Self-presentation Motives in Group-based Physical Activity:

Exploring Predictors and Outcomes

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This Thesis is Presented for the Degree of Doctor of Philosophy of The University of Western Australia

School of Sport Science, Exercise, and Health
I declare that this thesis is my original work and that to the best of my knowledge, it contains no material that has been accepted or submitted to any other institution for an academic award or previously published or written by another person, except where due reference has been made.

Timothy C Howle  
Date  
10/06/2016
Explanatory Note

The University of Western Australia Graduate Research School guidelines specify that PhD candidates have the option to present their thesis as a series of manuscripts. This thesis has been compiled in accordance with these guidelines and includes manuscripts that have been published or are under review. In light of the thesis being presented as a series of manuscripts, it is inevitable that there will be some degree of redundancy between chapters. However, consistent with University of Western Australia Graduate Research School guidelines, the manuscripts have been amended for presentation in this thesis so as to remove material that is unnecessarily repetitive or disrupts the flow of the thesis. Consistent with the guidelines, the manuscripts have also been amended to include (a) a foreword that introduces each chapter and establishes its links to previous chapters and (b) references that cite previous chapters rather than references to the corresponding published or submitted manuscripts. Throughout the thesis, tables and figures are labelled according to their number within the respective chapter. For example, Table 2.1 refers to the first table within Chapter II. Additionally, although the present thesis is the work of Timothy Howle, the thesis chapters make use of the active voice (e.g., terms such as “we” and “our” instead of “I” and “my”). The active voice is used in accordance with scientific guidelines and in recognition of the collaborations with co-authors on the published and submitted manuscripts.
Statement of Candidate Contribution

DECLARATION FOR THESES CONTAINING PUBLISHED WORK AND/OR WORK PREPARED FOR PUBLICATION

This thesis contains published work and/or work prepared for publication, some of which has been co-authored. The bibliographical details of the work and where it appears in the thesis are outlined below. The student must attach to this declaration a statement for each publication that clarifies the contribution of the student to the work. This may be in the form of a description of the precise contributions of the student to the published work and/or a statement of percent contribution by the student. This statement must be signed by all authors. If signatures from all the authors cannot be obtained, the statement detailing the student’s contribution to the published work must be signed by the coordinating supervisor.

Chapter I.


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Summary

The aim of this thesis was to contribute an understanding of the nature, predictors, and outcomes of self-presentation motives within group-based physical activity. In pursuing this aim, I sought to build on extant theory and empirical findings within the physical activity and social psychological literatures to develop and examine preliminary support for a 2 x 2 framework of self-presentation motives. The proposed framework comprises acquisitive-agentic, acquisitive-communal, protective-agentic, and protective communal motives.

In Chapter I, I reflect on existing self-presentation motivation research performed within physical activity settings and detail the conceptualisation of the proposed 2 x 2 self-presentation motive framework. Chapter II focuses on the operationalization of this framework. I overview the development of an instrument intended to assess 2 x 2 self-presentation motives in group-based physical activity, and present preliminary construct validity evidence for this instrument. Grounded in the conceptualisation and measurement outlined in Chapters I and II, I direct my attention in the remaining chapters to examining the potential antecedents and outcomes associated with 2 x 2 self-presentation motives. In Chapter III, I detail links between self-presentation motives and individuals’ performance on tasks of physical persistence. This focus on behaviour is extended in Chapter IV, where I document associations between 2 x 2 motives and in-game sport behaviour as well as post-game evaluative ratings from teammates. The final series of empirical studies is presented in Chapter V. In this penultimate Chapter, I consider dispositional and context-specific factors that may predict the endorsement of 2 x 2 self-presentation motives and align with patterns of motive endorsement. Finally, in Chapter VI, I review the information presented in Chapters I to V, consider the limitations and application of this work, and present suggestions for future research using the 2 x 2 framework.
This thesis comprises an analysis of data collected across eight separate studies involving participants drawn from group-based exercise classes, high school physical education classes, and undergraduate kinesiology classes. It also includes information pertaining to the conceptual development of the 2 x 2 framework and its potential use in physical activity research. Theory and research findings from this thesis largely support the conceptualisation and continued exploration of the proposed 2 x 2 framework of self-presentation motives. Findings indicate that each of the 2 x 2 self-presentation motives may differentially align with predictor (e.g., self-efficacy beliefs, dispositional factors) and outcome (e.g., goals, behaviour, evaluative perceptions) variables. It is concluded that the framework may provide a useful theory-based agenda for organising research into self-presentation motivation within group-based physical activity settings.
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Chapter I. General Introduction: Literature Review and Proposed Framework

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Chapter I Foreword

Chapter I includes an introduction to self-presentation and its application to the physical activity domain. I focus particularly on self-presentation motivation and identify opportunities for advancing its study within group-based physical activity settings. Building from this discussion, I propose a novel framework of 2 x 2 self-presentation motives that includes acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal motives. The conceptualisation of the framework and its theoretical grounding are described. Broad research directions using the proposed framework are also identified.
Abstract

In this paper, a critical eye is cast over research into self-presentational processes in physical activity settings, and a focus is given to recent developments in the study of impression motivation. In line with calls for theoretical advancement in this area, we draw from the literature on approach/avoidance and agency/communion distinctions in the construction of a 2 x 2 framework for the study of self-presentation motives. We propose that when performing physical activity within interpersonal environments, individuals may adopt acquisitive-agentic, acquisitive-communal, protective-agentic, and/or protective-communal motives. Theory-derived predictors of these motives and implications of motive endorsement are discussed.
In everyday social interactions, individuals monitor the social environment for cues as to how they are being perceived by others (Leary & Kowalski, 1990). Individuals engage in this impression monitoring for good reason. How others evaluate the self (e.g., judge one’s competence, friendliness, and attractiveness) is thought to influence one’s success throughout various domains of social life (e.g., financial, occupational, health, and romantic areas; Leary, Allen, & Terry, 2011). For example, an employee viewed as highly competent may stand a better chance at winning a promotion than his/her colleagues and an individual who is viewed as hostile and rude may find more difficulty in developing new friendships relative to likeable others.

Given the importance of others’ perceptions in shaping important outcomes, it should not surprise that individuals may attempt to control how others view the self. These attempts are referred to as acts of self-presentation (Schlenker, 1980). Self-presentation is a pervasive aspect of social interaction (Leary et al., 1994), and has been studied in relation to social media use (e.g., Zhao, Grasmuck, & Martin, 2008), job interviews (e.g., Barrick, Shaffer, & DeGrassi, 2009), academic performance (e.g., Czopp, Lasane, Sweigard, Bradshaw, & Hammer, 1998), crime (e.g., Sutton, Robinson, & Farrall, 2011), interpersonal interactions (e.g., Tice, Butler, Muraven, & Stillwell, 1995), health behaviour (e.g., Leary, Tchividjian, & Kraxberger, 1994), and physical activity (e.g., Hausenblas, Brewer, & Van Raalte, 2004; Prapavessis, Grove, & Eklund, 2004).

Importantly, acts of self-presentation are thought to be driven by the motivation to influence the perceptions of others in order to create a desired social image (i.e., self-presentation motivation; Leary & Kowalski, 1990). Motivation is the force that energises (i.e., provides the initial impetus for action) and directs (i.e., guides or channels) behaviour (Elliot, 2006). In this review, we provide a synthesis of the extant literature on self-presentational motivation in physical activity contexts. A number of other reviews on this topic exist already (Hausenblas et al., 2004; Leary, 1992; Martin
Ginis, Lindwall, & Prapavessis, 2007; Martin Ginis & Mack, 2012), but in the present chapter, this literature is integrated with other relevant conceptual and empirical work in social psychology to synthesize a novel 2 x 2 framework for self-presentation motives in physical activity. The proposed framework integrates the concepts of acquisitive and protective motives (Arkin, 1981) alongside agentic and communal motives (Bakan, 1966). Acquisitive and protective motives are rooted within the established approach-avoidance paradigm (Elliot, 2008), and are theorised to lead to substantively different impression management strategies (Arkin, 1981). Meanwhile, agency and communion are proposed to represent the two primary motives underlying interpersonal behaviour (Bakan, 1966), and are pivotal in stimulating social comparison processes (Locke & Nekich, 2000). In outlining the framework, we (a) discuss acquisitive, protective, agentic, and communal principles, (b) define the four motives within the 2 x 2 conceptualisation, (c) consider the relevance of these motives to physical activity settings, and (d) detail expected predictors and outcomes associated with these motives.

**Impression Motivation and Impression Construction**

Much of the formative work on the nature of self-presentation in physical activity was provided by Mark Leary (e.g., Leary, 1992), who contended that self-presentation processes may impact individuals’ physical activity-related motivation, preferences, and behaviour. Although people are active for many reasons that are not self-presentational in nature, self-presentational motives are “both pervasive and potent” and “self-presentational processes play an important role in exercise and sport behaviour” (Leary, 1992, p. 340). This view is reflected in the measurement of exercise motivation. The Exercise Motivations Inventory-2, for example, includes a number of subscales that relate to self-presentation (e.g., social recognition and appearance) alongside subscales that do not relate to self-presentation (e.g., stress management and enjoyment). Thus, although self-presentation presentation is not the sole reason people
participate in physical activity, it is acknowledged as an influential factor in shaping individuals’ physical activity behaviour.

In line with this notion, Leary and Kowalski (1990) presented a two-component model that has been widely used over the past 20 years in seeking to understand how self-presentational processes may operate in physical activity contexts. Leary and Kowalski’s self-presentation model focused on two discrete processes: impression motivation and impression construction. Impression motivation represents the extent to which individuals are motivated to control how others see them, and has been described as an impression management force that drives self-presentation acts (e.g., Payne, Hudson, Akehurst, & Ntoumanis, 2013). Impression construction refers to the way/s in which individuals modify their behaviour in order to achieve a desired impression, and represents not only choosing what impression to make, but also arriving at a strategy to pursue.

Impression motivation results from the goal relevance of the impression, the value of the desired outcome, and the discrepancy between one’s current and one’s desired image. To illustrate, individuals’ self-presentation motivation is likely to be elevated when (a) their impression management is directed toward achieving a desired goal (e.g., social approval), (b) they place a high value on that goal, and (c) they believe that there is a marked disparity between how they are currently perceived and the way in which they desire to be perceived. There has been minimal physical activity research that has assessed these proposed components. Although it has been suggested that individuals that experience threats to their athletic identity (e.g., team de-selection) identify less with the athlete role in an effort to protect their public image (Grove, Fish, & Eklund, 2004), it would be worthwhile to more directly (e.g., experimentally) examine whether changes in image relevance, value, and discrepancy impact impression motivation.
In cases where an individual is sufficiently motivated to make an impression, it is subsequently important to consider impression construction processes. According to Leary and Kowalski (1990), when choosing a desired impression (and impression management strategy), individuals consider issues related to self-concept (i.e., how they see themselves), desired and undesired identity images (i.e., how they would like, or not like, to be viewed by others), role constraints (i.e., social expectations for the image to be presented), target values (i.e., the preferences of target individual/s), and current or potential social image (i.e., how they are currently perceived by others and how they wish to be perceived by others in the future). There is a limited understanding, however, of how impression construction processes operate in physical activity settings. Although a measure of impression construction for exercise contexts has been developed (Conroy & Motl, 2003; Conroy, Motl, & Hall, 2000), this measure focuses on only a select few impression construction processes (e.g., wearing exercise clothing) and there have been calls for an instrument that assesses a more comprehensive range of strategies (Gammage, Hall, Prapavessis et al., 2004).

Although self-presentation motivation is thought to energise acts of impression construction, it is important to recognise that there are factors (e.g., one’s group status) that may moderate this relationship. Individuals constantly monitor the social environment for feedback on how they are being perceived by others and may come to alter their behaviour as a result of their interpretation of others’ perceptions. If an individual has achieved high status within a class/group (e.g., experienced repeated task success in front of an audience), for example, then he/she may use modest self-presentation (rather than a more assertive or active strategy) in future group interactions in an effort to retain audience approval (Baumeister & Jones, 1978; Schneider, 1969). Thus, it is important to recognise that other factors (i.e., beyond impression motivation) may influence impression construction. Given the focus of this thesis is on
impression motivation in physical activity, however, we concentrate our efforts in the remainder of the chapter on this aspect of self-presentation.

Sustained empirical attention has been devoted to exploring impression motivation in physical activity contexts, and work in this area was facilitated by the development of an exercise-specific operationalisation of the two-component model (Leary & Kowalski, 1990). Specifically, Conroy and colleagues’ (Conroy & Motl, 2003; Conroy et al., 2000) Self-Presentation in Exercise Questionnaire (SPEQ) was developed with the aim of measuring the extent to which individuals wish to be viewed as an exerciser (i.e., impression motivation), and the degree to which they engage in specific impression construction processes (e.g., wearing exercise clothing and emphasising athletic ability). In early studies that used the SPEQ, researchers often focused on understanding associations between impression motivation and broad measures of physical activity behaviour (e.g., exercise frequency). Positive relationships were typically observed, demonstrating the utility of the SPEQ for understanding physical activity behaviour, but the relationships also tended to be weak and the statistical significance of the associations varied between studies (see Martin Ginis et al., 2007; Martin Ginis & Mack, 2012). In Conroy et al.’s (2000) study, for example, impression motivation was found to be positively related to the number of days per week an individual reported exercising, but not the amount of hours per week or the percentage of leisure-time spent exercising. Similarly inconsistent patterns were demonstrated in subsequent work. For example, Gammage, Hall, and Martin Ginis (2004) reported no significant difference between high- and low-frequency exercisers in terms of their impression motivation. In other reports, research using a sample of Swedish participants found that impression motivation was significantly and positively associated with exercise frequency among females and males (Lindwall, 2005).
In seeking to expand upon the findings observed in formative work, researchers began to investigate the effects of impression motivation in specific population groups, utilise more complex research designs, and consider different physical activity outcomes. Indeed, within contemporary reports a diverse range of population groups have been studied, including elite athletes (Gomes, Martins, & Silva, 2011) and breast cancer survivors (Brunet & Sabiston, 2011; Brunet, Sabiston & Gaudreau, 2014). In Brunet and Sabiston’s (2011) earlier work, the authors focused on identifying associations at the between-person level and found that impression motivation was a significant predictor of physical activity engagement. In the latter study (Brunet et al., 2014), the authors focused on exploring associations at both the between- and within-person levels using a repeated measures design (i.e., time points nested within individuals). Their analyses revealed that impression motivation at the between-person (but not within-person) level was significantly associated with physical activity. Other behavioural (i.e., disordered eating; Gomes et al., 2011) and cognitive outcomes (i.e., stereotyping; Lindwall & Martin Ginis, 2010) have also been considered. For example, Gomes et al. (2011) found that higher impression motivation was linked to greater self-reported disordered eating behaviour in a sample of elite athletes. Moreover, Lindwall and Martin Ginis (2010) demonstrated that individuals who reported high levels of impression motivation were more positively biased in the physical attributes they ascribed to typical exercisers, excessive exercisers, and individuals who live active lives. Additionally, these individuals tended to be negatively biased in the physical stereotypes they ascribed to non-exercisers.

Our discussion thus far has focused on self-presentation motivation considerations in exercise, reflecting the attention that physical activity scholars have devoted to this context. In addition to exercise, though, the study of impression motivation also appears to be relevant in relation to sport. For example, researchers
have found that athletes may experience self-presentation concerns stemming from the evaluation of their physical ability, appearance, capacity to perform under pressure, and conditioning (Williams, Hudson, & Lawson, 1999; Wilson & Eklund, 1998) by other athletes, coaches, friends, and family (Bray, Martin, & Widmeyer, 2000; James & Collins, 1997). These concerns indicate that athletes may experience a desire to manage the impression they present (Wilson & Eklund, 1998). The notion that athletes endorse self-presentation motives is also supported through recent work conducted by Payne and colleagues (2013) in the development of their Impression Motivation in Sport Questionnaire. This instrument comprises four subscales (i.e., self-development, social identity development, avoidance of negative outcomes, and avoidance of damaging impressions) that are designed to assess athletes’ dispositional self-presentation motives. Although non-significant associations were observed between these impression motivation variables and selected outcomes in Payne and colleagues’ work (e.g., hours per week spent in sport practice, years spent learning and competing in sport, time at current sport standard and with current sport team), it is encouraging that researchers are (a) seeking to provide a more detailed understanding of the nature (e.g., dimensionality) of individuals’ impression motivation, and (b) capitalizing on sport as a relevant context for the study of self-presentation motivation.

Although researchers have aligned impression motivation with physical activity outcomes, there has been less attention devoted to determining how these effects occurred. Martin Ginis and Mack (2012) addressed this issue, noting that the study of impression management processes was of greatest value when aligned with theoretically-based determinants of physical activity behaviour. Theory-driven approaches to the study of self-presentation in physical activity have been couched in self-determination theory (Brunet & Sabiston 2009; Thøgersen-Ntoumani & Ntoumanis, 2007), the theory of planned behaviour (Latimer & Martin Ginis, 2005) and
social cognitive theory (Brunet & Sabiston, 2011; Gammage, Hall et al., 2004; Gammage, Martin Ginis, & Hall, 2004). Self-presentational efficacy (i.e., one’s confidence in one’s ability to convey a desired impression to others), a construct Leary and Atherton (1986) based in social cognitive theory (Bandura 1977, 1997), is a useful example. In addition to being positively linked to physical activity frequency and participation (Gammage, Hall et al., 2004; Lamarche, Gammage, Sullivan, & Gabriel, 2013; Pearson, Hall, & Gammage, 2013), self-presentational efficacy has been found to moderate the relationship between impression motivation and physical activity behaviour (Brunet & Sabiston, 2011). These findings support the notion that in order to more comprehensively understand the relationship between self-presentation motivation and physical activity outcomes, researchers should consider these factors alongside theory-based constructs.

**Advancing the Self-Presentation Literature**

Although research using the two-component model has offered valuable insight into self-presentation in physical activity, there are a number of ways in which the self-presentation literature may be advanced. First, in critiques of self-presentation research (e.g., Martin Ginis et al., 2007; Martin Ginis & Mack, 2012), authors have noted that the majority of self-presentation studies within physical activity contexts lack a theoretical foundation and only address first generation research questions (e.g., do self-presentational processes predict physical activity experiences?). Although researchers occasionally invoke the term ‘self-presentation theory’, and have utilised broader social psychological theories in the pursuit of understanding self-presentation (Brunet & Sabiston 2009; Brunet & Sabiston, 2011; Gammage, Hall et al., 2004; Gammage, Martin Ginis et al., 2004; Latimer & Martin Ginis, 2005; Thøgersen-Ntoumani & Ntoumanis, 2007), Martin Ginis and colleagues (2007) indicated that no explicit theory of self-presentational processes in physical activity actually exists. As such, over three
decades since there was a call for a more sophisticated understanding of self-presentation motives (Schneider, 1981), research in the physical activity domain has not yet been driven by a consistent conceptual framework.

Another important consideration is that the focus of physical activity research has often been on quantifying the extent of an individual’s self-presentation motivation, rather than examining the potential for different types of self-presentation motivation to exist. Researchers have demonstrated that individuals can adopt different self-presentation motives (Baumeister, Tice, & Hutton, 1989; Leary & Batts Allen, 2011; Payne et al., 2013); however, the SPEQ focuses squarely on individuals’ motivation to impress others with reference to their physical attributes. According to Leary and Kowalski (1990), acts of self-presentation are underpinned not only by this form of approach-oriented motive (e.g., the desire to impress others), but also by avoidance-oriented motives (e.g., the desire to avoid embarrassing oneself). It is a well-established principle of human motivation that alongside seeking to approach pleasant stimuli, such as gaining social approval, individuals may also strive to avoid unpleasant stimuli, such as receiving social disapproval (Elliot, 1999; 2008). Baumeister and colleagues (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001) argued, for example, that, in some instances, avoiding negative outcomes (e.g., social disapproval) is a more powerful form of motivation than the desire to embrace positive outcomes (e.g., social approval). The approach-avoidance distinction is a core principle of theories of decision making (i.e., seeking gains and avoiding losses; Kahneman & Tversky, 1979), self-regulation (i.e., promotion focus and prevention focus; Higgins, 1997, 2000), and interpersonal relationships (i.e., approach and avoidance motives and goals; Gable, 2006; Gable & Impett, 2012). As such, it seems important to consider avoidance- as well as approach-oriented self-presentation motives.
Furthermore, acts of self-presentation are not only focused on one’s physical attributes, but might also relate to one’s interpersonal characteristics (Baumeister & Leary, 1995; Leary et al., 1994; Schlenker, 1975). For example, an individual may wish to be viewed as friendly or compassionate so as to enhance the quality of his/her interpersonal relationships. Motivation relating to interpersonal interaction is considered a fundamental human drive, though the strength of the drive may differ between individuals (Baumeister & Leary, 1995). Researchers have discussed motives relating to altruism, cooperation, and intimacy (MacCrimmon & Messick, 1976; McAdams, Healy, & Krause, 1984), as well as seeking to work toward positive interpersonal outcomes and avoiding adverse interpersonal outcomes (Elliot, Gable, & Mapes, 2006). Social motives are thought to influence outcomes such as goals and behaviour in educational settings (Wentzel, 1999), and interest in the physical activity domain (Allen 2003, 2005). In physical activity settings, interpersonal relationships and group/team enactment are commonplace (e.g., relationships with exercise classmates/instructors, sport teammates/coaches, and PE classmates/teachers), and so the self-presentation of interpersonal attributes seems worthy of consideration alongside that of physical attributes.

Another issue for consideration is that existing measures of self-presentation in physical activity do not orient respondents to consider a specific situation. Established measures of impression motivation in physical activity either orient respondents to consider how they act and feel generally (e.g., Conroy et al., 2000), or assess dispositional motive strength (Payne et al., 2013). Interestingly, however, personality theorists have begun to acknowledge the value of considering situational influences on social behaviour, noting that greater understanding may be gained from considering an individual within a specified context (Mischel & Shoda, 1995, Pervin, 1989). In addition, after intensive sampling procedures (i.e., many times a day for a number of
weeks) of trait-relevant behaviour, Fleeson (2001; 2004) concluded that although individuals do report broad, stable tendencies, there is also meaningful variation in these reports that may be explained by situational factors. For our purposes, although insight into self-presentational tendencies/dispositions is necessary, the two-component model is based on an understanding of situation-specific self-presentational processes (Leary & Kowalski, 1990), and so it is also worthwhile to consider situation-to-situation self-presentation motives (Catalino, Furr, & Bellis, 2012). In support of this notion, self-presentation has been found to differ according to whether the target is a stranger or a friend (Tice et al., 1995), whether the individual has received positive or negative feedback (Schneider, 1969), whether the individual has high or low social status (Jones, Gergen, & Jones, 1963), and what type of interpersonal goal the individual endorses (Leary, Robertson, Barnes, & Miller, 1986). Taken together, this research underscores the utility of considering self-presentation motivation as a characteristic that may be largely stable over time whilst also showing variations from a general trend on the basis of situational factors. These trait and situational perspectives are complementary (Fleeson, 2001; 2004). Recently, researchers have begun to empirically examine the stability of impression motivation with reference to physical activity (Brunet et al., 2014), and we encourage work that seeks to further explore the nature of self-presentation drives.

In sum, sufficient evidence has accumulated to support the claim that self-presentation processes are important in understanding physical activity experiences and outcomes. However, there are a number of ways in which we may advance our understanding of self-presentation motivation. The proposed 2 x 2 framework outlined in the remainder of the chapter was developed with those considerations in mind. That is, the framework is grounded in established theory, accounts for the different types of self-presentation motivation that may exist, and allows for potential variation in motives.
across situations. We do not view the proposed framework as a replacement of previous conceptualisations of self-presentation motivation (e.g., Conroy et al., 2000; Leary & Kowalski, 1990); rather, we offer the 2 x 2 framework as a complement to this work, and our intention is to enable researchers to obtain a more nuanced account of the nature of self-presentation motivation as it operates in the context of physical activity. Although the terms impression management and self-presentation motivation have been used interchangeably within the literature (Leary & Kowalski, 1990), we refer to the 2 x 2 framework as comprising self-presentation motives as this reflects the self-relevant nature of the motives (Leary & Kowalski, 1990; Schlenker, 1980). In presenting the proposed framework, we begin by outlining the notion of approach/avoidance motives with reference to self-presentation motivation.

A 2 x 2 Framework of Self-Presentation Motives

**Acquisitive and protective motives.** Arkin (1981) presented a conceptualisation of self-presentation motives based on the approach/avoidance distinction. The approach/avoidance paradigm has been acknowledged for over a century (e.g., James, 1890), and approach-avoidance notions are evident in all major psychological fields (Elliot, 2005). Indeed, this distinction has been integrated into many influential theories of achievement motivation (c.f., Atkinson, 1957; Covington, 1984; Elliot & Church, 1997), and is considered fundamental to prominent accounts of motivation, such as regulatory focus theory (Higgins, 1997). With reference to self-presentation, the desire to present oneself in a way that will acquire social approval has been termed the *acquisitive* self-presentation motive, and the desire to present oneself in a way that will avoid social disapproval is referred to as the *protective* self-presentation motive (Arkin, 1981). An acquisitive motive is an example of an approach-oriented motive inasmuch as behaviour is energised toward a positive outcome (i.e., gaining social approval). A protective motive, meanwhile, is an example of an avoidance
motive inasmuch as behaviour is energised *away from* an undesired outcome (i.e., avoiding social disapproval; Elliot, McGregor, & Gable, 1999). Given that previous work in physical activity contexts has focused only on approach-oriented motives, the incorporation of protective motives may provide a more holistic view of self-presentation motivation that aligns with existing social psychological perspectives.

The practical relevance of the acquisitive-protective distinction lies largely in the divergent cognitive and behavioural outcomes with which these motives are theorised to be associated. Individuals with an acquisitive motive are proposed to display approach-oriented interpersonal behaviour, such as being socially proactive, taking social risks, and using an active coping style that is characterised by persistence and a focus on success (Arkin, 1981; Renner, Laux, Schutz, & Tedeschi, 2004). Individuals who adopt an acquisitive motive are also likely to utilise assertive self-presentation tactics (e.g., self-promotion), and in some instances may also use somewhat offensive tactics, such as being critical of others to boost their own profile (Arkin & Sheppard, 1990; Schutz, 1998). When individuals wish to demonstrate social competence, an approach motive directs them toward seeking peer acceptance, recognition, and high status. As a result, these individuals may display pro-social behaviour and subsequently be perceived as socially competent and popular (Ryan & Shim, 2006; Ryan & Shim, 2008; Shin & Ryan, 2012). Ultimately, benefits such as satisfaction with social bonds and decreased loneliness may also result (Elliot et al., 2006; Gable, 2006; Gable & Impett, 2012). This approach-oriented self-presentation motive is expected to shape participation in physical tasks, and researchers have found that the desire for positive social recognition and to be viewed as possessing positive physical attributes positively aligns with physical activity involvement and effort (Conroy et al., 2000; Markland & Ingledew, 1997; Martin Ginis & Mack, 2012).
For individuals adopting a protective motive, however, the focus on avoiding social disapproval means they may be hesitant in leading or initiating social action, may be more likely to be induced into social action by others, and may tend to use coping styles that are characterised by escape and avoidance (Arkin, 1981; Renner et al., 2004). These individuals may use avoidant self-presentation tactics, such as evading public attention, as well as defensive acts, such as making excuses and concessions (Arkin & Shepperd, 1990; Schutz, 1998). Regarding social competence, the avoidance motive is thought to orient individuals away from negative outcomes such as being ignored, ostracised, and ridiculed. However, individuals who adopt an avoidance motive may show anxious solitary behaviour, passive behaviour, report social worry, be socially maladjusted, and report negative social experiences (Nikitin & Freund, 2010; Ryan & Shim, 2006; Ryan & Shim, 2008; Shin & Ryan, 2012). The motive to avoid social disapproval is also evident in extant work focused on task-related behaviour. Exercisers who are motivated to avoid social disapproval may prefer to stand in the back of an exercise class rather than the front (Brewer, Diehl, Cornelius, Joshua, & Van Raalte, 2004), avoid group-based exercise (Bushman & Brandenburg, 2009), or reduce the length of their workout if they are joined by others (Kruisselbrink, Dodge, Swanburg, & Macleod, 2004). Exercisers with high social physique anxiety (Hart, Leary, & Rejeski, 1989), for example, may adopt a protective motive due to the avoidance tendencies they show during exercise (Cox, Ullrich-French, Madonia, & Witty, 2011). There is strong evidence, therefore, that acquisitive and protective self-presentation motives represent important predictors of distinct outcomes in group-based/social settings. If we are to more fully understand self-presentation motivation, though, it is important to gain insight into what individuals choose to focus on in striving to gain social approval and/or avoid social disapproval. To address this issue, we consider the interpersonal constructs of agency and communion.
**Agentic and communal motives.** Agency and communion have been described as being “among the most influential pairings of abstract psychological distinctions” (Trapnell & Paulhus, 2012, p.39). It has been posited that any interpersonal motive can be evaluated according to principles of agency and communion (Horowitz et al., 2006), and it has been demonstrated that individuals use agentic and communal descriptors spontaneously when describing themselves (Uchronski, 2008). Agentic motives orient individuals toward focusing on their influence, control, and mastery, whereas communal motives orient individuals toward focusing on their interpersonal relationships and connectedness with others (Horowitz et al., 2006; Roche, Pincus, Hyde, Conroy, & Ram, 2013). The distinction between agency and communion was first proposed by Bakan (1966), and has since been used to explain many different social processes. Agency and communion have been considered using trait, value, behavioural, and motivational perspectives (Horowitz et al., 2006; Moskowitz, Suh, & Desaulniers, 1994; Trapnell & Paulhus, 2012), and individuals’ self-representations/-presentation can be classified according to agentic and communal properties (Diehl, Owen, & Youngblade, 2004; Paulhus & Trapnell, 2008). In addition, individuals also form perceptions of others’ agency and communion (Leising & Bleidorn 2011; Roche et al., 2013). Despite the prevalence of this distinction, previous self-presentation work in physical activity contexts has focused on physical (i.e., agentic) attributes (e.g., Conroy et al., 2000), and may be advanced by also incorporating the study of communal motives.

Individuals who are concerned with agency strive for mastery, power, and autonomy, and are focused on differentiating the self from others (Moskowitz, 2005; Wiggins, 1991). These individuals value achievement and competence (Trapnell & Paulhus, 2012), focus on task ability (O’Brien & DeLongis, 1996; Wojciszke, Baryla, Parzuchowski, Szymkow, & Abele, 2011), and may set goals centred on the desire to be
respected, admired, and to appear talented (Ojanen, Gronroos, & Salmivalli, 2005; Ojanen, Sijtsema, & Rambaran, 2013). Agentic strivings are also thought to be reflected in individuals’ behaviour. For example, an individual who strongly endorses an agentic motive might give advice, facilitate action, and find ways to demonstrate his/her competence and task-related merit (Locke, 2000; Wojciszke et al., 2011). Agentic behaviours can be represented on a spectrum ranging from low agency (i.e., unassured and submissive acts) to high agency (i.e., assured and dominant acts; Moskowitz et al., 1994, 2005). Subsequently, agentic (rather than communal) behaviour is theorised to determine the extent to which an individual is respected by others (Wojciszke, Abele, & Baryla, 2009). The exercise environment provides numerous opportunities for individuals to demonstrate their influence, control, and mastery (i.e., agentic behaviour). For example, an individual with an agentic motive might seek to impress others by demonstrating his/her ability to lift a heavy weight, to run quickly on a treadmill, or to demonstrate a skill during sports team practice.

Individuals who are concerned with communion strive for intimacy and solidarity (Wiggins, 1991). Individuals with a communal focus value affiliation and a sense of connection with others (Moskowitz, 2005), and set goals centred on the desire to feel close to, and be liked by, others (Ojanen et al., 2005; Ojanen et al., 2013). These goals align with agreeable, benevolent, and empathetic acts (Locke, 2000; Trapnell & Paulhus, 2012). Communal acts can be represented on a spectrum ranging from low communion (i.e., cold and quarrelsome) to high communion (i.e., warm and agreeable; Moskowitz et al., 1994, 2005). Subsequently, communal (rather than agentic) behaviour is proposed to determine the extent to which an individual is liked by others and develops a sense of connectedness to them (Locke & Nekich, 2000; Wojciszke et al., 2009). Physical activity contexts also provide individuals with opportunities to develop close relationships and interpersonal connections. For example, members of a sport
team or exercise/physical education (PE) class may interact with each other with the aim of forming friendships. In such instances, the presentation of the self as likeable, kind, and helpful (i.e., reflecting a communal self-presentation motive) may be particularly valuable.

**The proposed framework.** To this point, we have outlined two distinct ways of conceptualising self-presentation motives in the context of physical activity; that is, using both acquisitive-protective and agentic-communal perspectives. The integration of these conceptualisations into a 2 x 2 framework provides a novel approach to the study of self-presentation motivation. Accordingly, we propose the existence of four distinct self-presentation motives, namely an acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal motive. We use the term ‘framework’ to describe the 2 x 2 motives as this constitutes a system of language and thought that comprises semantic (i.e., the meaning of concepts) and syntactic (i.e., suppositions) components (Klein, 1980). We refer to individuals ‘adopting’ or ‘endorsing’ the 2 x 2 motives given that existing literature indicates that features of the situation are an important consideration in self-presentation and that the strength of any one motive may change across time. Consistent with other work (e.g., Elliot, 1999; Gable, 2006; Horowitz et al., 2006), it is also important to note that these dimensions are not considered to be mutually exclusive; that is, individuals may experience all motives (to varying degrees) at any given point in time. In the following section, we define each of the 2 x 2 constructs and offer theory-driven examples (cf. Arkin, 1981; Horowitz et al., 2006) relating to some of the typical behavioural patterns that may accompany each motive.

Individuals who strongly endorse an *acquisitive-agentic* motive are focused on obtaining social approval in terms of others’ perceptions of their physical qualities and task ability. In a physical activity setting, one’s focus on influence, control, and mastery
may be evidenced through a desire to present oneself as athletic, fit, and physically competent. A basketball player, for example, may frequently shoot the ball in an effort to impress others with his or her scoring ability (i.e., mastery). Alternatively (or as well), the basketball player may provide advice and instructions to teammates in order to be seen as someone who possesses expertise and authority (i.e., influence and control). These acts are theorised to be driven by the acquisitive-agentic motive and are intended to make a positive impression on others in relation to the focal person’s task expertise (thus resulting in social approval).

Individuals who strongly endorse an acquisitive-communal motive, meanwhile, are oriented toward gaining social approval in terms of others’ perceptions of their interpersonal qualities. Individuals who adopt this motive are focused on gaining social approval through establishing the perception of having positive interpersonal relationships. Acquisitive-communal motives align with a desire to be viewed as friendly, helpful, and likeable, and in order to establish these qualities in the eyes of others, acquisitive-communal motives accompany strivings for positive social interactions. For example, an athlete may talk (and listen) to and assist teammates in between drills at a training session, and an exerciser may offer words of encouragement to classmates during a group class.

