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# Development of the Coach Identity Prominence Scale: A role identity model perspective

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A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Kinesiology
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# DEVELOPMENT OF THE COACH IDENTITY PROMINENCE SCALE: A ROLE IDENTITY MODEL PERSPECTIVE

**Thesis Format: Integrated Article**

**by**

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**Graduate Program in Kinesiology**

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of the requirements for the degree of
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**Abstract**

The general purpose of this dissertation was to develop a psychometrically sound measure of coach identity prominence. This dissertation was divided into three manuscripts. The first manuscript was designed to gain a more in-depth understanding of the coach identity. Coaches ($n = 8$) participated in semi-structured interviews and answered questions pertaining to the meanings and prominence of the coach identity. Participants' responses were used to create the initial 20 items of the Coach Identity Prominence Scale (CIPS).

Manuscript 2 included three studies; item generation and pilot study, Study 1, and Study 2. The item generation and pilot study was designed to investigate the technical qualities and the content validity of the CIPS items. Six construct and 10 context specialists served as participants in this study. Based on participants' responses, 13 items that were deemed technically sound and demonstrated adequate content validity were selected to serve as the CIPS items. Study 1 and Study 2 assessed the reliability and factorial validity of the CIPS items. Additionally, Study 2 investigated the group invariance, concurrent validity, and nomological validity of the CIPS items. Coach participants in Study 1 ($n = 343$) and Study 2 ($n = 454$) completed the CIPS, while participants in Study 2 also completed a measure of commitment (Raedeke, 2004). The results of both studies demonstrated evidence of reliability and factorial validity of participants' scores on the CIPS. Based on the results of Study 1, eight items were selected and were assigned to one of the two subscales (centrality, 5 items; evaluative emotions, 3 items). The findings of Study 2 also provided support for group invariance and the nomological validity of the CIPS items, and partial support for the concurrent validity of the CIPS.

Manuscript 3 examined predictive validity, convergent validity, and discriminant validity. A varied sample of coaches ($n = 336$) completed the CIPS, the Coach Motivation Questionnaire (CMQ; McLean, Mallet, & Newcombe, 2012) and Vallerand et al's Passion Scale (2003). The findings presented in Manuscript 3 provided support for the three types of validity tested.

KEYWORDS: centrality, coaching, evaluative emotions, identity prominence, measurement, validation

**Co-Authorship Statement**

The work presented in this dissertation is original and is primarily the work of the first author.  However Dr. Craig Hall and Danielle Tobin did serve as con-authors in at least one of the papers presented in this dissertation.  Therefore, I would like to thank Dr. Craig Hall, professor in Kinesiology at The University of Western Ontario, for the contribution of his knowledge and guidance to the work presented throughout this entire dissertation.  Second, I would like to thank Danielle Tobin – a Ph.D. student at The University of Western Ontario – for her contributions as a second coder for the qualitative study.

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INTRODUCTION

Dating back to the early 1970's (Aberhams & Collins, 1998; Gilbert & Trudel, 2004; Trudel & Gilbert, 1995), coaching science has evolved to be a multi-faceted area of research. A literature review conducted by Gilbert and Trudel (2004) demonstrated that there were four general themes in the coaching science literature that were labeled behaviour, thoughts, characteristics, and career development. The behaviour theme was reported in approximately one half of the articles and explored 'what' coaches do (e.g., behaviours, leadership styles, and coach-athlete relationships). Research that fell within the "thoughts' theme addressed coaches thoughts and feelings (e.g., perceptions, attitudes, decision-making, and knowledge), and answered 'why' coaches do what they do (e.g., why coaches enact a certain leadership style or persist in coaching). Characteristics-based research focused on 'who' coaches are (e.g., demographics, gender, and qualifications). Lastly, the career development theme included research that addressed coach opportunities, education, burnout, and satisfaction. The final three themes were examined in roughly one quarter to one third of the studies in the literature review.

Within the coaching psychology discipline, researchers are primarily interested in understanding how one's thoughts and feelings explain their actions. Although the review conducted by Gilbert and Trudel (2004) demonstrated that research focusing on coaches' 'thoughts' has steadily increased from the early 1970's (e.g., 1974-1977, 9.1% of the coaching science articles examined thoughts) to the beginning of the 21st century (e.g., 1998-2001, 34.4% of coaching science articles examined thoughts), scholars have advocated that a greater emphasis should be placed on this line of research (e.g.,

Amorose, 2007).  Specifically, Amorose suggested that scholars interested in coaching

science should focus their attention on answering the 'why' questions of sport science.

This includes understanding coaches' perceived cognitions and feelings that may

optimize or hinder the enactment of various coaching behaviours.  In addition to having

implications for the coaches lived experiences, gaining knowledge of the antecedents of

coaching behaviours is of significance for athletes as well because of the strong impact

coaches have on athletes.  Therefore, the psychological processes of coaches is a vital

line of research that is worthy of substantial empirical attention.  Of particular interest in

the present study is coach identity which was explored from a role identity model

(McCall & Simmons, 1966; McCall & Simmons, 1978) perspective.

The role identity model grew out of the symbolic interaction perspective which

assumes that human behaviour is best understood by focusing on one's perceptions and

interpretations of themselves, others, and their situation.  Through the role identity model,

McCall and Simmons (1978) provide a conceptualization that attempts to explain how the

self influences human behaviour.  The central concept of the role identity model is the

concept of a role-identity, which refers to "the role that an individual devises for himself

as an occupant of a particular social position" (McCall & Simmons, 1978, p. 65).  Role-

identities are idealized and carry with them expectations that the individual wishes to

attain as an occupant of that role.  These expectations serve as the meanings that an

individual attributes to a role-identity, and are therefore an important reflection of a

person's perspective of himself/herself.  In addition to highlighting what a role-identity

is, McCall and Simmons have stated that individuals have many role-identities – one for

each role a person occupies (e.g., student, parent, coach, dog-owner, or church member).

Furthermore, McCall and Simmons have argued that each role-identity can vary

significantly in terms of the *prominence* of that identity for an individual. This concept

of identity prominence served as the central focus in the present study and therefore will

be unpacked in greater detail.

The concept of identity prominence has four properties worthy of examination

when considering the definition of identity prominence: a) complex, b) organization of

the self, c) enduring, and d) dynamic. The first property of identity prominence is that it

is a *complex* concept that has a multifaceted definition which has been extended upon by

several scholars. In general, the concept of identity prominence is concerned with one's

thoughts and viewpoints of one's self according to his/her "ideal self" (McCall &

Simmons, 1978). More specifically, identity prominence refers to how an individual

likes to think of himself/herself based on his/her ideals, values, and desires, or what is

central or important to him/her (Burke & Stets, 2009). Therefore, coach identity

prominence pertains to how important or central the coaching role-identity is to the

individual, and how in line coaching is with the person's core ideals, values, and desires.

Nuttbrock and Freudiger (1991) have extended this definition and stated that identity

prominence is the "strength of feelings" evoked by a given role-identity. Furthermore,

they have argued that the emotional responses elicited when an individual evaluates

his/her engagement in a given role (e.g., coaching) serves as an indicator of the strength

of one's prominence of the role-identity. From this perspective, coach identity

prominence refers to the emotions coaches experience when they reflect upon their

coaching role-identity.

In addition to being a complex concept, it has been suggested that identity prominence is an *organization of the self*. As noted earlier, role identity model theorists recognize that everyone has many roles in their lives (Burke & Stets, 2009; McCall & Simmons, 1978). These role-identities are either conflicting or complementary, and are woven into a complex pattern (McCall & Simmons, 1978). McCall and Simmons also propose that the complex pattern of roles is organized according to the prominence of each role-identity, which is labeled the identity prominence hierarchy. Role-identities that are ranked higher in the identity prominence hierarchy are more prominent or important and central to the individual. Furthermore, the identity prominence hierarchy is believed to represent an individual's priorities and provide direction for one's future actions across situations and time (Burke & Stets, 2009; McCall & Simmons, 1978). This implies that a person is more likely to choose to enact a more prominent role-identity over a less prominent role-identity. Additionally, it suggests that the prominence of an identity is *enduring*, such that more prominent role-identities are more likely to be selected and acted upon over a long period of time.

Although the prominence of a role-identity is enduring and therefore relatively stable, it is also *dynamic* when specific conditions arise. First, the prominence of a role-identity is subject to change when an individual experiences a significant life event. For example, the coach identity may be very prominent in a young married women's life who is coaching a provincial level rugby team. However, the coach identity may become less prominent once this woman has a child, thus making the parenting identity more prominent. The second dominant reason that the prominence of a role-identity may change is an increase or decrease in the legitimation (the maintenance of one's views of

one's self) of a role-identity. If the coaching role is highly prominent to an individual, it may become less prominent if others do not support this role (by recognizing the individual as a coach) or if the person does not have time to engage in the behaviour (e.g., work prevents him/her from attending several practices or a tournament). In contrast, coach identity prominence may increase if an individual receives recognition from an athlete or in the community for their coaching role (e.g., a parent thanks them for the positive influence they have had on their child), which exceeds their current perspective of themselves as a coach.

The previous three paragraphs provide a comprehensive explanation of the concept of identity prominence, yet fail to identify a concrete definition of identity prominence. Before establishing a specific definition, it is important to note that the focus of this dissertation is on the identity prominence of a specific identity (e.g., coaching), and therefore is not concerned with the identity prominence hierarchy (e.g., ranking of multiple identities). Accordingly, identity prominence is defined as the strength of the importance or centrality of a role-identity, and the strength of the emotions elicited from evaluating a given role-identity. With this definition in mind, the measurement of identity prominence was considered next.

"The value of scientific data depends on the precision with which the variables under consideration are observed and measured" (Aiken, 1996, p.8). Therefore, if we want to understand a concept such as coach identity prominence, it was imperative that we initially focus our attention on developing and rigorously testing a measure of this construct. To date, an instrument has yet to be published examining identity prominence in the coaching context. In fact, only a small number of studies have empirically

examined identity prominence in any context. Of the studies that have, one investigated the identity prominence hierarchy (multiple identities simultaneously), and four focused on a specific identity (e.g., mother or environmentalist). Before initiating the instrument development process, a review of the existing measures of identity prominence was conducted (including measures of the identity prominence hierarchy and specific identities).

The first two measures of identity prominence were suggested by McCall and Simmons (1978). Although these measures were not empirically tested, they provided two plausible options for assessing the identity prominence hierarchy of participants. With the first approach – the analytical method – scholars were instructed to score each of the six determinants of identity prominence (commitment, investment, social support, self-support, intrinsic gratification, and extrinsic gratification) for every role-identity. After the scores for the determinants were summed into a single identity prominence scores for each identity, it was suggested that researchers establish a method of weighting the various identities in order to determine where each identity ranked on the identity prominence hierarchy. The second method suggested by McCall and Simmons (1978) was the global measurement method which was far less arduous. Using the global approach, participants would be instructed to rank order their multiple role-identities by answering the following question for each role-identity: "How important is it to you personally to be a ___?" (p.262). Similar to the 'global' method advocated by McCall & Simmons (1978), the one published study that measured the identity prominence hierarchy asked participants to consider the importance of each role-identity (Habib & Lancaster, 2006). However, as opposed to rank ordering the various role-identities,

participants were asked to graphically represent the prominence of each role-identity by dividing a pie chart according to the importance of each role.

For the remaining four studies that assessed the identity prominence of a specific role-identity, two very different instruments were employed.  Similar to McCall and Simmons (1978), as well as Habib and Lancaster (2006), the first measure asked participants to evaluate the importance of their environmentalist role-identity (Stets & Biga, 2003).  Specifically, an importance framed Likert scale was utilized by participants to respond to one item that pertained to the environmentalist role-identity.  The second measure of identity prominence of a specific role-identity was first employed by Nuttbrock and Freudiger (1991), and was subsequently used in two studies (Ellestad & Stets, 1998; Gaunt, 2008) to evaluate the "mother" role-identity.  These researchers operationalized identity prominence from an emotional perspective.  An emotional strength based Likert scale accompanied two items which asked participants how they would feel if they were a good/bad mother or were perceived by others to be a good/bad mother.

