>Individualizing Foundations</td>
<td>.25*</td>
<td>.39**</td>
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<tr>
<td>Binding Foundations</td>
<td>.24*</td>
<td>.33**</td>
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<td>-.30**</td>
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<td>.02</td>
<td>.09</td>
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<tr>
<td>Prosocial Behavior to Opponents</td>
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<td>.36**</td>
</tr>
<tr>
<td>Prosocial Behavior to Teammates</td>
<td>.08</td>
<td>.36**</td>
</tr>
<tr>
<td>War Orientation</td>
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<td></td>
</tr>
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<td>Individualizing Foundations</td>
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<td>-.18*</td>
</tr>
<tr>
<td>Binding Foundations</td>
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<td>.02</td>
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<td>.38**</td>
<td>.23**</td>
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<td>Prosocial Behavior to Teammates</td>
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<tr>
<td>Individualizing Foundations</td>
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<tr>
<td>Moral Disengagement</td>
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<td>-.06</td>
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</tr>
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<td>Binding Foundations</td>
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<td></td>
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<td>Prosocial Behavior to Teammates</td>
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<td>-.12</td>
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https://doi.org/10.1080/02640410701769716


https://doi.org/10.1521/jscp.2008.27.10.1078


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Appendices

Appendix 1 – Measures

In this appendix, the measures utilized in the study are presented in the order in which they have been discussed in the methods section.

Appendix 1A – Demographic variables.

Demographic Questionnaire

Age: __________  Gender: M F Other

Year in College: 1st 2nd 3rd 4th

Race/Ethnicity (check all that apply):

_____ White/Caucasian       _____ Asian/Asian-American
_____ Black/African-American _____ Native American or Native Alaskan
_____ Hispanic/Latino/a  _____ Native Hawaiian / Other Pacific Islander
_____ Other: ________________________________

What is your primary sport?

_____ Cross Country
_____ Football
_____ Soccer
_____ Volleyball       _____ Other: __________

In your life, how many total years have you competed in this sport?
Appendix 1B – Contesting orientations.

Contesting Orientations Scale (COS)

Directions: The following sentences reflect a variety of viewpoints about competition and sports. As you read each item, please consider how closely it expresses your own view. This is just a matter of opinion. THERE ARE NO RIGHT OR WRONG ANSWERS. Don’t worry that many items are similar. Just rate each one as you come to it. Please use the following rating scale to indicate how much you agree or disagree with each item.

Circle One

1 = Strongly disagree with the item
2 = Somewhat disagree with the item
3 = Neither agree nor disagree with the item
4 = Somewhat agree with the item
5 = Strongly agree with the item

Partnership Orientation: Items 2, 3, 5, 6, 8, 12
War Orientation: Items 1, 4, 7, 9, 10, 11

1. In sport, the goal is to conquer your opponent.
2. When my opponents try hard to win, they are giving me something of value.
3. In tight contests, I want my opponents to be at their best.
4. When I compete, my opponent is my enemy.
5. When opponents try to win, they are helping each other.
6. The purpose of competition is to bring out the best in everyone.
7. Sport is battling against opponents.
8. When I try hard to win, I am giving something of value to my opponent.
9. Sport is a fight to see who is best.
10. Competition is war.
11. In sports, like in war, opponents stand between you and success.
12. After a narrow win, I really appreciate my opponents.
Contesting Orientations Scale for Academics (COSA)

[Contesting Orientations] 
Opinions about Academic Competition

Directions: The following sentences reflect a variety of viewpoints about competition in academic settings. As you read each item, please consider how closely it expresses your own view. This is just a matter of opinion. THERE ARE NO RIGHT OR WRONG ANSWERS. Don’t worry that many items are similar. Just rate each one as you come to it. Please use the following rating scale to indicate how much you agree or disagree with each item.

1 = Strongly disagree with the item
2 = Somewhat disagree with the item
3 = Neither agree nor disagree with the item
4 = Somewhat agree with the item
5 = Strongly agree with the item.

Circle One

Disagree . . . Neutral . . . Agree

1. In academics, the goal is to conquer your classmates.  1 2 3 4 5
2. When my classmates try hard in class, they are giving me something of value.  1 2 3 4 5
3. In difficult classes, I want my classmates to be at their best.  1 2 3 4 5
4. When I perform at school, my classmates are my enemies.  1 2 3 4 5
5. When classmates try to perform well, they are helping each other.  1 2 3 4 5
6. The purpose of academics is to bring out the best in everyone.  1 2 3 4 5
7. Academic competition is battling against classmates.  1 2 3 4 5
8. When I try hard in a class, I am giving something of value to my classmates.  1 2 3 4 5
9. Education is a fight to see who is best.  1 2 3 4 5
10. Academic competition is war.  1 2 3 4 5
11. In academics, like in war, classmates stand between you and success.  1 2 3 4 5
12. After just barely making the grade, I really appreciate my classmates.  1 2 3 4 5

Partnership Orientation: Items 2, 3, 5, 6, 8, 12
War Orientation: Items 1, 4, 7, 9, 10, 11
Appendix 1C – Moral foundations.