Individuals who strongly endorse a protective-agentic motive are focused on avoiding social disapproval regarding others’ perceptions of their physical qualities and task ability. That is, rather than aiming to positively differentiate the self through propagating an image of being fit, athletic, or physically competent (i.e., an acquisitive-agentic motive), protective-agentic motives are characterised by a desire to avoid presenting an image of being physically incompetent or athletically inferior. Accordingly, a strong protective-agentic motive might underpin actions that are typically avoidant or restrained. For example, an individual may avoid exercising in an
area of a gym that is busy in favour of an area that is empty. If avoidant behaviour is not possible, then the individual may participate reluctantly and in a way that is restrained. Similarly, this motive accompanies the aim to avoid generating the perception of being deficient with regards to influence and control during a task. Accordingly, an individual who strongly endorses a protective-agentic motive might refrain from adopting a position of importance within the group, lest any potential failures be magnified by his/her social prominence.

Finally, individuals who strongly endorse a *protective-communal* motive are focused on avoiding social disapproval regarding others’ perceptions of their interpersonal qualities. Protective-communal motives, therefore, are characterised by a desire to avoid being seen as offensive, unfriendly, or unlikeable. As such, this motive accompanies a focus on ensuring that one does not increase the interpersonal ‘distance’ between oneself and others. Thus, protective-communal motives may be associated with socially reactive (e.g., speaking only when spoken to, conformity, acquiescing) rather than socially proactive behaviour. An athlete with a strong protective-communal motive, for example, may be hesitant when talking with teammates and prefer to defer to their wishes in an attempt to avoid encouraging the perception that s/he is disagreeable. Having outlined the constructs within the 2 x 2 framework, we now utilise existing theory and research to consider some potential directions for future research using the framework.

**Directions for Future Research**

Given that the proposed framework has yet to be empirically tested, the potential lines of enquiry using the 2 x 2 motives are broad. Here, we highlight several promising research avenues that could be pursued by researchers.

**Construct validation efforts.** Researchers are encouraged to engage in work aimed at developing an instrument that can be used to measure the 2 x 2 self-
presentation motives in physical activity settings. Such an instrument should show evidence of construct validity (see Messick, 1995), including the content (i.e., evidence of item relevance, representativeness, and technical quality), substantive (i.e., supported by a theoretical rationale), structural (i.e., showing a factor structure consistent with the four motives), generalizability (i.e., generalising across physical activity groups, settings, and tasks), external (i.e., convergent and discriminant evidence), and consequential (i.e., consequences of motive endorsement in the short-term and long-term) aspects of validity. We would expect that (a) such an instrument will consist of four distinct scales, representing each of the proposed self-presentation motives, (b) the motives will correlate in a manner consistent with theory and the conceptual basis of the framework (i.e., moderate to strong associations between the two acquisitive motives, protective motives, agentic motives, and communal motives, and small associations between the acquisitive-agentic and protective-communal, and acquisitive-communal and protective-agentic motives, (c) that the motives demonstrate distinct patterns of correlations with variables of theoretical interest (e.g., the predictor and outcome variables outlined below), and (d) that the motives are endorsed in many different settings (e.g., exercise classes, PE classes, sport contests) but are not uniformly adopted by an individual across multiple settings (i.e., there is evidence that the motives may vary by situation). In addition to providing important insight into construct validation, instrument development work such as this would be invaluable in enabling researchers to begin to quantify (and explore the nomological net associated with) the 2 x 2 motives. It is important to acknowledge that the above considerations are presented only as a potential starting point for researchers. Instrument development is an iterative process, meaning that construct validation efforts should be ongoing (Messick, 1995). With this in mind, we encourage investigators to engage in systematic and detailed efforts in their evaluation of construct validity for any proposed instrument.
**Explore motive predictors.** In seeking to explore variables that may predict individuals’ endorsement of the 2 x 2 self-presentation motives, consideration of constructs based in the approach/avoidance and agency/communion literature may prove worthwhile. Agentic and communal traits (Helgeson & Palladino, 2012), for example, are likely to predict the adoption of agentic and communal motives. Attachment styles may also be an interesting line of enquiry. Researchers have reported, for instance, that priming a secure attachment increases the accessibility of the communal self-concept, and an anxious-ambivalent prime increases the accessibility of agentic self-concept, whereas other research has linked secure attachment to approach-oriented agentic and communal goals and anxious attachment with avoidance-oriented communal and agentic goals (Bartz & Lydon, 2004; Locke, 2008). Acquisitive motives should be predicted by trait factors such as extraversion, openness to experience, and sensation seeking (John & Srivastava, 1999; Zuckerman, 1979), whereas protective motives should be aligned with dispositional factors such as trait social anxiety and the fear of negative evaluation (Mattick & Clarke, 1998; Watson & Friend, 1969). The experience of being rejected, as well as a dispositional orientation to expect, perceive, and over-react to rejection (i.e., rejection sensitivity), are also thought to lead to protective motivation (Downey, Mougios, Ayduk, London, & Shoda, 2004; Molden, Lucas, Gardner, Dean, & Knowles, 2009). Consideration of the behavioural activation (BAS) and inhibition (BIS) systems (Gray, 1981) may also be useful to the prediction of acquisitive/protective motives. The BAS is thought to regulate appetitive motivation, and aligns with positive temperament and affect, novelty seeking, and reward dependence, whereas the BIS is thought to regulate aversive motivation and aligns with negative affect, temperament, and harm avoidance (Carver & White, 1994). Similarly, dispositional affect may predict acquisitive/protective motive adoption, with the positive dimension reflecting the tendency to experience emotions of a positive valence.
and engage with others and tasks in a positive or pleasurable way, and the negative
dimension reflecting a tendency towards negative valanced emotions and an
unpleasurable state of engagement (Tellegen, 1985; Watson & Clark, 1993).

In addition to these potential dispositional predictors, we also recommend that researchers draw from relevant theory to identify other predictors of self-presentation motives. With respect to social cognitive theory, for example, efficacy beliefs are theorised to underpin motivational, anticipatory, and appraisal-related processes (Bandura 1977, 1993, 1997). Self-efficacy refers specifically to one’s “belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Bandura’s (1977, 2006) notion of domain specificity indicates that self-efficacy is best understood with reference to the unique skills, tasks, and challenges that are present in a particular domain. This view has led researchers to consider numerous different types of self-efficacy that are sensitive and specific to various components of a given situation or focal activity. In terms of distinguishing predictors of the 2 x 2 self-presentation motives, we believe that at least three distinct self-efficacy constructs may be worthwhile for future investigation, namely task self-efficacy, social self-efficacy, and self-presentational efficacy.

Task self-efficacy represents an individual’s confidence in his or her ability to perform the elements of a given task. Task self-efficacy is theorised to promote behavioural engagement, along with a range of adaptive cognitive, affective, and motivational outcomes (Beauchamp, Jackson, & Morton, 2012). Differences in task self-efficacy in exercise may subsequently be reflected in one’s intention to exercise (Rodgers, Hall, Blanchard, McAuley, & Munroe, 2002) and attendance at exercises classes (Bray, Gyurcsik, Culos-Reed, Dawson, & Martin, 2001). In physical activity contexts, we hypothesise that task self-efficacy will show strong positive ties with an acquisitive-agentic motive, given that both constructs (to some extent) reflect
assessments regarding one’s ability and that self-efficacy is thought to promote approach-oriented tendencies and cognitions (Bandura, 1977).

Social self-efficacy refers to an individual’s confidence in his/her ability to successfully engage in the social interactions necessary for initiating and maintaining interpersonal relationships (Smith & Betz, 2000). A strong belief in one’s ability (in terms of maintaining social interactions) is positively related to measures of active coping (i.e., working towards a successful solution; Di Giunta et al., 2010), positive coping (i.e., considering the nature of the problem, examining possible actions, and making an effort to solve the problem; Matsushima & Shiomi, 2003), and peer ratings of social influence (Wheeler & Ladd, 1982), and is also thought to relate to affiliative and assertive interpersonal behaviour (Di Giunta et al., 2010). Social self-efficacy is also negatively related to shyness (i.e., social anxiety and behavioural inhibition when interacting with others; Smith & Betz, 2000) and behavioural disengagement (Di Giunta et al., 2010), and although this construct has yet to be examined in relation to exercise behaviour, it is likely to be relevant in situations where interpersonal relationships and/or group enactment are important (e.g., group exercise classes, sporting teams). For this reason, future research is encouraged in order to explore potential relations between social self-efficacy and the acquisitive-communal self-presentation motive.

We noted earlier that self-presentational efficacy has a role in shaping approach-oriented physical activity behaviour, such as engagement (Gammage, Hall et al., 2004; Lamarche et al., 2013; Pearson et al., 2013). It would be fascinating in future to consider whether self-presentational efficacy may align with these desirable physical activity outcomes, at least in part, through indirect relations with constructs in the 2 x 2 framework. Supporting evidence comes from the finding that when self-presentational efficacy is low (and impression motivation high), individuals may experience social anxiety and become socially inhibited, rather than be outgoing and report motivation to
explore situations (Catalino et al., 2012; Leary & Atherton, 1986; Leary, Kowalski, & Campbell, 1988). In physical activity settings, for example, when impression motivation is experienced alongside low self-presentational efficacy, individuals also tend to experience greater state social anxiety (e.g., social physique anxiety; Gammage, Martin Ginis et al., 2004). Based on this evidence, it would be worthwhile to explore if, and how, self-presentational efficacy may predict approach-oriented physical and interpersonal acts, and, in addition, acquisitive-agentic and acquisitive-communal motives.

As well as exploring how individuals view their own capabilities (i.e., self-efficacy), it may also be important to consider how individuals believe others view their capabilities in understanding the endorsement of the 2 x 2 self-presentation motives. Relation-inferred self-efficacy (RISE) refers to one’s estimation of another’s confidence in one’s ability (Lent & Lopez, 2002), and has been associated with indicators of approach-oriented task behaviour (e.g., physical activity effort) as well as adaptive interpersonal outcomes (e.g., relationship quality perceptions), that are thought to emerge via a pathway through self-efficacy (e.g., Jackson, Myers, Taylor, & Beauchamp, 2012). Like self-efficacy, individuals in physical activity settings develop domain-specific RISE beliefs relating to, for example, their instructor’s or teacher’s confidence in their physical and/or interpersonal capabilities. That being the case, we encourage work that accounts for individuals’ metaperceptions, and identifies the potential relations between task-related RISE beliefs (e.g., “does my instructor think I’m a capable exerciser?”) and acquisitive-agentic motives, as well as between interpersonal-related RISE beliefs (e.g., “do my exercise partners think I’m good in conversations and building friendships?”) and acquisitive-communal motives.

Of course, research on situational motive predictors should not be constrained to efficacy beliefs. Researchers may also wish to investigate whether other social cognitive
constructs, such as individuals’ feelings of social power, predict 2 x 2 motive endorsement. Differences in social power are common within group-based physical activity settings (e.g., between player/coach, student/teacher, and captain/team member), and feelings of power are thought to have relevance to approach/avoidance and agency/communion constructs. Feelings of power are theorised to be positively aligned with approach-oriented (e.g., acquisitive) motives, and negatively aligned with avoidance-oriented (e.g., protective) motives (Keltner, Gruenfeld, & Anderson, 2003; Smith & Galisky, 2010). Power may also relate to agency and communion. However, such a relationship may be dependent on other factors such as an individual’s social role or relationship orientation (Chen, Lee-Chai, & Bargh, 2001; Helgeson, 1994).

Specifically, feelings of power may positively predict motives relating to helping for individuals who are focused on communion, and predict motives relating to dominance for individuals focused on agency. We would assume, for instance, that feelings of power predict acquisitive-agency when individuals are engaged in a situation where task and physical competencies are more relevant (e.g., a boxing match), and predict acquisitive-communion when interpersonal competencies are at the fore (e.g., a physical education teacher comforting a distressed student).

As well as exploring predictors of self-presentation motive endorsement, it would also be intriguing to apply cluster analytic methods to investigate the conditions under which individuals report low self-presentation motivation across the four constructs. For example, motive endorsement may be lower (across all motive constructs) in situations where the audience holds an established impression of the actor’s interpersonal and physical qualities (e.g., a class one has attended for the last decade) in comparison to novel situations, where such an impression has not yet been formed by the audience (e.g., attending an exercise class for the first time). In terms of relationships with other theoretically-derived motivational constructs, low self-
presentation motive endorsement may also be reported alongside strong intrinsic motivation (i.e., participating in an activity due to the fun, enjoyment, and interest that one derives), whereas high 2 x 2 motive endorsement may be observed along with more external and introjected regulations (i.e., behaviour performed because of external contingencies and behaviour performed because of self-administered contingencies, respectively; Deci & Ryan, 1985). Based on the work of Deci and Ryan (1985), the 2 x 2 motives reflect an extrinsic drive, rather than the pursuit of outcomes arising from the inherent pleasure of an activity.

**Identify implications of motive endorsement.** Self-presentation motive adoption may initiate a series of processes for the actor in the immediate situation (e.g., goal development, task/interpersonal behaviour) that have implications not only for the target audience (e.g., perceptions developed about the actor), but also with respect to longer-term outcomes for the actor (e.g., physical activity participation and interpersonal relationship development). Here, we explore these processes and propose directions for future work (along with tentative hypotheses) regarding the outcomes associated with endorsing the 2 x 2 self-presentation motives.

A number of prominent social psychological models (e.g., Elliot, 2006; Gable & Impett 2012; Horowitz et al., 2006) outline hierarchical relations between motives, goals, and behaviour, such that motives shape goals, and goals, in turn, shape behaviour. Goals are theorised to align with motives because the use of goals is thought to promote motive fulfilment (e.g., a basketball player setting a goal to make a game-winning shot in order to satisfy his/her desire for agentic-based social approval). Based on common conceptual foci, agentic motives are aligned with achievement (i.e., task-relevant) goals, and communal motives are aligned with social (i.e., interpersonal) goals. Achievement goals involve a cognitive focus on task engagement (Elliot & Church, 1997; Elliot & McGregor, 2001), whereas social goals involve a focus on
relational outcomes (Elliot et al., 2006). The notions of mastery, influence, and control are inherent in both agentic motives and achievement goals, and similarly, the notion of interpersonal connection is inherent in both communal motives and social goals.

According to Elliot (2006), motives also shape goals by orienting individuals to domain-specific positive or negative stimuli. Like approach-oriented goals, acquisitive motives involve moving toward a positive stimulus (i.e., social approval), and like avoidance-oriented goals, protective motives involve moving away from a negative stimulus (i.e., social disapproval). It should therefore follow that acquisitive-agentic motives are likely to shape approach-oriented achievement goals, acquisitive-communal motives may shape approach-oriented social goals, protective-agentic motives may promote avoidance-oriented achievement goals, and protective-communal motives may align with avoidance-oriented social goals.

In addition to shaping goal processes, self-presentation motives are also expected to directly and indirectly (i.e., via goals) shape behaviour. The direct influence of motives on behaviour is thought to be weaker than the indirect motive – behaviour pathway (i.e., via one’s goals; Elliot, 2006). Nevertheless, based on similar underlying conceptualisations, acquisitive-agentic self-presentation motives may align with approach-oriented task-related behaviour, acquisitive-communal motives with approach-oriented interpersonal behaviour, protective-agentic motives with avoidance-oriented task-related behaviour, and protective-communal motives with avoidance-oriented interpersonal behaviour. Based on research regarding correlates of approach-oriented achievement goals, and due to the desire to impress others, acquisitive-agentic motives should promote task persistence and effort (Elliot & Church, 1997; Elliot & McGregor, 2001), as well as self-promotion and displays of power and influence (Schutz, 1998). As with other social-approach motives, the adoption of an acquisitive-communal motive will promote interpersonal interaction, social affiliative acts (Allen,
as well as helping and pro-social behaviour (for example, see Kavussanu & Boardley, 2009, for sport-related acts).

Behaviours associated with the protective motives are expected to be less adaptive than acquisitively-motivated acts. Individuals who adopt avoidance-oriented achievement goals are thought to focus on errors, be less absorbed and more distracted during task engagement, and show lower performance standards (Elliot, 1999; Elliot & Harackiewicz, 1996; Elliot & McGregor, 2001). Individuals with avoidance-oriented self-presentation motives may be cautious and passive (Schutz, 1998). As such, a protective-agentic motive will shape avoidant or overly safe task-related behaviour, whereby the individual is concerned with withdrawing from the activity or escaping participation in the physical task. Acts such as these are designed to reduce the opportunity for one’s physical competence to be negatively evaluated. Individuals with a protective-communal motive will show similar avoidant behaviour and acts of withdrawal in relation to interpersonal contact. This may be manifest through individuals displaying socially reactive (rather than proactive) and inhibited behaviour, lest they negatively distinguish themselves from other group members. Despite their reluctance for social contact, an individual with a protective-communal motive may show a heightened awareness of the potential for negative interpersonal outcomes, and be particularly sensitive to the effects of these outcomes if they do occur (Strachman & Gable, 2006).

On the basis of the actor’s motive-driven behaviour, the target audience is likely to develop perceptions about the actor (e.g., s/he has outstanding/poor athletic ability and/or interpersonal skills). For an acquisitive-agentic motive, an exerciser is expected to generate a perception of being fit, athletic, and/or physically competent. Researchers have found that task-related self-enhancement, a type of behaviour we expect is consistent with the acquisitive-agentic motive, may lead to the individual being
perceived as competent at a task (Powers & Zuroff 1988; Schlenker & Leary, 1982). For example, a gym member who wears clothing that reveals his/her muscular physique may be perceived as a good weightlifter. An individual who adopts an acquisitive-communal motive will be more socially proactive, forthcoming, and be comfortable with self-disclosure (Pontari & Glenn, 2013). Such behaviour will shape positive perceptions of the individual’s interpersonal qualities, as indicated by findings that show audience members value individuals that use communal acts (Abele & Brack, 2013), and theorising that agreeableness invites agreeableness (Carson, 1969; Orford, 1986).

The strong endorsement of a protective-agentic motive will likely not result in positive evaluations of the actor, but is expected to mitigate potential negative evaluation. Tactics such as denying negative self-attributes and making excuses for poor performance are driven by a protective-agentic motive (Mehlman & Snyder, 1985; Roth, Snyder, & Pace, 1986), and are thought to be successful in maintaining an image (Snyder & Higgins, 1988) or removing existing negative impressions (Schutz, 1998). In comparison, strong endorsement of a protective-communal motive is aligned with acts of social withdrawal and a hesitancy to engage with others (Arkin, 1981), that is expected to result in the actor being perceived as passive, disinterested, and as less responsive (Impett et al., 2010). Individuals who are shy, for example, are perceived as having a poor communication competency, which negatively effects relationship quality (Arroyo & Harwood 2011; Cheek & Buss, 1981). Although it is the intent of individuals with a protective-communal motive to avoid negative perceptions, their avoidant behaviour is predicted to result in a perception of being disinterested, rude, or lacking interpersonal competence. Clearly, eliciting these desired observer reactions relies upon the effective implementation of strategies aimed at satisfying one’s motive/s, and so future research would be particularly worthwhile that explores the relative success
associated with the behavioural strategies outlined above (in terms of evoking the desired response among one’s counterparts).

Adoption of the 2 x 2 motives may also have prospective implications for the actor that emerge over time. In particular, it is possible that motive adoption may impact the long-term or sustained physical activity behaviour of individuals, as well as shape their interpersonal relationship outcomes. In terms of broader physical activity, the acquisitive-agentic motive may promote physical activity participation, such as frequenting an exercise class, because the aim to gain task-related social approval from class members necessitates attendance at, and participation in, the class. Individuals who endorse an acquisitive-communal motive, meanwhile, are thought to be perceived more positively in interpersonal settings and experience greater relationship quality. The resulting high-quality peer relationships may lead to more adaptive (i.e., self-determined) motivation (Smith, Ullrich-French, Walker, & Hurley, 2006), sport enjoyment and commitment (Weiss & Smith, 2002), and continued participation in the sport (Patrick et al., 1999; Ullrich-French & Smith, 2009). As such, individuals who adopt acquisitive motives may report a greater frequency of group-based physical activity and be inclined to spend more time (i.e. report greater duration) in these activities. In contrast, the aim to avoid social disapproval may be met by eschewing group-based physical activity altogether; and as such, protective motives may not align with group-based physical activity participation.

Regarding interpersonal relationships, individuals are predicted to benefit from the adoption of an acquisitive-communal motive. Research into romantic relationships has found that individuals who hold social approach goals tend to be more responsive to their partners, and that this responsiveness contributes to greater feelings of relationship satisfaction from their partner (Impett et al., 2010). The satisfaction of the relatedness need is also thought to result from active participation in meaningful interactions with
social partners (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). We expect that similar processes operate for the relationships (e.g., between teammates or classmates) in physical activity settings. Like individuals with social-approach motives, we expect the adoption of an acquisitive-communal motive to lead to positive social experiences (Nikitin & Freund, 2010) and social successes (Nurmi, Toivonen, Salmela-Aro, & Eronen, 1996) over time.

**Conclusion**

In this paper, we presented a novel 2 x 2 framework for the study of self-presentation motives in group-based physical activity settings, comprising acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal constructs. The framework advances the self-presentation literature given that (a) it is rooted in the established approach/avoidance and agency/communion literatures, (b) it can be used for understanding the types of motives individuals adopt, and (c) it emphasises the situation-specific (rather than solely dispositional) nature of self-presentation processes.

In this thesis, the subsequent chapters are focused on exploring the possible research avenues that were highlighted in the present chapter regarding 2 x 2 self-presentation motives. Instrument development and construct validation is addressed in Chapter II, the implications of 2 x 2 self-presentation endorsement are addressed in Chapters III and IV, and 2 x 2 self-presentation motive predictors are addressed in Chapter V. We recognise that each of these subsequent chapters represent only initial steps in addressing these research opportunities. As such, we hope that future investigators will continue to pursue the lines of enquiry that we considered within this chapter, and will also seek to identify additional predictors and outcomes as part of a research agenda that aims to promote a more comprehensive understanding of self-presentation motives in physical activity.
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Chapter II. The Self-presentation Motives for Physical Activity Questionnaire: Instrument Development and Preliminary Construct Validity Evidence

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Chapter II Foreword

Within Chapter I, I reviewed extant work concerning self-presentation motives in physical activity and outlined the conceptualisation of a proposed 2 x 2 framework of group-based physical activity self-presentation motives. Following from this conceptualisation, several directions for future research were identified. In Chapter II, I address the first of these suggested research needs by reporting on the development of the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ) – an instrument designed to assess 2 x 2 self-presentation motives – and detailing preliminary evidence regarding the construct validity of scores derived from the SMPAQ.
Abstract

With the aim of advancing the literature on impression management in physical activity settings, we developed a theoretically-derived 2 x 2 instrument that was designed to measure different types of context-specific self-presentation motives. Following item generation and expert review (study 1), the instrument was completed by 206 group exercise class attendees (study 2) and 463 high school physical education students (study 3). Our analyses supported the intended factor structure (i.e., reflecting acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal motives). We found some support for construct validity, and the self-presentation motives were associated with variables of theoretical and applied interest (e.g., impression motivation and construction, social anxiety, social and achievement goals, efficacy beliefs, engagement). Taken together, the results indicate that the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ) may be useful as a tool to measure different types of self-presentation motives in physical activity settings.
In the physical activity domain, researchers have typically assessed self-presentation motivation using the impression motivation scale from Conroy, Motl, and Hall’s (2000) Self-Presentation in Exercise Questionnaire (SPEQ). This scale is used to assess the degree to which an individual wishes others to believe that s/he is ‘an exerciser’. This measure of self-presentation motivation has proved particularly useful for researchers, and has been used to provide evidence for the importance of self-presentation processes in understanding individuals’ physical activity experiences within diverse populations (e.g., Brunet, Sabiston, & Gaudreau, 2014; Gammage, Hall, Prapavessis, Maddison, Haase, & Martin, 2004; Lindwall, 2005; Longbottom, Grove, & Dimmock, 2012; Gomes, Martins, & Silva, 2011).

Researchers have found that self-presentation motivation is associated with important outcomes in physical activity settings. Specifically, self-presentation motivation usually displays small to moderate positive associations with physical activity behavior, such as frequency and effort (Brunet & Sabiston, 2011; Brunet et al., 2014; Conroy et al., 2000; Lindwall, 2005; Martin Ginis & Mack, 2012), and is positively associated with an individual’s confidence in his/her ability to make a desired impression (Brunet & Sabiston, 2011; Gammage, Hall, & Martin Ginis, 2004). However, self-presentation motivation has also been positively linked to social physique anxiety (SPA; Amorose & Hollembeak, 2005) and disordered eating behavior (Gomes et al., 2011). Interpersonal perceptions are also thought to be influenced by self-presentation motivation (Leary & Kowalski, 1990), and individuals with high self-presentation motivation (relative to those with low self-presentation motivation) tend to be more positive in their evaluations of other exercisers and more negative in their evaluations of non-exercisers (Lindwall & Martin Ginis, 2010).

As part of existing work on self-presentation motivation in physical activity, researchers have focused on investigating the extent of an individual’s general
motivation to be seen as an exerciser. Although this has provided important insight into self-presentation motivation, this method does not enable researchers to consider the different types of self-presentation motives that individuals adopt. The notion that individuals may adopt different types of self-presentation motives has long been acknowledged in the broader social psychological literature. For example, researchers have discussed self-enhancing and self-protective motives (i.e., seeking to stand out in a positive way and avoid standing out in a negative way, respectively; Baumeister, Tice, & Hutton, 1989), as well as exclusionary and evasive motives (i.e., desires to withhold information about the self from others; Leary & Batts Allen, 2011). At present, though, there is a lack of research on the types of self-presentation motives that individuals adopt within physical activity pursuits. In discussing this point, Gammage and colleagues (Gammage, Hall, Prapavessis, Maddison, Haase, & Martin, 2004) critiqued the scope of the impression motivation scale inasmuch as it utilizes a narrow interpretation of self-presentation motivation. The scale focuses on an individual’s motivation to present desirable physical attributes, and neglects other motives, such as the motivation to be seen as likeable (Nezlek & Leary, 2002). Understanding how individuals wish to be perceived is important in terms of predicting how they may behave (Leary & Kowalski, 1990; Schutz, 1998). The study of different types of motives may therefore have value in terms of broadening existing self-presentation measurement approaches and promoting a better understanding of physical activity outcomes (Chapter I).

One additional consideration in self-presentation motive measurement is the issue of trait- (i.e., dispositional) versus context-specific assessment approaches. Both context-specific and trait approaches are thought to be relevant to understanding other self-presentational phenomena, such as SPA (Hart, Leary, & Rejeski, 1989). Although individuals may differ in their general tendency to experience concern over others’
evaluation of their physique, the degree to which this concern is expressed moment-to-
moment may also vary depending on factors present within a given situation (Martin
Ginis, Murru, Conlin, & Strong, 2011), such as mixed- or same-sex exercise
environments (Kruisselbrink, Dodge, Swanburg, & MacLeod, 2004). Conroy et al.’s
(2000) impression motivation scale, which has most commonly been used to assess self-
presentation motivation in physical activity settings, orients respondents to consider
their general level of self-presentation motivation rather than their self-presentation
motivation within a specific context. Payne and colleagues’ (Payne, Hudson, Akehurst,
& Ntoumanis, 2013) recent sport-based self-presentation motivation measure was also
designed to assess dispositional self-presentation motive strength. Although these
measures can provide insight into individuals’ typical self-presentation motivation,
there is evidence that self-presentation motivation may represent a more context-
specific phenomenon (Catalino, Furr, & Bellis, 2012). For example, context-specific
factors such as the target of the self-presentation (Tice, Butler, Muraven, & Stillwell,
1995), and an individual’s interpersonal goals (Leary, Robertson, Barnes, & Miller,
1986) may influence one’s self-presentation motivation. By considering only
dispositional self-presentation motivation, it is not possible to capture (and explore the
predictors and outcomes of) potential fluctuations in the types and strength of self-
presentation motives individuals adopt.

In addition to acknowledging the value of a multi-dimensional and context-
specific approach to exploring self-presentation motives, it is also important to utilize
theory in advancing the measurement of self-presentation motivation (Marsh, 1997).
Previous approaches to self-presentation motive measurement have been limited in that
that no formal theory of self-presentation has been articulated (Martin Ginis, Lindwall,
& Prapavessis, 2007). In seeking to address this issue, our efforts were guided by a
recently proposed 2 x 2 framework of self-presentation motivation (Chapter I).
It is proposed that, within physical activity contexts, individuals may adopt acquisitive-agentic, acquisitive-communal, protective-agentic, and/or protective-communal motives (Chapter I). Consistent with existing approaches (e.g., Elliot, 1999), these motives are not considered mutually exclusive; that is, individuals may endorse each motive (to varying degrees) at any given point in time. In physical activity settings, acquisitive-agentic motives represent a focus on gaining social approval from others in terms of their perceptions of one’s physical qualities and task ability (i.e., to evoke perceptions of having influence, control, and task-related mastery). An acquisitive-communal motive reflects a desire to gain social approval from others in terms of their perceptions of one’s interpersonal qualities. Given that these motives are approach-oriented, we would expect them, on the basis of theory (Elliot & Church, 1997; Elliot, Gable, & Mapes, 2006), to align with greater task-related engagement and effort (i.e., acquisitive agency) or acts of interpersonal affiliation and support (i.e., acquisitive communion). Protective-agentic motives reflect a focus on avoiding social disapproval from others in terms of their perceptions of one’s physical qualities and task ability (i.e., a desire to avoid evoking the perception of lacking influence, control, and task-related mastery). Finally, protective-communal motives represent a desire to avoid social disapproval from others in terms of their perceptions of one’s interpersonal qualities. Given that these motives are avoidance-oriented, we would expect them, on the basis of theory (Elliot & Church, 1997; Elliot, et al., 2006), to align with task withdrawal and avoidance (i.e., protective agency) or the exhibition of interpersonal reticence and inhibition (i.e., protective communion).

The Present Studies

Three studies were conducted with the aims of developing an instrument intended to assess 2 x 2 self-presentation motives and examining construct validity evidence for scores derived from this instrument. In devising the data collection
procedures, we were guided by recommendations outlined within Messick’s (1995) unified view of construct validity. Specifically, we sought to provide evidence for content (i.e., relevance, representativeness, technical quality), substantive (i.e., a theoretical rationale), structural (i.e., factor structure), external (i.e., convergent and discriminant evidence), and generalizability (i.e., examining scores across populations, settings, and tasks) aspects of validity. In study 1, we developed an instrument designed to measure the proposed 2 x 2 self-presentation motives and had expert reviewers provide feedback on item quality to generate information regarding content and substantive validity. In study 2, with the goal of examining structural validity, we used data obtained from group exercise class participants to conduct an exploratory factor analysis using the instrument developed in study 1. We also examined associations between 2 x 2 motives and other variables (i.e., impression motivation and construction, social goals, social anxiety, social motives, and perceived sociometric status) to provide a preliminary evaluation of external validity. In study 3, we used data collected from students in physical education (PE) classes to inform the evaluation of the generalizability aspect of validity. We also conducted a confirmatory factor analysis (i.e., structural validity evidence) and examined relationships between 2 x 2 motives and measures of social anxiety, social goals, achievement goals, efficacy beliefs, and self-reported class engagement (i.e., external validity evidence).

**Study 1: Item Generation and Expert Review**

The purpose of study 1 was to develop an instrument to assess acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal self-presentation motives. Item generation was informed by a thorough reading of the self-presentation, approach/avoidance, and agency/communion literatures (e.g., Elliot, 2008; Horowitz et al., 2006) so that the conceptualization of these constructs was reflected in the item content. We also considered extant approaches to the measurement of these
constructs, such as impression motivation and construction (Conroy et al., 2000), approach/avoidance goals (e.g., Elliot et al., 2006), and agentic/communal descriptors (e.g., Wojciszke, Abele, & Baryla, 2009). A pool of 31 items was then drafted and sent to two expert reviewers (a professor and an assistant professor in sport and exercise psychology) who had expertise in self-presentation and interpersonal processes. The expert reviewers were individually provided with a definition of each motive along with details (i.e., conceptual information and supporting citations) of the theoretical paradigms (i.e., approach/avoidance and agency/communion) upon which the motives were based. Expert reviewers were subsequently asked to rate, using a scale anchored at -2 (very poor) and +2 (very good), how representative each item was of the intended motive. Consistent with recent instrument development work in group-based physical activity settings (e.g., Jackson, Whipp, Chua, Pengelley, & Beauchamp, 2012), expert reviewers were also asked to provide qualitative feedback with respect to item ambiguity, understanding, overlap, representativeness, and jargon (Delgado-Rico, Carretero-Dios, & Ruch, 2012). Based on reviewer feedback, we made changes to the item pool and participant instructions. Items were re-written or removed when the reviewers indicated that they lacked specificity, were unclear, or did not accurately or fully represent the intended construct. In addition, new items were developed when the reviewers made suggestions for ways to more fully represent the intended construct. This process resulted in a revised pool of 40 items, with 10 items designed to reflect each motive. Participant instructions were also modified, such that the targets of individuals’ self-presentation intentions (see Appendix A) were specified.

This instrument was then presented to four new expert reviewers (a professor and three assistant professors in sport and exercise psychology), with the same instructions as provided previously. All reviewers had expertise in interpersonal motivation and behavior and considered the items individually. Following reviewer
feedback, further changes were made to the item pool. Three items were removed on the basis of quantitative feedback (i.e., mean item rating ≤ 0). Eight items were removed on the basis of qualitative feedback (i.e., when two or more reviewers articulated concerns regarding item comprehension difficulties, ambiguity, or construct misrepresentation).

A pool of 29 items was subsequently retained for study 2. The mean expert reviewer ratings were 1.30 (SD = .92) for the 7 intended acquisitive-agentic items, 1.43 (SD = .75) for the 6 acquisitive-communal items, 1.62 (SD = .50) for the 8 protective-agentic items, and 1.39 (SD = .72) for the 8 protective-communal items. Having found some support for the content and substantive aspects of validity, we proceeded with further instrument development and construct validity analyses.

**Study 2: Instrument Development and Initial Construct Validity Evidence**

There were two aims for study 2. First, we sought to statistically examine the structural properties of the self-presentation motives instrument that was developed in study 1 and make refinements, if necessary, based on these analyses. We expected that the proposed 2 x 2 structure would emerge from the data. Furthermore, based on previously observed positive and moderate-to-strong associations between approach/avoidance (Gable, 2006) and agency/communion (Wojciszke et al., 2009) constructs in interpersonal settings, we expected to observe interrelationships of a similar direction and magnitude between the 2 x 2 motives. Our second purpose was to examine evidence for the external aspect of validity for scores derived from the instrument by investigating how the self-presentation motives aligned with other self-presentation (i.e., impression motivation and construction) and socio-cognitive (i.e., motivation, goals, anxiety, and status perception) variables.

We selected variables that have been theorised or shown to be important in understanding self-presentational processes in physical activity (i.e., impression motivation and construction; Conroy et al., 2000), have been suggested as outcomes of
self-presentational processes (i.e., social anxiety, perceived sociometric status; Kenny & DePaulo, 1993; Schlenker & Leary, 1982), or that have conceptual links to the proposed 2 x 2 motives (i.e., approach- and avoidance-oriented social goals, affiliation and social-recognition motivation; Elliot et al., 2006; Markland & Ingledew, 1997). We generated hypotheses from the approach/avoidance (e.g., Elliot, 2008) and agency/communion (e.g., Horowitz et al., 2006) literatures. Regarding convergent validity evidence, we expected that the acquisitive-agentic motive would moderately-to-strongly and positively relate with the general drive to be seen as an exerciser (i.e., impression motivation), accompanying acts used to convey that impression (i.e., impression construction), social recognition motivation, and individuals’ perceived sociometric status (i.e., respect and admiration). The acquisitive-communal motive was expected to moderately-to-strongly and positively associate with approach-oriented social goals and affiliative motivation. The protective-agentic motive was predicted to moderately-to-strongly and positively relate with social anxiety concerning physical attributes. The protective-communal motive was anticipated to moderately-to-strongly and positively associate with avoidance-oriented social goals. We expected all other associations between these variables and the 2 x 2 motives to be weak (i.e., discriminant validity evidence).