Considering the limited number of studies that reported measuring identity prominence or the identity prominence hierarchy, a more extensive literature review was conducted.  Through this literature review, several studies (Burke & Reitzes, 1991; Reitzes & Mutran, 2002; Stryker & Serpe, 1994) that assessed a conceptually similar construct (i.e., centrality and importance) from a role identity model (McCall & Simmons, 1978) or identity theory (Burke, 1980; Stryker, 1980) perspective were identified.  Although it was not the intent of this dissertation to elaborate on each of these measures, it is noteworthy that these instruments essentially encompassed the same

content and employed the same assessment methods as existing measures of identity

prominence and the identity prominence hierarchy.  Specifically, the content of these

items were either importance or emotionally based and used ranking or Likert scales.

After reviewing and analyzing the existing measures of identity prominence, four

noteworthy limitations were identified.  First, existing measures have underrepresented

the construct of identity prominence and the identity prominence hierarchy.  Construct

underrepresentation occurs when all essential components of a construct are not

adequately incorporated into an instrument (Messick, 1995).  As previously stated, the

concept of identity prominence is complex and encompasses the importance and

centrality of a role-identity as well as emotional responses associated with the role-

identity.  Therefore, a representative measure should include importance, centrality, and

emotions as opposed to only importance (e.g., Stets & Biga, 2003) or emotions (e.g.,

Gaunt, 2008; Nuttbrock & Freudiger, 1991).  The second major limitation of existing

identity prominence measures is the number of items used to assess identity prominence;

the majority of instruments included only one (Stets & Biga, 2003) or two items

(Nuttbrock & Freudiger, 1991).  The minimal number of items not only ties in with the

first limitation (underrepresentation), but also has implications for assessing the

psychometric properties of the instrument (e.g., Cronbach alpha, $\alpha$; Cronbach, 1951) and

may influence the analytical procedures (e.g., structural equation modeling) that can be

conducted.

The third limitation pertains to the lack of rigor reported during the instrument

development process.  With the exception of the studies that replicated a previous

measure (e.g., Ellestad & Stets, 1998; Gaunt, 2008), researchers failed to report how or

why these measures were developed. This is problematic because the accuracy of measurement is dependent "on the sophistication with which the instrument for measuring was designed" (Dunn, Bouffard, & Rogers, 1999). One important aspect of scale construction is item content relevance (the degree to which the content of the items are reflective of the construct), which is commonly under-reported and perhaps undervalued in the sport psychology literature (Messick, 1995). Failure to assess the content relevance of the items or the item generation process may cause the reader to question the accuracy of these previously used measures. The final limitation of the previous measures of identity prominence, which is closely linked with the third limitation, is the lack of psychometric testing. Analysis of the psychometric properties of an instrument is an essential step and the only way to be confident that the measure demonstrates evidence of validity and reliability (Devellis, 2003). These four limitations were strongly considered and an attempt was made to circumvent these limitations throughout this dissertation.

The overall purpose of this dissertation was to develop and test the psychometric properties of a set of items designed to measure coach identity prominence labeled the Coach Identity Prominence Scale (CIPS). In order to accomplish this objective, several studies were conducted which are depicted in the three manuscripts embedded in this dissertation. Manuscript 1 served two purposes, the first of which was to gain a more comprehensive understanding of the coach identity by exploring the meanings and prominence of this role from a coaches' perspective. The second purpose, which was the focal point of this dissertations, was to generate an undetermined number of items ($n =$

20) to be used in the CIPS. Semi-structured interviews were conducted in this phase of the process with coaches that varied significantly in their coaching experiences.

Manuscript 2 was a multiphase process that consisted of an item generation and pilot study, Study 1, and Study 2. The pilot study was carried out in order to evaluate select technical qualities (item length, reading difficulty, clarity, and double-barreled nature) and content validity of the items. Following recommendations advocated by Devellis (2003), the technical qualities and content validity of the items were evaluated by a panel of context ($n = 10$; coaches), and construct ($n = 6$; role identity model and identity theory researchers) specialists. The findings of the analysis were used to refine the number of items in the CIPS ($n = 13$). The final two studies presented in Manuscript 2 extended upon the pilot study by testing several psychometric properties (reliability, factorial validity, group invariance, concurrent validity, and nomological validity) of the CIPS. Additionally, the analyses conducted in these two studies were used to remove redundant or troublesome items, resulting in a final set of eight items. Although these studies presented initial support for the forms of reliability and validity evaluated, further testing was necessary in order to provide additional support for the validity and reliability of the CIPS. Thus, additional research, presented in Manuscript 3, was conducted to further test the psychometric properties of the CIPS, including; reliability, factorial validity, convergent validity, discriminant validity, and predictive validity. This was an essential step in the instrument development process, as it not only provided additional support for the sources of validity and reliability that were already tested, but it offered initial evidence of validity not previously assessed (e.g., convergent and discriminant validity).

In summary, this dissertation is divided into three manuscripts, labeled Manuscript 1, Manuscript 2, and Manuscript 3. The dissertation is presented in this method because the integrated-article format was selected, which is an approved method of the Faculty of Graduate studies at The University of Western Ontario. Therefore, readers should be aware that the three manuscripts were initially written to be published separately in academic journals. As a result, a considerable amount of redundancy exists between the general introduction to the dissertation and the introductions embedded within the three manuscripts.

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MANUSCRIPT 1

HOW DO COACHES IDENTIFY WITH THEIR ROLE AS A COACH?  EXPLORING

COACH IDENTITY THROUGH A ROLE IDENTITY THEORY LENS[1]

In the context of sport, there is extensive research on athlete development,

including psychological and behavioral components (Coté & Fraser-Thomas, 2007).  Of

those studies that have concentrated on the coach, most have been primarily concerned

with the behaviors and coaching styles they enact (Adie, Duda, & Ntoumanis, 2008;

Conroy & Coatsworth, 2007; Pelletier, Fortier, Vallerand, & Brière, 2001).  A recent line

of research has focused on psychological aspects of coaching (McLean, Mallett, &

Newcombe, 2012; Stebbings, Taylor, & Spray, 2011).  Such studies are essential as the

knowledge gained from examining coaching psychological factors can aid our

understanding of the mechanisms through which coaches initiate and persist in their role,

and potentially help us realize why coaches behave in the manner that they do.  One

psychological factor of coaches that has yet to be explored is coach identity.  Identity has

been defined as a set of meanings that classifies who an individual is when they are

occupying a given role in society, a member in a group, or specifies a set of

characteristics that identify him/her as an individual (Burke & Stets, 2009).

If we want to understand why individuals engage and persist in coaching, we

should first understand the meanings and degree of importance the coaching role has in

their life.  One theoretical framework that is centrally concerned with the mechanisms

through which internal processes influence intentions, behaviors, and interactions, is role

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[1] A version of this manuscript was published in *Identity International Journal of Research & Theory* in May, 2014, available online: http://www.tandfonline.com/10.1080/15283488.2014.897951.

identity theory (Burke & Stets, 2009).  In general, role identity theorists (Burke, 1980;

Burke & Reitzes, 1981) contend that "behavior is premised on a named or classified

world.  The names and class terms attached to aspects of the environment, both physical

and social, carry meanings in the form of shared behavioral expectations that grow out of

social interaction" (Burke & Stets, 2009, p. 26). Stated differently, this implies that

through the interactions individuals have in a given role they learn the behavioral

expectations held within society for that role.  This will in turn determine their

corresponding thought processes and actions.

In accordance with role identity theory, the self is composed of multiple identities,

each of which represents a role in one's life.  Attached to each role is a set of meanings

that are defined as the response to a stimulus (either verbal or physical) that may be either

an observable behavior or an internal, cognitive behavior (Burke & Stets, 2009).

Meanings (otherwise known as an identity) are essentially the cognitions or actions one

associates with a particular role.  Role identity theorists (Burke & Stets, 2009; McCall &

Simmons, 1978) view meanings as formed through others expectations that become

internalized and shared by the person in a given role.  These expectations are learned

either through the responses or reactions of individuals in an opposing role in the

corresponding environment (e.g., a coach observing the behavior of someone in the

athlete role; Burke & Stets, 2009) or through imitation – observing another individual in

the same role (e.g., another coach; Burke & Stets, 2009).  A coach may discover the

expectation an athlete has of him/her either through verbal (e.g. an athlete asks for

feedback after a performance or for advice regarding a personal issue) or physical means

(e.g., an athlete refuses to analyze game tape due to the belief that this is the coaches'

responsibility). Alternatively, a coach may learn how to act based on the actions of other coaches, such as a coach the individual observed on television, competed against on an opposing team, or worked with on a team.

Meanings may also take the form of mindful behaviors or cognitions (Burke & Stets, 2009). Such cognitions reflect the internalized characteristics or values/beliefs/principles that one ascribes to a given role. Within the context of coaching, there may be many cognitive meanings that are shared by most, if not all coaches, such as the values of respect and commitment. These internalized meanings act as principles or goals that guide actions in a particular role (Burke & Stets, 2009). McCall and Simmons (1978) suggest that in addition to the conventional dimension of cultural expectations, whereby meanings are learned from and shared with others in a given environment, an idiosyncratic dimension exists as well. They argue that the idiosyncratic component explains why individuals may attach unique meanings to a given role that are not shared by others in the same role (McCall & Simmons, 1978; Burke & Stets, 2009). For example, the conventional dimension would account for teachers stating that their job entails transferring knowledge, marking, disciplining, and facilitating students' learning. In contrast, the idiosyncratic dimension would account for a particular teacher reporting that one of the components of her job as a teacher is being a psychologist while another may state the task of being a caretaker is associated with his teaching role.

Empirical studies examining meanings associated with various role identities have generally employed the Semantic Differential scale developed by Burke and Tully (1977). Respondents are asked to select between 24 sets of opposing adjectives or

characteristics for a given role.  Each adjective pair represents a meaning expected to be

important to the role(s) being studied.  The instrument also allows the researcher to assess

the intensity (e.g., strong or weak) as well as the direction of each meaning.  This

Semantic Differential method has been used to study identities associated with gender

(Burke & Tully, 1977), education (Burke & Reitzes, 1981; 1991), environmentalism

(Stets & Biga, 2003), morality (Stets & Carter, 2011; 2012), and ethnicity (White &

Burke, 1987).  Despite the consistent use of a Semantic Differential format, the measures

differed significantly across studies in the meanings or adjective pairs that were utilized

based upon the role under investigation.  These studies also commonly state that

individuals who score high on the meanings associated with the identity under

investigation report enacting compatible behaviors (Burke & Reitzes, 1981; 1991; Stets

& Biga, 2003; Stets & Carter, 2012).  To date, the relationship between meanings

associated with the coaching role and coaching behavior has not been studied.  In order to

conduct such an investigation, the specific meanings associated with coaching must first

be identified then employed to develop a scale using the Semantic Differential format.

In addition to the meanings associated with a given role, identity theorists have

specified that the degree to which individuals internalize a role is essential to

understanding the likelihood of them enacting the role.  Burke and Stets (2009) stated

that "the energy, motivation, and drive that make roles actually work require that

individuals identify with, internalize, and become the role" (p.38).  Consistent with this

tenet of role identity theory, McCall and Simmons (1978) conceptualized an enduring

identity ranking hierarchy that they named the identity prominence hierarchy.  The

identity prominence hierarchy designates a person's priorities and ultimately guides ones'

actions across situations and over time (Burke & Stets, 2009).  More specifically, the identity prominence hierarchy is concerned with how individuals perceive themselves according to their values, desires, or what is central and important to them (McCall & Simmons, 1978).  Identities higher in the hierarchy are more important, valued, and central to who that person is and are expected to be enacted more frequently (McCall & Simmons, 1978; Burke & Stets, 2009).  If a mother were trying to convey the identity prominence of her role as a parent, she would likely state that (a) being a mother is a big part of who she is, (b) being a mother is extremely important to her, and (c) caring for her child is in line with her core principles.

Identity prominence also refers to the emotions experienced when engaging in the corresponding role.  Nuttbrock and Freudiger (1991) conceptualized identity prominence as the extent to which identities are related to the strength of a feeling.  They specified that it is the emotional responses one has to others' evaluations of a given role performance that reveals the identity prominence of a particular role.  In accordance with Nuttbrock and Freudiger, the measurement of identity prominence should include items pertaining to the strength of feelings experienced when engaging in a given role.