Moral Foundations Questionnaire (MFQ)

Moral Foundations Questionnaire

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

______ Whether or not someone suffered emotionally
______ Whether or not some people were treated differently than others
______ Whether or not someone’s action showed love for his or her country
______ Whether or not someone showed a lack of respect for authority
______ Whether or not someone violated standards of purity and decency
______ Whether or not someone was good at math
______ Whether or not someone cared for someone weak or vulnerable
______ Whether or not someone acted unfairly
______ Whether or not someone did something to betray his or her group
______ Whether or not someone conformed to the traditions of society
______ Whether or not someone did something disgusting
______ Whether or not someone was cruel
______ Whether or not someone was denied his or her rights
______ Whether or not someone showed a lack of loyalty
______ Whether or not an action caused chaos or disorder
______ Whether or not someone acted in a way that God would approve of
### Moral Foundations Questionnaire

Part 2. Please read the following sentences and indicate your agreement or disagreement:

<table>
<thead>
<tr>
<th>[0]</th>
<th>[1]</th>
<th>[2]</th>
<th>[3]</th>
<th>[4]</th>
<th>[5]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Moderately disagree</td>
<td>Slightly disagree</td>
<td>Slightly agree</td>
<td>Moderately agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

- Compassion for those who are suffering is the most crucial virtue.
- When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
- I am proud of my country’s history.
- Respect for authority is something all children need to learn.
- People should not do things that are disgusting, even if no one is harmed.
- It is better to do good than to do bad.
- One of the worst things a person could do is hurt a defenseless animal.
- Justice is the most important requirement for a society.
- People should be loyal to their family members, even when they have done something wrong.
- Men and women each have different roles to play in society.
- I would call some acts wrong on the grounds that they are unnatural.
- It can never be right to kill a human being.
- I think it’s morally wrong that rich children inherit a lot of money while poor children inherit nothing.
- It is more important to be a team player than to express oneself.
- If I were a soldier and disagreed with my commanding officer’s orders, I would obey anyway because that is my duty.

- Chastity is an important and valuable virtue.

Moral Foundations Questionnaire for Sport (MFQS)

Moral Foundations Questionnaire for Sport

Part 1. When you decide whether something is right or wrong when competing, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

_____ Whether or not someone suffered emotionally
_____ Whether or not some people were treated differently than others
_____ Whether or not someone’s action showed devotion to his or her team
_____ Whether or not someone showed a lack of respect for authority
_____ Whether or not someone violated standards of purity and decency
_____ Whether or not someone was good at math
_____ Whether or not someone cared for someone weak or vulnerable
_____ Whether or not someone acted unfairly
_____ Whether or not someone did something to betray his or her team
_____ Whether or not someone conformed to the traditions of their sport
_____ Whether or not someone did something disgusting
_____ Whether or not someone was cruel
_____ Whether or not someone was denied his or her rights under the rules
_____ Whether or not someone showed a lack of loyalty
_____ Whether or not an action caused chaos or disorder during a competition
_____ Whether or not someone acted in a way that God would approve of
Moral Foundations Questionnaire for Sport

Part 2. Please read the following sentences and indicate your agreement or disagreement:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Moderately disagree</td>
<td>Slightly disagree</td>
<td>Slightly agree</td>
<td>Moderately agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

- _____Compassion for those athletes who are suffering is the most crucial virtue in sport.
- _____When the sport’s governing body makes rules, the number one principle should be ensuring that everyone is treated fairly.
- _____I am proud of my team’s history.
- _____Respect for authority is something all athletes need to learn.
- _____Athletes should not do things that are disgusting during play, even if no one is harmed.
- _____It is better to do good than to do bad when competing.
- _____One of the worst things an athlete could do is hurt another athlete who is defenseless.
- _____Justice is the most important requirement for a sport.
- _____People should be loyal to their teammates, even when they have done something wrong.
- _____Men and women each have different roles to play in sport.
- _____I would call some acts during competition wrong on the grounds that they are unnatural.
- _____It can never be right to severely injure another athlete on purpose.
- _____I think it’s morally wrong that star athletes get a lot of attention and praise while other athletes get very little.
- _____It is more important to be a team player than to express oneself.
- _____If I were a player on a team and disagreed with my coach’s orders, I would obey anyway because that is my duty.
- _____Abstinence is an important and valuable virtue for an athlete.

Appendix 1D – Moral identity.

*Moral Identity Scale (MIS)*

Listed below are some characteristics that might describe a person: Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, Kind

The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions using the scale below:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>disagree</td>
<td>neutral</td>
<td>agree</td>
<td>strongly agree</td>
</tr>
</tbody>
</table>

1. It would make me feel good to be a person who has these characteristics. 1 2 3 4 5
2. Being someone who has these characteristics is an important part of who I am. 1 2 3 4 5
3. I would be ashamed to be a person who had these characteristics. 1 2 3 4 5
4. Having these characteristics is not really important to me. 1 2 3 4 5
5. I strongly desire to have these characteristics. 1 2 3 4 5

Reverse Coded: Items 3, 4
Appendix 1E – Moral disengagement.