Method

Participants and procedure. A total of 206 participants (n\text{male} = 36, n\text{female} = 170, M_{age} = 34.23, SD = 13.06) were recruited from a variety of group-based exercise classes, including Les Mills (n = 65), outdoor cardio (n = 38), Pilates/yoga (n = 34), circuit (n = 25), boot camp (n = 9), Crossfit (n = 7), spin (n = 7), boxing/kickboxing (n = 5), interval training (n = 3), weight training (n = 2), Zumba (n = 2), and aerobics (n = 2) classes, with 7 participants failing to report a class type. Participants spent an average
of 2.02 hours per week at the class \((SD = 1.28)\) and had been attending for an average of 50.40 weeks \((SD = 76.62)\).

Following approval from the authors’ institutional ethics committee, representatives (i.e., administrators and instructors) from group-based exercise programs were provided with verbal and written information about the study and were subsequently given the opportunity to discuss any concerns they had with the lead author. As part of the discussion, the representatives indicated their preference for questionnaires to be available in both online and paper (i.e., in-person) format to increase convenience for participants. In cases when data were collected in person, representatives also requested that questionnaire administration took place at the end of classes to ensure that classes ran according to schedule. Prior to in-person data collection sessions, the exercise instructor announced that the researcher would be conducting survey research and would be present to answer any questions about the study. In the case of in-person data collection, participants were provided with a hard-copy packet that included an information sheet explaining the nature of the study and their rights as participants, a consent form, and (providing consent was given) a survey that took approximately 15 minutes to complete. In the case of online data collection, participants were provided with a link to access the survey and instructed that the questions referred specifically to their current group-based exercise class. Before accessing the survey, participants were required to read the same information given to in-person participants and indicate their consent to participate. In total, 155 participants completed the survey in-person and 51 completed it online. Researchers using multi-factor instruments have previously reported that measurement properties (i.e., factor structure) do not significantly differ between online and in-person responses (Lonsdale, Hodge, & Rose, 2006).
Measures.

Self-presentation motives. Self-presentation motives were assessed using the items developed in study 1. The stem was, “Right at this moment in time, thinking about this exercise class, I am focusing my attention on...”. The instructions specified that when participants were asked to consider ‘others,’ this referred to the other exercisers in their class and their class instructor. Instructions also specified that there were no right or wrong answers and that participants should select the answer that best applied to them. Participants were asked to respond to the items using a 7-point scale that was anchored at 1 (strongly disagree) and 7 (strongly agree). This format was consistent with recommendations regarding the optimal number of scale response options (Preston & Colman, 2000).

Impression motivation and impression construction. Impression motivation and impression construction were assessed using Gammage, Hall, Prapavessis et al.’s (2004) modified eight-item version of the SPEQ (Conroy et al., 2000). Gammage and colleagues found this version improved the factorial integrity of Conroy et al.’s (2000) original instrument, and it has since been adopted by other researchers (e.g., Longbottom et al., 2012). Four items were used to assess impression motivation (e.g., “I enjoy the praise I receive for exercising”), and four items were used to assess impression construction (e.g., “I wear exercise/athletic clothing so other people will see me as an exerciser”). Participants rated the items using a 6-point response scale with anchors at 1 (strongly disagree) and 6 (strongly agree). In the present study, the composite reliability estimate (Raykov, 1997) for data produced by the impression motivation measure was \( \rho = .94 \), and was \( \rho = .90 \) for the impression construction measure. Convergent and discriminant validity evidence for scores derived from these measures has been demonstrated through positive associations between the constructs.
and measures of physical self-presentation confidence, amount of physical activity, and body surveillance (Brunet & Sabiston, 2011; Conroy et al., 2000; Lindwall, 2005).

**Social goals.** Social goals were assessed using a modified version of Elliot et al.’s (2006) friendship goals instrument. We modified this instrument by instructing participants to consider their goals for their relationships with others in their exercise class, and included a 4-item approach-oriented scale (e.g., “trying to share many fun and meaningful experiences with others”) and a 4-item avoidance-oriented scale (e.g., “trying to make sure nothing bad happens to my relationships with others”). Participants were asked to respond using a 7-item Likert scale anchored at 1 (*not at all true of me*) and 7 (*very true of me*). The composite reliability estimates for scores derived from the social approach and social avoidance goal measures were $\rho = .92$ and $\rho = .96$, respectively. Elliot et al. reported evidence supporting the convergent and discriminant validity of scores derived from these measures; approach-oriented goals positively predicted relationship satisfaction and avoidance-oriented goals positively predicted loneliness.

**Social anxiety.** Martin and Fox’s (2001) measure of state social anxiety focuses on worry regarding evaluation of one’s physical attributes (i.e., coordination, physical condition, physique and figure). We modified the measure so that the terminology used was consistent with the other context-specific measures that we administered (e.g., “I am concerned about looking uncoordinated in front of others”), rather than referencing class participants and instructors separately. Participants were asked to respond to the items using a 5-point Likert scale that ranged from 1 (*not at all a concern*) to 5 (*extreme concern*). The composite reliability estimate for scores derived from this measure was $\rho = .94$. In terms of construct validity, Lamarche, Gammage, and Strong (2009) found that social anxiety scores created from this measure were negatively related with self-presentation efficacy.
Social motives. We used the social recognition and affiliation subscales of the Exercise Motivation Inventory-2 (Markland & Ingledew, 1997) to measure specific social reasons for exercising. The social recognition scale assesses the extent to which individuals exercise to gain recognition for their exercise accomplishments (e.g., “to show my worth to others”). The affiliation scale assesses the extent to which individuals exercise because of the opportunity to enjoy interpersonal interactions with others (e.g., “to enjoy the social aspects of exercising”). We oriented participants to consider their reasons for attending the present exercise class, rather than their general reasons for exercising. Participants were asked to answer on a 5-point scale anchored by 1 (not at all true for me) and 5 (very true for me). The composite reliability estimates that were observed for scores produced by the social recognition and affiliation measures were $\rho = .90$ and $\rho = .86$, respectively. Markland and Hardy (1993) provided evidence to support the construct validity of scores derived from these scales.

Sociometric status. A 5-item self-report measure of sociometric status, developed by Anderson, Kraus, Galisky, and Keltner (2012), was used to assess the respect and admiration that individuals felt that they had in their exercise group (e.g., “I am held in high regard by others”). In line with other measures, we specified that “others” meant the other exercisers in the class and the class instructor/s. Also, we asked participants to only consider their sociometric status in their exercise class (i.e., not in other life domains). The response scale was anchored at 1 (strongly disagree) and 7 (strongly agree). The composite reliability estimate for data derived from this measure was $\rho = .96$. Construct validity (e.g., through associations with well-being) was reported by Anderson et al. using multiple samples and assessments at multiple time points.

Data analysis. Data were first examined using IMB SPSS Version 21. Prior to further analyses, we removed data from three participants who were identified as
multivariate outliers (i.e., Mahalanobis distance at \( p < .001 \); Tabachnick & Fidell, 2007). Using the remaining responses (\( n = 203 \)), we examined descriptive statistics, item-level normality information (i.e., skewness, kurtosis), and composite reliability estimates (Raykov, 1997). Missing data were negligible (< .40%) and were dealt with using the expectation maximization procedure. Exploratory factor analysis (EFA) in MPlus Version 7.11 was used to examine the structural aspect of validity for the measurement model (i.e., 2 x 2 self-presentation motives). We used exploratory rather than confirmatory methods because no empirical work had previously investigated the proposed 2 x 2 structure and we were investigating a proposed framework. We treated all observed indicators as ordinal, and implemented WLSMV estimation in accordance with EFA guidelines by Muthén and Muthén (2012). Interpretation of the factor structure was conducted using oblique geomin rotation with epsilon fixed at .5 (Muthén & Muthén, 2012). Oblique rotation allows for correlation between factors, which was consistent with our expectations regarding associations between 2 x 2 motive constructs. In addition, Tabachnick and Fidell (2007) recommend the use of oblique rotation with a specified number of factors (i.e., four, in this case), alongside an examination of the factor correlation matrix. If correlations are generally larger than .32, then oblique rotation is warranted. In our sample, correlations in the matrix ranged from .28 to .61, generally supporting the use of oblique rotation. We utilized Comrey and Lee’s (1992) recommendations when interpreting the strength of factor loadings within the four-factor model (i.e., \( > .55 = \) good, .45 - .55 = fair, .32 - .45 = poor, < .32 = should not be interpreted).

We compared the fit of a correlated, four-factor latent variable model (i.e., representing the four self-presentation motives) with that of unidimensional, two-factor, and three-factor models. To assess model fit, we examined the \( \chi^2 \) goodness-of-fit index, the comparative fit index (CFI), Tucker-Lewis index (TLI), standardized root mean
square residual (SRMR), and root mean square error of approximation (RMSEA). Close fit was judged on CFI and TLI values $\geq .95$, SRMR values $\leq .08$, and RMSEA values $\leq .06$ (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004; Tabachnick & Fidell, 2007). Separate to the measurement model, and to examine the external aspect of validity, we specified a model in which covariance (i.e., double-headed) pathways were included between self-presentation motives and theoretically-derived correlates. We again used the WLSMV estimator, and treated all variables (i.e., self-presentation motives, impression motivation and impression construction, social recognition and affiliation motives, social approach and avoidance goals, social anxiety, and perceived sociometric status) as latent variables that were indicated by their respective items. Informed by Jackson (2003), the sample size of over 200 was judged to be appropriate for testing the model.

**Results**

**Descriptive statistics and item-level analyses.** Skewness and kurtosis values were inspected for the acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal items, and no major departures from item-level normality were observed. Additionally, the deletion of items would not have improved internal reliability for all measures. Means for acquisitive-agentic items ranged between 2.47 to 3.43 ($SD$ range 1.47 to 1.71), 3.31 to 3.80 ($SD$ range from 1.68 to 1.85) for the acquisitive-communal items, 2.41 to 2.83 ($SD$ range 1.36 to 1.61) for the protective-agentic items, and 2.45 to 2.75 ($SD$ range 1.44 to 1.66) for the protective communal items. Corrected item-total correlations ranged from .67 to .85, .79 to .88, .72 to .87, and 72 to .88, for the acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal items, respectively. Inspection of inter-item correlations within each subscale revealed that some items were very highly correlated ($r > .80$), indicating that there was thematic overlap between some items within each dimension. Removing
items is suggested as a way to eliminate this redundancy (Simms & Watson, 2007), and we removed two items from each of the four subscales on the basis of reviewer ratings (i.e., items with lower quantitative ratings were removed and items with higher ratings were retained). A total of 21 (five acquisitive-agentic, four acquisitive-communal, six protective-agentic, and six protective-communal) items were retained for further analyses.

**EFA.** We first examined Bartlett’s test statistic and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy in order to assess the appropriateness of conducting EFA. Bartlett’s test statistic was significant, $\chi^2 (210) = 3872.61, p < .001$, and the KMO value was .93. As these statistics met guidelines provided by Tabachnick and Fidell (2007), we proceeded with the EFA using MPlus version 7.11. We observed close, but inexact fit for the four-factor solution ($\chi^2 [132] = 291.58, p < .001$, CFI = .99, TLI = .98, SRMR = .02, RMSEA = .08), and that this solution was superior to the unidimensional ($\chi^2 [189] = 1942.73, p < .001$, CFI = .88, TLI = .87, SRMR = .14, RMSEA = .21), two-factor ($\chi^2 [169] = 976.89, p < .001$, CFI = .95, TLI = .93, SRMR = .06, RMSEA = .15), and three-factor ($\chi^2 [150] = 606.63, p < .001$, CFI = .97, TLI = .96, SRMR = .04, RMSEA = .12) models. For the four-factor model, primary loadings across the intended acquisitive-agentic and acquisitive-communal factors were all classified as good (Comrey & Lee, 1992), and cross-loadings were low (i.e., all < .38). However, problematic factor loadings were identified with the intended protective-agentic and protective-communal factors. Specifically, one item from the intended protective-communal factor showed a primary loading below .45 and was subsequently removed, and another four items (i.e., two from each of the intended protective-agentic and protective-communal factors) were removed because they loaded more strongly on non-intended than intended factors. As such, our revised four-factor solution consisted of a total of 16 items, including five acquisitive-agentic, four acquisitive-communal,
four protective-agentic, and three protective-communal items (see Table 2.1 for final items). This instrument is subsequently referred to as the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ).

Table 2.1. Final SMPAQ items

<table>
<thead>
<tr>
<th>Subscale and item</th>
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<tbody>
<tr>
<td><strong>Acquisitive-agentic</strong></td>
</tr>
<tr>
<td>1. Having others admire me for my physical ability.</td>
</tr>
<tr>
<td>2. Having others view me as a talented exerciser.</td>
</tr>
<tr>
<td>3. Having others respect me for my physical ability.</td>
</tr>
<tr>
<td>4. Having others view me as attractive when I exercise.</td>
</tr>
<tr>
<td>5. Having others view me as physically fit when I exercise.</td>
</tr>
<tr>
<td><strong>Acquisitive-communal</strong></td>
</tr>
<tr>
<td>6. Having others view me as friendly.</td>
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<tr>
<td>7. Having others view me as kind.</td>
</tr>
<tr>
<td>8. Having others view me as helpful.</td>
</tr>
<tr>
<td>9. Having others view me as someone who works well with others.</td>
</tr>
<tr>
<td><strong>Protective-agentic</strong></td>
</tr>
<tr>
<td>10. Avoiding others viewing me as an incompetent exerciser.</td>
</tr>
<tr>
<td>11. Avoiding others viewing me as an inferior exerciser.</td>
</tr>
<tr>
<td>12. Avoiding others viewing me as incapable when I exercise.</td>
</tr>
<tr>
<td>13. Avoiding others viewing me as an unskilled exerciser.</td>
</tr>
<tr>
<td><strong>Protective-communal</strong></td>
</tr>
<tr>
<td>14. Avoiding others viewing me as someone who works poorly with others.</td>
</tr>
<tr>
<td>15. Avoiding others viewing me as unkind.</td>
</tr>
<tr>
<td>16. Avoiding others viewing me as someone who develops poor relationships.</td>
</tr>
</tbody>
</table>

With the exception of the significant chi-square value, the revised four-factor model was a good fit for the data ($\chi^2 [62] = 108.02, p < .001$, CFI = .996, TLI = .99, SRMR = .02, RMSEA = .06), and fit slightly better than the previous four-factor model. All primary loadings were good for this solution (see Table 2.2), with the exception of
one loading which was classified as fair. Items generally loaded strongly (i.e., .49 to .85) on the intended factor and weakly on the other factors (i.e., -.24 to .44). We then observed composite reliability estimates (Raykov, 1997; see Table 2.2) and latent variable correlations between motive constructs (see Table 2.3). Inspection of 95% confidence intervals (CIs) for these correlations showed that 1.0 (i.e., indicating unity between constructs) was not included within the lower and upper bounds. The largest correlations were between the two agentic scales (r = .84) and two communal scales (r = .80), with the two protective scales (r = .69) and acquisitive scales (r = .52) also displaying positive correlations.

**External aspect of validity.** The standardized correlations between self-presentation motives and all other measures are presented in Table 2.3. These moderate-to-large positive correlations showed that greater acquisitive-agentic motivation was associated with stronger impression motivation and social recognition motivation, greater use of impression construction tactics, and favourable perceptions relating to respect within the class (i.e., sociometric status). Analyses also revealed that acquisitive-communal scores were positively associated with affiliation motivation and approach-oriented social goals, protective-agentic scores positively correlated with social anxiety, and protective-communal scores were positively linked with avoidance-oriented social goals. A number of unexpected associations were also observed, including positive and moderate-to-large correlations between acquisitive-agentic scores and social approach goals and social anxiety, acquisitive-communal scores and social avoidance goals, and protective-agentic scores and impression construction.
### Table 2.2. Study 2 EFA rotated factor loadings and descriptive information for the SMPAQ

<table>
<thead>
<tr>
<th>Subscale and item</th>
<th>Factor loading</th>
<th>Mean</th>
<th>SD</th>
<th>ρ</th>
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</thead>
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<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
<td>IV</td>
</tr>
<tr>
<td><strong>Acquisitive-agentic</strong></td>
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<tr>
<td>Item 1</td>
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<tr>
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<tr>
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<td>Subscale item descriptives</td>
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<td>Mean primary factor</td>
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<td>Subscale item descriptives</td>
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<td>1.56</td>
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<td><strong>Protective-agentic</strong></td>
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<td>Mean primary factor</td>
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<td>2.58</td>
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*Note.* ρ = composite reliability estimate (Raykov, 1997). Item numbers correspond to Table 2.1.
Table 2.3. Latent variable correlations between self-presentation motives and all other variables for study 2

<table>
<thead>
<tr>
<th>Variable</th>
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<th>4</th>
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<td>2. Acquisitive-communal</td>
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<td>3. Protective-agentic</td>
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<td>.32***</td>
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<td>.52***</td>
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<td>4. Protective-communal</td>
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<td>.37***</td>
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<td>.32***</td>
<td>.32***</td>
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<tr>
<td>5. Impression motivation</td>
<td>-</td>
<td>.46***</td>
<td>.23***</td>
<td>.17*</td>
<td>.23*</td>
<td>.26***</td>
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<tr>
<td>6. Impression construction</td>
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<td>.34***</td>
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<td>7. Social approach goal</td>
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<td>.18*</td>
<td>.67***</td>
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<td>.43***</td>
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<td>8. Social avoidance goal</td>
<td>-</td>
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<td>.31***</td>
<td>.51***</td>
<td>.25***</td>
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<td>9. Social anxiety</td>
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<td>11. Social recognition</td>
<td>-</td>
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<td>12. Sociometric status</td>
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</table>

*Note.* ***p < .001, **p < .01, *p < .05
**Brief Discussion**

Drawing from established approach/avoidance (Elliot, 2008) and agency/communion (Bakan, 1966) distinctions, we aimed to examine evidence for the structural and external aspects of validity for scores derived from the instrument developed in study 1. Our analyses in study 2 provided support for the four-factor, 16-item SMPAQ, and indicated there was some preliminary evidence for the structural and external aspects of validity. In line with previous empirical work (Gable, 2006; Wojciszke et al., 2009) and the conceptualization of the motives as orthogonal, moderate-to-strong positive correlations were observed between the 2 x 2 self-presentation constructs. Regarding associations between the motives and other variables, the results showed support for all eight of our convergent predictions. When an individual adopted an acquisitive-agentic motive, s/he also held motives relating to positively differentiating him/herself on the basis of physical ability and attributes, acted to convey that impression, and believed that s/he held the respect and admiration of the class. When an individual endorsed an acquisitive-communal motive, s/he also attended his/her class to enjoy interacting with other class participants, and set goals for positive interpersonal experiences with those classmates. When an exercise class attendee endorsed a protective-agentic motive s/he was anxious about how his/her classmates viewed him/herself, and when a protective-communal motive was adopted s/he also set goals relating to avoiding negative interpersonal experiences with his/her classmates. These results notwithstanding, it is interesting to note that many associations we expected to be weak were stronger than anticipated (i.e., 17 of 22 discriminant validity hypotheses not supported) The associations may reflect a measurement issue (e.g., items not capturing the intended constructs), or, alternatively, it may be that our hypotheses were overly-simplistic in that we anticipated a clearly
delineated pattern of associations among constructs that are, in fact, inter-related in more nuanced ways. We encourage future work that addresses these possibilities.

**Study 3: Further Construct Validity Evidence**

Despite the advancements made within study 2, further investigation was warranted on a number of accounts. First, we wanted to improve upon methodological aspects of study 2 by making refinements to data collection procedures. In study 2, the use of paper and pencil as well as online methods meant that participants completed the questionnaire at different times and under different conditions, potentially affecting how they responded to items. Second, study 2 exercise class attendees were predominately adult females. The descriptive statistics indicated that this sample was not strongly motivated by 2 x 2 self-presentational drives. We felt that it was important, therefore, to investigate whether or not motive endorsement was similarly low across other populations, groups, and physical activity settings. Third, we did not account for the nested nature of the data (i.e., responses of participants within classes being more similar than those between classes) in study 2 and aimed to account for this nonindependence in our subsequent analyses. Finally, there was a need to provide greater insight into structural aspects of the instrument and to more fully explore external validity evidence. That being the case, we sought to investigate not only the inter-relationships between the 2 x 2 motives, but also to examine the nomological net (i.e., convergent and discriminant validity) associated with this framework in more detail.

In study 3, we sought to further examine the construct validity of scores derived from the SMPAQ that was developed in study 2, focusing our attention on structural, generalizability and external aspects of validity (Messick, 1995). The structural aspect of validity was addressed using a confirmatory factor analytical (CFA) approach, which was guided by the factor structure that we identified using exploratory methods in study
2. We expected to find support for the 2 x 2 structure. The generalizability aspect of validity was addressed by involving high-school PE students as participants. This sample featured a younger age group and a more even gender distribution than the study 2 sample. PE is also an environment in which self-presentation phenomena, such as self-handicapping (Ommundsen, 2001), are important in shaping students’ experiences. To investigate the external aspect of validity, we examined the inter-relationships between 2 x 2 motives as well as the correlations between 2 x 2 motives and other variables. These variables included the social anxiety and social goal measures from study 2, as well as measures assessing task self-efficacy, relation-inferred self-efficacy (RISE), achievement goals, behavioral engagement, and emotional engagement. These new constructs were selected because they represent important outcomes (i.e., engagement) or theoretical determinants of outcomes (i.e., self-efficacy, RISE, achievement goals; Bandura, 1986; Elliot, 1999; Lent & Lopez, 2002) that are relevant in physical activity settings (Conroy, Elliot, Hofer, 2003; Jackson et al., 2012; Moritz, Feltz, Fahrbach, & Mack, 2000). External validity hypotheses were developed from theory (c.f., Bandura, 1986; Elliot, 2008; Horowitz et al., 2006). In terms of convergent validity evidence, we expected the acquisitive-agentic motive to moderately-to-strongly and positively correlate with students’ confidence in their own ability in PE (i.e., self-efficacy), students’ estimation of their PE teacher’s confidence in their ability (i.e., RISE), approach-oriented achievement goals, and engagement. The protective-agentic motive was predicted to moderately-to-strongly and positively correlate with avoidance-oriented achievement goals and social anxiety. The acquisitive-communal and protective-communal motives were expected to moderately-to-strongly and positively correlate with approach- and avoidance-oriented social goals, respectively. In terms of discriminant validity evidence, we expected that the other associations between 2 x 2 motives and variables (i.e., excluding those previously listed) would be weak.
Method

Participants and procedure. In total, 463 participants \((n_{male} = 230, n_{female} = 210, 23 \text{ did not provide gender}, M_{age} = 13.28, SD = 0.93)\) from grade 7, 8, and 9 were recruited from a single Australian high school. After receiving institutional ethics approval, a researcher met with the school principal and head PE teacher to discuss the study and provide them with information and consent forms. Subsequently, an appropriate time was arranged to administer questionnaires. During data collection sessions, students were provided with procedural information and were informed about their rights as participants. Students were informed that their classmates and teacher would not be aware of their responses on the survey and that their responses would not impact their grade in the class. Students subsequently provided informed consent and then completed the questionnaire. Questionnaire completion occurred at the beginning of the students’ scheduled PE class time and immediately prior to students participating in teacher-directed physical activity. Physical activity modality varied between classes, and included netball, basketball, soccer, frisbee, touch rugby, and handball. At the close of each data collection session, students were given a parent or guardian information sheet, in which parents or guardians were informed of the nature of the study, and were provided with a pre-paid return envelope should they wish to withdraw their child from the study.

Measures.

Self-presentation motives. Self-presentation motives were assessed using the 16-item SMPAQ from study 2 (see Table 2.1). The instructions, stem, and some items were modified from study 2 for contextual specificity (see Appendix A). Modifications were made so as to orient participants to consider their PE class activities and how they wanted to be viewed by their PE classmates and PE teacher.
Social goals and social anxiety. Social goals and social anxiety were measured using the same instruments as described in study 2. Modifications were again made to ensure the stem oriented participants to consider their involvement in their PE class. Composite reliability estimates were derived for data produced by measures of approach- ($\rho = .90$) and avoidance-oriented ($\rho = .88$) social goals, as well as the social anxiety ($\rho = .93$) instrument.

Efficacy beliefs. Self-efficacy and RISE beliefs were assessed using the PE-specific instruments developed by Jackson et al. (2012). The nine self-efficacy and RISE items were identical (e.g., “be physically fit enough to always perform well in PE”); however, the stem and instructions used for self-efficacy (i.e., “please honestly rate your confidence in your ability at this moment in time to…”) and RISE (i.e., “how confident do you think your PE teacher is in your ability at this moment in time to…”) oriented participants toward the focal construct. Participants rated their efficacy perceptions on a response scale ranging from 1 (no confidence at all) to 5 (complete confidence). Composite reliability estimates for scores derived from self-efficacy and RISE instruments were $\rho = .93$ and $\rho = .94$, respectively. In terms of validity evidence, scores derived from both self-efficacy and RISE instruments have shown moderate positive correlations with PE enjoyment and effort (Jackson et al., 2012).

Achievement goals. Students reported their performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance achievement goals using the 12-item instrument developed by Wang, Biddle, and Elliot (2007). Example items include, “it is important for me to do better than other students in my PE class” (performance-approach), “I just want to avoid doing poorly in my PE class” (performance-avoidance), “I want to learn as much as possible in PE class” (mastery-approach), and “I am often concerned that I may not learn all that there is to learn in my PE class” (mastery-avoidance). The response scale was anchored at 1 (not at all true for
me) and 5 (very true for me). Composite reliability estimates were derived for scores derived from the mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance measures (i.e., ρ = .82, .82, .90, and .81, respectively). Wang et al. reported evidence of convergent and discriminant validity by documenting associations between goal perceptions and assessments of effort, enjoyment, and boredom.

Engagement. Behavioral and emotional engagement were assessed using Skinner, Furrer, Marchand, and Kindermann’s (2008) self-report instrument. This instrument has previously been adapted for use in PE settings (Shen, McCaughtry, Martin, Fahlman, & Garn, 2012). The 5-item behavioral engagement scale assesses perceptions of effort, participation, and attention (e.g., “In my PE class, I work as hard as I can”), and the 5-item emotional engagement scale assesses perceptions of emotional involvement, such as interest and enjoyment (e.g., “When I’m in my PE class, I feel good”). Participants were asked to answer on a response scale anchored at 1 (not at all) and 7 (very much). Composite reliability estimates were derived for data obtained from the behavioral (ρ = .94) and emotional (ρ = .93) engagement instruments. Scores derived from these scales correlate positively with teacher-reported engagement ratings and negatively with measures of dissatisfaction (Shen et al., 2012; Skinner et al., 2008).

Data analysis. Of the 463 surveys administered, 25 were inappropriate for use given the amount of missing data. We examined item-level descriptives, normality, and internal reliability information for the remaining responses using IMB SPSS Version 21. Data were examined for univariate (i.e., extreme Z scores) and multivariate (i.e., Mahalanobis distance at p < .001) outliers using recommendations from Tabachnick and Fidell (2007), and two responses were removed based on these criteria. As such, 436 responses were retained for further analyses. Missing data represented 1.02% of the
436 responses, and were again replaced using the expectation maximization procedure. Using MPlus version 7.11, we specified a self-presentation motive measurement model in line with study 1 results. We used the WLSMV estimator, specified covariance pathways between latent self-presentation variables, and accounted for the nested nature of the data (i.e., nonindependence due to students being nested within classes) by utilizing a “type = complex” command (Muthén & Muthén, 2012). The same fit indices were examined, with the exception of the SRMR value, which is unavailable in MPlus when accounting for nested data. We estimated this measurement model using a CFA approach. Finally, using the same approach as study 2, we examined the external aspect of validity with a model that included covariance pathways with all correlates.

Results

Descriptive statistics and item-level analyses. Although some items in the protective motive scales displayed kurtosis values less than -1.0, problems associated with the underestimation of variance that occur with negative kurtosis tend to disappear with samples of over 200 (Tabachnick & Fidell, 2007) and so we proceeded without transformation. For all 2 x 2 self-presentation motive measures, the deletion of items would not have improved internal reliability, and there were no large correlations (i.e., $r > .80$) between scale items. Means for acquisitive-agentic items ranged between 3.71 and 4.89 ($SD$ 1.67 to 1.88). Means for the acquisitive-communal items ranged from 5.23 to 5.62 ($SD$ 1.48 to 1.60). Means for the protective-agentic items ranged from 3.78 to 4.04 ($SD$ 1.74 to 1.96). Means for the protective-communal scale items ranged from 3.78 to 3.90 ($SD$ 2.03 to 2.18).

Confirmatory measurement model. With the exception of the significant chi-square value, fit indices showed that there was a good overall fit for the four-factor, 16-indicator model, $\chi^2 (98) = 154.59, p < .001$, CFI = .97, TLI = .97, RMSEA = .04 (90% CI: .03, .05). Standardized factor loadings for the measurement model are displayed in...
Table 2.4. All loadings were considered good (i.e., > .55) according to Comrey and Lee’s (1992) guidelines, with the exception of one loading for the acquisitive-agentic motive, which was .544 (i.e., rated as fair) and only marginally below the .55 cutoff. Mean scores and standard deviations for the 2 x 2 motives at the aggregate level are presented in Table 2.4 alongside composite reliability estimates derived from scores obtained from these measures. The correlations between the self-presentation motive variables are presented in Table 2.5. Correlations between the variables ranged from .22 to .84. We examined 95% CIs for these correlations and found that 1.0 (i.e., indicating unity) was not included within the lower and upper bounds. The largest correlations were between the two protective motives ($r = .84$) and two acquisitive motives ($r = .66$), with the two agentic motives ($r = .27$) and communal motives ($r = .31$) also correlating positively. The lowest correlations were between the acquisitive-agentic and protective-communal motives ($r = .22$) and protective-agentic and acquisitive-communal motives ($r = .22$).

**External aspect of validity.** The standardized correlations between the self-presentation motives and all other measures are presented in Table 2.5. These correlations showed that (a) acquisitive-agentic motivation was positively associated with mastery- and performance-approach and avoidance goals, (b) acquisitive-communal motivation was positively associated with social-approach and -avoidance goals, and (c) both acquisitive-agentic and -communal motives linked positively with efficacy beliefs and engagement. Higher protective-agentic and -communal scores were also associated with greater social anxiety.
Table 2.4. Study 3 CFA standardized factor loadings and descriptive information for the SMPAQ

<table>
<thead>
<tr>
<th>Subscale and item</th>
<th>Factor loading</th>
<th>Mean</th>
<th>SD</th>
<th>ρ</th>
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<td><strong>Acquisitive-agentic</strong></td>
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<td></td>
</tr>
<tr>
<td>Item 1</td>
<td>.54</td>
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*Note.* ρ = composite reliability estimate (Raykov, 1997). Item numbers correspond to Table 2.1.
Table 2.5. *Latent variable correlations between self-presentation motives and all other variables for study 3*

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*Note.* ***p < .001, **p < .01, *p < .05
Brief Discussion

In study 3, we sought to provide evidence for the generalizability, structural, and external aspects of validity (Messick, 1995) for the SMPAQ. We explored the structural properties of this instrument among a high-school PE cohort. Visual inspection revealed that mean scores for each of the motives were higher in study 3 than study 2, indicating that PE may be a particularly relevant context for the study of these motives. However, given the negative kurtosis values that emerged for some protective items, we advise future researchers to consider item-level normality when using the protective scales with this population. We also found evidence that supported the factor structure identified in study 2. Correlations between the motives were positive and moderate-to-strong, being highest between the self-presentation motives that shared an acquisitive or protective orientation (i.e., indicating that PE students who were focused on gaining social approval or avoiding social disapproval tended to pursue this aim both when undertaking physical tasks and when engaged in interpersonal interactions).

Nine of 11 convergent validity expectations were supported. We found that the motivation to gain social approval based on one’s physical attributes and task ability (i.e., agency) was positively associated with approach-oriented achievement goals, confidence in one’s task ability, the perception of another’s (i.e., one’s teacher’s) confidence in one’s task ability, as well as behavioral and emotional PE class engagement. The motivation to avoid disapproval based on the same qualities was positively associated with physical and task-related anxiety. Acquisitive communion was positively related with setting goals regarding positive interpersonal outcomes, and individuals who endorsed a protective-communal motive set goals regarding avoiding negative interpersonal outcomes. However, many relationships we expected to be weak were stronger than expected (i.e., 11 of 33 discriminant validity predictions not supported). For example, individuals who endorsed acquisitive agency also set
approach-oriented social goals and individuals who endorsed acquisitive communion also set mastery-approach goals. This type of pattern, where expected relationships were not observed between motives and specific goal types, was also found in study 2. Although this may be indicative of problematic discriminant validity, relatively little is known about the situational cues that give rise to approach and avoidance goals in interpersonal settings (Gable & Impett, 2012), and factors we did not account for (e.g., experiences of interpersonal rejection or rewards) may have moderated the relationship between 2 x 2 motives and goals.

**General Discussion**

In this chapter, we described the development of the SMPAQ as a tool to measure self-presentation (i.e., acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal) motives in group-based physical activity and reported on three construct validation (Messick, 1995) studies that examined scores derived from this measure. In study 1, we provided some evidence for the substantive and content aspects of validity by drafting items that were based in the established theoretical constructs of approach/avoidance and agency/communion (c.f., Elliot, 2008; Horowitz et al., 2006). These items were assessed by expert reviewers who judged them to be representative of the intended constructs. In studies 2 and 3, we examined the structural, external, and generalizability aspects of validity with participants from two distinct group-based physical activity populations.

In both studies, there was consistent support for the appropriateness of a four-factor operationalization in line with the intended conceptual model. The motives were positively and moderately-to-strongly inter-related, which is in line with previous investigation of approach/avoidance (Gable, 2006) and agency/communion (Wojciszke et al., 2009). However, the pattern of some motive inter-relationships (e.g., acquisitive-with protective-agency) differed between study 2 and 3, and it may be of interest to
examine how factors proposed to underlie motive endorsement, such as impression relevance, value, and discrepancy (Leary & Kowalski, 1990), vary between situations and populations. Motive endorsement was stronger in study 3 (i.e., PE sample) than study 2 (i.e., fitness group sample) based on visual inspection. Study 2 participants reported they had been attending their classes, on average, for just less than one year. This sustained participation is consistent with a more, rather than less (e.g., self-presentational) internalized motivational profile (Hagger & Chatzisarantis, 2008). As such, it would be interesting to investigate if 2 x 2 motive endorsement is negatively associated with more integrated regulation and positively associated with more controlled (e.g. introjected) forms of regulation. Previously, researchers have found negative links between self-presentational constructs (e.g., SPA, self-presentational tactics) and more self-determined motivation (Brunet & Sabiston 2009; Lewis & Neighbors, 2005).