Existing research exploring identity from a role identity theory perspective is limited, both in quantity and in breath of identities investigated.  To date, five published studies have assessed identity prominence in the domains of motherhood (Ellestad & Stets, 1998; Gaunt, 2008; Nuttbrock & Freudiger, 1991), fatherhood (Habib & Lancaster, 2006), and environmentalism (Stets & Biga, 2003).  Unlike research on the meanings of an identity, identity prominence from a role identity theory perspective has not been measured in a consistent manner across studies.  The three studies that assessed mother

identity were based upon an emotional response scale, while the environmentalist and

father identities were measured in reference to the importance of the role. It is worth

noting that although centrality has not been examined under the label identity

prominence, it has been examined with one item identified as assessing identity salience

(Anderson & Cychosz, 1994). Nuttbrock and Freudiger (1991) have argued that

including items pertaining to centrality in measures of identity salience is problematic as

identity prominence and identity salience are distinct constructs. Research findings do

provide support for the hypothesized association of identity prominence (centrality,

importance, and emotions) with identity congruent behaviors (Ellestad & Stets, 1998;

Gaunt, 2008; Nuttbrock & Freudiger, 1991), although they appear to have

underrepresented the construct of identity prominence. As yet, research has not explored

the prominence of the coach identity from a role identity theory framework.

Based on existing role identity theory propositions and empirical research, the

present study was designed to assess the behavioral and cognitive meanings attached to

the competitive level coaching role, as well as the associated emotions, centrality, and

importance of the role. Semi-structured interviews were conducted to provide access to

the subjective world of competitive level coaches in order to obtain an in-depth and

detailed description of the coaches' world through their eyes.

## Methods

**Participants**

Eight head coaches (3 female, 5 male) ranging in age from 22 to 61 ($M = 43.50$;

$SD = 13.46$) years participated in the interview process. Participants reported coaching

between five and 35 years ($M = 19.25$; $SD = 10.08$) and indicated that the highest level

they had coached was club/city (2), university (3), or national (3) level teams/athletes.

The primary sport coached by these participants included fastball, football, rowing,

rugby, synchronized swimming, track and field (2), and volleyball.  The genders of the

athletes coached were all males (2), all females (4), or both genders (2).  In general, these

coaches recognized themselves as former high level athletes in the sport that they

coached – professional (1), national (3), university (2), club (1), and one coach had never

competed in the sport that he coached.  The demographics of the participants, as well as

the pseudonym for each coach, are presented in Table 1.


Table 1

*Summary of Participants and Ascribed Pseudonym*

| Pseudonym | Age | Sport | Years Coaching | Level Coached |
|-----------|-----|-------|----------------|---------------|
| Tommy | 32 | Track & Field | 11 | Club – national |
| Pam | 40 | Rugby | 17 | University – national |
| Bruce | 61 | Rowing | 35 | National |
| Larry | 60 | Fastball | 20 | University |
| Tammy | 48 | Track & Field | 26 | University- national |
| Tiffany | 22 | Synchronized Swimming | 5 | Club |
| Paul | 37 | Football/Track | 10 | High school |
| Jason | 48 | Volleyball | 30 | University |

*Note.* Years coaching represents the total years coaching at any level. Level coaching is the primary levels

that they currently coached.


**Interview Guide**

A general interview guide approach was utilized to direct the interview.  This

guide contained pre-determined questions, yet allowed flexibility in the manner that

questions were posed (Patton, 2002; Turner, 2010).  It was divided into three sections,

beginning with introductory based questions that were descriptive in nature, easy to

answer, and based on the participant's experience (sample question, "Could you tell me a little about the team(s) that you are coaching right now?"). The second section of the interview involved questions pertaining to meanings attached to coaching. These included (a) "What is expected of coaches in general?", (b) "When you hear the word coach, what pops into your head?", (c) "Could you explain what it means to you to be a coach?", and (d) "Please explain your coaching philosophy?". Probes were used to facilitate more in-depth and rich responses and/or to provide direction regarding the desired level of response from the participant (Patton, 2002). The probes used most frequently for meanings questions were; "What is expected of coaches from athletes?", "What words would you use to describe a coach?", "Are there any specific characteristics that you would use to describe coaching?" and "How has your coaching philosophy changed over the years?" The concluding section of the interview contained questions pertaining to the prominence of the coaching role: (a) "Thinking about the roles in your life, how does your role as a coach fit in?", (b) "Could you explain how important it is for you to coach?", and (c) "If you could not coach, how do you think you would feel?" The most frequently used probes were; "How does coaching compare to other roles in your life?" and "Why is coaching so important to you?". After the interview, the interviewer provided a recap of the questions and responses discussed, and provided the participant with a final opportunity to offer any additional insights and/or ask questions.

**Procedures**

Eleven coaches were recruited to participate in the study via publically available information that was located on the affiliated teams' webpage or through personal connections. These coaches were selected as potential participants as they had been

identified by the researcher (either personally or through a mutual acquaintance) to possess a highly prominent coach identity. The coaches who expressed interest in the study ($n = 8$) were provided with the letter of information concerning the study and a date and time was arranged for the interview to be conducted. On the day of the interview, the interviewer discussed the letter of information with the participant, addressed any questions raised, and obtained informed consent. The audio recorder was then turned on for the duration of the interview. Upon completion of the interview, the interview was transcribed verbatim. Participants were asked to review the transcription at their convenience to ensure that the information was conveyed in its intended manner.

**Data Analyses**

After the interviews were transcribed, thematic analyses were employed with the aid of the qualitative software program QSR NVIVO 9 (QSR International, 2010). The data analysis guidelines outlined by Braun and Clarke (2006) were followed. Transcripts were read and re-read, relevant components of the raw data were coded – data were organized and labels were used to classify and ascribe meaning to pieces of information – and potential patterns were noted. Coded data were sorted and collated into potential higher order themes, and lower order themes were considered. The themes were analyzed, refined, and re-evaluated to ensure internal homogeneity and external heterogeneity such that commonality existed amongst codes within a theme, yet clear distinctions were established between themes. The themes were analyzed deductively first using role identity theory as the guiding framework, then an inductive analysis was employed to ensure that the pattern of themes formed were logical and in accordance with the participants' responses. A thematic map was specified that depicted the two

levels of themes, the higher and lower order theme names, and the number of codes identified within each.  Finally, the themes were examined once more to ensure that they had been adequately refined and named.  The first author coded each transcript and third author independently coded two of the transcribed interviews (25%) as recommended by MacQueen, McLellan-Lemal, Bartholow, and Milstein (2008).  The inter-rater reliability score was approximately 95%.

## Results

Responses provided by the coaches were organized into three levels of themes, with the first two levels representing higher order themes which were used to organize the third level, or lower order themes.  (For a visual depiction of the theme tree, see Figure 1).  The organization of the higher order themes was guided by the conceptual underpinnings of role identity theory and therefore was deductive in nature.  The lower order themes contained the coded units which were inductively derived.  All lower order themes contained responses from at least five of the coaches in the study, though some less frequently noted themes were also mentioned.

The construct of coach identity was broken down into two higher order themes: *coach meanings* and *coach identity prominence*.  Coach meanings was further divided into *coaching behavioral expectations*, *coaching characteristics*, and *ultimate coaching purpose*, while coach identity prominence was divided into *coaching centrality/importance* and *coaching emotions*, respectively.  The higher order theme of coach meanings was labeled as such as the corresponding responses pertained to the meanings that coaches attributed to being a coach, including (a) the behaviors they felt they were expected to carry out; (b) the personal attributes they believed were important

Figure 1. Coach Identity Tree with Corresponding Coded Units
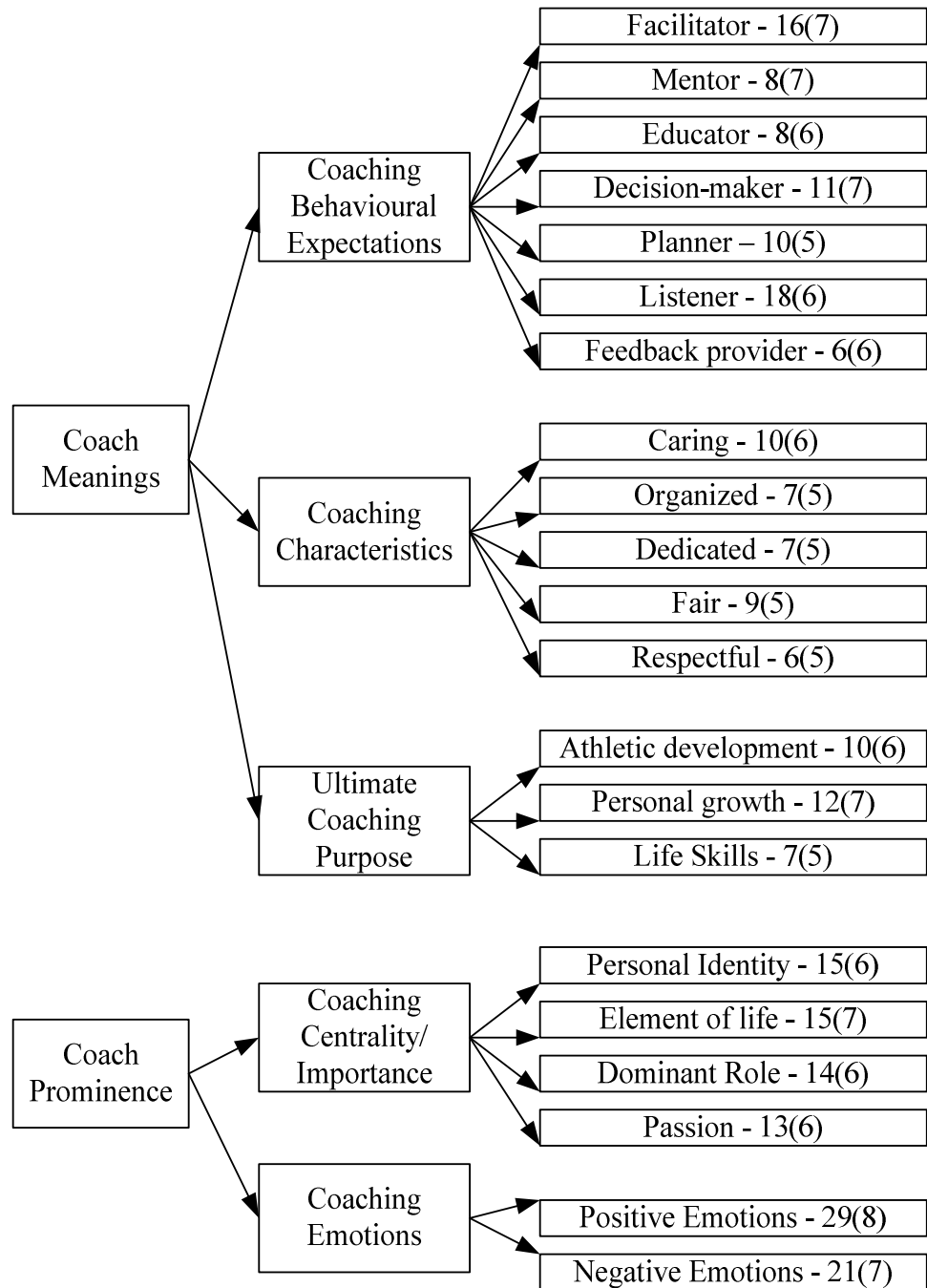


*Figure 1.* The number outside the brackets represents the number of coded units in the theme. The number inside the brackets represents the number of participants that provided a response for the corresponding theme.

to coaching; and (c) the ultimate objective they sought to achieve by coaching.

Furthermore, responses that were coded under the coach identity prominence higher order theme concerned the strength of which participants identified with their role as a coach, which included (a) the *centrality/importance* of the role, and (b) the *emotions* associated with coaching. These are discussed further in the following sections.

**Coach Meanings**

**Coaching behavioral expectations.** Coaching behavioral expectations referred to the roles/tasks respondents felt were essential to and expected of them in their position as a coach. Participants identified 28 coaching behaviors, which yielded seven lower order themes – *mentor*, *facilitator*, *listener*, *feedback provider*, *educator*, *planner*, and *decision-maker*. One of the roles reported by the largest number of coaches that received the greatest emphasis was being a mentor, role model, or leader. Pam described the mentor role in the following manner:

> I truly believe that say what you do, do what you say. So if I expect my
>
> athletes to present themselves respectfully, and professionally, then I should
>
> do the same.