*Moral Disengagement Scale for University – Short (MDSU-S)*

MDSU-S

Moral Disengagement Scale for University-Short
(Kavussanu, Boardley, & Sagar, 2013)

Students have different thoughts and feelings about how to behave in school. Below are a number of statements describing some beliefs about behavior in school. Please read these statements carefully and indicate your level of agreement with each one using the following scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neutral: neither agree or disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

1. It is alright to lie to keep your friends out of trouble. 1 2 3 4 5 6 7
2. It is okay to insult a fellow student because hitting him/her is worse. 1 2 3 4 5 6 7
3. Slapping and shoving someone is just a way of joking. 1 2 3 4 5 6 7
4. Students cannot be blamed for misbehaving if their friends pressured them to do it. 1 2 3 4 5 6 7
5. Insults among students do not hurt anyone. 1 2 3 4 5 6 7
6. Some students deserve to be treated like animals. 1 2 3 4 5 6 7
7. Students who are mistreated have usually done something to deserve it. 1 2 3 4 5 6 7
8. It is unfair to blame a student who had only a small part in the harm caused by a group. 1 2 3 4 5 6 7
**Moral Disengagement Scale for Sport – Short (MDSS-S)**

**MDSS-S**

**Moral Disengagement in Sport Scale-Short**
(Boardley & Kavussanu, 2008)

Players have different thoughts and feelings about competitive sport. Below are a number of statements describing some. Please read these statements carefully and indicate your level of agreement with each one using the following scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neutral: neither agree or disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

1. It is okay for players to lie to officials if it helps their team.
2. Bending the rules is a way of evening things up.
3. Shouting at an opponent is okay as long as it does not end in violent conduct.
4. A player should not be blamed for injuring an opponent if the coach reinforces such behavior.
5. Insults among players do not really hurt anyone.
6. It is okay to treat badly an opponent who behaves like an animal.
7. Players that get mistreated have usually done something to deserve it.
8. It is unfair to blame players who only play a small part in unsportsmanlike tactics used by their team.
Appendix 1F – Prosocial and antisocial behavior.

**Prosocial and Antisocial Behavior in Sport Scale (PABSS)**

In answering the following questions, think about your experience this season in your sport. For each of the following items, circle the number that best represents how often you engaged in each behavior during the current (or most recent) season.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 5, 9, 11, 12, 15, 18, 19</td>
<td>Antisocial opponent (AO)</td>
</tr>
<tr>
<td>2, 6, 10, 13, 17</td>
<td>Antisocial teammate (AT)</td>
</tr>
<tr>
<td>3, 7, 14</td>
<td>Prosocial opponent (PO)</td>
</tr>
<tr>
<td>4, 8, 16, 20</td>
<td>Prosocial teammate (PT)</td>
</tr>
</tbody>
</table>
Prosocial and Antisocial Behavior in Academics Scale (PABAS)

The Prosocial and Antisocial Behavior in Academics Scale
(Kavussanu & Boardley, 2013)

In answering the following questions, think about your experience in your most recent school year. For each of the following items, circle the number that best represents how often you engaged in each behavior during the current (or most recent) school year.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1, 5, 9, 11, 12, 15, 18, 19</td>
<td>Antisocial opponent (AO)</td>
</tr>
<tr>
<td># 2, 6, 10, 13, 17</td>
<td>Antisocial teammate (AT)</td>
</tr>
<tr>
<td># 3, 7, 14</td>
<td>Prosocial opponent (PO)</td>
</tr>
<tr>
<td># 4, 8, 16, 20</td>
<td>Prosocial teammate (PT)</td>
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Scoring Key

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Appendix 2 – IRB Approval

Office of Research Administration

DATE: November 20, 2016

TO: Christoph Funk, BA, MA
FROM: University of Missouri-St Louis IRB


REFERENCE #: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: November 20, 2016

REVIEW CATEGORY: Exemption category # 4

The chairperson of the University of Missouri-St Louis IRB has APPROVED the above mentioned protocol for research involving human subjects and determined that the project qualifies for exemption from full committee review under Title 45, Code of Federal Regulations Part 46, 1010. The time period for this approval expires one year from the date listed above. You must notify the University of Missouri-St Louis IRB in advance of any proposed major changes in your approved protocol, e.g., addition of research sites or research instruments.

You must file an annual report with the committee. This report must indicate the starting date of the project and the number of subjects to date from start of project, or since last annual report, whichever is more recent.

Any consent or assent forms must be signed in duplicate and a copy provided to the subject. The principal investigator must retain the other copy of the signed consent form for at least three years following the completion of the research activity and they must be available for inspection if there is an official review of the UM-St Louis human subjects research procedures by the U.S. Department of Health and Human Services Office for Protection from Research Risks.

This action is officially recorded in the minutes of the committee.

If you have any questions, please contact Carl Basso at 314-519-6529 or basso@umsl.edu. Please include your project title and reference number in all correspondence with this committee.