Study 2 and 3 results indicated some support (i.e., 17 of 19 predictions supported) for our convergent validity (i.e., constructs expected to be related are found to be related) hypotheses regarding associations between 2 x 2 motives and confidence beliefs, social motives, and physical activity engagement. For example, acquisitively-oriented agentic and communal motives were moderately-to-strongly positively associated with confidence beliefs and participation, and protective agency was moderately-to-strongly positively associated with social anxiety. Researchers could continue to draw from theory (Bandura, 1986; Elliot, 2008; Horowitz et al., 2006; Lent & Lopez, 2002) to examine if there are self-presentational implications of the nomological net linked with the 2 x 2 motives. For example, acquisitive motive endorsement may be positively associated with social approval, whereas protective motive endorsement may be effective in negating social disapproval (Arkin, 1981).
A number of associations were contrary to our expectations, however, and indicate less support (i.e., only 27 of 55 hypotheses supported) for discriminant validity (i.e., constructs not expected to be related are not found to be related). In particular, there is a need to assess whether individuals who adopt different self-presentation motives do adopt different goals. In our studies, the acquisitive-communal motive did not consistently relate more with approach-oriented (compared to avoidance-oriented) social goals, and the relationship between the protective-communal motive and avoidance-oriented social goals was only marginally stronger than that with approach-oriented social goals. This conflicts with theorising that social motives and goals of a common valence will be positively linked (Gable & Impett, 2012). As Gable and Impett (2012) note, however, little is known about the situational influences on social goals, so we encourage researchers to consider possible moderators and mediators of the relationship between motives and goals. For example, physical activity instructors and teachers may shape the group climate through the presence (absence) of psychological need supporting behavior and emotionally intelligent responding (Cox & Williams, 2008; Jennings & Greenberg, 2009) that heightens (lessens) the likelihood of directing one’s attention to possible interpersonal rewards or rejection. Another unexpected observation was that the acquisitive-agentic motive positively associated with achievement goals that were avoidance- as well as approach-oriented. We predicted that the desire to impress others with one’s task ability would positively relate with a focus on task success (and not task failure). Taken together, these findings indicate that the relationship between 2 x 2 motives and goals may not be as clearly delineated as expected, and that multiple goal adoption may occur (Elliot, 1999).

Although the SMPAQ advances the literature by providing researchers with a theory-based tool to assess different types of self-presentation motives, a number of limitations of the three studies should be mentioned. We recommend that these issues
are addressed in future work, and it is important to note that the present research should be viewed as preliminary in nature. The assessment of construct validity is an iterative process (Messick, 1995), and studies 1 to 3 provide a foundation for researchers to further assess the appropriateness of the 2 x 2 instrument. Further insight into construct validity will be achieved by broadening the scope of 2 x 2 motive research and considering more diverse settings (e.g., sport), tasks (e.g., novel activities), and samples (e.g., different age groups, cross-cultural and -national populations). Investigators may also explore issues relating to measurement invariance, given that using or modifying instruments for different samples has been identified as a source of invariance in physical activity research (Gunnell, Wilson, Zumbo, Mack, & Crocker, 2012).

Methodologically, study 1 was limited in that we did not directly assess item content relevance (i.e., asking reviewers to assign items to the 2 x 2 construct they thought it best represented) along with representativeness (Delgado-Rico et al., 2012). Additionally, some items that expert reviewers judged to be acceptable were later removed on the basis of statistical analyses (e.g., EFA), and this reduced item pool was not re-examined by reviewers. Furthermore, two reviewers provided feedback in the first round of item expert review and four reviewers provided feedback in the second round. This could have been improved by having at least five expert reviewers in each round (Dunn, Bouffard, & Rogers, 1999). Moreover, these reviewers were academics, and as such, neither PE students nor group-fitness class attendees had input into item development. It is also worth noting that in future work the statistical significance of reviewers’ ratings may be examined by using metrics such as the content-validity coefficient (Aiken, 1985).

In studies 2 and 3, differences in the pattern of responding (e.g., strength of motive endorsement, correlations with other 2 x 2 motives and variables) may have been influenced by the time at which participants completed the questionnaire, and this
differed for study 2 participants who either completed a hard-copy version of the survey immediately after the class or an on-line version at a time that was of their own convenience. For example, individuals’ perceptions of how well they fulfilled their self-presentation motives may have impacted how they reported on their self-presentation motives. With further reference to studies 2 and 3, we acknowledge that we observed a significant chi-square value for the models we estimated. Although it is recognized that a nonsignificant chi-square may in some cases be a somewhat stringent criterion (e.g., Byrne, 2012), it is important to caution that according to this index we achieved an inexact fit for the models that we examined. That being the case, future research may be warranted that explores improvements to the measurement component of our model.

Unfortunately, we also did not assess whether the instrument captures situation-to-situation differences (e.g., between times, tasks, and audiences) in 2 x 2 motive adoption. This is a potential area of advancement, as instructions orient participants to their self-presentation motivation as it exists for a present situation, rather than asking about general or dispositional motive strength as is the case for other instruments (i.e., Conroy et al., 2000; Payne et al., 2013). With further reference to instructions, researchers may also wish to investigate how to best orient participants to aid interpretation of the distinction between the motives and reduce the risk of multicollinearity. In both studies 2 and 3, strong inter-relationships between the 2 x 2 motives were observed, indicating that when endorsement of one motive was high (low) endorsement of other motives also tended to be high (low). Finally, we did not address the consequential aspect of validity (Messick, 1995), and so we endorse research that provides insight into the actual and potential consequences of 2 x 2 motive scores.

Regarding possible outcomes of motive endorsement, we encourage researchers to look beyond the self-report measures used in the present studies and measure actual behavior. Approach-oriented (e.g., acquisitive) motives are theorised to positively relate
to positive task-related and interpersonal outcomes, whereas avoidance-oriented (e.g., protective) motives are thought to positively relate to negative outcomes (Elliot & Church, 1997; Elliot et al., 2006). It would be interesting to examine whether these principles hold for the 2 x 2 motives, and explore implications of motive endorsement for physical activity involvement and withdrawal (i.e., agency) as well as the development of harmonious and discordant social relationships (i.e., communion).

Researchers may also wish to engage in more detailed investigation of the variables that predict 2 x 2 motives. Both experimental (e.g., changing motive endorsement) and longitudinal (e.g., addressing whether motives and associated outcomes change over time) work will be useful in this respect. Believing strongly in one’s capabilities within social interactions (i.e., social self-efficacy) or physical activity tasks (i.e., task self-efficacy), for example, may predict the adoption of acquisitive-communal and -agentic motives, respectively. Target characteristics (e.g., punitive, agreeable) and any prior interactions between the presenter and target (e.g., amiable, unpleasant) may also predict a focus on gaining social approval or avoiding social disapproval (Arkin, 1981; Tice et al., 1995). Researchers could experimentally manipulate these situational factors to examine effects on 2 x 2 motive endorsement (Chapter I). In addition, trait factors, such as the fear of negative evaluation (Watson & Friend, 1969) or trait agency and communion (Helgeson & Palladino, 2012), may also predispose individuals toward the adoption of specific motives.

In sum, we have detailed the development of the SMPAQ as an instrument to assess 2 x 2 self-presentation motives and provided some preliminary evidence for the construct validity of scores derived from this measure. Clearly, the counterintuitive relations that we observed in some instances, and the broader nomological net associated with these constructs, both warrant continued attention from researchers; however, the results indicate that the 2 x 2 motives may differentially associate with
theoretically-based cognitive, affective, and behavioral physical activity variables. We encourage further research that investigates the conceptualization of 2 x 2 motives, the operationalization of these constructs, and the construct validity of scores derived from the SMPAQ.
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Chapter III. Relations Between Self-efficacy Beliefs, Self-presentation Motives, Personal Task Goals, and Performance on Endurance-based Physical Activity Tasks

Published as:
Chapter III Foreword

Chapter II established preliminary support for the construct validity of an instrument (i.e., SMPAQ) designed to assess 2 x 2 self-presentation motives. In subsequent chapters, I utilise the SMPAQ to explore associations between 2 x 2 self-presentation motives and possible outcomes and antecedents of these motives (see Chapter I). In Chapter III, I focus specifically on individuals’ agentic self-presentation motives in the context of group-based physical persistence tasks. Predictive pathways from agentic motives to performance are considered alongside the role of other potentially important variables, including task goals, task- and self-presentational efficacy beliefs, and general motivation to be seen as an exerciser.
Abstract

We conducted two studies with the aim of examining the relations between self-presentation motives and physical activity task performance. In study 1, prior to performing an endurance-based physical activity task, 133 undergraduate participants ($M_{age} = 20.89, SD = 5.21$) reported acquisitive-agentic and protective-agentic self-presentation motives alongside task self-efficacy, self-presentational efficacy, and their personal task goals. Using a different endurance-based physical activity task in study 2, we also assessed undergraduate participants’ ($n = 150; M_{age} = 20.23, SD = 3.34$) dispositional exercise-related self-presentation motivation alongside the variables measured in study 1. Bayesian path analyses revealed indirect relations between agentic self-presentation motives and task performance via participants’ personal task goals. Findings also indicated that agentic self-presentation motives may act as intermediaries in indirect pathways linking efficacy beliefs and dispositional exercise-related self-presentation motivation to goal processes and task performance. The results contribute to a more nuanced understanding of the relationship between self-presentation motivation and task performance.
Leary (1992) outlined a conceptual link between self-presentation motivation and task performance, contending that individuals will exert (relatively) more effort on a physical activity task when they believe that this effort will create a desired image in the eyes of others. Our overarching aim in the present studies was to test this prediction.

Researchers interested in studying self-presentational phenomena have largely relied on the Self-Presentation in Exercise Questionnaire (SPEQ; Conroy, Motl, & Hall, 2000) to assess the extent of individuals’ exercise-related self-presentation motivation. This measure assesses dispositional-level perceptions, inasmuch as individuals are oriented to consider their general level of self-presentation motivation to be seen as an exerciser, rather than the extent of their self-presentation motivation at a given moment.

Researchers working in the physical activity domain have found that dispositional exercise-related self-presentation motivation typically displays only small-to-moderate positive associations with measures of physical activity, such as exercise frequency (Brunet & Sabiston, 2011; Brunet, Sabiston, & Gaudreau, 2014; Conroy, et al., 2000; Lindwall, 2005; Martin Ginis & Mack, 2012). Although the lack of strong relationship between self-presentation motivation and physical activity may appear to be somewhat discouraging for investigators, there are a number of reasons for the continued investigation of self-presentation processes in exercise contexts.

First, there may be merit in considering individuals’ self-presentational drive at a given point in time (i.e., a situational approach to the assessment of self-presentation motivation). Social psychologists have argued that considering situational as well as dispositional factors may promote a better understanding of why an individual behaves the way they do at a given time (Mischel & Shoda, 1995). For example, Fleeson (2001) noted that although individuals may report relatively consistent behavioral tendencies, there is also meaningful variation in behavior that may be accounted for by situational factors. With respect to self-presentation, researchers have found that context-specific
factors, such as the audience’s prior knowledge of self-presenters and the cultural norms of self-presenters (Baumeister & Jones, 1978; Kurman, 2001), shape the type of image individuals wish to project. As such, in seeking to explain behavior within a given situation, it may be worth moving beyond a focus squarely on dispositional self-presentation motivation to also explore individuals’ self-presentational motivation within that situation.

A second reason that further investigation of self-presentation processes in exercise may be warranted is that rather than only accounting for the direct relationships between self-presentation motivation and physical activity, it may also be useful to examine indirect associations in an effort to provide a more complete understanding of the relationship/s between these constructs. Drawing from the approach/avoidance theoretical paradigm (Elliot, 2008), it is possible that personal task goals are one process through which self-presentation motives are indirectly related to behavior. For example, within the approach/avoidance literature, theorists contend that motives shape goals, and in turn, that goals subsequently shape behavior (Elliot, 2006; Gable & Impett, 2012). Research into interpersonal relationships supports this contention. Elliot, Gable, and Mapes (2006), for instance, found that the social motives for hope of affiliation and fear of rejection positively aligned, respectively, with approach- and avoidance-oriented social goals. Impett et al. (2010) found that individuals high in approach goals were more behaviourally responsive to their partners, whereas the opposite was true for individuals high in avoidance goals. In this chapter, and in line with previous work (Jones & Hanton, 1996), we focus on individuals’ personal level of aspiration for their task performance (i.e., how long an individual aims to perform a physical activity task), which we refer to as their personal task goal. Previous research has found that these types of self-set goals positively predict physical activity performance (Stoeber, Uphill, & Hotham, 2009).
2 x 2 Self-Presentation Motives

Recent developments in the literature may assist investigators in considering situational self-presentation motivation and accounting for goals in the self-presentation motive/behavior relationship. Specifically, we have proposed a 2 x 2 framework of self-presentation motives, have developed an instrument designed to measure these motives, and have detailed how these motives may align with constructs of interest (e.g., task performance, goals, behavior, and efficacy beliefs; Chapters I, II).

In the present studies we only considered acquisitive-agentic and protective-agentic (and not communal) motives. This focus on agency was appropriate given that (a) individuals’ focus on agency (i.e., a task-focus) in response to agentic stressors (i.e., task performance; O’Brien & DeLongis, 1996), and (b) we examined task performance in a context where communal motives were not salient (i.e., the tasks did not allow for interpersonal interaction). An acquisitive-agentic motive reflects a focus on gaining approval from others in terms of their perceptions of one’s physical qualities and task ability (e.g., being seen as athletic or physically competent). Consistent with the approach (i.e., acquisitive) and avoidance (i.e., protective) paradigm (c.f., Elliot, 2008), acquisitive-agentic motives are positively aligned with task involvement, performance, and a focus on success, whereas protective-agentic motives are positively aligned with avoidance, withdrawal, and a focus on potential failures (Arkin, 1981; Chapters I, II; Schutz, 1998).

As noted earlier, however, it is also important to consider the personal task goals that individuals adopt alongside assessments of their self-presentation motivation and task performance. The inclusion of personal task goals may be particularly useful because accounting for the indirect pathways between self-presentation motivation and physical activity behavior may inform a more nuanced view of the relationship between these constructs. Acquisitive-agentic motives are expected to be positively associated
with personal task goals insofar as better performance is indicative of greater task ability and physical competence on tasks in which performance is under one’s control (Chapter I). We have previously examined the relationship between agentic motives and performance goal orientations (i.e., approach- or avoidance-orientation), but did not allow individuals to set personal task goals using an open-ended format (Chapter II). The appropriateness of open-ended assessments of personal task goals is supported by findings that these measures (a) positively correspond with established questionnaires (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997), (b) are thought to be a more proximal determinant of performance than goal-orientation (Brett & VandeWalle 1999; Latham & Locke, 2007), and (c) are strongly and positively associated with physical activity performance (Stoeber et al., 2009). In this respect, we sought to extend earlier findings by directly measuring what personal task goals are set (i.e., goal time) rather than what types of goals are set (i.e., goal orientation).

In addition to considering 2 x 2 motives, personal task goals, and task performance, it may also be important to account for individuals’ task self-efficacy and self-presentational efficacy beliefs. Task self-efficacy represents one’s confidence in his/her ability to perform the requisite elements of a task (Bandura, 1977). Self-presentational efficacy represents one’s confidence in his/her ability to present a desired image (Leary & Atherton, 1986). Although self-efficacy beliefs have been considered as possible mediators or moderators of the association between self-presentational factors (e.g., motivation) and physical activity outcomes (e.g., behavior, anxiety) in previous work (Brunet & Sabiston, 2011; Martin Ginis, Lindwall, & Praparessis, 2007), there is also support for considering pathways from self-efficacy beliefs to agentic self-presentation motives. Drawing from theorising that self-efficacy beliefs promote approach-oriented tendencies and cognitions (Bandura, 1977; Chapter II) it is speculated that task and self-presentational self-efficacy beliefs may positively predict
acquisitive agency. As well as informing an understanding of what constructs predict agentic self-presentation motives, consideration of these efficacy beliefs may allow for greater insight into the unique contribution of self-presentation motives to personal task goals and performance. The importance of considering agentic motives alongside self-efficacy beliefs is grounded in expectations that self-efficacy beliefs may positively align with task performance and physical activity behavior (Gammage, Lamarche, & Drouin, 2014; Lamarche, Gammage, Sullivan, & Gabriel, 2013; Moritz, Feltz, Fahrbach, & Mack, 2000), performance goal setting (Locke, Frederick, Lee, & Bobko, 1984), dispositional exercise-related self-presentation motivation (Gammage, Hall, & Martin Ginis, 2004), as well as acquisitive-agentic self-presentation motive endorsement (Chapters I, II).

The Present Studies

We conducted two studies with the aim of investigating the relationships between self-efficacy beliefs, self-presentation motivation, personal task goals, and physical activity task performance. Based on theory and empirical work (see Appendix B), and regarding direct effects, we expected to observe that acquisitive agency would be positively associated with self-efficacy beliefs, personal task goal time, and task performance, whereas no significant associations would be found between these constructs and protective agency. We also expected to observe positive pathways from self-efficacy beliefs to personal task goals, from self-efficacy beliefs to performance, and from personal task goals to performance. These pathways are presented in figure 3.1. Regarding indirect effects, we expected to observe significant positive associations from acquisitive agency through personal task goals to performance, from efficacy beliefs through personal task goals to performance, and from efficacy beliefs through acquisitive agency to personal task goals and performance. Consistent with Messick’s (1995) view that construct validation should be an iterative process, a secondary aim of
study 1 was to add to initial validity information reported for the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ; Chapter II). Regarding the structural aspect of validity, we expected to find support for a two-factor structure that represented separate acquisitive-agentic and protective-agentic constructs (Chapter II). Regarding the generalizability aspect of validity, we considered score properties in a separate context (i.e., population group, setting, and task) from that used in previous work (i.e., group exercise and PE classes; Chapter II).

**Study 1**

**Method**

**Participants and procedure.** A total of 133 participants ($n_{male} = 62$, $n_{female} = 70$, 1 did not report gender, $M_{age} = 20.89$, $SD = 5.21$) were recruited from ten undergraduate mixed-sex kinesiology classes within a single course cohort at the authors’ institution following institutional ethics approval. Class size ranged from 7 to 19 students (median class size was 14 students) and data collection was conducted by two male course instructors who were both present for all classes. Prior to data collection, participants were provided with procedural and ethical information, instructed to only complete the survey and perform the task if they agreed to participate, and verbally indicated their consent. Specific instructions were given to participants about how to perform the performance task (i.e., human bridge exercise) and they were informed that they would complete the task first in isolation and then again alongside their classmates. Participants were instructed to keep only their forearms and toes in contact with the ground, and hold the rest of their body as straight as possible and parallel to the ground. A course instructor demonstrated the correct technique. Participants were told that when they were performing the human bridge they should hold the position as long as they could while maintaining correct form.
Participants performed the human bridge exercise twice. The first trial was completed immediately after the researchers gave instructions to the class. Participants performed the first trial in isolation (i.e., they could not see or be seen by the researchers or classmates) and used a stopwatch to record their own performance time. This first trial provided an opportunity for participants to become accustomed to the task and gauge their task ability and to set informed personal task goals for the second trial. The second trial was completed in a group setting that was designed to evoke self-awareness of behavior (i.e., participants were arranged in a circle, faced inwards, and each participant could view every other participant) so as to activate self-presentation motives (Leary & Kowalski, 1990). A male instructor was also present, and this instructor monitored participant technique and used a stopwatch to time all participants. When a participant could no longer hold their position with the correct technique, the instructor indicated to the participant that their trial had ended and also provided the participant with the time that was to be recorded for their trial. The two trials were separated by a period of approximately 30 minutes to allow participants time to recover between tasks. During this break, participants were asked to complete a questionnaire package that included measures of self-presentation motives, task self-efficacy, self-presentational efficacy, and their personal task goal; they were also given the opportunity to rest and have a drink of water.

**Measures.**

*Agentic self-presentation motives.* We used the acquisitive-agentic and protective-agentic scales from the SMPAQ (Chapter II). Five items were used to assess acquisitive-agentic motivation (e.g., “Having others admire me for my physical ability at the human bridge”) and four items were used to assess protective-agentic motivation (e.g., “Avoiding others viewing me as incompetent at the human bridge”). Participants were asked to respond to the items using a 7-point scale that was anchored at 1 (strongly
disagree) and 7 (strongly agree). In accordance with recommendations outlined in Chapter II, we included contextual modifications in the instructions, stem, and items to orient participants to the present situation and focal activity (i.e., participants were instructed to answer with regards to the upcoming human bridge performed in the group setting). Construct validity evidence for scores derived from these subscales was reported in Chapter II. For example, evidence for the structural aspect of validity (i.e., strong intended and weak unintended factor loadings), internal consistency (i.e., acceptable composite reliability; Raykov, 1997), and external aspect of validity (e.g., acquisitive agency aligned moderately-to-strongly and positively with self-efficacy and physical activity engagement scores, whereas the respective associations for protective agency were null) was observed.

**Task self-efficacy.** In accordance with recommendations from Bandura (2006), we developed three items to assess participants’ confidence in their ability on the focal activity (i.e., the upcoming human bridge). Participants were asked to rate their confidence in their ability at that moment in time to (a) keep holding their position through any discomfort they might experience, (b) use their core to hold themselves up for as long as possible, and (c) resist the urge to drop out before reaching their physical limit. We utilized a 1 (no confidence at all) to 5 (complete confidence) response format in line with recommendations for the optimal method for self-efficacy scoring (Myers, Feltz, & Wolfe, 2008).

**Self-presentational efficacy.** Instructions to participants oriented them to consider their confidence in their self-presentational ability for the upcoming trial at that moment in time. Five items (e.g., “other people will think that you are in good shape”) from Gammage et al.’s (2004) measure were used, with one item modified so that instead of referencing physical co-ordination it referenced physical strength. This was appropriate given that performance on the human bridge is primarily reliant on physical
strength rather than coordination. Participants were asked to indicate their confidence on a scale of the same format as that used for task self-efficacy. In terms of construct validity, Gammage et al. (2004) found that their measure of self-presentational efficacy positively aligns with exercise frequency and negatively aligns with social physique anxiety.

**Personal task goal.** Participants were privately asked to indicate the amount of time, in seconds, that they were aiming to hold the upcoming human bridge in the group setting.

**Task performance.** Performance was recorded as the number of seconds that participants could hold the human bridge in the group setting while maintaining correct technique.

**Data analysis.** Prior to the main analyses, we removed five cases; three cases were identified as multivariate outliers (i.e., Mahalanobis distance at $p < .001$) and two cases were identified as univariate outliers (i.e., extreme Z scores; Tabachnick & Fidell, 2007). For the remaining responses ($n = 128$), we examined descriptive statistics, item-level normality information (i.e., skewness, kurtosis), and composite reliability estimates (Raykov, 1997). Missing data were negligible (i.e., < .01%) and missing values were imputed using the expectation maximization procedure (see Graham, 2009). Skewness (i.e., range -.37 to .85) and kurtosis (i.e., range -.88 to .45) values indicated no problematic violations of normality assumptions.

Bayesian methods were used to analyze data. Compared to a traditional frequentist approach to model testing, Bayesian methods are better able to account for more complex model specifications and can be run using smaller sample sizes. Bayesian analysis also allows researchers to set informative priors; that is, expectations for model parameters that are guided by past empirical findings or theory. The benefit of employing a Bayesian approach is that it yields an ‘automatic meta-analysis’ (Zyphur
& Oswald, 2013) by integrating previous findings (i.e., via the setting of priors) with new data, rather than considering new data in isolation as is the case with null hypotheses testing and the frequentist approach (van de Schoot et al., 2014). In setting priors for the present Bayesian analyses, we drew from previous work that informed our expectations of associations between self-efficacy beliefs, self-presentation motives, personal task goals, and task performance (see Appendix B). Interested readers may wish to consult Gucciardi and Zyphur (2015) for specific information regarding Bayesian analysis within sport and exercise psychology.

MPlus version 7.11 was used to examine an agentic self-presentation motive measurement model using a CFA approach (see Appendix C). In setting normalized priors, factor loadings of .8 were specified between acquisitive-agentic items and their intended acquisitive-agentic latent factor, and between protective-agentic items and their intended protective-agentic latent factor. Cross-loadings were specified to be .1. These priors were set after considering statistical recommendations (Comrey & Lee, 1992) and empirical findings (Chapter II), and were consistent with Muthén and Asparouhov’s (2012) designation that values of .8 represent ‘major’ loadings and values of .1 represent loadings ‘of little importance’. Drawing from instrument development work (Chapter II), a prior value of .5 was set for the covariance between the latent constructs. Small priors (i.e., .1) were set for the correlated related residuals. For all priors, variances were set at .02. Evaluation of model fit was based on examination of the posterior predictive p-value (PPP) and the 95% confidence interval for the difference between the observed and replicated chi-square values. As explained by van de Schoot et al. (2014), 95% confidence intervals (i.e., from an infinity of population samples, 95% contain the true population value) differ from 95% credibility intervals (i.e., there is a 95% probability that the population value lies within the interval boundaries) that are also reported in Bayesian work. A very small PPP value (e.g.,
0.005) is considered to be indicative of poor fit, a value of .5 is considered indicative of excellent fit, and a value of .05 is judged to be reasonable (Muthén & Asparouhov, 2012; Zyphur & Oswald, 2013). Similarly, a good-fitting model is one in which the 95% confidence interval of the chi-square value difference contains zero (Muthén & Asparouhov, 2012). In addition to these criteria, we considered model convergence and examined the potential scale reduction (PSR) factor to establish that it reached a value of ≤ 1.1 and showed a smooth decrease over the last few thousand iterations (Muthén & Asparouhov, 2012). We used Comrey and Lee’s (1992) recommendations when evaluating the strength of factor loadings (i.e., >.55 = good, > .45 = fair, > .32 = poor, < .32 = should not be interpreted).

We then used MPlus to examine direct and indirect pathways between variables (i.e., task and self-presentational efficacy beliefs, agentic self-presentation motives, personal task goals, and performance) using Bayesian path analysis (see Appendix D). Based on previous work (Chapters I, II; Fleming & Martin Ginis, 2004), we also specified covariance (i.e., double-headed arrow) pathways between both self-efficacy beliefs and between both agentic motives. In using Bayesian path analysis, we were guided by earlier work using Bayesian estimation in which the primary focus was also on understanding predictive pathways between constructs (Mahoney, Gucciardi, Ntoumanis, & Mallet, 2014). The hypothesized model is presented in Figure 3.1. We set informative normal priors on the basis of theory and empirical findings (see Appendix B), specified a variance of .02, and assessed model fit using the same criteria as for the measurement model.

Results

Descriptive statistics (i.e., means, standard deviations, and composite reliability estimates) for all study 1 variables are presented in Table 3.1. Results showed no
indication of problematic reliability. On average, participants aimed to hold their human bridge for 142 seconds and performed the task for approximately 159 seconds.

Table 3.1. *Descriptive information for Study 1 and Study 2*

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th></th>
<th>Study 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>ρ</td>
<td>Mean</td>
</tr>
<tr>
<td>Task self-efficacy</td>
<td>3.24</td>
<td>.79</td>
<td>.89</td>
<td>3.00</td>
</tr>
<tr>
<td>Self-presentational efficacy</td>
<td>2.75</td>
<td>.72</td>
<td>.94</td>
<td>2.83</td>
</tr>
<tr>
<td>Dispositional exercise self-presentation motivation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.15</td>
</tr>
<tr>
<td>Acquisitive agency</td>
<td>3.25</td>
<td>1.16</td>
<td>.91</td>
<td>3.05</td>
</tr>
<tr>
<td>Protective agency</td>
<td>3.52</td>
<td>1.37</td>
<td>.93</td>
<td>3.61</td>
</tr>
<tr>
<td>Personal task goal</td>
<td>142.00</td>
<td>64.95</td>
<td>-</td>
<td>134.29</td>
</tr>
<tr>
<td>Performance</td>
<td>158.85</td>
<td>71.29</td>
<td>-</td>
<td>149.57</td>
</tr>
</tbody>
</table>

*Note:* Note: ρ = composite reliability estimate (Raykov, 1997); self-set goal time in seconds (personal task goal); time in seconds spent holding the human bridge or wall sit (performance).

We observed an acceptable fit for the proposed two-factor self-presentation motive measurement model based on the model-fit criteria. The PPP value was .203, there was a smooth decrease in the PSR, and the confidence interval for difference between the observed and replicated chi-square values included zero, 95% CI -18.45, 43.31. Two chains were estimated and the model reached convergence after 48,600 iterations. The standardized factor loadings are displayed in Table 3.2. For the acquisitive-agentic factor, all intended loadings were good and significant (i.e., 95% credibility interval did not include zero), whereas non-intended loadings were weak and non-significant. For the protective-agentic factor, all intended loadings were good and significant. Although one acquisitive-agentic item also loaded on the protective-agentic
factor, this cross loading was weak (i.e., .18) and was much weaker than its loading on acquisitive agency (i.e., .61). The mean factor loadings for acquisitive- and protective agency were .69 and .73, respectively.

Table 3.2. *Study 1 standardized factor loadings for acquisitive- and protective-agentic measures*

<table>
<thead>
<tr>
<th>Subscale and item</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td><strong>Acquisitive-agentic</strong></td>
<td></td>
</tr>
<tr>
<td>Acquisitive-agentic item 1</td>
<td>.68</td>
</tr>
<tr>
<td>Acquisitive-agentic item 2</td>
<td>.74</td>
</tr>
<tr>
<td>Acquisitive-agentic item 3</td>
<td>.77</td>
</tr>
<tr>
<td>Acquisitive-agentic item 4</td>
<td>.64</td>
</tr>
<tr>
<td>Acquisitive-agentic item 5</td>
<td>.61</td>
</tr>
<tr>
<td>Mean primary factor loading</td>
<td>.69</td>
</tr>
<tr>
<td><strong>Protective-agentic</strong></td>
<td></td>
</tr>
<tr>
<td>Protective-agentic item 1</td>
<td>.07</td>
</tr>
<tr>
<td>Protective-agentic item 2</td>
<td>.12</td>
</tr>
<tr>
<td>Protective-agentic item 3</td>
<td>.07</td>
</tr>
<tr>
<td>Protective-agentic item 4</td>
<td>.07</td>
</tr>
<tr>
<td>Mean primary factor loading</td>
<td>.73</td>
</tr>
</tbody>
</table>

The model fit indices for the path analysis were acceptable. The model showed convergence immediately (i.e., PSR values ≤ 1.1 sustained over a few thousand iterations), the PPP value (i.e., .346) was good, and the chi-square difference confidence interval included zero (i.e., 95% CI -16.97, 25.13). The model accounted for a large amount of variance in performance (71%), somewhat less variance in personal task goals and acquisitive agency (35% and 27%, respectively), and very little variance in protective agency (.01%).

**Model pathways.** All direct and indirect parameter estimates for the path analysis model are displayed in Table 3.3. In terms of covariance (i.e., bi-directional)
associations, statistically significant (i.e., 95% credibility interval did not include zero) positive pathways were found between the two self-efficacy beliefs and between the two agentic self-presentation motives. In terms of one-directional pathways, significant positive relationships were found from the two self-efficacy beliefs to an acquisitive-agentic motive, from the two self-efficacy beliefs to personal task goals, from acquisitive agency to personal task goals, and from personal task goals to performance. Contrary to our expectations, the direct associations between self-efficacy beliefs and performance, and between acquisitive agency and performance, were not statistically significant.

Examination of the indirect effects revealed that there were significant positive pathways from an acquisitive-agentic motive to performance through personal task goals, from both self-efficacy beliefs through personal task goals to performance, and from both self-efficacy beliefs through acquisitive agency to personal task goals. For the longer pathways (i.e., pathways that encompassed more variables), there were significant positive effects from both self-efficacy beliefs through acquisitive agency and then through personal task goals to performance. All indirect pathways involving protective agency were not statistically significant.
Figure 3.1. Hypothesised model showing direct effects examined in study 1 and study 2. Dashed lines represent pathways for dispositional exercise-related self-presentation motivation that were not examined in study 1 and added for study 2.
Table 3.3. *Parameter estimates for pathways explored in Study 1 and Study 2*

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Study 1</th>
<th></th>
<th></th>
<th>Study 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>St. effect</td>
<td>Unst. effect</td>
<td>95% CI</td>
<td>St. effect</td>
<td>Unst. effect</td>
<td>95% CI</td>
</tr>
<tr>
<td>TSE ↔ SPE</td>
<td>.60</td>
<td>.37</td>
<td>.26, .51</td>
<td>.61</td>
<td>.38</td>
<td>.28, .50</td>
</tr>
<tr>
<td>TSE → AA</td>
<td>.20</td>
<td>.28</td>
<td>.10, .44</td>
<td>.12</td>
<td>.20</td>
<td>.01, .38</td>
</tr>
<tr>
<td>TSE → PA</td>
<td>-.02</td>
<td>-.02</td>
<td>-.23, .17</td>
<td>.03</td>
<td>.05</td>
<td>-.16, .26</td>
</tr>
<tr>
<td>TSE → G</td>
<td>.26</td>
<td>.37</td>
<td>.20, .56</td>
<td>.16</td>
<td>.21</td>
<td>.03, .38</td>
</tr>
<tr>
<td>TSE → P</td>
<td>.08</td>
<td>.13</td>
<td>-.02, .28</td>
<td>.02</td>
<td>.03</td>
<td>-.14, .21</td>
</tr>
<tr>
<td>TSE → G → P</td>
<td>.19</td>
<td>.29</td>
<td>.15, .44</td>
<td>.10</td>
<td>.15</td>
<td>.02, .28</td>
</tr>
<tr>
<td>TSE → AA → G</td>
<td>.05</td>
<td>.07</td>
<td>.01, .13</td>
<td>.02</td>
<td>.02</td>
<td>-.002, .07</td>
</tr>
<tr>
<td>TSE → AA → P</td>
<td>.01</td>
<td>.02</td>
<td>-.02, .06</td>
<td>.005</td>
<td>.01</td>
<td>-.02, .04</td>
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<tr>
<td>TSE → AA → G → P</td>
<td>.03</td>
<td>.05</td>
<td>.01, .10</td>
<td>.01</td>
<td>.02</td>
<td>-.002, .05</td>
</tr>
<tr>
<td>TSE → PA → G</td>
<td>.001</td>
<td>&lt;.001</td>
<td>-.02, .02</td>
<td>-.01</td>
<td>-.01</td>
<td>-.04, .02</td>
</tr>
<tr>
<td>TSE → PA → P</td>
<td>.001</td>
<td>.001</td>
<td>-.02, .02</td>
<td>&lt; -.001</td>
<td>&lt;.001</td>
<td>-.02, .01</td>
</tr>
<tr>
<td>TSE → PA → G → P</td>
<td>.001</td>
<td>&lt;.001</td>
<td>-.01, .02</td>
<td>-.003</td>
<td>-.003</td>
<td>-.03, .02</td>
</tr>
<tr>
<td>SPE → AA</td>
<td>.38</td>
<td>.58</td>
<td>.39, .76</td>
<td>.28</td>
<td>.46</td>
<td>.27, .64</td>
</tr>
<tr>
<td>SPE → PA</td>
<td>-.02</td>
<td>-.03</td>
<td>-.24, .18</td>
<td>-.07</td>
<td>-.12</td>
<td>-.33, .08</td>
</tr>
<tr>
<td>SPE → G</td>
<td>.22</td>
<td>.34</td>
<td>.15, .54</td>
<td>.24</td>
<td>.30</td>
<td>.11, .47</td>
</tr>
<tr>
<td>SPE → P</td>
<td>.08</td>
<td>.13</td>
<td>-.04, .31</td>
<td>-.02</td>
<td>-.03</td>
<td>-.22, .15</td>
</tr>
<tr>
<td>SPE → G → P</td>
<td>.16</td>
<td>.27</td>
<td>.11, .43</td>
<td>.15</td>
<td>.21</td>
<td>.08, .36</td>
</tr>
<tr>
<td>SPE → AA → G</td>
<td>.09</td>
<td>.14</td>
<td>.04, .24</td>
<td>.05</td>
<td>.06</td>
<td>.001, .14</td>
</tr>
<tr>
<td>SPE → AA → P</td>
<td>.02</td>
<td>.03</td>
<td>-.04, .11</td>
<td>.01</td>
<td>.01</td>
<td>-.05, .08</td>
</tr>
<tr>
<td>SPE → AA → G → P</td>
<td>.07</td>
<td>.11</td>
<td>.04, .19</td>
<td>.03</td>
<td>.04</td>
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*Note:* St. effect refers to the standardized effect; Unst. Effect refers to the unstandardized effect; 95% CI refers to the Bayesian credibility interval provided for the unstandardized effects; task self-efficacy (TSE); self-presentational efficacy (SPE); acquisitive agency (AA); protective agency (PA); personal task goal (G); performance (P); dispositional exercise-related self-presentation motivation (DESPM).
Brief Discussion

In study 1, we aimed to investigate the tenability of a model in which predictive pathways were specified between self-efficacy beliefs, agentic self-presentation motives, personal task goals, and task performance. We also used CFA to examine a measurement model in which the latent constructs of acquisitive- and protective-agentic self-presentation motives were indicated by the respective items. In both cases, the models demonstrated acceptable fit indices. Regarding the measurement model, our findings provided support for the structural aspect of validity for the agentic scales of the SMPAQ. Notwithstanding a single significant but non-meaningful (Comrey & Lee, 1992) cross-loading between an acquisitive-agentic item and the protective-agentic factor, we observed that all items loaded strongly on their intended factor and weakly on their non-intended factor.