Although many of these behavioral expectations are self-explanatory, the role of facilitating others is perhaps less clear than others as it may be perceived differently by various people. Many of the coaches described the role of being a facilitator as providing the athletes with the necessary tools and the environment to elicit the greatest potential for development in their sport. For example, Tommy explained being a facilitator as:

I expect that I should be able to move those athletes forward, and like I said, if

I can't, I need to be able to find, you know an avenue to provide that athlete

with what they need.

Consistent with five of the other participants, Tommy also indicated that listening

was a key behavior/task that coaches must engage in:

I should be a very good listener to my athletes. Umm, because I have a wide

variety of athletes, with different capabilities also, and umm, if I don't listen

to them, I don't have the proper feedback I need in order to, umm, continue to

move them along.

The fourth theme pertained to the feedback coaches provided for their athletes.

Six of the coaches in the study indicated that giving technical feedback was essential to

athlete development. Paul specified that it was important:

. . . to show the athletes where they made the mistake instead of assuming

they know where they made the mistake, you know, through video, or

something like that.

Similarly, six of the coaches reported that coaching entailed acting as a teacher or

an educator for the athlete by conveying their knowledge regarding the technical and

tactical elements of the sport to the athletes. One participant conveyed this theme by

stating that she was "the teacher and communicator of the knowledge of sport (Tammy)".

Coaches recognized that the time consuming duty of planning was a primary role

that others expected of them and that they expected themselves to do. This was

addressed by Paul:

When I get prepared for a practice, I need to over plan for a practice, so we

can, so if we are going to have idle time, or if we aren't going to have enough

time, I can pare back or find something to fill time with.

Finally, seven of the coaches indicated that coaching involved decision-making in

their position as an authoritative power of the team. Many of the coaches indicated that

this role entailed making selections, rules, and disciplining the athletes, the latter being

their least favorite role. Larry specified the role of decision-making in the following

manner.

They [the athletes] need to know why you make the decisions you make.

They need to know, you know, the rules. . . It's not easy to tell someone

they're not good enough to be on the team, or they're not good enough to

start, or to dress. Those are the difficult things. . .

Despite the fact that several of the tasks identified in the study may be commonly

associated with the coaching role, the present study findings highlighted the complexity

of the coaching role. A secondary task that was mentioned several times by four of the

participants was the task of a parent figure. Upon further inspection, it was noted that

these coaches had coached or were coaching youth or adolescent athletes; therefore the

role of a parent figure may represent a theme that is unique to coaches of younger

athletes. In addition to identifying commonly shared themes, many coaches reported

tasks that were not discussed by any other coaches (e.g., medic, video taper, or coach

manager), which underscores the idiosyncratic aspect of coaching.

**Coaching characteristics.** Coaches conveyed 33 characteristics or attributes that

they felt they had or that were important to possess as a coach. In comparison to the

coaching behavioral expectations, there was less commonality shared between participants regarding coaching characteristics.  Five lower order coaching characteristics themes were extrapolated based upon coaches' responses – *caring*, *respectful*, *fair*, *dedicated*, and *organized*.  Although only five themes were formed, three or four coaches communicated that being knowledgeable, adaptable, patient, punctual, and athlete-centered were also characteristics that they believed were important.

Participants reported that a coach should be caring or compassionate toward the athletes.  This was summarized by Tommy:  "I definitely think a coach has to act in a caring way. . . lots of things happen in an athlete's life, and at any given point you have to put on a different hat."

Another characteristic that could be viewed as complementary to caring is being respectful.  Respondents suggested that demonstrating respect toward the athletes as well as others in the athletic environment, such as officials, is an essential characteristic that coaches must possess which was expanded on by Pam:

Obviously respect is a critical piece, respecting the athletes as people, as individuals, that they are.  Even though they are there for a common reason, they are there for their own reason.

The third coaching characteristic reported was the need to be fair, objective, or ethical in order to provide the optimal athletic environment.  Larry described his perspective by stating:

I think the key thing is to keep everything as transparent as possible, you know, be objective, not subjective, and let everyone know what your decision is and why.

Five of the participants also articulated that coaches should be dedicated, and further specified that the dedication was in relation to the program, developing the athletes, or achieving goals. Tiffany suggested the implications of being committed to an athletic program when she noted that coaches should be "dedicated . . . because if a coach misses two practices every other week, there's not much hope for the swimmers."

Finally, five participants communicated that coaches should be organized, which was depicted in a statement by Tammy: "I am very organized at the track, and I'm very organized with our team, and that is important".

Upon closer inspection of the comments pertaining to coaching characteristics, we noticed that these characteristics were not necessarily pre-existing characteristics, but rather, coaches had learned the importance of such characteristics through experience and over time.

**Ultimate coaching purpose.** Ultimate coaching purpose referred to the overarching reason that participants coached, which highlighted what they wished their athletes gained from their sport experience. Three lower order themes emerged from the coaches' responses: *athletic development*, *personal growth*, and *life skills*.

The first theme of athlete development, although mentioned by six of the coaches, was not explained in great detail by any of the coaches. Coaches simply assumed that athlete development was a primary objective of coaching. A statement made by Tiffany generally depicted how coaches described their desire to develop the athletes' athletic ability: "I guess I see coaching as a way to help athletes grow as a person I think, not necessarily just in the sport."

Embedded within Tiffany's quote was the second theme which addresses the objective that many coaches had to assist in the development/growth of the athletes as people through their sporting experience.  This ultimate coaching purpose was explained in depth by Bruce when he stated:

> But athletes who come through the system, develop a lot of independence and a lot of personal growth.  The special thing about high performance sport, is a lot of people are not prepared after they get comfortable on a team, or they win a gold medal, or they make an Olympic team, to move on with their life.  So that's a big concern of mine, that I'm also preparing them to move on from rowing . . . I don't want them going into that state, where they are just kind of lost. I want them to feel where there was a moment in their life, they tried very hard when they were young, and they're ready to move on, and do other really neat things in life.

The final theme that was reported by more than half of the coach participants was the purpose of developing life skills and values through the sport medium.  Although this concept may seem very similar to the last, the personal growth theme was more generalized and included statements regarding athletes developing and growing as a whole person, while this third theme specified the skills and values that coaches felt athletes should develop through sport.  Some of the values that were mentioned included, accountability, respect, and being selfless, while the life skills included confidence, and social interaction.  An example statement of a coaches' desire to convey life skills was provided by Tammy:

Ultimately, I want our student athletes to develop into good people, to learn

through their experiences in sport. To learn, you know, how to work with

others. To learn life skills, you know. They're going to have opportunities to

officiate, to work with their team mates. To coach kids maybe, you know. I

want them to learn those skills that they can take outside sport after. So, to

develop lifelong skills and friendships.

In summary, the ultimate reason that these participants engaged in coaching

extended beyond the typical portrayal of coaches in the media who are primarily

concerned with the development of the athletic skill set of the athletes. These findings

indicate that these coaches are also concerned about the personal growth of the athlete as

well as the life skills and values the athletes develop through their experience in sport.

**Coach Prominence**

   **Coaching centrality/importance.** Coaching centrality/importance contained

responses conveying the importance of coaching to the participants, or how integrated

that role was to their being. Four lower order themes were formed from participant's

responses, which were labeled *personal identity*, *element of life*, *dominant role*, and

*passion*.

   The first theme of personal identity spoke to the degree to which coaching was

ingrained into who participants were, or how they thought of themselves as individuals.

A brief comment provided by Pam echoed other respondents' statement regarding

personal identity:

I'm a coach by nature, that's what I do, that's what I am.  I coach my

daughter. I don't coach her in rugby, but I coach her in life.  That's how I am.

That's just the type of person that I am.  I coach.

Similar to the first theme, the second theme, element of life, contained statements

reflecting the participants' beliefs that coaching was an important element/need in their

life.  Like all of the coaches in this study, Jason was an athlete before he was a coach.

One of the comments Jason provided addressed how coaching became a part of his life

after he no longer participated in sport.  He stated:

I was always interested in, in volleyball as a player, and once I finished

playing, coaching really became an important part of that. . . I need[ed] that

part of my life.

The third theme included responses that pertained to the dominance of the

coaching role in these coaches' lives in comparison to other roles.  Coaching was ranked

as either the first, second, or third most important role in their life, with family, teaching,

and education serving as the roles that surpassed coaching.  Of those coaches who

reported coaching as a dominant role in their life, most reported sacrificing other aspects

of their life, such as time spent with family for their coaching role.  Others indicated that

coaching was one of the central roles in their life that was simply in harmony with their

other roles.  A statement made by Bruce clearly depicted the dominant role of coaching in

his life, while also articulating how important family was as well:

I keep my life really simple.  My life revolves around family first, and

everything related to our family, being a good spouse, being a good father,

and having a very strong family relationship. . . On top of that I coach rowing,

and I do nothing else. So I devote only time to these two things in my life.

The fourth theme recognized by more than half of the participants reflected the

love or passion that participants felt towards coaching. Tommy explained his passion for

coaching saying: "you know definitely when I think of coaching I think of love, love for

what I'm doing. Excitement for what I'm doing. Love for the athletes that I'm involved

with . . ." Paul provided a more in depth explanation for his love of the coaching role:

> Some days, you wonder why you do it, but the next day you realize why you
>
> do it. You know, when you have that kid come back and thank you, you win
>
> the game you didn't have a chance, shouldn't have had a chance to win, a kid
>
> does something finally that you've worked on him to be good at doing, but
>
> hasn't been able to do all season. You know, it's, it's the, the intangibles to
>
> the profession that you don't get anywhere else, that makes you feel, in all
>
> capacities, emotional. For the highs and lows, and the positives and the
>
> negatives. It's just, I love coaching.

In addition to the four themes previously noted, one more theme was recognized

that explained the importance or centrality of the coaching role, although it was not

identified as a primary theme because only half of the participants discussed it.

Responses that were coded under this secondary theme (10 coding units) made reference

to believing coaching was the role or the contribution they could make to society. Pam

alluded to this when she stated that:

> I think everybody has a strength and has, not necessarily a purpose in life, but
>
> I mean I think everybody can contribute to, I hate to use the word mankind,

but to society, in their own way, or something that can contribute and that's

[coaching is] what I'm good at.

In summary, the coaching centrality/importance higher order theme contained

four lower order themes that were inductively generated and addressed the degree to

which coaching was internalized into the self, the coaches' personal lives, or expressed as

an essential role in their life.

**Coaching emotions.** The final higher order theme, coaching emotions, was

divided into the two lower order themes of positive emotions and negative emotions

associated with coaching sport.  The emotions discussed by participants were rarely in

relation to a performance outcome (such as winning or losing a competition), but instead

referred to athlete development and the athletes' personal achievements in sport or in life.

The participants also discussed the emotions in relation to their own success in

performing their job adequately.  Furthermore, although there was a substantial number

of negative emotion coding units, many participants reported that they experienced a

greater number of positive than negative emotions. This was articulated by Pam when she

stated "There's a bad side to everything but obviously the good side out-weighs the bad,

otherwise you wouldn't do it".  In total, there were 15 emotions reported, nine of which

were positive, and six of which were negative.

The most frequently recalled positive emotions were enjoyment, excitement,

pride, satisfaction, and rewarding feelings.  Bruce described the rewarding feeling felt

when athletes succeeded in life, beyond the sporting arena:

When I see a woman that I coached 10 years ago, now being very successful

in life, or contributing in some way to society, that's probably my most

rewarding experience as a coach, so in other words, the experiences that most of us think about, success at games or winning gold medals, are in the moment experiences, what really charges me up as a coach, is, the long term implications of how sport has affected someone's life, and how they come out of it, 5, 10, 15 years later. That's when I see the model working successfully and probably when it's the most exciting for me and the most satisfying thing about coaching.

On the negative side of the spectrum, only two negative emotions were commonly reported, including frustration and disappointment. When coaches recalled feelings of frustration or disappointment, they often spoke of situations in which they felt they did not perform well as a coach (such as failing to connect with an athlete or teach them a valued lesson or skill) or that the athlete did not act in a way that was consistent with the team values. For example, Tiffany highlighted the following experience of feeling frustrated with her athletes:

As a swimmer I was always the one that was fifteen minutes early to practice every time, so it`s frustrating to me when swimmers don't show that sort of dedication, or when I can tell they have the ability to do something but they're not, not trying for whatever reason.

Of the 15 emotions reported by participants, only two positive (enjoyment and reward) and one negative (frustration) were communicated by more than half of the participants. From this, it could be concluded that although all coaches experience both positive and negative emotions in the coaching role, the exact emotions that they experience vary.

**Discussion**

The aim of this study was to investigate coach identity through a role identity theory lens by exploring both the meanings and identity prominence of the coaching role. More specifically, we sought to understand the behavioral and cognitive meanings that coaches attribute to their role as a coach. Secondly, we wanted to gain further insight into how coaches value and internalize their coaching role, as well as how they feel while coaching. A thematic tree consisting of two levels of higher order themes and 21 lower order themes was formed based on the participant's comments.

The first higher order theme, coaching meanings, was divided into three categories. The first category was coaching behavioral expectations, which comprised of responses pertaining to tasks or behaviors that these coaches believed were part of their role as a coach. Empirical research exploring the tasks of sport coaches is limited. However, a recent study conducted by the Coaching Association of Canada (Reade et al., 2009) asked sports organizations to rate how important (1 = *not expected to do*; 4 = *very important*) 25 specified tasks were for coaches to perform. Nine of the tasks were rated most frequently as "very important", including: Coaching athletes at competitions, supervision practice, reviewing video/competition preparation, recruiting athletes, creating physical conditioning programs, attending workshops/seminars, attending meetings, promoting the sports organization, and recruiting staff members. Inspection of the findings of this study in conjunction with the present one indicates that some similarities exist between the behavioral/tasks coaches are expected to perform. For example, the task of being a planner in the present study could be viewed as an umbrella term for several tasks mentioned in the study conducted by Reade et al. (2009; e.g., create

a physical conditioning program, or competition preparation).  Yet, the variability between these studies is also evident, as many of the tasks recognized in one study were not prevalent in the other study.  The reason for these differences may be due to several factors that differentiated Reade and colleagues' study from this one, including: Predetermined tasks identified by the researcher, organizers serving as respondents, or that the coaches were all high performance coaches.  Therefore, more research should be conducted to determine if the tasks coaches are expected to perform differ by the perspective (coaching vs organization), or by the competitive level of the coach.

Following the theoretical underpinnings of role identity theory (Burke & Stets, 2009; McCall & Simmons, 1978), the behaviors/tasks identified in this study were in line with their own and others expectations of them when engaging in the coaching role. Coaches indicated that they had learned these behaviors primarily through other coaches who were either their coaches, co-coaches, opposing team coaches, or coaches in the media.  Participants also stated that they learned these behaviors over time as they gained experience and feedback from the athletes they worked with.  These results confirm role identity theorists' claims that meanings are learned through responses from others in the environment (e.g., athletes) as well as through imitation (e.g., other coaches).  In addition, a number of behaviors were reported by several of the participants, while several other roles were provided by only one participant.  This finding lends support to McCall and Simmons' (1978) argument that a conventional dimension exists such that meanings may be shared between individuals acting in the same roles, or they may be idiosyncratic in that a person ascribes a unique meaning to a role that differs from similar others.

In addition to behavioral meanings, identity theorists (Burke & Stets, 2009) have purposed that internal mindful or cognitive meanings also exist. Participants' comments yielded 33 coaching characteristics/attributes that they thought represented the role of being a coach. These coaching characteristics may be viewed as cognitive meanings as they were internal processes that the coaches expected themselves to possess and indicated were essential to their role as a coach. Similar to behavioral expectations, participants communicated that these characteristics/attributes were learned through experience with athletes and other coaches over time. The most significant cognitive meanings raised were the ultimate coaching purposes the coaches intended to convey to their athletes. Coaches' comments that were placed in the ultimate coaching purpose theme depicted what coaching meant to them in terms of their philosophy and the driving forces behind their coaching viewpoints. The ultimate coaching purposes were concerned with the development of the athlete, their personal growth, as well as their life skills/core values. This finding is consistent with studies conducted with Canadian Olympic and university level coaches who reported coaches to be equally worried about the personal and athletic development of their athletes (Vallée & Bloom, 2005). This study contributes to existing literature as it identified the behavioral and cognitive meanings that coaches ascribe to their coaching role through inductive processes, which has yet to be done from a role identity theory perspective.

At the practical level, implications drawn from responses pertaining to the meanings coaches ascribe to coaching emphasize the importance of coaches' social networks. Considering that coaches indicated that meanings were learned primarily from other coaches, sporting organizations should place greater emphasis on fostering coach

interaction.  Sporting organizations could foster such an environment either directly or indirectly.  The most realistic method organizations could directly facilitate coach interaction would be through workshops/meetings.  Although such meetings may already exist for many organizations, coach interaction may not be the emphasis of the event and may not be optimally cultivated.  At an indirect level, sporting organizations could increase coach interaction by referring coaches to existing resources, including: Coaching education resources (e.g., coach certification workshops, conferences, or mentor programs), specific sport/coaching Facebook or website pages (e.g., Coaches of Canada Facebook Page or the World Class Coaching website), or examples of iconic coaches (e.g., books, magazine articles, or documentaries).  Through these means of facilitating coach interaction, coaching organizations should emphasize the importance of (a) asking questions, (b) discussing expectations of athletes/organizations/parents, (c) debating the benefits/drawbacks of various coaching practices and (d) undergoing personal reflection (i.e., consider what their coaching philosophy is).

Coaches in this study also indicated that they learned the behavioral and cognitive meanings of coaching through the athletes they coached.  Coach organization and coaches could utilize the information provided by athletes through the implementation of feedback procedures.  Athletes would be encouraged to complete a form anonymously that reflected what they expected of the coach, as well as the positive and negative aspects of the program and coach.  Coaches could also implement an autonomy-supportive coaching style which fosters obtaining the athletes' perspectives and providing the athletes with a sense of volition and choice (Deci & Ryan, 2002).  Employing an autonomy-supportive coaching style would not only elicit information pertaining to the

expectations of the athletes, but it has also been associated with a host of desirable athlete related factors (e.g., motivation, performance, passion, well-being, and persistence; Adie et al., 2008; Halvari, Ulstad, Bagøien, & Skjesol, 2009; Pelletier et al., 2001).  These procedures should be implemented throughout the season to allow for continuing feedback and potential coaching modifications.  By employing such procedures, the coach and organization would gain an understanding of the athletes' perspectives of behavioral and cognitive coach identity meanings.

The statements that were placed in the lower order themes under the coaching centrality/importance theme depicted the significance of the coaching role in the participant's life.  Coaches described their coaching role as a dominant and essential part of their life.  Of particular interest in this section were the comments made by participants that illustrated the depth of which their coaching role permeated into their personal identity or who they were as a person.  Half of the participants further explained that the role was so engraining to their self that they believed that it was their calling, or the contribution they could make to society.  The statements provided by participants that were placed under the coaching prominence/importance higher order theme may explain why many of these coaches persisted in this time consuming role for limited or no money at all.  The depth of integration and significance of the coaching role provides support for the arguments put forth by Burke and Stets (2009) that the identity prominence of a given role ultimately guides actions across situations and time.

To further understand the identity prominence of the coaching role, the emotions participants experienced while in their coaching role were explored.  Participants experienced both positive and negative feelings in response to the growth and

development of their athletes athletically and as individuals. They also indicated that their emotions were a reflection of how well they felt they performed a task that they believed was important to, or congruent with their coaching role. The primary emotions coaches experienced varied, yet commonly reported positive feelings were enjoyment, excitement, pride, satisfaction, and rewarding feelings, while the negative feelings were disappointment and frustration. The findings of the present study reinforce Nuttbrock and Freudiger's (1991) conceptualization of identity prominence such that the emotions coaches experience while coaching help to further explain the identity prominence of the role in their lives.

Through the findings of this study pertaining to coach identity prominence, further insight was gained regarding the internalized nature, valued importance, and emotions coaches associate with their role as a coach. Consistent with the theoretical underpinnings of role identity theory (Burke & Stets, 2009; McCall & Simmons, 1978), participants indicated that the importance/centrality of their coaching role and the strong emotions they experienced when coaching served as a determinant of their persistence and future intentions in coaching. Although this finding offers initial (albeit limited) evidence of the contentions offered by role identity theorists, it was not the focus of this study, and further research on this relationship is warranted. Evidence concerning the relationship between coach identity prominence and persistence/intentions may be important to coaching organizations as coach retention has been reported to be an issue. For example, a study of 819 high performance coaches conducted by Reade and colleagues (2009) reported that over 40 percent of coaches were in their current position for four years or less. Approximately 45 percent of the coaches in the study did not plan

to stay in their coaching position for more than two years or were uncertain of their intentions.  Considering the role that coach identity prominence may play in coaching intentions and persistence, understanding the factors that foster coach identity prominence may be of interest to coaching organizations.

The primary limitation of the present study was its qualitative nature, which may also be viewed as the best feature considering the purpose of this study.  Qualitative research is bound by the quality of the subjective formation, execution, and interpretation of the interview process by the investigator (Patton, 2002).  This study was also limited to descriptive analysis and didn't allow for inferences pertaining to causal relationships (Braun & Clarke, 2006).  Furthermore, although an attempt was made to conduct this study with a sample of participants that varied in their coaching experiences, readers should be aware that this sample primarily represented coaches of competitive level athletes and failed to accurately represent grassroots level coaches.

Considering the above limitations and lack of research that has been conducted in the coaching context from a role identity theory perspective, the following two future directions are recommended.  First, scholars should use the present study findings to formulate a psychometrically sound measure of coaching meanings.  Based on the extensive use of the Semantic Differential scale to measure role meanings in other contexts (Burke & Reitzes, 1981; 1991; Burke & Tully, 1977; Stets & Biga, 2003; Stets & Carter, 2011; 2012), we recommend using a similar scale with the meanings identified in the present study.  Specifically, we suggest that researchers design and empirically test pairs or words (i.e., gives feedback-does not give feedback, organized-not organized, respectful-disrespectful) across various samples of coaches.

Secondly, the present study findings may be used to generate a measure of coach identity prominence.  After closely inspecting statements made by participants, a list of items could be created that address the importance, centrality, and emotions associated with the coaching role.  Thereafter, the psychometric properties of the items should be rigorously tested.  With these instruments, researchers would be able to explore the nomological network of coach identity using role identity theory as a guide.  The findings of the present study serve as an initial step toward understanding coach identity and may prove useful in future research in this understudied area.

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MANUSCRIPT 2

INITIAL DEVELOPMENT OF THE COACH IDENTITY PROMINENCE SCALE: A

ROLE IDENTITY MODEL PERSPECTIVE[2]

The act of coaching is a complex and multifaceted process that dates back

hundreds of years (Palmer & Whybrow, 2008). In the past few decades, a considerable

amount of research has focused on various dimensions of the coaching role, with sport

psychology emerging as a primary dimension of interest. Much of that research has

focused on coaching styles and behaviors that facilitate optimal athletic behaviors,

cognitions, and affect (e.g., Hodge & Lonsdale, 2011; Pope & Wilson, 2012). Several

scholars have recently pursued a new avenue of research, focusing on the psychological

processes of the coaches themselves, including motivation (McLean, Mallett, &

Newcombe, 2012), psychological needs (Stebbings, Taylor, & Spray, 2011; Stebbings,

Taylor, Spray, & Ntoumanis, 2012), well-being (Stebbings et al., 2012), and burnout

(Raedeke, Granzyk, & Warren, 2000). These researchers, among others, have

emphasized that understanding the factors that determine and drive coaching behaviors is

a worthwhile line of research that has received limited consideration (Amorose, 2007;

McLean et al., 2012; Stebbings et al., 2011). One behavioral antecedent that has yet to be

examined in the coaching context is identity prominence, a concept drawn from the role

identity model[3] (McCall & Simmons, 1978).

According to McCall and Simmons (1978), for every role an individual holds in

society, they have a corresponding *identity* (e.g., father, sister, coach, or exerciser).