Regarding the path analysis, we found some support for our hypotheses. In terms of direct effects, and as expected, individuals who were more confident in their task ability (i.e., task self-efficacy) and their ability to create a desired impression (i.e., self-presentation efficacy) also more strongly endorsed an acquisitive-agentic motive for the task. That is, they approached the task with a focus on gaining approval based on perceptions of their task ability and physical attributes; strong acquisitive agency endorsement also aligned with longer personal task goals. Contrary to expectations, further examination of the direct effects showed that individuals who reported greater confidence in their task-related and self-presentational capabilities, along with individuals who more strongly desired to gain approval for task/physical attributes, did not perform the physical activity task for a longer period of time. Personal task goals emerged as the only significant positive predictor for performance in this respect. However, significant indirect positive pathways via personal task goals were evident between these constructs and performance.
Study 1 results advance the literature inasmuch as, for the first time, they demonstrate support for the role of acquisitive agency, alongside self-efficacy beliefs and personal task goal setting, in shaping physical activity task performance. One important limitation of this study, though, was that we did not consider dispositional exercise-related self-presentation motivation alongside agentic situational motives. Evidence from the social psychological literature indicates that situational factors should be considered alongside dispositional factors if behavior is to be better understood (Fleeson, 2001), and in seeking to demonstrate the utility of agentic situational motives, it is important to consider whether their predictive effects remain when modeled alongside dispositional exercise-related self-presentation motivation.

Accordingly, we conducted a second study in which we investigated performance on a ‘wall sit’ leg endurance exercise performed in a group setting, and along with study 1 measures, we also included a dispositional measure of exercise-related self-presentation motivation. In addition to examining the study 1 hypotheses, we also expected to observe direct positive associations from dispositional exercise-related self-presentation motivation to (a) situational agentic motives, (b) personal task goals, and (c) performance (see Figure 3.1). The specified direction of these effects (i.e., from higher-order to lower-order constructs) was informed by approach/avoidance and agency/communion theory (Elliot, 2006; Gable & Impett 2012; Horowitz et al., 2006). Regarding indirect effects originating from the dispositional exercise-related self-presentation motivation construct, we expected to observe significant positive associations through acquisitive agency to personal task goals, through personal task goals to performance, and through acquisitive agency to personal task goals and then performance.
Study 2

Method

Participants and procedure. In study 2, 150 participants ($n_{male} = 74$, $n_{female} = 74$, 2 did not report gender, $M_{age} = 20.23$, $SD = 3.34$), who were a different sample from those recruited for study 1, were again recruited from ten mixed-sex undergraduate kinesiology classes at the authors’ institution following ethics approval. Class size ranged from 12 to 18 students with a median of 15 students. A similar procedure was followed as indicated for study 1, with the exceptions being that participants performed and received instructions for a wall sit task rather than a human bridge task, and completed a modified questionnaire packet. This new task was used so as to allow for consideration of the generalizability of the effects observed in study 1 in the context of another persistence exercise. Instructions to participants specified how to perform the wall sit (i.e., back flat against the wall, feet shoulder-width apart and roughly two-feet from the wall, and thighs parallel to the floor). An instructor demonstrated the correct technique and told participants that they should hold the wall sit for as long as possible. When a participant could no longer hold their position with the correct technique (e.g., thighs dropped below parallel), the instructor indicated to the participant that their trial had ended and provided the participant with the time that was to be recorded for their trial.

Measures. The questionnaire packet administered to study 2 participants differed from that given to study 1 participants in two respects. First, participants were oriented to consider the focal task (i.e., wall sit rather than human bridge) when responding to the self-efficacy, agentic motives, and personal task goal measures. Task self-efficacy items asked participants to indicate their confidence in their ability to keep holding their position through any discomfort, using their legs to hold them up as long as possible, and resist the urge to drop out before reaching their physical limit. Second,
participants were also asked to complete a measure of dispositional exercise-related self-presentation motivation. In all other respects, the self-report measures used were the same as for study 1.

**Dispositional exercise-related self-presentation motivation.** The impression motivation scale from the SPEQ (Conroy et al., 2000) was used to assess participants’ general motivation to be seen as an exerciser. We used the four items (e.g., “I value the attention and praise offered by others in regard to appearing physically fit”) recommended by Gammage et al. (2004). Participants were asked to answer on a 6-point Likert scale that was anchored at 1 (*strongly disagree*) and 6 (*strongly agree*). Conroy and colleagues (Conroy et al., 2000; Conroy & Motl, 2003) have reported evidence for the structural and external aspects of construct validity for the SPEQ.

**Data analysis.** Prior to the main analyses, we removed a total of 9 cases, including 6 cases that were identified as multivariate outliers (i.e., Mahalanobis distance at \( p < .001 \)) and 3 cases that were identified as univariate outliers (i.e., extreme Z scores; Tabachnick & Fidell, 2007). We examined descriptive statistics, item-level normality information (i.e., skewness, kurtosis), and composite reliability estimates (Raykov, 1997) for the remaining responses (\( n = 141 \)). Missing data represented < 0.01% of all scores and were imputed using the expectation maximization procedure (see Graham, 2009). Skewness and kurtosis values were within the -1 to 1 range, with the exception of a single acquisitive-agentic item (i.e., 1.04 skewness value and 1.05 kurtosis value). Given that Bayesian analysis does not assume nor require normal distributions, we proceeded with our analyses. On the basis of our hypotheses, we used MPlus to examine the properties of a model (see Figure 1) using Bayesian path analysis (see Appendix E). In setting priors for the Bayesian analyses, we drew from study 1 results and previous empirical findings regarding dispositional exercise-related self-presentation motivation (Gammage, et al., 2004; Chapter II; Martin Ginis & Mack,
Variance for these priors was set at .02 and we used the same model fit criteria outlined for study 1.

**Results**

Descriptive statistics (i.e., means, standard deviations, and composite reliability estimates) for all study 2 variables are presented in Table 3. Results showed no indication of problematic reliability. On average, participants aimed to hold their wall sit for 134 seconds, and performed the task for approximately 150 seconds. Regarding the path analysis, the model fit indices were acceptable, the model showed convergence (i.e., PSR values ≤ 1.1 with a smooth decrease), the PPP value (i.e., .438) was good, and the chi-square difference confidence interval included zero (i.e., 95% CI -22.57, 25.39). Overall, the model accounted for a large amount of the variance in performance (45%) but less of the variance in participants’ personal task goals, and acquisitive- and protective-agentic motives (24%, 34%, and 7%, respectively).

**Model pathways.** All direct and indirect parameter estimates for the path analysis model are displayed in Table 3. Standardized parameter estimates for the direct effects are shown in Table 3. In terms of covariance (i.e., bi-directional) pathways, statistically significant positive associations were found between both self-efficacy beliefs, between dispositional exercise-related self-presentation motivation and both efficacy beliefs, and between acquisitive- and protective-agentic motives. In terms of one-directional relationships, significant positive pathways were found from dispositional exercise-related self-presentation motivation to acquisitive- and protective-agentic motives, from both self-efficacy beliefs to acquisitive agency, from both self-efficacy beliefs to personal task goals, from acquisitive agency to personal task goals, and from personal task goals to performance. Contrary to our expectations, a significant negative association was also observed between protective agency and personal task goals.
Regarding the indirect effects, there were statistically significant positive pathways through personal task goals to performance from acquisitive agency, task self-efficacy, and self-presentational efficacy. Significant positive pathways were also found through acquisitive agency to personal task goals from self-presentational efficacy and from dispositional exercise-related self-presentation motivation. Two longer positive indirect pathways were also significant. The first of these longer pathways was from dispositional exercise-related self-presentation motivation through acquisitive agency and then through personal task goals to performance, and the second was from self-presentational efficacy to acquisitive agency and then to personal task goals to performance. A number of statistically significant and negative pathways were also observed, including from dispositional exercise-related self-presentation motivation through protective agency to personal task goals, and from protective agency through personal task goals to performance. A longer pathway from dispositional exercise-related impression motivation through protective agency and then through personal task goals to performance was also significant and negative.

**Brief Discussion**

In study 2, we examined the feasibility of a model in which predictive pathways were estimated between dispositional exercise-related self-presentation motivation, situational agentic self-presentation motives, self-efficacy beliefs, personal task goals, and performance on a physical activity task. The model fit indices for the Bayesian path analysis were acceptable. As was predicted, regarding the situational measures, individuals who reported greater task and self-presentational efficacy beliefs also reported a stronger desire to gain approval based on their task ability/physical attributes, and individuals who scored higher on each of these measures also set longer personal task goals for their performance. However, only personal task goals emerged a significant predictor of task performance. Furthermore, the finding that individuals who
more strongly endorsed protective agency also reported lower ambitions for their task performance was not hypothesized based on previous empirical work (Chapter II) and study 1 results. This finding is consistent, though, with theory concerning the relationship between avoidance-oriented motives and goals (Elliot, 1999) to the extent that a focus on avoiding failure aligns with low normative ability judgements. With respect to the inclusion of dispositional exercise-related self-presentation motivation, we found that this drive positively predicted both situational self-presentation motives, but not personal task goals and performance. Thus, mixed support for our hypotheses was found.

We also considered indirect effects in an effort to better understand the mechanisms through which the aforementioned constructs relate to task performance. We found that personal task goals were an important intermediary in the associations between agentic self-presentation motives, self-efficacy beliefs and performance on the task. Additional significant indirect pathways to personal task goals and performance were also evident between the self-presentation motives, such that effects of dispositional exercise-related self-presentation motivation operated through the situational motives individuals adopted. Taken together, the direct and indirect effects we observed provide support for the roles of dispositional and situational self-presentation motives in shaping physical activity task performance.

**General Discussion**

In the two studies presented in this chapter, we examined the relationships between self-efficacy beliefs, self-presentation motivation, personal task goals, and physical activity task performance. A key strength of the present research was that we were able to build on previous work (e.g., Brunet et al., 2014; Gammage et al., 2004, 2014; Lidwall, 2005) to provide a more nuanced understanding of the association between self-presentation motivation and physical activity behavior. We considered
situational self-presentation motives instead of (study 1), and alongside (study 2), dispositional exercise-related self-presentation motivation. Previous work has focused on examining individuals’ general exercise self-presentation drive (Martin Ginis et al., 2007), and has not accounted for the potentially unique effects that more situation-specific motives may have on behavior. We also drew from theory (e.g., Elliot, 2008) to account for potential links between different types of self-presentation motives (i.e., acquisitive- and protective-agentic motives) and task performance. Consistent with their respective approach- and avoidance-orientations, study 2 results showed that an acquisitive-agentic motive was positively linked with task persistence whereas the association for protective agency was negative. The present work also highlighted individuals' personal task goals as an important variable that may support the association between self-presentation motivation and behavior. Although researchers have previously conceptualized pathways between motives, goals, and behavior (Elliot, 2006), these pathways had not been fully examined with respect to self-presentation motivation and physical activity behavior.

A secondary aim for study 1 was to add to construct validation information (Messick, 1995) for the agentic motive measures. The CFA findings indicated support for the anticipated two-factor structure of acquisitive- and protective-agentic motives. These results also have relevance for the generalizability aspect of validity insofar as support for the factor structure was identified using a population group, setting, and task that differed from the group exercise and PE contexts considered in Chapter II.

With regards to our methodology, two further strengths bear discussion. The first strength is that we operationalized behavior as performance on a specific task, whereas previous work has focused on general physical activity (e.g., weekly frequency; Gammage et al., 2004). This focus allowed us to examine (and find support for) Leary’s (1992) supposition that self-presentation motivation may influence the
exertion of effort on physical activity tasks. However, given the importance of general physical activity, it may be useful to consider whether changes in self-presentation motive endorsement are accompanied by changes in patterns of general physical activity (e.g., intensity, frequency, duration, and type) over time. Recent work has considered this issue (Brunet et al., 2014), but was focused on dispositional exercise-related self-presentation motivation rather than potential associations between more situation-specific (e.g., agentic) motives and behavior. The present research also departed from previous work by using a Bayesian rather than frequentist approach. Bayesian methodology allowed for the setting of priors to account for theory and previous research findings. As a result, our findings may be less likely to capitalise on chance results than had we performed ‘one-off’ studies (Van de Schoot et al., 2014).

It is also important to acknowledge the limitations of the present studies and some of the inconsistencies that we observed (i.e., between study 1 and 2 results, between previous and current findings). The present work was limited insofar as the focus was on a population sub-group (i.e., kinesiology students). The extent to which the observed pathways will hold with samples that are more representative of the broader population is not established. Future work that addresses this issue would provide insight into the generalizability of the reported findings.

Multilevel modeling was not used in the present studies (this was not appropriate given the number of groups; Maas & Hox, 2005), and we encourage researchers to consider the appropriateness of this approach in future investigative efforts so as to better account for the nested nature (i.e., students nested within kinesiology classes) of the data. One reason that this issue may be important is because the standard of performance sufficient to gain agentic-based approval may have differed between groups. As such, individuals’ task behaviour may have been influenced not only by their personal cognitions (e.g., performance goals, self-efficacy beliefs) but also
the behaviour of other group members. We also acknowledge that the path analysis approach we used is grounded in the use of correlations to establish predictive pathways between constructs. As a result of this approach, we are unable to make claims relating to causality or the direction of associations observed. Using an experimental methodology to shape self-presentation motive endorsement directly or indirectly (e.g., via self-efficacy beliefs) would be one way to overcome this issue.

Further to issues of methodology, an experimental approach would also allow for (a) the inclusion of a private performance condition so as to offer greater confidence that the effects observed reflect processes engaged in due to the social group context, and (b) the manipulation of task instructions to be more approach- or avoidance-oriented. The task instructions that we used (i.e., ‘hold the position as long as you can’) were consistent with a mastery-approach focus. It would be interesting to examine if the effects we observed hold when different types of instructions (e.g., using more of an avoidance-focus) are used. For example, avoidance-oriented instructions may induce stronger avoidance-oriented (i.e., protective) self-presentation motives, and subsequently negatively impact task performance. We advocate further experimental work to test this expectation. Furthermore, we note that information regarding the intra-rather reliability of form judgements for the performance tasks was not collected. Though judgements were made based on clear form guidelines, future work may benefit from ensuring these decisions can be made reliably. Having researchers rather than participants record performance time would be another way to remove potential bias from the results and strengthen the study design. An additional limitation was that we only considered a single dispositional variable. Certainly, this limits our ability to ascertain how situational and dispositional variables may jointly shape physical activity behavior. Drawing from existing work (Elliot & Church, 1997; Fleeson, 2001), researchers could address this limitation by considering how higher order constructs
(e.g., hopes/needs for success and fear of failure/negative evaluation) act in concert with self-presentation motives and lower-order constructs (e.g., strategies and planning) to shape physical activity behavior.

We also acknowledge a number of inconsistencies in the results of studies 1 and 2, and between these studies and previous work. In study 1, for protective agency, the direct (with personal task goals) and indirect (via personal task goals to performance) effects were negative but not significant, and in study 2 they were negative and significant. The protective-agentic motive has not previously been found to align with behavior (Chapter II), but on the basis of theory (i.e., that a focus on avoiding failure aligns with low normative ability judgements), these findings are understandable (Elliot, 1999, 2008). The continued use of Bayesian methods in examining this relationship (i.e., updating anticipated associations with research findings) could help elucidate the true nature of the association over time.

Two other potential explanations are worth considering. First, it may be that performance reflected attempts at ‘sandbagging’ (i.e., the public self-presentation of the self as weaker or as less able than one really is; Shepperd & Kwavnik, 1999). This deceptive strategy seems unlikely to completely explain the findings, however, given that the effect occurred via personal goals which were not publically declared. Another possibility is that protective-agentic motive endorsement exists as part of a broader self-fulfilling effect, such that a focus on (avoiding) task failure may have ironically led to a comparatively lower standard of performance. For example, in social domains, individuals with who seek to avoid negative interpersonal experiences tend to perceive social situations more negatively (Strachman & Gable, 2006). Additionally, individuals with greater rejection expectancies are relatively more likely to experience rejection (Downey, Freitas, Michaelis, & Khouri, 1998). We encourage theoretical and empirical
work that can further elucidate potential links between protective agency, sandbagging, and self-fulfilling prophecies.

Of further interest, in both studies, it was notable that the effects of all other measured variables on performance occurred via personal task goals. Although, drawing from theory and conceptual work, we expected self-efficacy beliefs and motives to shape personal task goals (Bandura, 1986; Chapter I), we also expected direct associations with behavior. It would be interesting to test whether the influence of self-efficacy beliefs and motivation on performance is also dependent on goal setting in other physical activity settings characterised by more open motor skills use (i.e., where the environment is less predictable and stable). In contrast to physical activity settings characterised by open skill use (e.g., basketball), the use of relatively simple and closed-skill tasks in the present studies allowed participants to set personal task goals in which achievement/failure was (to a large extent) under their own control. The proportion of variance explained by the models also differed between studies. Differences between study contexts (e.g., tasks employed) may also be one speculative explanation for this discrepancy. Although there is clearly more work to be done to elucidate the outcomes associated with self-presentation motives in the physical activity domain, the present findings provide evidence that situational (i.e., agentic) and dispositional self-presentation motives, when considered alongside other psychosocial cognitive constructs (i.e., self-presentational efficacy, task self-efficacy, and personal task goals), may indirectly shape physical activity task behavior.
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intermediate and advanced statistical analyses for sport and exercise scientists.

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Chapter IV. On the Formation of Favourable Impressions: Associations Between Self-presentation Motives, Behaviour, and Others’ Evaluations of the Self in a Team-sport Setting

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Chapter IV Foreword

As with the preceding chapter, Chapter IV is focused on the relationships between 2 x 2 self-presentation motives and theorised motive outcomes. Findings from Chapter III indicated that agentic self-presentation motives may be associated with physical activity task performance. In Chapter IV, I build on this finding by considering associations between 2 x 2 self-presentation motives (i.e., communal as well as agentic motives) and other physical activity group-based behaviour. In addition to considering behavioural outcomes, I also report on links between individuals’ self-presentation motives and others’ evaluations of the self-presenter.
Abstract

Individuals adopt self-presentation motives in sport settings to shape others’ perceptions of the self. But how effective are these motives in generating favourable impressions? And how might these motives shape physical activity behaviour?

Immediately prior to a basketball activity, participants (n = 112) reported their self-presentation motives. During the game, participants’ physical activity behaviour was recorded via video. Following the activity, participants evaluated their teammates on agentic (e.g., competent) and communal (e.g., supportive) dimensions, and a trained coder rated participants’ in-game behaviour. Structural equation modeling revealed that acquisitive-agentic and –communal motives aligned with more favourable agentic and communal ratings, respectively. Moreover, acquisitive agency predicted physical activity behaviour in a positive direction. Greater behavioural game involvement also facilitated more favourable impressions. Protective communion aligned with less favourable communal ratings and less game involvement. The findings indicate that different types of self-presentation motives may differ in their impression management effectiveness and may either promote or suppress physical activity behaviour.
Managing others’ impressions of the self is a fundamental part of daily social life. At least since Goffman’s (1959) seminal dramatological work on the self-management of impressions, researchers have explored the type of image individuals wish to portray to others, the strategies employed in pursuit of these aims, and the social conditions that may shape these processes. Self-presentation motivation (i.e., individuals’ desire to shape others’ perceptions of the self) represents a key aspect of the self-presentation process insofar as it energises all aspects of individuals’ approach to impression management, including the diverse impression construction (i.e., choosing what image is to be presented and how to achieve this) strategies that may be employed to create a desired impression (Leary & Kowalski, 1990). In the physical activity domain, research supports the relevance of a self-presentation motivation approach to understanding important outcomes. Self-presentation motivation has typically been found to positively align with physical activity behaviour (Martin Ginis, Lindwall, & Prapavessis, 2007), but self-presentation reasons for physical activity involvement (e.g., weight and appearance management) have also been positively associated with concerns over others’ evaluations of the self (Sabiston, Crocker, & Munroe-Chandler, 2005; Strong, Martin Ginis, Mack, & Wilson, 2006).

Although much of the research regarding self-presentation and physical activity has been conducted with reference to exercise, investigators have also applied the self-presentation perspective to sport. For example, research findings indicate that athletes may be concerned about the image that they are presenting to others (Wilson & Eklund, 1998), are motivated to manage how others perceive them (Payne, Hudson, Akehurst, & Ntoumanis, 2013), and that self-presentation pressures may influence the quality of athletic performance (Mesagno, Harvey, & Janelle, 2011). In this chapter, our specific focus is on a team-sport (i.e., basketball) setting. However, we draw from broader (i.e.,
physical activity and social psychology) literature to introduce the present study and to interpret our findings.

Despite the considerable insight provided by previous physical activity self-presentation work, no research has explored links between how individuals want to be perceived (i.e., self-presentation motivation), how individuals behave, and how individuals actually are perceived (i.e., the favourability of others’ evaluations) in the physical activity domain. Existing physical activity work that has examined the impressions that others develop about the self has focused on the exercise stereotype, with findings consistently demonstrating that individuals who are viewed as exercisers are rated more positively by others on personality and physical dimensions (c.f., Martin Ginis, Latimer, & Jung, 2003). However, it is possible that the mere act of participating in physical activity is not sufficient to generate positive impressions. In fact, physical activity provides the opportunity for participants to generate both favourable (e.g., being seen as competent and friendly) and unfavourable (e.g., being viewed as incompetent and unfriendly) perceptions. Moreover, it is likely that these perceptions are shaped (at least, in part) by individuals’ physical activity behaviour. For example, individuals who score more points and are more involved in a basketball game are likely to be viewed as more competent than individuals whose performance and involvement is of a lower standard. In the present chapter, we seek to explore these ideas by examining prospective links between individuals’ self-presentation motivation, physical activity behaviour, and others’ evaluations.

The impressions that others hold about the self not only represent the defining criteria through which impression management effectiveness may be judged, but the favourability of these impressions may also have important downstream implications for self-presenters. Leary and Kowalski (1990) speculated that successful self-presenters may experience increases in well-being as a result of maximizing social and
material outcomes, enhancing their self-esteem, and developing a desired identity. For example, athletes who are successful in generating a favourable impression when joining a new team may come to make friendships with their teammates, gain playing time, experience a boost in self-esteem, and identify more strongly with being an athlete and a member of the team. Others’ impressions of the self may also have important implications for self-presenters’ self-concept. Researchers investigating the process of reflected appraisals have found that individuals’ self-concept is shaped by the views that they believe others hold of the self. For example, adolescent athletes’ appraisals of their teammates’ perception of their sport-related competence predicts their own self-perceived competence (Amorose, 2002). Similarly, researchers in sport and physical activity (Jackson, Gucciardi, Lonsdale, Whipp, & Dimmock, 2014; Jackson, Myers, Taylor, & Beauchamp, 2012) have found that individuals’ perceptions of others’ confidence in their task ability (i.e., relation-inferred self-efficacy; RISE) positively predicts their own confidence in their task ability (i.e., self-efficacy). Outside the physical activity domain, investigators have also found evidence that adolescents’ peer-based academic reputation (i.e., their academic ability as judged by their peers) predicts their own academic self-concept (Gest, Domitrovich, & Welsh, 2005). Taken together, these findings indicate that others’ views of the self, and the subsequent internalization of these views, represents an important predictor of individuals’ own self-views. In light of this information, we argue that there is merit in seeking to understand the potential factors, such as self-presentation motivation and physical activity behaviour, that may predict others’ more (or less) favourable evaluations of the self.

Whereas physical activity researchers have mostly focused on individuals’ general self-presentation motivation to be seen as an exerciser (c.f. Conroy, Motl, & Hall, 2000), scholars are also beginning to explore the merits of a more differentiated approach to self-presentation motivation. For example, Payne et al. (2013) developed a
measure of the different self-presentation motives that team-sport members may endorse. Their measure assesses individuals’ self-presentation motivation regarding self-development, social identity development, avoidance of negative outcomes, and avoidance of damaging impressions. More recently, a 2 x 2 framework of self-presentation motives has been proposed (Chapter I). This 2 x 2 framework guided the present investigation.

One benefit of the 2 x 2 self-presentation framework approach is that it allows researchers to consider the potential variation in the ways that individuals may wish to present themselves to others and the distinct outcomes with which these motives may be aligned. Drawing from the approach/avoidance theoretical paradigm (Elliot & Church, 1997; Elliot & McGregor, 2001), acquisitive agency is thought to be positively associated with approach-oriented task behaviour (e.g., involvement, effort, persistence) whereas protective agency is thought to be positively associated with avoidance-oriented task behaviour (e.g., task withdrawal and avoidance; Chapter I). Similarly, acquisitive-communion is thought to promote approach-oriented social behaviour (e.g., seeking to interact and bond with others), whereas protective communion is thought to promote avoidance-oriented social behaviour (e.g., interpersonal hesitancy and reticence). Guided by this work, we predicted that acquisitive motives would positively align with behavioural indices of physical activity game involvement. We expected either a null association or negative association between protective motives and behaviour in light of evidence supporting both the former (Chapter II) and latter (Chapter III) of these views.

In outlining the 2 x 2 self-presentation motive framework, I discussed potential links between these self-presentation motives and others’ evaluations of the self (Chapter I). Acquisitive motives are expected to generate positive audience evaluations (Arkin, 1981; Arkin & Shepperd, 1990) to the extent that task-related self-enhancement
(i.e., acquisitive agency) begets perceptions of task-related competence (Schlenker & Leary, 1982) and acts of interpersonal agreeableness (i.e., acquisitive communion) invite reciprocal agreeableness (Carson, 1969; Moskowitz, Ho, & Turcotte-Tremblay, 2007). Protective motive endorsement implications, however, appear less clear. Conceptual expectations are that protective motives will not generate favourable impressions, but it is unclear whether they will necessarily facilitate unfavourable impressions. On the one hand, protective strategies are enlisted to mitigate potential negative evaluation (Snyder & Higgins, 1988), such that the audience should discount present social information (e.g., poor performance) when making evaluative judgements about the self-presenter. On this basis, it may be expected that unfavourable impressions will not be generated following protective self-presentation. On the other hand, the desire to avoid social disapproval may be a self-defeating strategy (Baumeister & Scher, 1988) and may correspond with negative peer evaluations (Hymel, Bowker, & Woody 1993). On this basis, it may be expected that unfavourable impressions will be generated following protective self-presentation. Thus, whilst our expectations are that acquisitive motives will facilitate favourable audience evaluations, we make no a priori hypotheses for protective motives so as to explore whether these latter motives help individuals ‘save face’ or are counter-productive and result in negative impressions being generated.

In addition to considering potential differences in the favourability of others’ evaluative perceptions, we also sought to account for prospective differences in the agentic and communal content of these evaluations. Whereas individuals who focus on gaining approval for their athleticism or task competence (i.e., acquisitive agency) may be expected to generate a favourable agentic impression, individuals focused on gaining approval for their interpersonal competencies (i.e., acquisitive communion) may generate a favourable communal impression. This premise, that specific motives may
align with their respective gains has been explored, and supported, by Strömmer, Ingledew, and Markland (2015). These researchers found strong and positive associations between exercise motives and gains, supporting Ingledew, Markland, and Strömmer’s (2013) view that individuals may be expected to experience gains (e.g., connect with others, increase physical fitness) in relation to the corresponding domains that they are motivated to pursue (e.g., affiliation, improve strength and endurance, respectively). As such, we predicted that acquisitive agentic motives would positively align with agentic evaluations and that acquisitive communal motives would positively align with communal evaluations.

In examining links between 2 x 2 self-presentation motives and behavioural and evaluative outcomes, it may also be important to account for the effects of a number of additional potential predictor factors. In the present study, we considered individuals’ sex, age, and task experience as additional predictors of behaviour and others’ evaluations. Including these additional factors allowed us to examine whether 2 x 2 self-presentation motives had a unique predictive effect on these outcomes beyond the prospective effects associated with these other factors. In terms of behaviour, we included sex and age, given that the physical differences between males and females and older and younger individuals may impact game performance. Experience was also included given that more experienced players may be likely to perform better and be more involved than less experienced players. Regarding others’ evaluations, sex was included given that agency and communion have been proposed to be linked to stereotypical sex roles, such that males may be expected to be more agentic and females more communal (Abele, 2003; Moskowitz, Suh, & Desaulniers, 1994). Age may also be linked to agency and communion, in that older individuals may emphasize the importance of communion rather than agency (Smith et al., 2009). Task experience was included following the reasoning that individuals who were more experienced at the
task may be viewed more positively (e.g., as being more competent) than their less experienced peers.

Method

Participants and procedure. A total of 112 participants ($n_{male} = 53$, $n_{female} = 58$, 1 did not provide sex, $M_{age} = 20.43$, $SD = 3.71$) were recruited from eight undergraduate kinesiology practical classes where students were informed that they were to compete in a basketball game as part of their regularly scheduled program of activity. Class size ranged from 11 to 18 students. Classes took place towards the beginning of the semester when it was reasoned that participant relationships and impressions would be less well-established. All games were completed on a full-sized indoor basketball court. On average, participants had 2.02 ($SD = 2.84$) years of previous experience playing basketball.

After institutional ethics approval was granted, the lead author attended each class to inform participants about the nature of the study, the study procedures, and then to carry out data collection. This included informing participants that they could withdraw at any time, that their responses would be treated as confidential and would not impact their grade for the course, that their classmates and instructor would not be made aware of their responses, and that the game would be video recorded for the purpose of the research. The course coordinator, who also acted as the referee for the game, randomly assigned participants to teams and informed participants that the management of playing time, substitutions, and tactics would be at the discretion of each team and that all other facets of the game would be refereed. Participants then completed a pre-game questionnaire in which they reported on their self-presentation motives for the upcoming basketball activity. Upon questionnaire completion, the instructor indicated the beginning of a five-minute pre-game period in which teams were encouraged to discuss game strategy. The basketball game began straight after this
five-minute period. The game consisted of two ten minute halves with a short break at half-time for participants to have a drink of water. Immediately following the game, each participant was asked to complete the post-game questionnaire in which they were asked to indicate their impressions of each of their teammates during the game.

**Measures.**

*Self-presentation motives.* Participants’ self-presentation motives for the basketball game were assessed using the 16-item Self-presentation Motives for Physical Activity Questionnaire (SMPAQ; Chapter II). Five items assess acquisitive-agentic motivation (e.g., “having others admire me for my physical ability at basketball”), four items assess acquisitive-communal motivation (e.g., “having others view me as friendly”), four items are used to measure protective-agentic motivation (e.g., “avoiding others viewing me as an incompetent basketball player”), and three items assessed protective-communal motivation (e.g., “avoiding others viewing me as unkind”). The item stem read, “Right at this moment in time, thinking about the upcoming basketball activity, I am focusing my attention on…”. A seven-point response scale ranging from 1 (strongly disagree) to 7 (strongly agree) was used. Cronbach’s alphas values indicated no problematic reliability values (i.e., $\alpha = .85, .90, .90, \text{ and } .96$ for acquisitive agency, acquisitive communion, protective agency, and protective communion, respectively), and we have previously reported support for the construct validity of the instrument (Chapter II).

*Behaviour.* Games were video recorded so as to assess individuals’ behaviour during the basketball activity. Two video cameras were used so as to capture the multiple behaviours that were occurring across the court at any given time period. The first camera was operated by the lead author on the sideline of the court. The second camera was stationary and mounted on a tripod located in the bleachers above the court. Following the games, a trained undergraduate research assistant (also a basketball
player and blind to the study hypotheses) viewed the video footage and recorded each instance of the relevant behaviours enacted by participants. Relevant recorded agentic behaviours included each individual’s total shots and the total time spent by each participant on the sideline (i.e., rather than in the game). Total shots and game time spent on (or off) the court by each player are commonly recorded metrics of performance and game involvement kept by professional basketball leagues. Relevant communal behaviours included physically praising teammates and retrieving the ball for the opposition when it went out of bounds (to be positively coded) and displays of anger and combative acts (to be negatively coded). These communal behaviour measures were drawn from existing sport-specific behavioural taxonomies (Patrick, Ward, & Crouch, 1998; Sage & Kavussanu, 2007). Behaviour scores were subsequently standardized (i.e., Z scores) within each group to account for potential group-level influences (e.g., class size) on behaviour.

**Evaluative ratings.** Participants were asked to evaluate the agentic and communal qualities displayed by each of their teammates during the basketball game. Three items (i.e., being active, competent, and dominant) were used to assess agentic qualities and three items (i.e., being likeable, supportive, empathic) were used to assess communal qualities. These items, along with the scale that was used (i.e., ranging from 1 [not at all] to 9 [very]), were taken from previous work in which undergraduates were asked to evaluate others (Ambady & Rosenthal, 1993). Participants’ scores for each item were calculated as the mean of each of their teammates’ ratings. Cronbach’s alphas values indicated no problematic reliability values (i.e., $\alpha = .95$ and .94) for agentic and communal measures, respectively.

**Data analysis.** Item-level descriptive information was examined using SPSS version 21. Inspection of the frequencies of communal behaviour revealed that very few of these acts occurred. No negative acts (i.e., displays of anger or combative physical
contact) were coded, and positive acts were very infrequent (i.e., physical praise of teammates and retrieving of the ball each occurred a total of 11 times). Given the limited data available on communal behaviour, and to avoid capitalising on chance associations with self-presentation motives, these behaviours were subsequently dropped from the analyses. I also examined missing data; missing data comprised .18% of total data and were replaced using the full-information maximum likelihood procedure. A single case identified as a univariate outlier was removed. Skew and kurtosis values and visual representations of the data were inspected for the self-presentation motive and evaluation items. Values were consistent with previous work (Chapter II). Based on statistical guidelines (Tabachnick & Fidell, 2007), we proceeded with the analyses.