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Following a role identity model perspective, identity refers to how one likes to view himself/herself as an occupant of a particular role (McCall & Simmons, 1978). Considering that an identity is ascribed to every role in one's life, it is commonly understood that each individual occupies numerous roles which differ in the degree of importance for that individual. McCall and Simmons have expanded upon this notion of evaluating identities according to their importance and given it the label *identity prominence*. Stated more specifically, identity prominence is defined as how an individual views himself/herself according to what is important or central to him/her, given his/her ideals and desires (Burke & Stets, 2009; McCall & Simmons, 1978). Thus, a prominent role is of great importance to the individual; is central to who the individual is; and is in line with one`s core ideals and principles. Nuttbrock and Freudiger (1991) further proposed that the degree of one's identity prominence is expressed by the emotional responses to appraisals of one's performance in a given role. Thus, the emotional responses elicited when one is asked about the internalized importance of a given identity, reflects Nuttbrock and Freudiger's (1991) emotional conceptualization of identity prominence. In the sporting environment, a coach may identify the prominence of their coaching role by considering the internalized importance or centrality of the role as well as the strength of the emotional appraisals of the coaching role.

Regarding the measurement of one's identity prominence, McCall and Simmons (1978) offered two potential methods of assessing this concept. The first method was an indirect analytical measurement procedure, whereby each role identity was to be evaluated using self-reported responses to the six determinants of identity prominence that McCall and Simmons specified using a Likert scale. From there, a complex

calculation was to be derived which considered the weighting of each role considered in comparison to every other role, as well as the summation of the response scores for each of the determinants.  The second method was a global measure of identity prominence whereby respondents were to be asked to rank-order their roles according to how personally important each role was to them.

Although the first assessment procedure has yet to be utilized in existing research, a similar procedure to McCall and Simmons' (1978) global measure has been employed, whereby participants were asked to graphically represent the prominence of various roles men may occupy (Habib & Lancaster, 2006).  Specifically, participants were asked to look at a list of identities ($n = 16$; e.g., father-to-be, friend, handyman, husband, sportsman, worker), and divide a blank circle portioning it to reflect how important the relevant identities were according to how the father saw himself.  Other researchers (Nuttbrock & Freudiger, 1991) have assessed a mother's identity prominence by considering the emotional responses to five different identities relevant to young women. Respondents were provided with positively (e.g., good mother) and negatively (e.g., poor mother) framed terms and asked to indicate how they felt in response to each of the framed terms for each identity using a 4-point Likert scale.  Thereafter, an index was computed which reflected the ordinal ranking of the mothering role in comparison to the other identities.  The same emotional response based procedure was employed by Ellestad and Stets (1998).  However, only the identity under investigation (the mother identity) was assessed.

Another assessment of identity prominence used by Stets and Biga (2003) was far less complex, and employed one item to assess how important the environmentalist role

was to the participants with a 4-point importance based Likert scale. After an examination of the literature, it is noteworthy that several other studies have examined conceptually similar constructs, such as importance or centrality (e.g., Burke & Reitzes, 1991; Reitzes & Mutran, 2002; Stryker & Serpe, 1994), referencing McCall and Simmons (1966; 1978), which may indicate that they viewed these concepts to be synonymous with identity prominence. These studies have primarily focused on the working and student role and have failed to investigate the coaching role. Examination of the various scales utilized across contexts indicates that the content, scale, and number of items of these measures vary dramatically. Despite the inconsistencies, researchers have tended to operationalize identity prominence in terms of importance, centrality, and/or emotions. Furthermore, some researchers have considered the identity prominence of several identities, while those interested in the prominence of a single identity have assessed only that identity of interest.

McCall and Simmons (1978) postulated that the prominence of each identity is relatively stable and enduring within the self, thereby predicting short term (identity salience) as well as long term behavior and persistence in a given role. Thus, if individuals have identified coaching as a highly prominent role in their life, they are much more likely to continue to coach long term, despite adversity, and choose that role over other roles ranked lower in terms of their identity prominence. Furthermore, it has been proposed that highly prominent identities have a greater impact on both feeling states and psychological factors than less prominent identities (Burke & Stets, 2009).

In addition to the consequences of identity prominence, McCall and Simmons (1978) recognized potential antecedents of identity prominence. Of the six antecedents

identified, commitment – the degree to which one has committed himself/herself to the contents of a role identity – was identified as the "paramount" determinant of identity prominence (McCall & Simmons, 1978). The limited amount of literature that has investigated this relationship between commitment and identity prominence has reported that commitment was moderately associated with and predicted identity prominence of the parent (Nuttbrock & Freudiger, 1991) and environmentalist role (Stets & Biga, 2003). In addition, research has reported relationships between a conceptually similar construct – role centrality – and commitment. These studies reported that commitment moderately predicted the centrality of the student role (e.g., Burke & Reitzes, 1991; Stryker & Serpe, 1994). Thus, results provide initial support for the propositions put forth by McCall and Simmons (1978). However, further research is warranted.

Although McCall and Simmons (1978) conceptualized identity prominence over five decades ago, this concept has received little empirical attention, and has yet to be examined in the context of coaching. One potential reason for this scant amount of research on coach identity prominence is the absence of an instrument that has been subjected to rigorous psychometric testing. Of the studies that have reported measures of identity prominence, the measures were primarily developed for that study (e.g., Nuttbrock & Freudiger, 1991). Furthermore, all of the measures reviewed failed to describe the item generation process or tests of validity. Thus, the development of a psychometrically sound measure of identity prominence would contribute to the literature by serving as the first measure of this construct to undergo rigorous testing, and may serve as an example for other contexts.

In spite of the recognized need for empirical research concentrating on the psychological processes of coaches (Amorose, 2007; McLean et al., 2012; Stebbings et al., 2011), few scholars have explored this field of study. Furthermore, the availability of psychometrically sound measures of psychological coaching constructs is rather scant. The development of a coach identity prominence scale may contribute to this area of interest in several ways. First, the development of such an instrument may assist in our understanding of whether coaches of varied characteristics (e.g., income level from coaching or level of athlete coached) differ in the prominence of their coaching role. Second, this instrument would facilitate further investigation into potential antecedents that predict or influence coach identity prominence, with specific consideration for the determinants identified by McCall and Simmons (1978). This may be a useful avenue of research as it may assist our understanding of how coaching organizations and administration may provide an optimal coaching environment for coaches. Finally, and perhaps more importantly, the development of such an instrument may add to our knowledge of why some coaches persist while other coaches quit their coaching role. Tenets put forth by McCall and Simmons (1978) and empirical research (Ellestad & Stets, 1998; Nuttbrock & Freudiger, 1991; Stets & Biga, 2003) indicates that identity prominence positively predicts behavior, as well as other psychological factors that may influence persistence in a role. Thus, the overall purpose of the studies presented in this paper is to generate a psychometrically sound set of items to measure coach identity prominence.

*ITEM GENERATION AND PILOT STUDY*

Following scale development procedures advocated by Devellis, a pilot study was conducted to evaluate the technical qualities (item length, reading difficulty, clarity, and double-barreled nature) and content validity (i.e., the degree to which a set of items reflects a content domain; Devellis, 2003) of a set of items generated to measure coach identity prominence.

## Methods

### Participants

Expert judges viewed as context specialists (coaches) or construct specialists (academic researchers) participated in the study. This study included ten coaches ($n_{males}$ = 5; $n_{females}$ = 5) ranging from 23 to 58 ($M = 37.13$; $SD = 10.63$) years of age. They were either part-time ($n = 9$) or full-time ($n = 1$) coaches, and had coached for 3 to 15 ($M = 10.42$; $SD = 4.72$) years. Participants indicated that they coached either one ($n = 7$), or three sports ($n = 3$), including; basketball, cheerleading, curling, floorball, football, golf, hockey, rugby, soccer, synchronized swimming, and volleyball. In addition, six coach participants reported they had attained coaching certification from a Canadian national certification program (e.g., Canadian Volleyball Association) or the National Coaching Certification Program (NCCP) at the first ($n = 1$), second ($n = 3$), or third ($n = 2$) level. Seven of the coaches indicated that they were head coaches, while the remaining three served as assistant coaches. Participants reported that the highest level they had coached was national ($n = 1$), provincial ($n = 1$), representative ($n = 1$), varsity ($n = 1$), or elementary/high school sport ($n = 5$).

Academic researchers with published articles theoretically grounded in identity theory or the role identity model comprised the construct specialists group ($n_{males}$ = 3;

$n_{females}$ = 3).  The academic researchers ranged from 35 to 74 ($M$ = 58.33; $SD$ = 15.37)

years of age and reported their professional rank as assistant professor ($n$ = 1), full

professor ($n$ = 2), professor emeritus ($n$ = 2), or senior research scientist ($n$ = 1).  Their

academic departments included sociology ($n$ = 3), kinesiology and recreation

management ($n$ = 1), and anthropology, sociology, and languages ($n$ = 1), while one

participant reported that he/she worked for a non-profit research institute.  Finally, two of

the six academic researchers had previously coached or were currently coaching sport.

**Description of Instruments**

An initial set of 20 items labelled the Coach Identity Prominence Scale (CIPS),

derived from a study conducted by Pope, Hall, and Tobin (2014), were evaluated in this

study.  The items were originally generated from responses of eight coaches of various

coaching experiences whom each participated in one individual semi-structured

interview.  The role identity model (McCall & Simmons, 1978) was used to guide the

item generation process – from the formation of the interview guide to the actual items.

The interview guide was designed to address many facets pertaining to the coaching

identity, including; the internalized nature, valued importance, and emotions participants

experience when coaching.  The following questions are examples of the questions

participants were asked that rendered the responses used to formulate the items: "Where

does coaching fit into your life in comparison to your other roles?", "could you explain

how important it is for you to coach?", and "if you could not coach, how would that make

you feel?".  For a more detailed explanation regarding the participants, interview guide,

interview procedures, and results, please refer to Pope et al. (2014).  Each of the items

generated addressed the importance/centrality of the coaching role, or the feelings the

coaches experienced when they expressed how essential the coaching role was to them. (See Table 2 for the complete list of the 20 items). The stem that was created to proceed the items read; "please rate the extent to which the following statements are true regarding your role as a coach" and the following rating scale was generated; 0 = *not true*; 1 = *slightly true*; 2 = *fairly true*; 3 = *very true*; 4 = *completely true.*

**Procedures**

After attaining ethical approval from the Research Ethics Board of the host university, an expert rating panel was selected. The panel judges were qualified as either context specialists or construct specialists as per arguments put forth by Dunn, Bouffard, and Rogers (1999). Participants were identified as context specialists if they were currently coaching while researchers were identified as construct specialists if they had published articles from a role identity model or identity theory framework. After the specialist groups were identified, the potential participants that met the selection criteria were contacted via e-mail. Contained within the initial e-mail, as well as the follow-up e-mail that was sent two weeks later, was a general overview of the study and a Uniform Resource Locator (URL) to the online survey. The survey took up to 25 minutes to complete.

Questions pertaining to the technical quality of the 20 CIPS items were developed based on recommendations put forth by Devellis (2003). Participants were provided with a general overview of the CIPS, including the stem that would be provided for respondents and the accompanying rating scale. Thereafter, participants were encouraged to rate (*yes* or *no*) the technical quality of each item with four questions that assessed the length ("do you feel that any of the items are exceptionally lengthy?"), reading difficulty

Table 2

*Initial Set of 20 Items from the Item Generation and Pilot Study*

| Item Number | Item | E/U/NN | CVR | Decision |
|---|---|---|---|---|
| 1 | I am a coach by nature. | 5/10/1 | -0.38 | Rejected |
| 2 | I love my role as a coach. | 10/4/2 | 0.25 | Retained |
| 3 | A major role in my life is coaching. | 8/8/0 | 0 | Retained |
| 4 | Coaching gives me a sense of fulfillment. | 8/8/0 | 0 | Retained |
| 5 | Coaching is what I need to do. | 4/9/3 | -0.50 | Rejected |
| 6 | If I were unable to coach, I would feel very empty. | 5/9/2 | -0.38 | Rejected |
| 7 | A coach is the type of person I am. | 8/7/1 | 0 | Modified & |
|   | *Coaching is central to who I am. |   |   | Retained |
| 8 | Coaching is very important to me. | 13/2/1 | 0.63 | Retained |
| 9 | I find coaching satisfying. | 8/7/1 | 0 | Retained |
| 10 | Coaching is part of my personal identity. | 12/4/0 | 0.50 | Modified & |
|   | *Coaching is a part of my personal identity. |   |   | Retained |
| 11 | Coaching is a big part of my life. | 9/7/0 | 0.13 | Retained |
| 12 | I constantly think about coaching. | 3/10/3 | -0.63 | Rejected |
| 13 | If I could not coach, there would be a big void in my life. | 5/9/2 | 0.38 | Retained |
| 14 | I would feel a sense of loss if I was unable to coach. | 8/7/1 | 0 | Modified & |
|   | *I would feel a sense of loss if I were not able to coach. |   |   | Retained |
| 15 | I am best suited for being a coach. | 3/10/3 | -0.63 | Rejected |
| 16 | Coaching is the role that is right for me. | 6/7/3 | -0.25 | Rejected |
| 17 | Coaching is my part in society. | 5/8/3 | -.038 | Rejected |
| 18 | I am passionate about coaching. | 10/6/0 | 0.25 | Retained |
| 19 | Coaching is part of who I am. | 11/4/1 | 0.38 | Retained |
| 20 | Coaching is part of my personality. | 8/6/2 | 0 | Modified & |
|   | *Coaching fits with my personality. |   |   | Retained |

*Note:* The third column contains the number of participants that responded that the corresponding item was essential (E), useful (U) or not necessary (NN).  The * in the second column designates the modified item that was evaluated in Study 2.