MPlus version 7.3 was used to examine the associations between pre-game 2 x 2 self-presentation motives, in-game basketball game behaviour, and post-game teammate evaluative ratings using a structural equation modeling (SEM) approach. Self-presentation motives and agentic and communal evaluative perceptions were treated as latent constructs that were indicated by their respective items. Structural pathways (see Figure 4.1) were also modelled from 2 x 2 self-presentation motives and the other predictors (i.e., sex, age, basketball experience, and time spent on the sideline) to behaviour and the evaluative ratings. Subsequent pathways were also specified from behaviour to evaluative ratings. In addition to these direct associations, we also examined indirect associations from agentic motives to agentic evaluations via each behavioural metric and from communal motives to communal evaluations via each behavioural metric. Bivariate associations between self-presentation motives and between evaluative perceptions were also specified on the basis of previous findings that the 2 x 2 self-presentation motives and the agentic and communal dimensions may be correlated (Abele & Wojciszke, 2014; Chapter II). Following statistical guidelines
(Muthén & Muthén, 2012), we employed the WLSMV estimator to deal with item-level categorical data (2 x 2 self-presentation motives) and implemented a correction to account for the potential non-independence of responses (i.e., students being nested within classes). Following an initial run of the model, item residuals and modification indices were inspected. This information indicated two minor changes to improve the measurement part of the model. First, a single negative (but non-significant) residual variance for a communal evaluation item was fixed to zero (Muthén & Muthén, 2012). Second, guided by Kline’s (2011) recommendations, we specified a covariance association between a pair of acquisitive agency item residuals. Model fit was assessed using the \( \chi^2 \) goodness-of-fit index, the comparative fit index (CFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA). Guided by Marsh (2007), an excellent fitting model was judged to be one with CFI and TLI values \( \geq .95 \) and RMSEA value \( \leq .05 \) (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004; Tabachnick & Fidell, 2007).
Results

Visual inspection of motive mean scores showed that of the 2 x 2 motives, participants most strongly endorsed acquisitive communion (mean = 5.02, \(SD = 1.07\)), with the other motive mean scores falling around the scale mid-point (mean range 3.18 to 4.06, \(SD \) range 1.20 to 1.60). On average, participants took 5.06 shots (\(SD = 3.75\)) and spent 6.01 minutes (\(SD = 3.30\)) on the sideline, which corresponds to approximately 14 minutes spent in the game. Individuals were also generally perceived favourably, with means for the agentic (range 6.38 to 7.29; \(SD \) range .95 to 1.35) and communal (range 6.91 to 7.47; \(SD \) range .68 to .79) evaluation items falling above the scale mid-points.
The model was found to be an excellent fit for the data, $\chi^2 (291) = 362.28$, $p = .003$, CFI = .969, TLI = .963, RMSEA = .047. Taken together, the variables in the model explained 38% of the variance in shots, 27% of the variance in time spent on the bench, 62% of the variance in agentic evaluations and 32% of the variance in communal evaluations. All items loaded strongly and positively (i.e., > .62) on their intended factors.

Findings for the structural pathways are reported in Table 4.1. Both behavioural metrics were directly predicted by at least one of the 2 x 2 self-presentation motives, and these motives (along with physical activity behaviour) directly predicted the evaluative ratings. Acquisitive agency predicted total shots in a positive direction and time spent on the sideline in a negative direction. Acquisitive agency and shots also positively aligned with agentic ratings, whereas time spent on the sideline negatively aligned with agentic ratings. Protective agency did not predict agentic ratings or either of the behavioural metrics. Acquisitive communion did not align with any of the behaviours but did positively predict communal ratings. Conversely, communal ratings were negatively predicted by protective communion and time on the sideline. Protective communion also negatively aligned with shots. Three of the indirect pathways (see Table 4.2) also emerged as statistically significant. Two positive pathways emerged from acquisitive agency to agentic ratings, via shots and sideline time. The third pathway, which was negative in direction, emerged from protective communion to communal ratings via shots.

The pathways from motives to behaviour and evaluations emerged alongside a number of significant associations from other factors to behaviour and evaluations. Sex (where dummy coding represented males as 1 and females as 2) negatively predicted shots and positively predicted time spent on the sideline. The inverse pattern was found for basketball experience, as this variable positively predicted shots and negatively
predicted time spent on the sideline. In terms of evaluative ratings, sex and experience aligned negatively and positively, respectively, with agentic ratings but not with communal ratings. Consistent with previous work, positive and significant bivariate relationships were also observed between self-presentation motives and between agentic and communal evaluations (Abele & Wojciszke, 2014; Chapter II).

Table 4.1. *Parameter estimates for structural model direct effects*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Standardized effect</th>
<th>S.E.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisitive agency → Shots</td>
<td>0.62</td>
<td>0.09</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Protective agency → Shots</td>
<td>-0.16</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td>Acquisitive communion → Shots</td>
<td>-0.08</td>
<td>0.25</td>
<td>0.76</td>
</tr>
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<td>Protective communion → Shots</td>
<td>-0.32</td>
<td>0.16</td>
<td>0.04</td>
</tr>
<tr>
<td>Sex → Shots</td>
<td>-0.30</td>
<td>0.08</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Age → Shots</td>
<td>0.004</td>
<td>0.11</td>
<td>0.98</td>
</tr>
<tr>
<td>Basketball experience → Shots</td>
<td>0.26</td>
<td>0.06</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Acquisitive agency → Time on sideline</td>
<td>-0.43</td>
<td>0.22</td>
<td>0.047</td>
</tr>
<tr>
<td>Protective agency → Time on sideline</td>
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<td>0.21</td>
<td>0.58</td>
</tr>
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<td>0.24</td>
<td>0.53</td>
</tr>
<tr>
<td>Protective communion → Time on sideline</td>
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<td>0.20</td>
<td>0.34</td>
</tr>
<tr>
<td>Sex → Time on sideline</td>
<td>0.24</td>
<td>0.12</td>
<td>0.047</td>
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<tr>
<td>Age → Time on sideline</td>
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<tr>
<td>Basketball experience → Time on sideline</td>
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</tr>
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<td>0.09</td>
<td>0.22</td>
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<tr>
<td>Sex → Agentic evaluation</td>
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<td>0.02</td>
</tr>
<tr>
<td>Age → Agentic evaluation</td>
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<td>0.08</td>
<td>0.20</td>
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<td>Effect</td>
<td>Standardized</td>
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</tr>
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<tr>
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<td>Basketball experience → Communal evaluation</td>
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<tr>
<td>Shots → Communal evaluation</td>
<td>.12</td>
<td>.07</td>
<td>.10</td>
</tr>
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<td>Time on sideline → Communal evaluation</td>
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<td>.07</td>
<td>.003</td>
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<td>&lt; .001</td>
</tr>
<tr>
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<td>.04</td>
<td>&lt; .001</td>
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<tr>
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<td>.02</td>
<td>&lt; .001</td>
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<tr>
<td>Agentic evaluation ↔ Communal evaluation</td>
<td>.63</td>
<td>.06</td>
<td>&lt; .001</td>
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Table 4.2. *Parameter estimates for structural model indirect effects*

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<th>Parameter estimates</th>
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<tr>
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<td>.19</td>
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<td>&lt; .001</td>
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<td>Protective agency → Shots → Agentic evaluation</td>
<td>-.05</td>
<td>.03</td>
<td>.10</td>
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<tr>
<td>Protective agency → Time on sideline → Agentic evaluation</td>
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<td>.59</td>
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<tr>
<td>Acquisitive communion → Shots → Communal evaluation</td>
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<tr>
<td>Protective communion → Shots → Communal evaluation</td>
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<td>.02</td>
<td>.01</td>
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<tr>
<td>Protective communion → Time on sideline → Communal evaluation</td>
<td>-.04</td>
<td>.04</td>
<td>.24</td>
</tr>
</tbody>
</table>
Discussion

The present study provides novel insight into the ways in which individuals are perceived by others within a physical activity setting. Whereas previous research (e.g., Martin Ginis et al., 2003) has demonstrated that exercisers, relative to non-exercisers, benefit from being perceived more positively, the present study indicates that mere involvement in group-based physical activity may not be sufficient to promote positive impressions in the eyes of one’s sport teammates. Rather, the current findings suggest that the favourability of these evaluations may stem, in part, from the type of image that individuals are motivated to create, and the physical activity behaviour with which these motives align. These findings also add to existing literature that documents the importance of self-presentation motivation in physical activity settings. The present results should be considered in light of work which has found that self-presentation motivation may be positively linked with important outcomes, such as physical activity behaviour and evaluative concerns (Chapter II, III; Martin Ginis et al., 2007).

When it comes to the defining purpose of self-presentation (i.e., generating a desired impression), it appears that the 2 x 2 self-presentation motives are not created equal. Self-presentational success may depend (at least in part) on the type of self-presentation motive endorsed by the self-presenter and the behavioural strategies employed. We anticipated that acquisitive agency and communion would positively predict more favourable agentic and communal evaluations, respectively. These predictions were fully supported. In addition, protective communion negatively predicted communal ratings but protective agency did not align with agentic ratings. These findings were not hypothesized, but indicate that a focus on avoiding task-based social disapproval may at best help individuals ‘save face’ but may not be sufficient to generate a positive impression of the self-presenter. However, a focus on avoiding interpersonal-based social disapproval may actually be a self-defeating strategy
(Baumeister & Scher, 1988) and ironically align with more negative impressions of the self-presenter.

Drawing from the 2 x 2 self-presentation motive framework, these findings also add to extant work indicating differences in associations between 2 x 2 self-presentation motives and physical activity behaviour. Previously, we have observed significant (but indirect) pathways from agentic motives to physical activity task performance via task goals (Chapter III) and bivariate associations between 2 x 2 motives and self-reported engagement in physical education classes (Chapter II). The present findings, however, constitute initial evidence that 2 x 2 self-presentation motives may directly predict physical activity behaviour, as we observed significant effects from acquisitive agency and protective communion to behaviour. Variation in individuals’ in-game behaviour also held important implications in terms of how they were perceived by others. Greater game involvement and a higher standard of performance (i.e., more shots and less time on the sideline) corresponded with more positive evaluative ratings. Given these evaluative ratings also emerged as a function of 2 x 2 self-presentation motives, it is perhaps not surprising that we also observed some indirect pathways between certain motives (i.e., acquisitive agency and protective communion) via behaviours to evaluations (i.e., agency and communion, respectively).

To the extent that different types of self-presentation motives may differentially align with physical activity outcomes, we encourage researchers to consider exploring the implications of endorsing different impression management drives. Self-presentation motivation within the physical activity domain has previously been operationalised as the general drive to be seen as an exerciser (Conroy et al., 2000), but it appears that this useful approach may be complemented by recent work in which researchers have sought to distinguish between different types of self-presentation motives (e.g., Chapter I; Payne et al., 2013). Considered together, the findings support
the proposition that individuals may benefit more from the endorsement of acquisitive rather than protective motives (Chapter I). This view is broadly consistent with the notion that approach-oriented drives, whether pursued in achievement or interpersonal contexts, facilitate more positive outcomes compared to avoidance-oriented drives (Elliot, 2008). Importantly, the pathways from self-presentation motives to behaviour and others’ evaluations emerged in this investigation even after we accounted for the influence of other variables (i.e., sex, age, and basketball experience). Of these variables, sex and experience predicted agentic ratings and behaviour, but not communal ratings. These findings indicate mixed support for sex-stereotyping based on agency and communion dimensions (Abele, 2003; Moskowitz et al., 1994). It is possible that the way in which individuals are perceived may depend more on their behaviour than their sex.

In the present study, the communal behaviours that were coded occurred very infrequently and were therefore not suitable for inclusion in the analyses. We encourage researchers to consider alternate assessment approaches for communal behaviour that may be more suitable, such as using wireless microphones to record verbal interactions (see LeCouteur & Feo, 2011). More broadly, one limiting factor of the present work is that we did not fully explore the range of impression construction strategies (e.g., the behavioural signatures) that individuals may have utilised within the basketball activity. Although physical activity researchers have developed a measure of impression construction as it pertains to being seen as an exerciser (Conroy et al., 2000), this measure has been critiqued as assessing only some of the many tactics that may be used to create this perception (Gammage, Hall, Prapavessis, Maddison, Haase, & Martin, 2004). Clearly, creating an exhaustive behavioural assessment tool is an extremely challenging task in light of the myriad strategies that individuals may employ to shape others’ impression of the self. These strategies may be verbal or non-verbal (DePaulo,
task-focused or interpersonally-focused (Chapter I), and adopted consciously or non-consciously (Leary & Kowalski, 1990). Nevertheless, researchers working outside the physical activity domain have developed behavioural taxonomies of self-presentation strategies (e.g., Jones & Pittman, 1982; Schutz, 1998) that may be applied to understand impression construction within physical activity settings. We suggest this to readers as a potentially profitable future research direction.

A further limitation of the present work was that we failed to account for the possibility that individuals may have held existing impressions about their teammates. Although we specified that participants should rate their teammates solely on the basis of the focal basketball activity, it is possible that because participants knew each other to some extent prior to the game (i.e., being members of an existing lab group) they held existing impressions of their teammates that (consciously or not) impacted their ratings. This limitation could be addressed by recruiting participants who had no history of interacting together prior to the study. Of course, this approach may negatively impact the external validity of the findings. As such, and in the interests of external validity, we also endorse efforts to examine the relationships between self-presentation motives and evaluations in physical activity groups that naturally exist (e.g., organised competitive sport teams) rather than in teams consisting of individuals being brought together for research purposes (as was the case in the present study).

Future work could also seek to broaden the pool of individuals used to evaluate participants. In the current study, we only considered evaluations made by participants’ teammates. Although peer-focused comparisons may have important implications for individual outcomes, such as shaping motor learning (Ávila, Chiviacowsky, Wulf, & Lewthwaite, 2012), the evaluations of other individuals (e.g., coaches and parents) may also be important (Ornelas, Perreira, & Ayala, 2007; Saelens & Kerr, 2008) and should be considered going forward. Whereas teammate-based evaluations may have
implications for outcomes such as friendship development and peer acceptance, it is possible that coach and parent evaluations have separate implications for outcomes such as selection to the team and continued sport involvement.

In addition, it will be important to establish that others’ agentic and communal evaluations do have implications for the ways in which individuals subsequently come to view themselves. Although existing work addressing reflected appraisals (Amorose, 2002), RISE beliefs (Jackson et al., 2012), peer-reputation indices (Gest et al., 2005), and self-presentation outcomes (Leary & Kowalski, 1990) appears to support the importance of others’ beliefs in shaping individuals own self-views, there is little previous work in which pathways from others’ agentic and communal evaluations to individuals’ own self-perceptions have been considered. We strongly encourage researchers to test this assumption, given our argument that these evaluative perceptions (and the motives that predict them) are important at least in part because of their prospective links with these self-views.

This study provides unique insight into the behavioural and evaluative outcomes of individuals’ self-presentation motive endorsements. Researchers have previously documented associations between self-presentation motivation and physical activity outcomes (e.g., behaviour and evaluative concerns; Martin Ginis et al., 2007) and have considered the types of impressions generated by physically active individuals (e.g., Martin Ginis et al., 2003), but the present work provides the first evidence that different physical activity self-presentation motives align with different evaluative outcomes via behaviour. More favourable evaluations may stem from a focus on gaining social approval (i.e., acquisitive motives) rather than avoiding social disapproval (i.e., protective motives). Specifically, individuals focused on generating positive task-based competency impressions may benefit from acquisitive-agentic motive endorsement and individuals focused on generating positive interpersonal impressions may benefit from
an acquisitive communal focus. Moreover, acquisitive agency seems to promote greater physical activity behaviour (i.e., game involvement and performance), whereas protective communion may have a suppressing effect on behaviour. In light of these links with behaviour, and considering the prospective implications of others’ evaluations on how individuals come to view themselves (e.g., self-concept, self-efficacy), the present results highlight an opportunity to facilitate positive physical activity outcomes by encouraging individuals to endorse acquisitive (rather than protective) motives in their self-presentational endeavours.
References


Chapter V. Moving to Self-present: An Investigation into Proposed Antecedents of 2 x 2 Self-presentation Motives

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Chapter V Foreword

In Chapters III and IV, I addressed links between 2 x 2 self-presentation motives and motive outcomes. In Chapter V, I change focus by considering potential antecedents of 2 x 2 motive endorsement. These antecedents include constructs that were previously found to relate to 2 x 2 self-presentation motives (i.e., self-efficacy beliefs; Chapters II & III) as well as constructs identified in Chapter I but not yet empirically examined in this thesis (i.e., social self-efficacy, fear of negative evaluation, trait agency, and communion). In this chapter, I examine associations between 2 x 2 motives and these putative antecedents, as well as investigating links between the antecedents and clusters of 2 x 2 motive endorsement.
Abstract

Two studies involving high school physical education (PE) students were conducted to investigate associations between 2 x 2 self-presentation motives and theorised antecedents. In study 1 (n = 445), using path analysis, we found that positive predictive pathways emerged from fear of negative evaluation (FNE), trait agency and communion, self-presentational efficacy, and social self-efficacy to 2 x 2 motives. In study 2 (n = 301), using cluster analysis, we found that approximately half the cohort was classified into a higher motive endorsement cluster and half into a lower motive endorsement cluster. The higher cluster had significantly higher 2 x 2 motive, FNE, trait agency and communion, and self-efficacy scores. This work represents the first concerted effort to empirically examine proposed antecedents of 2 x 2 motives and serves to inform theorists and practitioners about dispositional and context-specific factors that may align with these motives.
In group settings, including group-based physical activity (e.g., physical education [PE] classes), individuals may experience a drive to shape others’ perceptions of the self. This drive is referred to as self-presentation motivation, and it is proposed to influence individuals’ behavior, such that self-presenters behave in a manner that they hope will establish a desired image in the eyes of a target audience (Leary & Kowalski, 1990). Physical activity researchers have found links between self-presentation motivation and important outcomes (for reviews, see Hausenblas, Brewer, & Van Raalte, 2004; Martin Ginis, Lindwall, & Prapavessis, 2007; Prapavessis, Grove, & Eklund, 2004), including physical activity frequency. Additionally, work presented within this thesis has documented links between 2 x 2 self-presentation motives and outcomes such as goals, physical activity behaviour, and the evaluations of others (Chapters II, III, IV). In light of these associations between 2 x 2 motives and important outcomes, it may be useful for practitioners and theorists to begin to examine constructs that may underpin 2 x 2 self-presentation motive endorsement. In this chapter, we seek to address this research need.

Scholars have previously considered conditions that may give rise to greater self-presentation motivation strength (e.g., Leary & Kowalski, 1990). In this chapter, we seek to add to this literature and draw specifically from work in which proposed antecedents of 2 x 2 motives have been discussed (Chapter I). In the present chapter, we use the terms ‘underpin’ or ‘underlie’ to describe associations between 2 x 2 motives and the proposed antecedents so as to acknowledge that the anticipated associations are derived from theory and correlational work rather than findings that indicate causality. In terms of dispositional variables, there is support for considering trait agency and communion as well as fear of negative evaluation (FNE; individuals’ apprehension regarding prospective negative evaluation from others; Watson & Friend, 1969) as factors that may underpin 2 x 2 self-presentation motive endorsement (Leary & Batts
Allen, 2001; Locke & Nekich, 2000). Given the common conceptual focus, agentic (i.e., a focus on differentiating oneself in terms of influence, control, and mastery) and communal (i.e., a focus on one’s connections with others) traits (Helgeson, 1994; Horowitz et al., 2006) are expected to positively align with agentic and communal motives, respectively. That is, the general tendency to focus on separating oneself in terms of task achievement and mastery (i.e., trait agency) may be reflected in a self-presentation focus on task ability and physical competencies within the physical activity domain (i.e., agentic motives), whereas the general tendency to focus on connection and belonging may be reflected in a focus on the presentation of one’s interpersonal qualities within physical activity settings. With respect to FNE, researchers have found that in social-evaluative situations, high- (relative to low-) FNE individuals do not approach others in an affiliative manner and tend to perform poorly on athletic tasks (Maner, DeWall, Baumeister, & Schaller, 2007; Mesagno, Harvey, & Janelle, 2012). FNE is expected to be positively associated with the endorsement of protective motives.

In terms of context-specific factors, there is support for considering self-efficacy beliefs as factors that may underpin motivation (Bandura, 2001; Miller & Brickman, 2004), including 2 x 2 self-presentation motives (Chapter I). In line with Bandura’s (1977, 2006) principle of domain specificity, it is important to consider individuals’ confidence beliefs with respect to the physical and interpersonal competencies that are relevant within specific group-based physical activity settings. In that respect, individuals’ self-efficacy beliefs within a given domain (e.g., students’ confidence in their capabilities in PE), self-presentational efficacy beliefs (e.g., students’ confidence in presenting a desired image during PE), and social efficacy (e.g., students’ confidence in engaging in interpersonal interactions to initiate and maintain relationships during PE) beliefs may each be important in understanding 2 x 2 self-presentation motive
endorsement (Chapter I). Based on the expectation that greater confidence in one’s capabilities promotes approach-oriented tendencies and cognitions (Bandura, 1977), these efficacy beliefs should be positively aligned with the endorsement of acquisitive self-presentation motives. Previous PE research, however, has found that self-efficacy does not align with protective motives (Chapter II). As such, it is expected that (a) PE self-efficacy may shape acquisitive-agency, because both constructs (to some extent) involve an appraisal regarding one’s task ability, (b) social self-efficacy may align with acquisitive-communion, because both constructs (to some extent) involve the assessment of one’s ability with respect to interpersonal interactions, and (c) self-presentational efficacy may shape both acquisitive motives because these constructs involve the assessment of one’s self-presentational ability.

**Study 1**

The aim of Study 1 was to investigate associations between 2 x 2 self-presentation motives and some of the factors (i.e., trait agency and communion, FNE, self-efficacy beliefs) that have been proposed as antecedents of these motives. The research design was correlational in nature, and as such the focus was on examining if the data were consistent with theorised expectations, rather than testing (or inferring) causality between the proposed ‘antecedents’ and motives. We recruited participants from high school PE classes given previous findings (Chapter II) that indicate the 2 x 2 motives may be particularly relevant in this population and setting (i.e., stronger motive endorsement relative to adult group exercise-class attendees). We examined predictive pathways from dispositional (i.e., trait agency, trait communion, FNE) and context-specific (i.e., self-efficacy beliefs) constructs to 2 x 2 self-presentation motives.

Drawing from substantive (i.e., theory-based) expectations (Chapter I) and regarding dispositional factors, we expected that trait agency would be positively associated with acquisitive- and protective-agentic motives; trait communion was expected to positively
align with acquisitive- and protective-communal motives; FNE was expected to positively align with protective agency and protective communion, and to negatively align with acquisitive motives. Regarding self-efficacy beliefs, we expected that PE self-efficacy would positively align with acquisitive agency and that social self-efficacy would positively align with acquisitive communion. Although, conceptually speaking, self-presentational efficacy may be positively related with acquisitive-agentic and -communal motives, in the present study we focused on predictive pathways to acquisitive agency because the measure of self-presentational efficacy we used focused on agentic factors (i.e., physical attributes and task competency), rather than communal factors. We expected to observe a positive association between self-presentational efficacy and acquisitive agency.

Method

Participants and procedure. A total of 445 participants ($n_{\text{male}} = 202, n_{\text{female}} = 234, 9 \text{ did not provide gender, } M_{\text{age}} = 13.64, SD = 1.12$) from grades 7, 8, 9 and 10 were recruited from 29 mandatory PE classes within a single Australian high school. Students were participating in class activities that included soccer ($n = 115$), speedball ($n = 107$), basketball ($n = 69$), volleyball ($n = 60$), lacrosse ($n = 20$), Australian rules football ($n = 19$), track and field ($n = 19$), softball ($n = 16$), gymnastics ($n = 12$), and badminton ($n = 8$).

Researchers first met with PE teachers to provide an overview of the nature of the study and informed consent procedures. The school principal was also informed about the study. The principal and all teachers indicated their informed consent for the study to proceed. Prior to data collection, which was carried out by teachers in each of their individual classes, the researchers briefed teachers on the ethical requirements and data collection procedures to be followed. In the interests of ensuring consistency in data collection, teachers were also provided with a hard copy sheet of specific step-by-
step directions for data collection. In order, teachers were directed to (a) read a script that explained the purpose of the study and students’ rights as participants, (b) administer student information and consent forms, (c) provide students with the questionnaire, and (d) distribute student debrief sheets along with packets to be taken home to students’ parents/guardians. The parent/guardian packets included information pertaining to the nature of the study, contact details for the researchers, and a pre-paid return envelope should parents/guardians wish to withdraw their child from the study. This “passive” parental consent process was approved by the institutional review board given the confidential and low-risk nature of the project (National Health and Medical Research Council, 2007). Information regarding data collection ‘troubleshooting’ (e.g., how teachers should respond to student queries, researchers’ contact details) was also included in the step-by-step teacher directions sheet. Students completed the questionnaire in the class setting during their regularly scheduled PE classes. Following data collection, students returned to their regular teacher-directed PE program.

Measures.

Self-presentation motives. To assess 2 x 2 self-presentation motives, we used the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ; Chapter II). The SMPAQ includes scales to assess acquisitive agency (five items; e.g., “having others admire me for my physical ability”), acquisitive communion (four items; e.g., “having others view me as friendly”), protective agency (four items; e.g., “avoiding others viewing me as incompetent”) and protective communion (three items; e.g., “avoiding others viewing me as unkind”). Instructions specified that participants should answer honestly, that there were no right or wrong answers, and that ‘others’ (i.e., the target audience) referred to their PE classmates and teacher. The item stem (i.e., “Right at this moment in time, thinking about my PE class, I am focusing my attention on…”) oriented participants to the present PE context, and participants were asked to answer on
a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Construct validity and reliability information has previously been reported with a PE sample (Chapter II).

**Trait agency and communion.** Helgeson and Palladino’s (2012) instrument consists of two seven-item scales to assess agentic (e.g., “I enjoy trying to win games and contests”) and communal (e.g., “I really like to do things for other people”) traits. Participants were asked to respond on a Likert scale anchored at 1 (strongly disagree) and 5 (strongly agree) and were instructed to indicate the extent to which each item was generally characteristic of him/herself. The measures were developed specifically for use with adolescents and were based on previously validated agency/communion assessment tools.

**FNE.** Leary’s (1983) brief FNE measure was used, and consistent with recommendations from Rodebaugh et al. (2004), only the eight straight-forwardly worded items were included in this investigation. Participants were asked to indicate the extent to which each statement (e.g., “I am usually worried about what kind of impression I make”) was characteristic of him/herself. The response scale ranged from 1 (not characteristic of me) to 5 (extremely characteristic of me). Construct validity evidence has been reported for the brief FNE scale (e.g., see Collins, Westra, Dozois, & Stewart, 2005), and in the PE context scores on this measure have been found to negatively align with athletic competence perceptions (Ridgers, Fazey, & Fairclough, 2007).

**PE self-efficacy.** Jackson, Whipp, Chua, Pengelley, and Beauchamp (2012) developed a measure of PE self-efficacy for use with high school PE students. Participants were asked to indicate their task-related confidence within their PE class using nine items (e.g., “be physically fit enough to always perform well in PE”). Participants were asked to answer on a scale ranging from 1 (no confidence at all) to 5 (complete confidence). In terms of validity evidence, self-efficacy scores have shown
moderate positive correlations with PE enjoyment and effort scores (Jackson et al., 2012).

**Self-presentational efficacy.** The five-item measure of self-presentational efficacy expectancy described by Gammage, Hall, and Martin Ginis (2004) was used. Participants were instructed to answer with reference to their PE class; we also made two changes in the interests of ensuring item relevance and appropriateness with respect to the adolescent sample. One item was modified so that it referred to students’ confidence that others view them as fit, rather than viewing their body as fit and toned. Another item was also modified so that it referred to confidence in being seen as someone who does regular physical activity, rather than someone who works out regularly. Participants were asked to indicate their confidence on a Likert scale that ranged from 1 (no confidence at all) to 5 (complete confidence). In terms of construct validity, self-presentational efficacy has been found to positively align with exercise frequency and negatively align with social physique anxiety (Gammage et al., 2004).

**Social self-efficacy.** The measure of social self-efficacy developed for use with adolescents by Zullig, Teoli, and Valois (2011) was used. The measure consists of eight items (e.g., “how well can you become friends with your classmates”), and participants were asked to respond on a scale that ranged from 1 (not at all) to 5 (very well). For the present study, we instructed participants to answer with respect to their confidence within their PE class. Regarding validity evidence, Zullig et al. found that social self-efficacy scores were lower for students that reported more physical fighting, bully victimization, and avoidance of school.

**Data analysis.** Missing data represented .88% of total data and the expectation maximization procedure was used to impute missing scores (see Graham, 2009). We screened data for univariate (i.e., extreme Z scores) and multivariate (i.e., Mahalanobis distance at p < .001) outliers following procedures outlined by Tabachnick and Fidell
(2007), and removed 20 cases that did not meet these criteria. Some kurtosis values below -1 were identified, with the lowest being -1.2. Three items also showed skew values marginally below -1 (i.e., the lowest value being -1.14). However, Tabachnick and Fidell note that in large samples, such as that collected in the present study, normality departures may be expected to occur and may not have a substantive effect on analyses. For example, problems with the underestimation of variance associated with negative kurtosis tend to disappear in samples with over 200 cases. As such, following a visual inspection of graphical representation of the data, we proceeded without transformation of the PE self-efficacy and self-presentation motive items.

Data were analysed using path analyses in which we specified predictive pathways from dispositional (i.e., trait agency and communion, FNE) and self-efficacy (i.e., PE, self-presentational, and social efficacy beliefs) constructs to 2 x 2 motives according to our hypotheses. Covariance (i.e., double-headed) pathways were also specified between 2 x 2 motives in line with previous approaches (e.g., Chapter II). We used MPlus version 7.11 and accounted for the non-independence of observations (i.e., student participants nested within classes) by using a “type = complex” command and the MLR estimator which produces standard error estimates that are robust to normality violations (Muthén & Muthén, 2012). To assess model fit, we examined the $\chi^2$ goodness-of-fit index, the comparative fit index (CFI), Tucker-Lewis index (TLI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA). Guided by Marsh (2007), an excellent fitting model was judged to be one with CFI and TLI values $\geq .95$, SRMR values $\leq .08$, and RMSEA values $\leq .05$ (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004; Tabachnick & Fidell, 2007). Separate from the analyses, and only to compute composite reliability estimates, we used a measurement model approach in which each item was specified to load on its respective latent construct.
Results

Descriptive information. Descriptive statistics and composite reliability information are presented in Table 5.1. Results showed that, of the 2 x 2 motives, students most strongly endorsed acquisitive communion, with the other motive mean scores falling around the mid-point of the scale. Regarding dispositional variables, FNE scores were towards the lower end of the scale and trait agency and communion scores were slightly above the scale mid-point. In terms of context-specific self-efficacy beliefs, students reported that they were relatively confident in their PE, self-presentational, and social abilities. In addition, the composite reliability estimates for scores derived from the measures showed no indication of problematic reliability (range .74 to .95).

Main analyses. Inspection of fit indices showed that the path analysis model was an excellent fit to the data, $\chi^2(13) = 22.11, p > .05$, CFI = .988, TLI = .972, SRMR = .052, RMSEA = .041. In terms of structural pathways (see Figure 5.1 for standardized results), and in line with our predictions, we observed significant positive pathways from trait agency to acquisitive- and protective-agentic motives, from trait communion to acquisitive- and protective-communal motives, from FNE to protective-agentic and -communal motives, from self-presentational efficacy to acquisitive agency, and from social self-efficacy to acquisitive communion. Contrary to our predictions, however, PE self-efficacy did not significantly predict acquisitive agency. Additionally, FNE emerged as a significant and positive predictor of acquisitive agency and did not significantly predict acquisitive communion. In line with previous findings (Chapter II), associations between the 2 x 2 motives were also found to be moderate-to-strong and positive.
Table 5.1. *Descriptive information for dispositional and context-specific variables*

<table>
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<tr>
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<th>Study 1</th>
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<th>Study 2</th>
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<td>Mean</td>
<td>SD</td>
<td>ρ</td>
<td>Mean</td>
<td>SD</td>
<td>α</td>
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<td>.87</td>
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<tr>
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<td>.88</td>
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<tr>
<td>Protective agency</td>
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<td>.89</td>
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<tr>
<td>Protective communion</td>
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<td>4.01</td>
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<td>2.77</td>
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<td>.92</td>
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<td>.80</td>
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<tr>
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<td>3.74</td>
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<td>.87</td>
</tr>
<tr>
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<td>.89</td>
<td>3.76</td>
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<td>.90</td>
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<td>.82</td>
<td>3.58</td>
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<td>.84</td>
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</table>

*Note:* ρ = composite reliability estimate (Raykov, 1997). α = Cronbach’s alpha. FNE = fear of negative evaluation. Scales ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) for acquisitive agency, acquisitive communion, protective agency, and protective communion; 1 (*not characteristic of me*) to 5 (*extremely characteristic of me*) for FNE; 1 (*strongly disagree*) to 5 (*strongly agree*) for trait agency and communion; 1 (*no confidence at all*) to 5 (*complete confidence*) for PE self-efficacy and self-presentational efficacy; 1 (*not at all*) to 5 (*very well*) for social self-efficacy.
Figure 5.1. Path analysis model for Study 1. ** $p < .001$, * $p < .05$. 
Brief Discussion

The purpose of study 1 was to examine a model in which predictive pathways were specified from dispositional (i.e., trait agency and communion, FNE) and self-efficacy (i.e., PE, self-presentational, social) constructs to 2 x 2 motives to examine support for considering these factors as constructs that may underpin 2 x 2 self-presentation motive endorsement (Chapter I). The results of the path analysis indicated support for eight of our 11 predictions regarding pathways from ‘predictor’ variables to 2 x 2 self-presentation motives. As anticipated, individuals who were more generally focused on differentiating oneself in terms of influence, control, and mastery (i.e., trait agency) or on one’s connections with others (i.e., trait communion), tended to also more strongly endorse motives which were consistent with this focus (i.e., agentic and communal motives, respectively). Interestingly, there were more significant pathways to the acquisitive motives were stronger than those to the protective motives. This may have been a reflection of the approach-oriented (i.e., working towards outcomes) phrasing of these items, and it would be interesting to examine these relationships with items that also spanned the protective dimension so as to account for the role of valence in the measurement of agency and communion (see Suitner & Maass, 2008) and address this limitation. Individuals who were more confident in their ability to create a desired impression (i.e., in terms of physical appearance and PE competency; self-presentational efficacy) or their ability to initiate and maintain relationships (i.e., social self-efficacy) also reported stronger motive endorsement related to gaining approval based on these attributes (i.e., acquisitive agency and acquisitive communion, respectively).

Interestingly, although we expected the finding that general feelings of apprehension regarding prospective negative evaluation (i.e., FNE) would be positively associated with a desire to avoid social disapproval (i.e., protective motive
endorsement), we did not anticipate that FNE would be positively related to acquisitive agency and non-significantly related to acquisitive communion. Although unexpected, these findings are broadly consistent with previous work that has found that the general tendency to focus on potential failings may positively predict an approach-oriented drive in the task achievement domain (i.e., performance approach goals) but not in the interpersonal domain (i.e., social approach goals; Elliot & Church, 1997; Elliot, Gable, & Mapes, 2006; Elliot & McGregor, 2001). Our findings echo these apparent differences between task achievement (i.e., agency) and interpersonal (i.e., communion) drives. Another unexpected finding was that PE self-efficacy did not significantly relate with acquisitive agency. Initial empirical work using task self-efficacy indicated that there may be a positive association between these constructs (Chapter II). The results of the present study suggest that, when considered together, self-presentation efficacy may have greater predictive utility for acquisitive agency than domain specific (i.e., PE) self-efficacy.

Although study 1 results advance our understanding by indicating that self-efficacy beliefs, FNE, and trait agency and communion may be constructs that underlie 2 x 2 self-presentation motives, researchers have not yet considered (a) the naturally occurring patterns of self-presentation motive endorsement that may exist within physical activity settings, or (b) the way in which these dispositional and situational variables may differ according to the pattern of motives that an individual endorses. To the extent that 2 x 2 motives have been shown to align with physical activity outcomes in PE (e.g., engagement; Chapter II), it would be useful to consider if there are commonly occurring combinations of 2 x 2 motives that individuals endorse, and, if there are, what perceptions and general tendencies (e.g., self-efficacy beliefs, FNE, trait agency and communion) align with these unique patterns. By addressing this issue, it is possible to build on study 1 results and offer additional insight into the constructs that
may accompany patterns of motive endorsement. As such, in study 2, we (a) used
cluster analysis to investigate the patterns of 2 x 2 motive endorsement that naturally
emerge within PE settings, and (b) examined differences between these patterns on
measures of dispositional constructs (i.e., FNE, trait agency and communion) and self-
efficacy beliefs (i.e., PE self-efficacy, self-presentational efficacy, social self-efficacy).
No specific hypotheses were made because cluster analysis is a descriptive technique.
In light of study 1 results, though, we did broadly expect that clusters characterized by
stronger (relative to weaker) 2 x 2 motive endorsement would also display higher
(relative to lower) scores on the dispositional and self-efficacy constructs.

Study 2

Method

Participants and procedure. A total of 301 students ($n_{male} = 152, n_{female} = 143,$
6 did not provide gender, $M_{age} = 14.15, SD = 1.13$) from grades 7, 8, 9 and 10 were
recruited from 18 mandatory PE classes within another (i.e., separate from the school
sampled in study 1) Australian high school. At the time of data collection, all students
were involved in practice for an upcoming track and field school competition carnival.
On average, students reported 3.48 ($SD = 3.83$) years of prior track and field experience.

Prior to data collection, researchers met with PE teachers to provide an overview
of the study and go through informed consent procedures. The school principal was also
informed about the study and indicated his consent. Arrangements were subsequently
made for a researcher to attend scheduled PE classes to carry out data collection. In
contrast to study 1, a researcher conducted data collection. This change resulted from
preferences expressed by the school teachers. The procedures followed, including with
respect to student and parent consent, were otherwise the same as those outlined for
study 1. Following data collection, students returned to their regular teacher-directed PE
program (i.e., track and field).
Measures. All measures were the same as those described for study 1.

Data analysis. Missing data represented 1.3% of all scores, and missing values were again imputed using the expectation maximization procedure. We screened data for univariate and multivariate outliers following study 1 procedures and removed 22 cases that did not meet these criteria. Descriptive statistics, item-level normality information (i.e., skewness, kurtosis), and internal reliability estimates (i.e., Cronbach’s alpha) were examined for the remaining responses. Skewness values were all within the -1 to 1 range. Some kurtosis values fell below this range (i.e., for self-presentation motive items; the lowest value was -1.14) but we proceeded with our analyses in line with recommendations from Tabachnick and Fidell (2007).

Using a two-stage process, we conducted hierarchical then non-hierarchical cluster analysis using individuals’ scores on acquisitive agentic, acquisitive-communal, protective-agentic, and protective-communal variables. This two-stage process is commonly employed by researchers in order to provide a more stable cluster solution (Cox & Ullrich-French, 2010; Jackson, Gucciardi, & Dimmock, 2011). Raw scores were used because all 2 x 2 motive variables were measured on the same 7-point scale. The hierarchical cluster analysis was first performed using Ward’s linkage method with squared Euclidian distance used as the similarity measure to inform judgements about the most appropriate number of clusters represented in the data. In the second stage, k-means (nonhierarchical) cluster analysis was performed using simple Euclidean distance as the similarity measure. The cluster solution and centroids identified in stage one informed the number of clusters and initial cluster centres that were specified for stage two.

Following the cluster analysis, three separate multivariate analyses of variance (MANOVAs) were performed to explore differences between clusters on (a) student demographic information (i.e., gender, school year, track and field experience), (b)
dispositional variables (i.e., trait agency and communion, FNE) and (c) self-efficacy beliefs (i.e., PE self-efficacy, social self-efficacy, self-presentational efficacy). Each MANOVA therefore had three different dependent variables. When a statistically significant multivariate effect was identified, we used univariate analyses as a follow-up strategy and guarded against possible type 1 error by using an adjusted criterion for significance (i.e., $p < .01$).

**Results**

**Descriptive information.** Descriptive statistics and internal reliability information is displayed in Table 5.1. Visual inspection of the data indicated that means for all variables were similar to those found in study 1, though study 2 participants reported slightly weaker self-presentation motive endorsement and self-efficacy beliefs than their study 1 counterparts. Acquisitive-communion again emerged as the most strongly endorsed motive. Cronbach’s alpha for scores derived from the measures showed no indication of problematic reliability (i.e., range .80 to .94).

**Main analyses.** Consistent with previous approaches (Jackson et al., 2011; Martinent, Nicolas, Gaudreau, & Campo, 2013; Wang & Biddle, 2001), we (a) explored multiple cluster solutions (i.e., two-and five-cluster solutions) which were identified following inspection of the dendrogram and agglomeration coefficients, and (b) decided on the most appropriate solution based on the similarity of results from hierarchial and non-hierarchial analyses (i.e., number of cases per cluster, difference between final centroids and initial seed points). A two-factor solution was judged to be most appropriate. The first cluster was labelled lower ($n = 144$; 52% of the sample), as it was characterized by relatively lower self-presentation motive scores that generally fell below the mid-point of the 7-point scale (i.e., average 2 x 2 scores ranging from 2.78 to 4.26). The second cluster was labelled higher ($n = 135$; 48% of the sample), as it was characterized by relatively higher self-presentation motive scores that generally fell
above the mid-point of the scale (i.e., average 2 x 2 scores ranging from 4.99 to 5.76). Descriptive statistics for the lower and higher cluster groups are presented in Table 5.2. Using MANOVA, we identified a significant multivariate effect of cluster membership on the 2 x 2 motives \((F_{4, 274} = 126.88, p < .001, \eta_p^2 = .65)\). Follow-up ANOVAS indicated a significant effect of cluster group on acquisitive agency \((F_{1, 277} = 174.62, p < .001, \eta_p^2 = .39)\); acquisitive communion \((F_{1, 277} = 117.13, p < .001, \eta_p^2 = .30)\); protective agency \((F_{1, 277} = 343.02, p < .001, \eta_p^2 = .55)\); and protective communion \((F_{1, 277} = 259.94, p < .001, \eta_p^2 = .48)\).

Cluster group differences on demographic variables and other dispositional and context-specific constructs were explored using three separate MANOVAs. In the first MANOVA, we examined differences between the clusters on demographic variables (i.e. gender, school year, track and field experience) and found that the multivariate effect was not significant \((F_{3, 269} = 2.49, p > .06, \eta_p^2 = .03)\). In the second MANOVA, dispositional variables (i.e. trait agency and communion, FNE) were treated as dependent variables. We observed a significant multivariate effect \((F_{3, 275} = 26.47, p < .001, \eta_p^2 = .22)\). Follow-up ANOVAs indicated significant univariate effects for trait agency \((F_{1, 277} = 37.74, p < .001, \eta_p^2 = .12)\), trait communion \((F_{1, 277} = 10.59, p < .002, \eta_p^2 = .04)\), and FNE \((F_{1, 277} = 24.03, p < .001, \eta_p^2 = .08)\) such that higher scores were observed for the higher cluster. In the final MANOVA, in which self-efficacy beliefs were entered as dependent variables, we also observed a significant multivariate effect \((F_{3, 275} = 4.69, p < .004, \eta_p^2 = .05)\). Subsequent univariate tests indicated significant between-cluster differences for PE self-efficacy \((F_{1, 277} = 8.41, p < .005, \eta_p^2 = .03)\), self-presentational efficacy \((F_{1, 277} = 12.4, p < .002, \eta_p^2 = .04)\), and social self-efficacy efficacy \((F_{1, 277} = 8.65, p < .005, \eta_p^2 = .03)\) such that higher scores were observed for the higher cluster.
Table 5.2. *Study 2 descriptive information, by cluster group*

<table>
<thead>
<tr>
<th>Clustering variables</th>
<th>Lower Cluster</th>
<th>Higher Cluster</th>
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<tbody>
<tr>
<td></td>
<td>(n = 144)</td>
<td>(n = 135)</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>Acquisitive agency</td>
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<td></td>
<td>4.99</td>
<td>1.02</td>
<td>0.64</td>
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<tr>
<td>Acquisitive communion</td>
<td>4.26</td>
<td>1.39</td>
<td>-0.53</td>
<td>0.85</td>
<td>5.76</td>
<td>1.04</td>
<td>0.77</td>
<td>0.56</td>
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<tr>
<td>Protective agency</td>
<td>2.78</td>
<td>1.07</td>
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<td></td>
<td>5.12</td>
<td>1.04</td>
<td>0.77</td>
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<tr>
<td>Protective communion</td>
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<td>-0.67</td>
<td></td>
<td>5.15</td>
<td>1.10</td>
<td>0.72</td>
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<tr>
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<tr>
<td>FNE</td>
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<td>0.29</td>
<td>3.06</td>
<td>1.02</td>
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<td>Trait agency</td>
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<td>0.38</td>
<td>3.66</td>
<td>0.71</td>
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<td>Trait communion</td>
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<td>-0.19</td>
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<td>3.88</td>
<td>0.68</td>
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<td>Context-specific variables</td>
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<td>PE self-efficacy</td>
<td>3.64</td>
<td>0.66</td>
<td>-0.17</td>
<td></td>
<td>3.88</td>
<td>0.70</td>
<td>0.18</td>
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<td>Self-presentational efficacy</td>
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<td>1.04</td>
<td>-0.20</td>
<td>0.21</td>
<td>3.60</td>
<td>1.05</td>
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<tr>
<td>Social self-efficacy</td>
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<td>-0.17</td>
<td>0.18</td>
<td>3.71</td>
<td>0.70</td>
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<td>Cluster characteristics</td>
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<tr>
<td>Males n (%)</td>
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<td>77 (59)</td>
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<td>Females n (%)</td>
<td>80 (56)</td>
<td>53 (41)</td>
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<td>Year 7 n (%)</td>
<td>17 (12)</td>
<td>13 (10)</td>
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<td>Year 8 n (%)</td>
<td>30 (21)</td>
<td>38 (28)</td>
<td></td>
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<tr>
<td>Year 9 n (%)</td>
<td>26 (18)</td>
<td>27 (20)</td>
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<tr>
<td>Year 10 n (%)</td>
<td>71 (49)</td>
<td>57 (42)</td>
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</table>
**Brief Discussion**

The purpose of study 2 was to investigate the patterns of 2 x 2 self-presentation motive endorsement that naturally occur within PE classes, and to examine how membership of these patterns aligned with differences on demographic (i.e., gender, school year, task experience), dispositional (i.e., FNE, trait agency and communion) and context-specific (i.e., PE self-efficacy, self-presentational efficacy, social self-efficacy) variables. We found that students could be characterized by having relatively higher or lower self-presentation motive endorsement, and that the higher cluster was also typified by greater reported FNE, trait agency, trait communion, and self-efficacy beliefs.

Of interest to motivation theorists and interventionists, we observed that approximately half of participants fell into a cluster characterized by relatively high (i.e., above the scale mid-point) self-presentation motive endorsement. This finding underscores the relevance of 2 x 2 motives in PE settings and is consistent with existing findings that have demonstrated the significance of self-presentation motives in this context (i.e., in aligning with physical activity outcomes; Chapter II). Our results may also be of interest for researchers interested in examining different motivational profiles within PE settings (see, for example, Wang & Biddle, 2001). Given that self-presentational forces emerged as a prominent drive for many students in the present study, further work that considers 2 x 2 motive endorsement together with integrated, identified, introjected, and external regulations may be warranted in the interests of providing a more thorough overview of the broader motivational clusters that naturally emerge in the PE context.

Regarding the observed differences between clusters on dispositional and context-specific measures, our findings echo Study 1 results by indicating that self-efficacy beliefs and dispositional factors (i.e., FNE, trait agency and communion) may
align with 2 x 2 motive endorsement. Further consideration of these analyses, however, shows that the effect sizes were typically low. It would be interesting to explore whether larger effect sizes (i.e., more meaningful differences) are observed for other variables (e.g., attachment styles, extraversion, rejection sensitivity, feelings of power) that have also been identified as possible predictors of 2 x 2 motives (Chapter I). We also observed a significant difference between clusters regarding PE self-efficacy beliefs in Study 2, although the predictive pathway specified for PE self-efficacy did not emerge as significant in Study 1. It may be that domain specific self-efficacy beliefs are useful in terms of distinguishing between the strength of self-presentation motive endorsement (i.e. higher or lower) when the motives are considered together as clustering variables, but of less use when considered as a specific motive predictor (at least for acquisitive agency). With further respect to the two clusters, no differences regarding the demographic variables (i.e., gender, school year, activity experience) were observed. As such, demographic factors do not appear to be as important – at least for this sample of respondents – in distinguishing between higher and lower 2 x 2 motive endorsement.

**General Discussion**

Across two studies, we aimed to investigate associations between 2 x 2 self-presentation motives and a number of dispositional (i.e., FNE, trait agency and communion) and context-specific (i.e., PE self-efficacy, self-presentational efficacy, social self-efficacy) constructs that have been discussed as proposed antecedents of these motives (Chapter I). In study 1, using path analysis, we examined structural pathways from these constructs to self-presentation motives and found support for a majority (i.e., eight of 11) of our hypotheses. Positive predictive pathways emerged from all dispositional variables and two of three (i.e., self-presentational efficacy and social self-efficacy) context-specific variables to self-presentation motives.
In addition to informing researchers about the specific constructs that may underpin 2 x 2 motives, our results more broadly underscore the potential utility of considering motive predictors that are more ‘trait-like’ (i.e., FNE, agency, communion) alongside predictors that are more ‘state-like’ (i.e., self-efficacy beliefs) in nature (Chapters I, II). Viewing these findings through a wider social psychological lens, the present results are consistent with observations that a greater understanding of social behavior may be derived by accounting for how dispositional and context-specific factors act in concert (Mischel & Shoda, 1995, Pervin, 1989), and that approach/avoidance drives are a function of differences in individual threat/reward sensitivities as well as aspects of an individuals’ current social environment (Gable & Impett, 2012). We suggest that researchers interested in further exploration of constructs that underlie self-presentation motives (and associated constructs) continue to consider both trait- and state-based predictors.

In Study 2, using a cluster analytic method, we investigated naturally occurring patterns of 2 x 2 motive endorsement and the differences between these patterns on the aforementioned dispositional and self-efficacy variables. Two broad patterns of motive endorsement were observed, with these groups characterized by having either relatively higher (48% of the sample) or lower (52% of the sample) motive endorsement across all 2 x 2 constructs. These findings indicate that self-presentation may be germane to an understanding of the motivational forces that drive students’ behavior within PE settings. In this respect, our findings may be considered within the broader PE literature in which researchers have previously found that self-presentation phenomena, such as self-handicapping (Ommundsen 2001; 2004), may shape students’ PE experiences. We also found that the higher cluster was characterized by relatively higher scores on all measured dispositional and self-efficacy variables, supporting expectations that these variables may bolster 2 x 2 motive adoption (Chapter I). Study 2 represents an
important addition to the literature insofar as no previous research had examined the naturally emerging pattern of 2 x 2 self-presentation motive endorsement within a PE context. In light of previous findings that show stronger 2 x 2 motive endorsement in a PE sample relative to an adult population (Chapter II), it would be interesting to examine potential changes in strength (and type) of motive endorsement between age groups. At present, the extent to which age is a determining factor (when accounting for other situational factors, such as motivational climate; Chapters I, II) in this respect is unknown. Visual inspection of self-presentation motive means, however, reveals some consistency in the strength of motive endorsement in comparing between the present samples and with values reported in Chapter II.

Notwithstanding the potential value of the present work in understanding constructs that may underpin 2 x 2 motives, some unexpected findings should be acknowledged. Contrary to our predictions, FNE emerged as a positive predictor of an acquisitive agentic motive, whereas the pathway from PE self-efficacy to acquisitive agency was not significant. As alluded to earlier, considered alongside findings that a dispositional tendency to focus on failure may be positively associated with an approach-oriented performance focus (Elliot & Church, 1997; Elliot & McGregor, 2001), and the possibility that that task self-efficacy may be associated with (but not significantly predict) acquisitive agency (Chapter II), the present findings offer an empirically-informed update on the preliminary and conceptual understanding of these relationships that was advanced in Chapter I. We encourage future work that seeks to elucidate the nature of predictive pathways from FNE and self-efficacy beliefs to acquisitive agency given the present findings.

In terms of limitations of the present work, it is worth noting that study participants completed measures at a single time-point, the interpretation of predictive pathways is limited to correlational rather than causal inference, and we focused only on
a select-few constructs that may underlie 2 x 2 motives. We encourage future studies that utilize a more nuanced design to examine the proposed predictive associations that we investigated. In this respect, it would be useful to see whether the experimental manipulation of context-specific factors (e.g., efficacy beliefs, motivational climate) influences motive adoption, and/or to utilize a repeated measures design to examine whether changes in motive endorsement occur alongside changes in the factors proposed to shape motives. For example, the provision of performance-based feedback may be particularly effective in supporting the development of self-efficacy beliefs in the physical activity domain (Ashford, Edmunds, & French, 2010), and researchers may wish to consider how feedback can be adapted to shape 2 x 2 self-presentation motive endorsement via self-presentational efficacy and social self-efficacy appraisals. An approach that distinguishes between efficacy expectancy and outcome expectancy would also aid in the interpretation of the predictive effects of core constructs within social cognitive theory (Bandura, 1977, 2001). We also advocate studies that broaden our understanding of constructs that may predict 2 x 2 self-presentation motives and that may be associated with different self-presentation motivational profiles. Features of the situation (e.g., the salience of rewards and threats and the possibility of success and failure) may encourage individuals to direct their energies either to approach or avoidance (Elliot, 2008); thus, accounting for the presence of these cues may be important in understanding motive prediction as well as understanding when and why specific motive patterns are activated.

The factors examined in the present work represent a select few of the many variables that may underlie 2 x 2 motive adoption. Consideration of additional factors (e.g., attachment styles, extraversion, rejection sensitivity, feelings of power) may contribute to a more comprehensive understanding of the forces that shape 2 x 2 self-presentation motives (Chapter I). Researchers may also wish to draw from other work
more broadly focused on the personality processes and social conditions that give rise to self-presentation motivation (e.g., Leary, 1995; Leary & Batts Allen, 2011). We also acknowledge that we did not collect information pertaining to students who chose not to participate in these studies. The extent to which these students may have differed (e.g., in 2 x 2 motive endorsement, self-efficacy beliefs, or dispositional constructs) from students who chose to participate was not considered and is a limitation of the present work.

The studies presented here reveal support for considering FNE, trait agency and communion along with self-efficacy beliefs as constructs that may underpin individuals’ endorsement of 2 x 2 self-presentation motives. In addition to contributing to a better understanding of what factors may predict motive endorsement, our findings build on theory and conceptual work (Chapter I; Gable & Impett, 2012; Mischel & Shoda, 1995, Pervin, 1989) and support a view of psychosocial phenomenon in which dispositional and context-specific constructs are viewed as factors that may act in concert to influence important outcomes (e.g., behavior, goals, motives). The results also contribute to a broader understanding of the motivations that drive students within PE settings and indicate that PE may be a context in which individuals are attuned to self-presentational factors. We encourage future work that can contribute a broader understanding of the constructs that may underlie 2 x 2 self-presentation motives and offer insight into the in-class (e.g., task effort, relationship development) and extra-curricular (e.g., physical activity perceptions and participation decisions) outcomes of motive endorsement.
References


Chapter VI. General Discussion
Chapter VI Foreword

Chapter VI is the final chapter of this thesis. Within this chapter, consideration is given to the key findings reported in the preceding chapters and the importance of this information as a whole. The chapter includes a summary of the work completed and detailed accounts of the implications of this work, its limitations, subsequent research opportunities, and potential applications.
Research summary

The purpose of the research presented within this thesis was to gain insight into self-presentation motives within group-based physical activity settings. In seeking to advance the literature in this area, we first proposed a 2 x 2 conceptual framework for understanding self-presentation motivation in physical activity settings. Development and presentation of the framework in Chapter I was informed by the established theoretical paradigms of approach/avoidance and agency/communion (Arkin, 1981; Bakan, 1966; Elliot, 2008; Horowitz et al., 2006). The framework constituted acquisitive-agentic (i.e., a desire to gain social approval from others in terms of their perceptions of one’s physical qualities and task ability), acquisitive-communal (i.e., a desire to gain social approval from others in terms of their perceptions of one’s interpersonal qualities), protective-agentic (i.e., a desire to avoid social disapproval from others in terms of their perceptions of one’s physical qualities and task ability) and protective-communal (i.e., a desire to avoid social disapproval from others in terms of their perceptions of one’s interpersonal qualities) self-presentation motives.

Drawing from the framework proposed in Chapter I, the focus in Chapter II was on the development of an instrument to assess 2 x 2 self-presentation motives, and a preliminary examination of the construct validity of scores derived from this instrument (Messick, 1995). Findings indicated support for a four-factor, 16-item measure that was referred to as the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ). The structure of the SMPAQ was consistent with the proposed 2 x 2 self-presentation motive structure identified in Chapter I, and preliminary evidence for the external aspect of validity (e.g., associations with motives for affiliation and social recognition) for scores derived from the SMPAQ was presented.

The focus in Chapter III was on exploring potential outcomes (i.e., goal setting, behavioural task persistence) associated with agentic self-presentation motives.
Undergraduate kinesiology students performed tasks requiring isometric muscular endurance (i.e., a ‘human bridge’ task in study 1, and a ‘wall sit’ task in study 2) in a group setting and completed questionnaires that assessed self-efficacy beliefs, self-presentation motivation, and task goals. Results from Bayesian path analyses indicated that agentic self-presentation motives may predict physical activity task persistence indirectly via task goals. Acquisitive-agentic motives may have a facilitative effect on persistence whereas protective-agentic motives may have an inhibitory effect on this behavioural outcome.

Chapter IV extended findings from Chapter III by considering associations between all 2 x 2 self-presentation motives and additional physical activity-based outcomes (i.e., behavioural engagement, others’ evaluative perceptions). Basketball game participants reported on their self-presentation motives prior to the game, had their behaviour (i.e., shots, time spent on the bench) recorded on video during the game, and evaluated their teammates’ agentic and communal qualities following the game. Overall, the results indicated that acquisitive motives may promote more beneficial outcomes (i.e., behavioural engagement, favourability of others’ evaluations) relative to protective motives.

In Chapter V, we examined associations between 2 x 2 self-presentation motives and factors that had been proposed as antecedents of these motives. Path analysis results revealed that dispositional (i.e., fear of negative evaluation, trait agency and communion) and context-specific (i.e., self-presentational efficacy and social self-efficacy) factors may predict 2 x 2 self-presentation motive endorsement. Additionally, cluster analysis results indicated that individuals could be grouped as belonging either to a higher or lower self-presentation motive endorsement group, with the high cluster also reporting higher scores on these proposed ‘antecedent’ measures.
Implications

The development of, and support for, the proposed 2 x 2 self-presentation motives framework studied throughout this thesis has important conceptual, methodological, and practical implications. In this section, we draw from the findings reported in Chapters II through V to elaborate on these implications.

**Conceptual implications.** Although previous self-presentation research has been informed by theory (Brunet & Sabiston 2009; Brunet & Sabiston, 2011; Gammage, Hall, & Martin Ginis, 2004; Gammage, Martin Ginis, & Hall, 2004; Latimer & Martin Ginis, 2005; Thøgersen-Ntoumani & Ntoumanis, 2007), this earlier work did not distinguish between the *types* of self-presentation motives that individuals may endorse. The proposed 2 x 2 self-presentation motive framework is not only grounded in theory (c.f., Bakan, 1966; Elliot, 2008), but also recognises that individuals’ self-presentational drives may differ in terms of direction or valence (i.e., working towards a positive outcome through a focus on gaining social approval, or working away from a negative outcome through a focus on avoiding social disapproval) and content (i.e., an agentic focus on physical attributes and task competency, or a communal focus on interpersonal connections). In addition to promoting a more nuanced view of self-presentation motivation, distinguishing between types of motives allows researchers to explore potential differences in the antecedents and outcomes associated with self-presentation motives.

This thesis also advanced existing literature by considering potential links between 2 x 2 self-presentation motives and established social psychological theories. For example, the expectation that self-efficacy beliefs may promote acquisitive motives was derived from Social Cognitive Theory and Bandura’s (1977) view that self-efficacy may promote approach-oriented cognitions. Additionally, we encouraged researchers (see Chapter I and II) to consider how 2 x 2 self-presentation motive scores relate to the
Self-Determination Theory (SDT; Deci & Ryan, 2000) motivational regulations. Thus, in addition to having a clear theoretical grounding in the approach/avoidance and agency/communion paradigms, the 2 x 2 framework can be integrated with existing theory so as to contribute a fuller understanding of impression management processes.

The 2 x 2 framework differs from previous physical activity and self-presentation work in that self-presentation motivation is viewed as being a situational or context-specific construct. The situational view is intended to complement conceptualisations of self-presentation being a higher-order (i.e., dispositional) impression management drive (e.g., Conroy, Motl, & Hall, 2000; Payne, Hudson, Akehurst, & Ntoumanis, 2013). In addition to accounting for findings that indicate individuals' impression management processes may differ as a function of situational factors (Tice, Butler, Muraven, & Stillwell, 1995), the situational view also allows for researchers to extend existing investigations (e.g., Brunet, Sabiston, & Gaudreau, 2014) that have sought to explore potential variation in self-presentation motive endorsements over time and across settings, as well as utilise experimental methods (e.g., motive manipulations) to test potential outcomes of the 2 x 2 motives. Accounting for the situational nature of self-presentation motivation may also help explain additional variance in self-presentation beyond that of the dispositional view.

This thesis also served to address the recommendation of Martin Ginis and colleagues (Martin Ginis, Lindwall, & Prapavessis 2007) that researchers move beyond considering simple associations between self-presentation constructs and physical activity outcomes and begin to consider the how and why behind these effects. For example, rather than just considering direct associations between 2 x 2 motives and their proposed outcomes and antecedents, the research reported on in this thesis sought to provide a more complete understanding of the pathways through which these effects operate. In Chapter III, for example, goals were considered as intermediaries between
agentic motives and task performance, and agentic motives were considered as intermediaries between self-efficacy beliefs and task goals.

**Methodological implications.** The research reported on in Chapters I to V also has several methodological implications. Regarding methodology, one notable contribution that this thesis makes to the field is the development of the Self-presentation Motives for Physical Activity Questionnaire (SMPAQ). The SMPAQ provides researchers with an instrument to assess 2 x 2 self-presentation motives in physical activity contexts. Issues of construct validity in relation to SMPAQ scores were addressed mainly in Chapter II. Preliminary evidence was found for the substantive, content, structural, external, and generalizability aspects of construct validity (Messick, 1995) in this chapter. Further support for the structural aspect of validity (i.e., appropriateness of the proposed factor structure) was documented in Chapters III and V. Whereas previous measurement approaches (e.g., Conroy et al., 2000) focused specifically on assessing the general desire to be seen as an exerciser, or were concerned specifically with a particular context (i.e., team sport; Payne et al., 2013), the SMPAQ assesses situational motives (i.e., individuals’ drives at a given moment in time) and is designed for use in all group-based physical activity settings. The SMPAQ complements previous self-presentation motive measurement approaches and provides researchers with an instrument to assess 2 x 2 self-presentation motives where no previous measure existed.

**Practical implications.** The thesis findings indicate that 2 x 2 self-presentation motives may be an important motivational force within group-based physical activity. Not only do these motives appear to predict physical activity outcomes (e.g., persistence, engagement, others’ evaluations) or outcome determinants (e.g., goals), but they may also be strongly endorsed by a meaningful proportion of physical activity group participants (Chapters III, IV, V). This information may be important for
individuals and organizations (e.g., PE teachers, instructors, coaches) interested in promoting engagement in physical activity groups, especially in population groups (e.g., high school PE; Chapter V) where the motives may be more strongly endorsed.

Findings concerning the antecedents and outcomes of 2 x 2 self-presentation motive endorsements may also represent an important resource to educate instructors about self-presentational processes in physical activity. For example, instructors could be informed about why individuals set goals, behave, and/or develop perceptions in the way that they do (i.e., understand outcomes of motive endorsement) and why individuals endorse different self-presentation motives (i.e., understand antecedents of 2 x 2 self-presentation motives). Clearly, further work is required that provides robust evidence of causality and directionality in terms of the relationships tested within Chapters III to V, but it remains that the 2 x 2 model may have valuable practical implications for physical activity leaders. For example, a PE teacher may gain insight into links between self-presentation motives and class engagement, and how modifying students’ self-efficacy beliefs may shift their motive endorsement.

Information presented in the thesis may also have practical relevance for self-presenters themselves. Chapter III results, for example, indicate that performance on physical activity tasks may be supported by acquisitive-agentic motive endorsement but not protective-agentic motive endorsement. This finding may assist performers in understanding what type of self-presentation motives individuals should try to endorse in order to facilitate a higher quality performance. Chapter IV results may also be informative for individuals entering into highly evaluative situations (e.g., trying out for a sports team), in that the findings demonstrate that acquisitive (rather than protective) motive endorsement may promote more favourable evaluations from others.

Although it was not pursued through empirical study, work in this thesis regarding prospective distal outcomes of 2 x 2 motive endorsement (see Chapter I) also
has potential practical implications. In Chapter I, I predicted that acquisitive agency may promote physical activity involvement if individuals perceive that the physical activity context provides them with an opportunity to gain approval for their task ability or physical attributes. I also noted that acquisitive communion may promote sustained physical activity participation, as individuals continue to return to their group following the development of mutually satisfying group-based interpersonal connections. Conversely, to the extent that avoiding agentic and communal social disapproval (i.e., protective motive endorsement) is perceived to be met by physical activity avoidance or withdrawal, the persistent adoption of protective motives may be observed in individuals who are infrequently active. This information may be important for individuals and organizations (e.g., public health officials, instructors) interested in promoting sustained involvement in physical activity groups, especially in population groups (e.g., high school PE; Chapter II) where the motives may be more strongly endorsed.

Limitations

This thesis should be viewed only as a preliminary step in the study of the 2 x 2 self-presentation motive framework. The reported studies represent the proverbial ‘tip of the iceberg’ in terms of exploring the appropriateness of the 2 x 2 self-presentation motive framework, and many important questions remain unexplored. In particular, consideration should be given to three broad issues that limit what can be concluded from the thesis as a whole. These issues relate to the construct validity of the SMPAQ, the use of correlational rather than experimental or longitudinal designs, and the broad focus on physical activity groups as a whole rather than the study of any specific group or setting.

Construct validity. Instrument development and construct validation is an iterative process, and as such, the exploration of the construct validity for SMPAQ
scores should be ongoing (Messick, 1995). Even still, there are a number of limitations with the development and validation of the SMPAQ that should be noted. First, procedures employed to develop the item pool were limited with respect to (a) soliciting feedback only from academics rather than group physical activity participants, (b) item-content relevance (i.e., reviewers were not requested to assign items to the motive scales), and (c) having reviewers provide feedback on the full pool of items rather than the 16 items selected from this pool to form the SMPAQ. These limitations call into question the extent to which the current SMPAQ items are the best possible representations of the acquisitive agency, acquisitive communion, protective agency, and protective communion constructs. Furthermore, no data were reported on the extent to which the SMPAQ captures situation-to-situation differences in 2 x 2 self-presentation motive endorsement. Research which uses a within-subjects, repeated measures design (i.e., in which the same participants are repeatedly sampled) to investigate stability/change in 2 x 2 self-presentation motive across settings will provide some insight into the extent to which the SMPAQ captures 2 x 2 self-presentation motive fluctuations.

An additional construct validity limitation concerns the discriminant validity associations reported in Chapter II. For example, the pattern of associations observed between 2 x 2 self-presentation motives and goals was not clearly delineated along the lines of valence (i.e., acquisitive motives and approach goals, protective motives and avoidance goals) and content (i.e., agentic motives and achievement goals, communal motives and social goals) as expected. Rather, the analyses revealed a number of positive and moderate-to-strong correlations between goals and self-presentation motives that were not anticipated. The extent to which these findings are indicative of problems regarding the SMPAQ’s external validity or represent a more complex pattern of associations (e.g., features of the social climate may moderate these relationships) is
not clear. Finally, the consequential aspect of validity, which involves examining the actual and potential consequences of test use, was not considered in this thesis. For example, the potential social consequences of using the SMPAQ (e.g., heightening respondents’ self-presentation concerns) were not considered.

**Methodology.** The second major limitation to note is that the studies reported throughout this thesis were designed in such a way that the interpretation of results is limited to correlational rather than causal inference. In particular, this is a limitation for the findings presented in Chapters III, IV, and V, given that the studies presented in these chapters were directed at fostering an understanding of the ‘outcomes’ and ‘antecedents’ of 2 x 2 self-presentation motive endorsement. Stronger evidence for the role of 2 x 2 self-presentation motives in shaping physical activity outcomes (e.g., goal setting and task performance) could have been presented if the 2 x 2 self-presentation motives had been experimentally manipulated. Such a design would speak to the causality (or otherwise) of 2 x 2 motives in influencing these outcomes. Likewise, the experimental manipulation of factors proposed to underpin 2 x 2 motive endorsement would have strengthened the inferences that could be drawn from Chapter V results. Even if experimental procedures were not employed, the use of longitudinal studies would have allowed for greater insight into the extent to which 2 x 2 motives change over time and if there are accompanying changes in the proposed antecedents or outcomes of the motives.

**Population group focus.** As the 2 x 2 self-presentation motive framework and the SMPAQ were developed with the aim that they be applicable to a range of group-based physical activities (i.e., rather than being limited to a particular context), it was important to show that 2 x 2 motives were endorsed within different physical activity contexts. Although different samples and focal activities (i.e., adult group-fitness classes, high school PE classes, undergraduate kinesiology labs) were examined, there
were a number of important physical activity population groups (e.g., low socioeconomic status and obese individuals) that were not examined. In future work, it would be useful to expand the study of 2 x 2 self-presentation motives to these groups so as to more fully consider the generalizability of the findings reported in Chapters II to VI (e.g., regarding the promotion of task engagement and persistence). Conversely, this approach of expanding the study of 2 x 2 self-presentation motives to other contexts means that findings may be influenced by extraneous variables present within some settings but not others. This was also a limitation of the studies reported on within this thesis, with possible moderators (e.g., audience characteristics) not controlled for. As such, although the results of the thesis studies indicate that 2 x 2 self-presentation motives are endorsed across a range of physical activity settings, limited inferences can be made about the extent to which the findings (i.e., correlates, antecedents, and outcomes of 2 x 2 self-presentation motives) are invariant across these settings.