("do you feel that any of the items are too difficult to read?"), clarity ("do you feel that any of the items are unclear?"), and multi-barreled nature of the items ("do you feel that any of the items ask about more than one concept?"). Participants were provided with a comment box and encouraged to use this area to explain their responses for each question.

Next, participants were asked to consider the usefulness of each CIPS item as an assessment of coach identity prominence as per Lawshe's (1975) Content Validity Ratio. After reading the definition of identity prominence, participants were asked to "rate how 'essential' you feel the content of each item is to measuring coaching identity prominence". Participants were provided with a 3 point Likert scale labeled 1 (*not necessary*), 2 (*useful*), and 3 (*essential*), and a comment box for each item to allow participants to explain their responses. In addition, a comment box was available at the end of the survey and participants were asked to provide any additional feedback they had regarding the CIPS items.

**Data Analyses**

Data were analyzed in five stages. First, the data were inspected for missing responses and outliers. Second, participants' responses pertaining to the technical quality of the items were evaluating by summing the dichotomous based responses. Third, the content validity of each item was computed (see Table 2) using Lawshe's (1975) Content Validity Ratio (CVR)[4]. Thereafter, the qualitative responses of each section were considered. Finally, based on the feedback provided by the respondents, each item was designated as either a) retained with no modifications, b) retained pending modifications, or c) removed from the item list.

**Results**

**Technical Qualities**

After determining that there were no missing responses or outliers, inspection of the technical evaluations of the items yielded promising results. All participants reported that all 20 items were "not" exceptionally lengthy, and that all items were "not" too difficult to read. Next, only one coach expert indicated that an item asked about more than one concept, yet the participant did not specify which item, nor did they explain their response. Finally, three participants (2 context specialists and 1 construct specialist) reported that at least one item was unclear, with item 6, 14, 16, and 17 being identified by at least one of the participants, and item 5 selected by all three participants.

**Content Validity**

The content validity of each item was evaluated using the CVR (see Table 2). Seven items had a negative CVR score, six items had a score of zero, and seven items had a positive score.

**Qualitative Responses**

The content of the qualitative feedback provided by participants was examined to gain a greater understanding of the participants' quantitative responses, as well as to guide the adjustment and selection of the items. In total, participants provided 22 qualitative based comments pertaining to the content validity of all items. Of the 20 items, item one yielded three responses, with the remaining 19 items rendering zero to two responses each. The content of the qualitative feedback consisted of either a) suggestions for minor wording alterations (item 6, 13, and 14; e.g., change the word 'was' to 'were' in item 14), b) comments justifying why the item was useful, but not

essential (item 2, 3, 9, 18; e.g., "I think the item gets more at one's feelings or evaluation of coaching"), or c) feedback indicating that an item was weak (items 5, 12, 16, 17; e.g., "not a great indication...doesn't necessarily define coaching identity"). In addition, two participants utilized the comment box at the end of the study to indicate that they felt that this instrument contained two subscales, the first of which addressed the centrality or importance of the coaching role, and the second scale addressed feelings or evaluations of coaching. The final noteworthy suggestion provided by a construct specialist indicated that in order to increase the sensitivity of the items to individual differences, it would be useful if the participants were to consider coaching relative to other roles.

## Discussion

After considering the quantitative and qualitative feedback provided by respondents, 13 items were selected from the initial set of 20 to be tested further in Study 1. The 13 items were selected to be retained for further testing because they were evaluated as 'essential' to the measurement of coach identity prominence by at least half of the participants (CVR ≥ 0.00) and did not receive any unfavourable qualitative responses that would warrant deletion. Of the 13 items, four were modified based on participants' responses in this phase of the process. In addition, the stem of the scale was modified to encourage participants to consider other roles in their life as suggested by one of the construct specialists. See Table 2 for the final decision of each item and the modifications made to the four altered items.

## *STUDY 1*

The purpose of this study was to empirically test this instrument with a diverse group of coaches with the intent of selecting a finalized set of psychometrically sound

CIPS items and removing all redundant or cross-loading items.  Furthermore, we examined the factorial validity and reliability of participants scores on the CIPS.

## Methods

### Participants

After removing three participants that failed to respond to any of the questions in the questionnaire, 343 coaches (male = 198; female = 145), who ranged from 18 to 74 ($M$ = 36.95; $SD$ = 12.55) years of age, participated in the study.  Participants indicated that they had between 1 and 50 ($M$ = 13.10; $SD$ = 10.04) years of coaching experience and held either a head ($n$ = 193), assistant ($n$ = 109) or other ($n$ = 41) coaching position. These participants reported coaching 43 different sports, with the most commonly identified sports being - swimming ($n$ = 120), volleyball ($n$ = 95), hockey ($n$ = 32), soccer ($n$ = 30) and basketball ($n$ = 28).

### Instruments

**Coach identity prominence.**  Participants were asked to respond to the 13 item Coach Identity Prominence Scale (CIPS), using the 5-point Likert scale ranging from 0 (*not at all true*), to 4 (*completely true*), with 1 (*slightly true*), 2 (*fairly true*), and 3 (*very true*) existing in the middle.  The participants were provided with the instructions to "please rate the extent to which you agree with the following statements regarding your role as a coach relative to other roles in your life (for example, parent, spouse, employee, exerciser, committee member, or blood donor) in the past year".  The specific items included in this study are identified in Table 2 as "retained" or "modified & retained".

### Data Collection Procedures

Upon attaining ethical approval from the Research Ethics Board of the host university, participants were recruited online either by e-mail or via a public interface such as websites or Facebook using a three-stage iterative process. First, 87 coaching organizations were contacted via publically available information to request their participation to distribute the survey to their affiliated coaches. Second, organizations that expressed interest were provided with either an initial e-mail script or an advertisement that included information pertaining to the purpose, involvement, anonymity, and confidentiality of the study as well as the link to the online survey. Finally, the contact person of the organization was asked to send the initial e-mail script and/or post the advertisement on their website or Facebook page. The questionnaire took approximately 5 minutes to complete, and participants were provided with an opportunity to win a gift certificate to Sport Chek at the end of the survey.

**Data Analyses**

After screening the data, two pre-determined, theory guided coach identity prominence (one and two factor) measurement models were specified and analyzed using Confirmatory Factor Analysis (CFA) procedures. The one factor model was tested as all existing measures of identity prominence (e.g., Habib & Lancaster, 2006; Nuttbrock & Freudiger, 1991; Stets & Biga, 2003) have measured this construct using one factor, and McCall and Simmons (1978) did not specify multiple dimensions of identity prominence. Although identity prominence has consistently been represented as unidimensional, the content of previous measures has varied considerably to include importance (Stets & Biga, 2003), or evaluative emotion based items (Nuttbrock & Freudiger, 1991; Ellestad & Stets, 1998), and the testing of dimensionality of these measures has never been reported.

Furthermore, role identity model experts in the pilot study suggested that the instrument would likely be best represented by two subscales, labeled importance/centrality and feelings/emotions. Therefore, a two factor model was also tested.

Global fit indices, modification indices, standardized residual, and inter-item correlation scores were used to identify any troublesome (i.e., redundant or cross-loading) items. Each problematic item detected was individually removed from the model, upon which changes to the statistical parameters were analyzed to help determine if the item was to be permanently retained or removed from the model. Next, descriptive statistics, bivariate correlation scores and reliability scores were computed. In addition to the traditional Cronbach alpha ($\alpha$) coefficient scores (Cronbach, 1951), we also reported model-based McDonald's (1970) omega ($\omega$) coefficient scores, which take into account the strength of association between items and constructs and the item-specific measurement errors. $\omega$ reflects the ratio of true score variance attributed to a factor, to the total variance of the items forming the factor.

In the CFA procedures, items were restricted to load on their corresponding factor, latent factors were free to correlate with other latent factors, and the error of measurement associated with each observed variable were uncorrelated. Model fit was assessed using four global fit indices – Comparative Fit Index (*CFI*), Tucker-Lewis Index (*TLI*), Root Mean Square Error of Approximation (*RMSEA*), and Standardized Root Mean Residual (*SRMR*) – in addition to the chi-square ($\chi^2$) test. The *CFI* was selected as it is noncentrality-based, normed, and takes sample size into consideration (Byrne, 2010; Hu & Bentler, 1999), while the *TLI* is non-normed and compensates for the effect of model complexity (Hu & Bentler, 1999). The *RMSEA* has been identified as one of the

most informative fit indices that is noncentrality-based (Hu & Bentler, 1999; MacCallum

& Austin, 2000).  Furthermore, Hu and Bentler (1999) have suggested that *SRMR* should

be used in conjunction with other fit indices such as *RMSEA*.  Although the fit index

threshold values remain controversial (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004),

the following values have been offered to guide the decision making process; *CFI* and

*TLI* values above 0.90 have been reported to reflect acceptable fit (Marsh et al., 2004)

and values greater than 0.95 (Hu & Bentler, 1999) have denoted excellent fit.  *RMSEA*

values less than 0.06 reflect excellent fit according to Hu and Bentler (1999), while

values around 0.08 represent adequate fit as per Marsh et al. (2004).  Finally, .08 has

been reported as an adequate and excellent fit score for *SRMR* according to Hu and

Bentler (1999) and Marsh et al. (2004).  Arbuckle's (1997) AMOS program was used to

conduct all CFA's in this study.  All analyses were performed using bootstrapped

maximum likelihood estimation, which provides the Bollen-Stine bootstrap p-value, and

bootstrap adjusted $\chi^2$ and goodness-of-fit indexes (Yuan & Hayashi, 2003).

**Results**

**CFA Results**

The fit indices of the two a priori CIPS measurement models are presented in

Table 3.  The two factor model was selected above the one factor model as it

demonstrated superior fit scores for all fit indices.  After the two factor model was

selected, the model was trimmed one item at a time in order to remove all troublesome

items until the model attained an excellent level of fit on all indicators.  The

corresponding fit index scores, as well as the number of standardized residual correlation

coefficient scores that exceeded |1.96| (Brown, 2006) are reported after each trimming

Table 3

*Fit Indices of CFA and SEM Models Tested in Study 1 and Study 2*

| | $\chi^2(df)$ | P | TLI | CFI | RMSEA (90% CI) | SRMR | SR ≥ \|1.96\| |
|---|---|---|---|---|---|---|---|
| **13 Item A priori CIPS MM – Study 1** | | | | | | | |
| 1 factor Measurement Model | 607.69(65) | < .001 | .809 | .841 | .156(.145, .167) | .067 | 5 |
| 2 factor Measurement Model | 509.30(64) | < .001 | .841 | .870 | .142(.131, .154) | .059 | 4 |
| **Trimmed 2 Factor CIPS MM - Study 1** | | | | | | | |
| 12 item Measurement Model | 302.70(53) | < .001 | .896 | .917 | .117(.105, .130) | .051 | 3 |
| 11 item Measurement Model | 206.05(43) | < .001 | .922 | .939 | .105(.091, .120) | .045 | 3 |
| 10 item Measurement Model | 132.78(34) | < .001 | .944 | .958 | .092(.076, .109) | .039 | 0 |
| 9 item Measurement Model | 77.78(26) | < .001 | .965 | .974 | .077(.057, .096) | .036 | 0 |
| 8 item Measurement Model | 34.61(19) | .016 | .987 | .991 | .049(.021, .074) | .026 | 0 |
| **Study 2** | | | | | | | |
| 8 item Measurement Model | 55.49(19) | < .001 | .979 | .986 | .065(.046, .085) | .022 | 0 |
| 3 Factor Full Path Model | 149.60 | < .001 | .957 | .968 | .076(.064, .090) | .035 | 0 |

*Note:* $\chi^2$ = chi-squared test; *df* = degrees of freedom; *TLI* = Tucker-Lewis Index; *CFI* = Comparative Fit Index; *RMSEA* = Root Mean Square Error of Approximation; 90% *CI* = 90% Confidence Interval; *SRMR* = Standardized Root Mean Residual; *SR* = Standardized Residual.

and can be viewed in Table 3.  In total, five items were removed from the CIPS including the items "Coaching is very important to me.", "Coaching fits with my personality.", and "I am passionate about coaching." which cross-loaded onto both factors.  The items "I would feel a sense of loss if I were not able to coach." and "A major role in my life is coaching." were removed as they were redundant with other items ("If I could not coach, there would be a big void in my life" and "Coaching is a big part of my life.").