**Future research**

It is hoped that the proposed 2 x 2 self-presentation motive framework will provide a theory-based approach to the study of self-presentation motives within the physical activity domain. There are opportunities for investigators to perform research that provides further insight into the antecedents and outcomes of 2 x 2 self-presentation motives as well as the moderators of these effects.

**Explore antecedents.** Despite recognising the limitations associated with correlational designs, one advancement made by this thesis was in exploring factors that may underpin 2 x 2 self-presentation motive endorsement (e.g., Chapter V). Work that builds on these findings and continues to explore the antecedents of self-presentation motive endorsement is encouraged. In light of the Chapter V findings, and consistent with the views of social psychologists (Fleeson 2001, 2004), researchers may find value in continuing to pursue a self-presentation research agenda in which dispositional (i.e.,
trait-like) and context-specific (i.e., state-like) factors are considered together as predictors of motives and behaviour. Chapter I predictions may be used to guide research into the potential dispositional (or more stable) self-presentation motive antecedents (e.g., personality traits, attachment styles) and situational factors (e.g., feelings of social power and experiences of rejection) that have not yet been explored.

Given that the research presented in this thesis was cross-sectional in nature, it would be particularly valuable to move beyond this approach when considering potential 2 x 2 self-presentation motive antecedents. Processes previously employed by social psychologists to change the way in which individuals seek to present themselves may provide a useful guide for investigators looking to directly manipulate 2 x 2 self-presentation motives. Dunn, Biesanz, Human, and Finn (2007), for example, instructed participants to enter into conversations with the aim of making a good impression, putting their best face forward, and having the conversational partner leave with a positive view of the self. Strachman and Gable (2006) also provided self-presentational instructions to participants prior to interaction (although the researchers refer to their manipulations as influencing social goals), with participants instructed either to have a good time, show their good qualities, and make a good impression, or not have a bad time, not show their bad qualities, and not make a bad impression. These types of instructions may be used to promote acquisitive- and protective-communal motive endorsements, respectively. Presumably, similar manipulations (e.g., ‘show your good qualities during this task’) may also be used to evoke agentic self-presentation motives.

In addition to the direct manipulation of 2 x 2 self-presentation motives, researchers may also seek to manipulate these motives indirectly through changing factors that underpin motive endorsement. Findings from studies conducted in Chapters III and V suggest that manipulating self-efficacy beliefs may stimulate changes in 2 x 2 motive endorsement. Approaches to the manipulation of task self-efficacy, for example,
in which researchers provide participants with feedback indicating relatively high or low normative ability (e.g., McAuley, Talbor, & Martinez, 1999), may be used as the basis of these investigations. Meta-analytic results indicate that feedback is a relatively powerful way of changing self-efficacy beliefs in the physical activity domain (Ashford, Edmonds, & French, 2010). Following this type of manipulation, participants’ self-presentation motivation might be expected to move toward stronger acquisitive (i.e., following a self-efficacy enhancing manipulation) or protective (i.e., following a self-efficacy lowering manipulation) endorsement (Chapter I). Both direct and indirect approaches to the manipulation of 2 x 2 self-presentation motives therefore appear to have some merit for future experiments in this area.

**Explore outcomes.** In terms of outcomes, the work presented within this thesis focused on understanding links between 2 x 2 motives and goals, situational behaviour, and the perceptions of others. In future work, researchers could draw from the present thesis to continue investigating these outcomes. The expectations developed in Chapter I may guide these research efforts. In addition, researchers may wish to consider potential outcomes that were not examined in the present thesis. Suggestions for expanding research beyond the outcomes explored in chapters III and IV are discussed below.

Recent developments in theory provide a rationale for linking 2 x 2 self-presentation motives to self-regulation. Relative to approach motivation, avoidance motivation is thought to be detrimental to individuals’ capacity for self-regulation (i.e., overcoming ingrained responses to change the way in which one thinks, feels or acts; Muraven & Baumeister, 2000). Scholars have provided conceptual information (Roskes, Elliot, Nijstad & De Dreu, 2013) and research findings (Oertig et al., 2013) that indicate that an avoidance-orientation may deplete self-regulatory resources. For individuals seeking to enact physical activity behaviour change (e.g., moving from a
sedentary lifestyle to an active lifestyle), the endorsement of protective (i.e., avoidance-oriented) motives may hinder their ability to successfully complete this challenging transition. Furthermore, resource depleting effects may be heightened in situations where individuals’ self-regulatory resources are already taxed. Given that self-presentation to an unfamiliar audience is already resource depleting (Vallacher & Wegner, 1987; Vohs, Baumeister, & Ciarocco, 2005), protective motive endorsement in encounters with an unfamiliar audience may be particularly detrimental to individuals’ self-regulatory efforts (e.g., exerting effort on difficult tasks). Potential implications for the quality of athletic performance also exist. If self-regulatory resources are more strongly taxed by protective motive endorsement, then performance that is contingent on successfully managing multiple cognitive demands (e.g. a quarterback trying to evade oncoming defenders whilst identifying an open receiver) may be undermined when individuals are focused on avoiding social disapproval. In light of these possibilities, it seems worthwhile to examine the extent to which protective motive endorsement impairs self-regulatory resource depletion and subsequent physical activity outcomes.

In future work it will also be important to consider links between 2 x 2 self-presentation motives and social behaviour within physical activity groups. Although researchers have already found that individuals who are more focused on communion are more willing to express themselves emotionally relative to low-communion individuals (Clark & Finkel 2005), a more nuanced understanding of links between communion and social behaviour may be gained by accounting for communal-based approach and avoidance orientations (Chapter 1). For example, researchers have found that an approach orientation facilitates more affiliative and outgoing interpersonal behaviour (Impett et al., 2010; Roussel, Elliot, & Feltman, 2011). By comparison, an avoidance-orientation aligns with less responsive behaviour (Impett et al., 2010), less
help-seeking (Roussel et al., 2011), and a bias towards the negative interpretation and memory of social information (Nikitin & Freund, 2015; Strachman & Gable, 2006). It would be interesting to examine whether similar associations are observed within social interactions (e.g., discussions between teammates) that occur with respect to acquisitive- and protective-communal motives within the physical activity domain.

Social psychologists often study individuals’ interactions within experimentally contrived settings in which participants are instructed to converse in a one-on-one format (e.g., Dunn, et al., 2007). Although these lab-based investigative techniques may be mirrored by sport and exercise psychologists (e.g., by inviting athletes and coaches to converse in a lab setting), a more ‘real-world’ understanding of these interactions may be aided by studying interpersonal interactions using in vivo field-based methods. The ‘naturalistic’ study of self-presentational processes has also been encouraged by other researchers (Leary, Batt Allen, & Terry, 2011). Going forward, verbal interactions captured via the use of microphones and audio recorders may provide a rich pool of data through which investigators can consider both the frequency with which individuals speak-up (i.e., reflecting proactive and inhibitive tendencies) and the content of their speech (e.g., encouraging others, acquiescing to others). In preparing their investigations, researchers may find value in reviewing previous studies that have successfully mapped real-time communication patterns in physical activity settings (e.g., LeCouteur & Feo, 2011).

Through their influence on social behaviour, 2 x 2 self-presentation motives may also have effects on interpersonal relationship quality. Individuals who report positive relationship perceptions also tend to report enjoying their physical activity and being committed to their physical activity group, thus supporting the relevance of studying relationship perceptions (Jackson, Gucciardi, & Dimmock, 2014; Weiss & Smith, 2002). Consistent with the view that acquisitive communion aligns with social openness
and protective communion aligns with interpersonal inhibition (Chapter I), it may be expected that positive links will emerge from acquisitive communion to self-disclosure (i.e., communicating personally relevant thoughts, information, and feelings to another; Laurenceau, Feldman Barrett, & Pietromonaco, 1998) and from protective communion to self-concealment (i.e., actively concealing negative or distressing personal information from others; Larson & Chastain, 1990). In turn, self-disclosure and self-concealment are thought to differentially align with interpersonal relationship outcomes. Self-disclosure has been found to be positively associated with relationship satisfaction, commitment, and intimacy (Laurenceau et al., 1998; Sprecher & Hendrick, 2004), whereas self-concealment has been found to be negatively associated with social network strength, perceptions of receiving social support from others, and relatedness need satisfaction (Larson & Chastain, 1990; Uysal, Lee Lin, & Knee, 2010).

Another prospective line of research is to explore whether affective states are shaped by 2 x 2 self-presentation motive endorsement. It may be that individuals experience greater positive or negative affect as a function of different types of self-presentation motives. In terms of approach (i.e., acquisitive) and avoidance (i.e., protective motives), one possibility is that these different motivational drives align with positive and negative affect, respectively. Research that has focused on lower-order approach and avoidance drives (e.g., motives within the context of intimate relationships) indicates some support for this position, with approach motives aligning with positive affect and avoidance motives aligning with negative affect (Impett, Gable, & Peplau, 2005). Researchers have also highlighted that the pursuit of agentic aims and communal aims may have independent and positive contributions to well-being (Sheldon & Cooper, 2008), and that both agency and communion may be required for optimal well-being (Helgeson, 1994). Another possibility is that it is not 2 x 2 motives per se that drive affective experiences, but instead that positive and negative affect is a
function of perceived progress towards motive fulfilment. It may be that individuals experience positive affect when they perceive self-presentational gains have been achieved and negative affect when non-gains are perceived. Both approach/avoidance (Carver, Avivi, & Laurenceau, 2008) and agency/communion (Horowitz et al., 2006) scholars have discussed similar possibilities, albeit with reference to more general motivational orientations. It may be that a desire to avoid disapproval may promote positive affect (e.g., relief) when individuals perceive that they are indeed avoiding disapproval, and a desire to gain approval may promote positive affect (e.g., happiness) when it is perceived that this aim is being met. In contrast, negative affective experiences (e.g., feeling upset) may result from the frustration of motives (i.e., when individuals perceive that they have not been able to manage their image in line with their self-presentational aim).

**Consider potential moderators.** Although longitudinal and experimental work may add to an understanding of 2 x 2 self-presentation motives in physical activity, researchers should be cognisant that there a number of factors that may influence the potential effects that were observed. It will be important for researchers to identify these potential moderators and the ways in which they may influence the association between self-presentation motives and antecedent and outcome variables. Specifically, investigations may profit from researchers accounting for the potential influence of factors relating to the self-presentational actor, the target audience, and the social climate in which the physical activity takes place. In terms of potential actor effects, one could envisage, for example, that an actor who is focused on acquisitive agency but also perceives that s/he is already viewed very positively by audience members (i.e., perceives social approval has been gained) may display behaviour characterised more by modesty than self-promotion. This notion is consistent with findings from Schneider (1969) and Baumeister and Jones (1978) and is potentially explained by individuals
being mindful that displays of self-presentation and dominance may lead to losses in social approval (e.g., being perceived as arrogant or boastful).

Researchers should also be mindful of the extent to which target factors have a moderating influence in their self-presentation research. As noted by Leary and Kowalski (1990), one consideration here is the actor’s perceptions of targets’ values. As an example, researchers could consider the self-presentations that are directed at a target perceived as valuing self-deprecation and humility. Actors who wish to gain the approval (i.e., acquisitive motivation) of such a target may adopt a more modest rather than exuberant self-presentational style. Finally, the social climate may also moderate relevant self-presentation motive effects. Individuals who more strongly endorse protective motives may be emboldened to greater involvement with the group if the group is perceived to be particularly supportive or focused more on the mastery of tasks rather than normative comparisons. Going forward, it would be of great use to disentangle these potential actor, audience, and social climate effects on associations between 2 x 2 motives and other relevant variables.

**Applications**

The findings of this thesis indicate that there is value in considering a differentiated approach to self-presentation motivation. Most previous self-presentation motivation research has focused on individuals’ general self-presentational drive to be seen as an exerciser (c.f., Conroy et al., 2000). The results of this thesis indicate that qualitatively different (i.e., 2 x 2) self-presentation motives may exist, supporting previous work (e.g., Payne et al., 2013) in which different types of motives were also identified. Importantly, this thesis adds to this literature in that we examined whether the 2 x 2 motives differentially aligned with important physical activity outcomes (e.g., goals, behaviour, and others’ evaluations) and theory-derived predictors (e.g., agentic and communal traits, self-efficacy beliefs). We found evidence that not all motives are
‘created equal.’ That is, the variables may differ in their relationship with the proposed outcome and predictor variables. Specifically, acquisitive motive endorsement, relative to protective motive endorsement, tended to be more strongly aligned with more positive physical activity outcomes. Stronger acquisitive motivation aligned with the setting of higher task goals, a greater quality of engagement and task performance, and generating a positive impression in the eyes of others. In light of this information, one key application of this thesis is to encourage self-presenters to endorse acquisitive (rather than protective) self-presentation motives.

The samples utilised in this thesis were drawn from group-based physical activity classes, PE classes, and undergraduate kinesiology groups. The immediate applications of the findings reported on within this thesis are to these settings. For example, our results imply that an individual attending an exercise class for the first time may be better served (i.e., in terms of being more physically active and generating more favourable impressions) by energising her/his self-presentations through a focus on possible future self-presentational gains (i.e., acquisitive motivation) rather than potential self-presentational losses (i.e., protective motivation). However, as discussed in Chapter I, the 2 x 2 self-presentation motive framework is designed to be applied broadly across physical activity group settings. This is important to note insofar as it means that the potential applications of the results potentially extend beyond the settings that were considered in the reported studies and into other types of physical activity groups. Organized sports teams, for example, were not considered within this thesis, but in light of the similarity in the nature (i.e., structure and focus) of these groups and other groups that were investigated (e.g., the basketball teams considered in Chapter IV), organised sport may represent an additional setting in which the applied recommendations may be utilised.
The thesis findings could also be applied to understand (and potentially promote) physical activity behaviour in contexts where other types of motivation are not well suited to this task. For example, although more self-determined (e.g., intrinsic) motivation may typically be effective in promoting task engagement (Deci & Ryan, 2000), some researchers have identified limitations with this approach. For example, Ekkekakis and colleagues note that exercising at high intensity is not inherently pleasurable and, as such, may not be congruent with intrinsic motivation development (Ekkekakis & Lind, 2006; Ekkekakis & Petruzzello, 1999). In situations such as high intensity exercise, therefore, researchers may wish to consider what alternate types of motivation may be effective in promoting desirable outcomes (e.g., task engagement). The results from this thesis indicate that acquisitive self-presentation motivation may be well suited to this role. Findings from Chapter III indicate that on tasks that are physically uncomfortable and not inherently pleasurable, acquisitive self-presentation motivation positively predicts task persistence.

**Summary and conclusion**

Below, a summary of information reported on within each of the six chapters that comprise this thesis is presented. A final conclusion that focuses on the significance of the work documented within this thesis then follows this summary.

Chapter I had a dual focus. We first reviewed the literature with respect to self-presentation processes in physical activity settings. The emphasis in this respect was on the conceptualisation of self-presentation motivation as it pertains to physical activity and how this has informed subsequent measurement approaches and, through this, research findings regarding the constructs that align with self-presentation motivation (i.e., cognitions, behaviours, feeling states). Following this review, we sought to advance the literature by presenting a framework of 2 x 2 self-presentation
motives that we proposed to be endorsed by individuals within the context of group-based physical activity.

In Chapter II, we focused on issues of self-presentation motive measurement. Three studies were conducted with the overarching aim of developing and providing construct validity evidence for an instrument designed to assess 2 x 2 self-presentation motives. A pool of items was developed and refined, and evidence was presented for the substantive, content, structural, external, and generalizability aspects of validity.

In Chapter III, we focused on exploring outcomes associated with agentic motives using a more controlled group-based physical activity setting. Bayesian path analysis revealed significant indirect effects from agentic self-presentation motives to physical activity task persistence via goal setting and indicated that agentic motives may act as intermediaries in the pathways from self-efficacy beliefs and dispositional self-presentation motivation to task goals and performance. In addition to supporting conceptual expectations of associations between agentic motives and physical activity behaviour, the findings provide initial support for a view of self-presentation in which dispositional and context-specific motives are considered to act in concert to promote cognitive and behavioural outcomes.

In Chapter IV, we sought to further elucidate the links between self-presentation motives and behaviour in the context of a more open-skilled physical activity environment (i.e., basketball games) that allowed for the investigation of links between self-presentation motives and game-relevant indicators of engagement and performance. In addition to behavioural outcomes, we also sought to offer further insight into proposed links between 2 x 2 motives and self-presentational outcomes by considering how individuals were evaluated by their sport teammates. Controlling for background factors, the results showed that 2 x 2 self-presentation motives significantly predicted individuals’ basketball behaviours and post-game evaluative ratings by teammates.
Generally, acquisitive motives were aligned with more favourable behavioural (i.e., engagement) and evaluative (i.e., favourability of others’ ratings) outcomes. As well as providing further insight into the way in which $2 \times 2$ self-presentation motives align with physical activity behaviours, the chapter provides the first indication that $2 \times 2$ motive endorsement may predict evaluative perceptions of self-presenters within physical activity settings.

In Chapter V, we changed focus from examining outcomes associated with $2 \times 2$ self-presentation motives to examining variables identified as motive predictors. Two studies were conducted in which high school PE students completed questionnaire measures comprising assessments of their $2 \times 2$ self-presentation motives, dispositional characteristics (i.e., fear of negative evaluation, agentic and communal traits), and self-efficacy beliefs (i.e., PE self-efficacy, self-presentational efficacy, and social self-efficacy). Results indicated support for dispositional and self-efficacy constructs as factors that may underpin motive endorsement. Furthermore, cluster analysis revealed evidence that high school PE students could be classified into higher (characterised by relatively higher self-presentation motive endorsement) or lower (characterised by relatively lower self-presentation motive endorsement) clusters. The higher cluster group also displayed higher scores on all predictor constructs, indicating further support for the view that these may represent important factors that underpin $2 \times 2$ self-presentation motives. This work represents the first concerted effort to examine multiple dispositional and context specific factors together in an effort to understand why individuals may adopt these self-presentational drives.

Chapter VI, the present and final chapter, included a review and critique of the work that was performed in the earlier five chapters. A number of implications of the thesis findings were identified, and theoretical and conceptual, methodological, and practical issues were emphasised. As well as identifying limitations and applications of
the thesis as a whole, future research was encouraged in relation to potential antecedents and outcomes of 2 x 2 self-presentation motives, and possible moderators of these effects.

This thesis contributes a novel 2 x 2 framework of self-presentation motives that accounts for individuals’ endorsement of different types of situational impression management drives within group-based physical activity. The thesis findings indicate that individuals may endorse acquisitive-agentic, acquisitive-communal, protective-agentic, and protective-communal self-presentation motives, and that these motives may differentially align with proposed antecedents (e.g., self-efficacy beliefs, trait-like characteristics) and physical activity outcomes (e.g., behaviour, goals, others’ evaluations). In addition to advancing our understanding of the nature, predictors, and implications of self-presentation motive endorsement, the framework provides researchers with a coherent theory-based guide for structuring future investigations. The integration and application of the approach/avoidance and agency/communion theoretical paradigms serves as a foundational structure for an area of study that has been critiqued as in need of a systematic research approach (Martin Ginis et al., 2007). Although the inferences from this thesis should be considered in light of the preliminary (e.g., correlational approach, iterative nature of construct validation) nature of the work, the 2 x 2 framework appears to hold promise in terms of understanding why individuals think, feel, and behave as they do in group-based physical activity settings.
References


Appendices
Appendix A. Chapter II Final SMPAQ Instructions, stem, items, and scoring for Exercise- [and PE-] Classes

Instructions: The following statements focus on your thoughts and feelings about this exercise [PE] class, at this moment in time. Please select the answer that best applies to you. There are no right or wrong answers, so please just answer honestly. When you are asked to consider ‘others,’ this refers to the other exercisers in your class [your PE classmates] and your class instructor/s [PE teacher].

Stem: Right at this moment in time, thinking about this exercise class [my PE class], I am focusing my attention on…

Items:

1. Having others admire me for my physical ability [during PE activities].
2. Having others view me as a talented exerciser [talented during PE activities].
3. Having others respect me for my physical ability [during PE activities].
4. Having others view me as attractive when I exercise [during PE activities].
5. Having others view me as physically fit when I exercise [during PE activities].
6. Having others view me as friendly.
7. Having others view me as kind.
8. Having others view me as helpful.
9. Having others view me as someone who works well with others.
10. Avoiding others viewing me as an incompetent exerciser [incompetent during PE activities].
11. Avoiding others viewing me as an inferior exerciser [inferior during PE activities].
12. Avoiding others viewing me as incapable when I exercise [during PE activities].
13. Avoiding others viewing me as *an unskilled exerciser* [unskilled during PE activities].

14. Avoiding others viewing me as someone who works poorly with others.

15. Avoiding others viewing me as unkind.

16. Avoiding others viewing me as someone who develops poor relationships.

**Scoring:** Items 1-5 acquisitive-agentic; items 6-9 acquisitive-communal; items 10-13 protective agentic; items 14-16 protective-communal.

**Note:** Present items in a randomised order.
Appendix B. Overview of Priors Employed for Structural Paths of Bayesian Path Analysis for Chapter III, Study 1

<table>
<thead>
<tr>
<th>Parameter estimated</th>
<th>Prior specified</th>
<th>Source material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\mu$</td>
<td>$\sigma^2$</td>
</tr>
<tr>
<td>AA and PA covariance</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>TSE and SPE covariance</td>
<td>.55</td>
<td>.02</td>
</tr>
<tr>
<td>Goal time to performance</td>
<td>.7</td>
<td>.02</td>
</tr>
<tr>
<td>AA to performance</td>
<td>.4</td>
<td>.02</td>
</tr>
<tr>
<td>PA to performance</td>
<td>0</td>
<td>.02</td>
</tr>
<tr>
<td>TSE to performance</td>
<td>.38</td>
<td>.02</td>
</tr>
<tr>
<td>SPE to performance</td>
<td>.25</td>
<td>.02</td>
</tr>
<tr>
<td>AA to goal time</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>PA to goal time</td>
<td>.2</td>
<td>.02</td>
</tr>
<tr>
<td>TSE to goal time</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>SPE to goal time</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>TSE to acquisitive agency</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>SPE to acquisitive agency</td>
<td>.5</td>
<td>.02</td>
</tr>
<tr>
<td>TSE to protective agency</td>
<td>0</td>
<td>.02</td>
</tr>
<tr>
<td>SPE to protective agency</td>
<td>0</td>
<td>.02</td>
</tr>
</tbody>
</table>

*Note:* task self-efficacy (TSE); self-presentational efficacy (SPE); acquisitive-agentic motive (AA); protective-agentic motive (PA); self-set goal time in seconds (goal); time in seconds spent holding the human bridge (performance).
Appendix C. Annotated MPlus Syntax for Chapter III, Study 1 Bayesian CFA

ANALYSIS:

ESTIMATOR IS BAYES;
PROCESSORS = 2;
FBITERATIONS = 50000;

MODEL:

! factors indicated by all items so that the cross loadings can be set
! aa refers to acquisitive agency, pa refers to protective agency
aa BY aa1* aa2 aa3 pa1 pa2 pa3 aa4 pa4 aa5 (ag1 ag2 ag3 pb1 pb2 pb3 ag4 pb4 ag5) ;
aa@1 ;
pa BY aa1* aa2 aa3 pa1 pa2 pa3 aa4 pa4 aa5 (ab1 ab2 ab3 pg1 pg2 pg3 ab4 pg4 ab5) ;
pa@1 ;
aa WITH pa (cor1) ;

! correlated related residuals
aa1 WITH aa2 aa3 aa4 aa5 pa1 pa2 pa3 pa4 (crr1 crr2 crr3 crr4 crr5 crr6 crr7 crr8) ;
aa2 WITH aa3 aa4 aa5 pa1 pa2 pa3 pa4 (crr9 crr10 crr11 crr12 crr13 crr14 crr15) ;
aa3 WITH aa4 aa5 pa1 pa2 pa3 pa4 (crr16 crr17 crr18 crr19 crr20 crr21) ;
aa4 WITH aa5 pa1 pa2 pa3 pa4 (crr22 crr23 crr24 crr25 crr26) ;
aa5 WITH pa1 pa2 pa3 pa4 (crr27 crr28 crr29 crr30) ;
pa1 WITH pa2 pa3 pa4 (crr31 crr32 crr33) ;
pa2 WITH pa3 pa4 (crr34 crr35) ;
pa3 WITH pa4 (crr36) ;

MODEL PRIORS:

! setting mean and variance of cross loadings
pb1 ~N (.1, .02) ;
pb2 ~N (.1, .02) ;
pb3 ~N (.1, .02) ;
pb4 ~N (.1, .02) ;
ab1 ~N (.1, .02) ;
ab2 ~N (.1, .02) ;
ab3 ~N (.1, .02) ;
ab4 ~N (.1, .02) ;
ab5 ~N (.1, .02) ;

! setting mean and var of intended loadings
ag1 ~N (.8, .02) ;
ag2 ~N (.8, .02) ;
ag3 ~N (.8, .02) ;
ag4 ~N (.8, .02) ;
ag5 ~N (.8, .02) ;
pg1 ~N (.8, .02) ;
pg2 ~N (.8, .02) ;
pg3 ~N (.8, .02) ;
pg4 ~N (.8, .02) ;

! setting covariance between factors
cor1 ~N (.5, .02) ;

! setting correlated related residuals
crr1-crr36 ~N (.1, .02) ;
Appendix D. Annotated MPlus Syntax for Chapter III, Study 1 Bayesian Path Analysis

ANALYSIS:

ESTIMATOR IS BAYES;
PROCESSORS = 2;
FBITERATIONS = 10000;

MODEL:

\[ ! \text{aa is acquisitive agency, pa is protective agency, tse is task self-efficacy, time}_g \text{ is performance time in the group setting, goal}_t \text{ is performance goal time for the group setting, spe is self-presentational efficacy} \]

\[ \text{aa WITH pa (cr1)}; \]
\[ \text{tse WITH spe (cr2)}; \]
\[ \text{time}_g \text{ ON goal}_t \text{ (tONg)}; \]
\[ \text{time}_g \text{ ON aa (tONaa)}; \]
\[ \text{time}_g \text{ ON pa (tONpa)}; \]
\[ \text{time}_g \text{ ON tse (tONTse)}; \]
\[ \text{time}_g \text{ ON spe (tONSpe)}; \]
\[ \text{goal}_t \text{ ON aa (gONaa)}; \]
\[ \text{goal}_t \text{ ON pa (gONpa)}; \]
\[ \text{goal}_t \text{ ON tse (gONTse)}; \]
\[ \text{goal}_t \text{ ON spe (gONSpe)}; \]
\[ \text{aa ON tse (aaONTse)}; \]
\[ \text{aa ON spe (aaONSpe)}; \]
\[ \text{pa ON tse (paONTse)}; \]
\[ \text{pa ON spe (paONSpe)}; \]

MODEL PRIORS:

\[ ! \text{priors for the parameters named above} \]
\[ \text{cr1 ~N(5, .02);} \]
\[ \text{cr2 ~N(55, .02);} \]
\[ \text{tONg ~N(7, .02);} \]
\[ \text{tONaa ~N(4, .02);} \]
\[ \text{tONpa ~N(0, .02);} \]
\[ \text{tONTse ~N(38, .02);} \]
\[ \text{tONSpe ~N(25, .02);} \]
\[ \text{gONaa ~N(5, .02);} \]
\[ \text{gONpa ~N(2, .02);} \]
\[ \text{gONTse ~N(5, .02);} \]
\[ \text{gONSpe ~N(5, .02);} \]
\[ \text{aaONTse ~N(5, .02);} \]
\[ \text{aaONSpe ~N(5, .02);} \]
\[ \text{paONTse ~N(0, .02);} \]
\[ \text{paONSpe ~N(0, .02);} \]

MODEL CONSTRAINT:

\[ ! \text{indirect effect from aa to goal to group time} \]
\[ \text{NEW (ind1)}; \]
\[ \text{ind1 = tONg*gONaa;} \]

\[ ! \text{indirect effect from pa to goal to group time} \]
\[ \text{NEW (ind2)}; \]
\[ \text{ind2 = tONg*gONpa;} \]

\[ ! \text{indirect effect from tse to goal to time} \]
NEW (ind3) ;
ind3 = gONTse*tONg ;

! indirect effect from tse to aa to time
NEW (ind4) ;
ind4 = aaONTse*tONaa ;

NEW (ind5) ;
ind5 = paONTse*tONpa ;

! indirect effect from tse to pa to time
NEW (ind6) ;
ind6 = aaONTse*gONaa ;

! indirect effect from tse to aa to goal
NEW (ind7) ;
ind7 = paONTse*gONpa ;

! indirect effect from spe to goal to time
NEW (ind8) ;
ind8 = gONSpe*tONG ;

! indirect effect from spe to aa to time
NEW (ind9) ;
ind9 = aaONSpe*tONaa ;

! indirect effect from spe to pa to time
NEW (ind10) ;
ind10 = paONSpe*tONpa ;

! indirect effect from spe to aa to goal
NEW (ind11) ;
ind11 = aaONSpe*gONaa ;

! indirect effect from spe to pa to goal
NEW (ind12) ;
ind12 = paONSpe*gONpa ;

! indirect effect from tse, aa, goal, time
NEW (ind13) ;
ind13 = aaONTse*gONaa*tONG ;

! indirect effect from spe, aa, goal, time
NEW (ind14) ;
ind14 = aaONSpe*gONaa*tONG ;

! indirect effect from tse, aa, goal, time
NEW (ind15) ;
ind15 = paONTse*gONpa*tONG ;

! indirect effect from spe, aa, goal, time
NEW (ind16) ;
ind16 = paONSpe*gONpa*tONG ;
Appendix E. Annotated MPlus Syntax for Chapter III, Study 2 Bayesian Path Analysis

ANALYSIS:

ESTIMATOR IS BAYES;
PROCESSORS = 2;
FBITERATIONS = 10000;

MODEL:

! aa is acquisitive agency, pa is protective agency, tse is task self-efficacy, time_g is
performance time in the group setting, goal_t is performance goal time for the group setting, spe
is self-presentational efficacy, im is dispositional self-presentation motivation

aa WITH pa (cr1);
tse WITH spe (cr2);
time_g ON goal_t (tONg);
time_g ON aa (tONaa);
time_g ON pa (tONpa);
time_g ON tse (tONtse);
time_g ON spe (tONSpe);
goal_t ON aa (gONaa);
goal_t ON pa (gONpa);
goal_t ON tse (gONTse);
goal_t ON spe (gONSpe);
aa ON tse (aaaNTse);
aa ON spe (aaONSpe);
apa ON tse (paONTse);
apa ON spe (paONSpe);
spe WITH im (cr3);
tse WITH im (cr4);
aa ON im (aaONim);
apa ON im (paONim);
goal_t ON im (gONim);
time_g ON im (tONim);

MODEL PRIORS:

! setting priors for the parameters named above

cr1 ~N(.520,.02);
cr2 ~N(.597,.02);
tONg ~N(.720,.02);
tONaa ~N(.054,.02);
tONpa ~N(-.067,.02);
tONTse ~N(.080,.02);
tONSpe ~N(.078,.02);
gONaa ~N(.242,.02);
gONpa ~N(-.067,.02);
gONTse ~N(.259,.02);
gONSpe ~N(.221,.02);
aaONTse ~N(.198,.02);
aaONSpe ~N(.375,.02);
apaONTse ~N(-.015,.02);
apaONSpe ~N(-.016,.02);
cr3 ~N(.16,.02);
cr4 ~N(.16,.02);
aaONim ~N(.5,.02);
apaONim ~N(.3,.02);
gONim ~N(.2,.02);
tONim ~N(.28, .02);

MODEL CONSTRAINT:

! indirect effect from aa to goal to group time
NEW (ind1) ;
ind1 = tONg*gONaa ;

! indirect effect from pa to goal to group time
NEW (ind2) ;
ind2 = tONg*gONpa ;

! indirect effect from tse to goal to time
NEW (ind3) ;
ind3 = gONtse*tONg ;

! indirect effect from tse to aa to time
NEW (ind4) ;
ind4 = aaONtse*tONaa ;

! indirect effect from tse to pa to time
NEW (ind5) ;
ind5 = paONtse*tONpa ;

! indirect effect from tse to aa to goal
NEW (ind6) ;
ind6 = aaONtse*gONaa ;

! indirect effect from tse to pa to goal
NEW (ind7) ;
ind7 = paONtse*gONpa ;

! indirect effect from spe to goal to time
NEW (ind8) ;
ind8 = gONSpe*tONg ;

! indirect effect from spe to aa to time
NEW (ind9) ;
ind9 = aaONSpe*tONaa ;

! indirect effect from spe to pa to time
NEW (ind10) ;
ind10 = paONSpe*tONpa ;

! indirect effect from spe to aa to goal
NEW (ind11) ;
ind11 = aaONSpe*gONaa ;

! indirect effect from spe to pa to goal
NEW (ind12) ;
ind12 = paONSpe*gONpa ;

! indirect effect from IM to goal to time
NEW (ind13) ;
ind13 = gONim*tONg ;

! indirect effect from IM to aa to time
NEW (ind14) ;
ind14 = aaONim*tONaa ;

! indirect effect from IM to pa to time
NEW (ind15) ;
\[ \text{ind}15 = \text{paON} \text{im*} \text{tON} \text{pa} ; \]
! indirect effect from IM to aa to goal
NEW (\text{ind}16) ;
\[ \text{ind}16 = \text{aaON} \text{im*} \text{gON} \text{aa} ; \]

! indirect effect from IM to pa to goal
NEW (\text{ind}17) ;
\[ \text{ind}17 = \text{paON} \text{im*} \text{gON} \text{pa} ; \]

! ind eff IM to aa to goal to time
NEW (\text{ind}18) ;
\[ \text{ind}18 = \text{aaON} \text{im*} \text{gON} \text{aa*} \text{tON} \text{g} ; \]

! ind eff IM to pa to goal to time
NEW (\text{ind}19) ;
\[ \text{ind}19 = \text{paON} \text{im*} \text{gON} \text{pa*} \text{tON} \text{g} ; \]

! ind eff tse to aa to goal to time
NEW (\text{ind}20) ;
\[ \text{ind}20 = \text{aaONT} \text{se*} \text{gON} \text{aa*} \text{tON} \text{g} ; \]

! ind eff spe to aa to goal to time
NEW (\text{ind}21) ;
\[ \text{ind}21 = \text{aaONspe*} \text{gON} \text{aa*} \text{tON} \text{g} ; \]

! ind eff tse to pa to goal to time
NEW (\text{ind}22) ;
\[ \text{ind}22 = \text{paONT} \text{se*} \text{gON} \text{pa*} \text{tON} \text{g} ; \]

! ind eff spe to pa to goal to time
NEW (\text{ind}23) ;
\[ \text{ind}23 = \text{paONspe*} \text{gON} \text{pa*} \text{tON} \text{g} ; \]