**Descriptive Statistics, Reliability Scores and CFA Results**

The descriptive statistics of the final eight items and subscales of the two factor CIPS models are presented in Table 4, including the mean, standard deviation, skewness, and kurtosis scores, as well as reliability scores ($\omega$, $\alpha$).  The latent bivariate correlation score reported between the two CIPS subscales of *evaluative emotions* and *centrality* for the CFA was strong at .73.  In addition, the factor loading scores and error term scores for the final eight items are also provided in Table 4.

<div align="center">

**Discussion**

</div>

Through Study 1, we sought to examine select psychometric properties of the respondents' scores to the CIPS items for a diverse coaching sample and select a final set of CIPS items.  Upon analyzing various statistical parameter scores from the present study, a two-factor scale containing eight items was selected for our final CIPS instrument.  The reliability scores for evaluative emotions ($\alpha = 80$; $\omega = .88$) and centrality ($\alpha = .92$; $\omega = .90$) were relatively consistent, as all reliability coefficient scores equating to or exceeding .80.  Items loaded on their corresponding factor with scores ranging from .68 to .89.  In addition, all four of the fit index scores for the final eight item instrument

Table 4

*Descriptive Statistics, Factor Loadings, and Error Terms of the CIPS Items and Subscales*

| | *M* | *SD* | Kurtosis | *FL* | α | ω |
|---|---|---|---|---|---|---|
| **Evaluative Emotions** | | | | | **.80/.81** | **.88/.90** |
| I love my role as a coach. | 3.39/3.54 | 0.71/0.62 | 3.37/2.85 | .68/.66 | | |
| Coaching gives me a sense of fulfillment. | 3.27/3.22 | 0.77/0.76 | 0.65/1.35 | .81/.83 | | |
| I find coaching satisfying. | 3.19/3.24 | 0.78/0.72 | 1.29/-0.27 | .76/.81 | | |
| **Centrality** | | | | | **.92/.93** | **.90/.84** |
| Coaching is central to who I am. | 2.54/2.46 | 1.04/1.13 | -0.59/-0.59 | .85/.88 | | |
| Coaching is a part of my personal identity. | 2.53/2.66 | 1.11/1.14 | -0.43/-0.47 | .86/.91 | | |
| Coaching is a big part of my life. | 2.87/2.85 | 1.04/1.10 | -0.11/-0.04 | .85/.83 | | |
| If I could not coach, there would be a void in my life. | 1.97/2.13 | 1.27/1.29 | -1.02/-1.03 | .73/.77 | | |
| Coaching is part of who I am. | 2.80/2.79 | 1.07/1.08 | -0.21/-0.25 | .89/.90 | | |

*Note: FL* = Factor Loading; *ER* = Error Term; α = Cronbach Alpha coefficient; ω = McDonalds omega coefficient. Values presented before the "/" in the second through final column refer to participants scores on the corresponding statistic in Study 1, while the values presented after the "/" represents participants scores from Study 2.

(*TLI*= .987; *CFI* = .991; *RMSEA* = .049; *SRMR* = .026) exceeded the recommended "excellent" threshold values (Hu & Bentler, 1999; Marsh et al., 2004).  Therefore, results from the present study may be interpreted as providing initial support for the factorial validity of the eight item CIPS.  However, replication of these psychometric properties is necessary.

<center>*STUDY 2*</center>

This study was designed to re-examine the factorial validity and reliability, and also test the group invariance, concurrent validity, and nomological validity of the respondents' scores to the CIPS items. The invariance between gender (male/female) and sport type (team/individual) was tested to determine if these groups responded similarly to the CIPS items.  It was anticipated that these groups would not differ significantly in their responses to the CIPS items as there is no theoretical or practical explanation for any variance.  In contrast, concurrent validity (the ability to differentiate groups that should be theoretically different) was examined by assessing the variability between participants of different income statuses received from coaching (volunteer, paid), and competitive level coached (low competitive, high competitive).  Based on the theoretical rationale that people who receive rewards (e.g., money) for engaging in a role are more likely to report greater prominence of that role (McCall & Simmons, 1978), we expected that paid coaches would on average score higher on the CIPS items than volunteer coaches.  Similarly, it was expected that coaches of higher level athletes (provincial level or greater) would score higher on the CIPS items than coaches of lower level athletes (lower than provincial level) as their role as a coach is likely more entrenched into their personal identity and they likely invest a greater amount of time in the coaching role.

Nomological validity was evaluated by testing the relationship between scores on the CIPS and commitment – the most critical determinant of identity prominence (McCall & Simmons, 1978).

## Methods

### Participants

From the initial data set of 495 coaches, participants were removed from the study if they failed to provide any responses at all ($n = 8$), or failed to complete an entire section of the questionnaire ($n = 33$) resulting in a sample of 454 ($n_{males} = 264$; $n_{females} = 189$) coaches. Participants ranged from 15 to 80 ($M = 39.92$; $SD = 13.18$) years of age and reported coaching between 1 and 60 ($M = 14.13$; $SD = 10.61$) years. Coaches indicated that coaching was either their primary ($n = 82$) or secondary ($n = 137$) source of income, or that they did not receive any income at all from coaching ($n = 233$). Respondents also stated that they were either a head coach ($n = 241$), assistant coach ($n = 159$), or some combination of both positions ($n = 19$). The level of athletes these participants coached ranged considerably, from recreation level athletes ($n = 64$), to lower levels of competitive athletes (elementary to representative level athletes; $n = 121$), to higher competitive athletes (provincial to international level athletes; $n = 60$), or multiple levels of sport ($n = 183$). Finally, these coaches reported a total of 60 sports coached, with swimming ($n = 171$), hockey ($n = 64$), softball ($n = 55$), soccer ($n = 47$), and rugby ($n = 34$) being the most commonly reported sports, and 137 coaches reporting that they coached more than one sport.

### Instruments

**Coach identity prominence.** See Study 1 for a detailed explanation.

**Coach commitment.**  Respondents completed a three item commitment scale which was consistent with the scale used by Raedeke (2004).  The three items were "how long would you like to stay coaching?", "how committed are you to coaching?", and "how attached are you to coaching?".  All three items were measured on a 5-point Likert scale, with the first item ranging from 1 (*a short time*) to 5 (*very long*), and the second two items occurring on a scale that was anchored by 1 (*not at all true*) and 5 (*very much so*).  Raedeke (2004) reported a Cronbach alpha coefficient of .80, and an intraclass correlation coefficient score across one year of .64.  Inspection of the Cronbach alpha coefficient scores from the present study yielded a score of .79.

## Data Analyses

After collecting data following the same procedure as Study 1, data analysis commenced with the inspection of missing data, upon which data were replaced using the expectation maximization algorithm.  In total, missing responses were identified for 0.36% of the data.  Descriptive statistics, bivariate correlation scores, and reliability scores ($\alpha$, $\omega$) were then computed for all subscales.  Thereafter, the eight item CIPS CFA, as well as the path model comprising the two CIPS latent variables and one commitment latent variable were tested using Structural Equation Modelling (SEM) procedures.  Similar to Study 1, global fit indices ($\chi^2$, *CFI*, *TLI*, *RMSEA*, and *SRMR*), modification indices, standardized residual, and inter-item correlation scores were inspected.  Items were constrained to one latent factor, latent factors freely correlated, and the observed variable errors were uncorrelated for the CFA and SEM mentioned above.

Next, we conducted four invariance tests across gender, sport type, income status, and competitive level.  Following procedures advocated by Meredith (1993) and Millsap

(2011), multi-group invariance was tested with multi-group CFA models and a hierarchical approach including six steps:  Configural, weak, strong, strict, variance/covariance, and latent means.  The configural model served as the baseline model which estimated the same number of factors and same number of items for each factor, with no additional constraints.  The weak invariance model – metric model – constrained only the factor loadings to be equal across groups.  The strong invariance model, which is also referred to as the scalar model, constrained the factor loadings and the intercepts to be equal across groups.  The strict invariance model – residual model – constrained all parameters in the third model as well as the item error variances.  The variance/covariance model added constraints on the latent variance and covariances.  Lastly, the latent means model constrained all parameters in the variance/covariance model and also constrained all latent means to zero.  Evidence of invariance was prevalent if the chi-squared difference test was not statistically different from the previous less constrained model (Byrne, 2010).  However, scholars (Chen, 2007; Cheung & Rensvold, 2002) have noted that the chi-squared difference test is far too stringent and that the difference in *CFI* and *RMSEA* are more appropriate criteria.  Specifically, a change of *CFI* scores less than or equal to .01 between each increasingly constrained model has been indicative of invariance across groups (Chen, 2007; Cheung & Rensvold, 2002).  Chen (2007) also stated that a change in *RMSEA* scores of less than .015 between increasingly constrained models also supports invariance across groups.

## Results

**CFA and Path Model Results**

The fit indices of the eight item CFA are presented in Table 3. Similar to Study 1, the mean, standard deviation, skewness, kurtosis, factor loading, and error variance scores for all items are presented in Table 4, as are the reliability scores (α and ω) for each of the subscales. Additionally, the latent bivariate correlation coefficient scores between evaluative emotions and centrality for the CFA was strong at .72. Finally, the full path model was examined, which included commitment as the exogenous variable, and each of the CIPS subscales as latent endogenous variables. The descriptive statistics and reliability scores for commitment are as follows; $M = 4.30$; $SD = 0.80$; *Skewness* = -1.27; *Kurtosis* = 1.52; α = .79, ω = .88. The error term scores of the CIPS subscales were correlated ($r = .39$), and commitment was reported as a strong predictor of evaluative emotions (β = .71) as well as centrality (β = .75), accounting for 51 and 57 percent of the variance of these latent variables, respectively. See Table 3 for the fit indices for the path model.

**Group Invariance Results**

Results from the four hierarchical multi-group invariance tests can be viewed in Table 5. Although results from the $\chi^2$ change test were significant between a few increasingly constrained models, the *CFI* change was less than .01, and the *RMSEA* change was less than .015 between all increasingly constrained models from the configural model to the invariance covariance model for all groups (gender, sport type, income level, and competitive level). An examination of the difference test scores (*CFI* and *RMSEA*), demonstrated that the latent means were statistically invariant for all four groups. More specifically, the gender and sport type groups were statistically invariant according to all three difference test scores ($\Delta\chi^2 \geq .150$; $\Delta CFI \leq .001$; and $\Delta RMSEA \leq$

Table 5

*Goodness-of-Fit Statistics for Tests of Multi-group Invariance from Study 2*

| Model | $\chi^2$ | df | CFI | TLI | SRMR | RMSEA (90 CI) | $\Delta\chi^2$ | $\Delta$df | *p* | $\Delta$CFI | $\Delta$RMSEA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | | | | | |
| Configural | 85.70 | 38 | .982 | .973 | .024 | .053 (.038-.068) | | | | | |
| Weak | 92.22 | 44 | .981 | .976 | .025 | .049 (.035-.063) | 6.53 | 6 | .367 | .001 | .004 |
| Strong | 103.26 | 50 | .980 | .977 | .025 | .049 (.035-.062) | 11.04 | 6 | .087 | .001 | .000 |
| Strict | 109.53 | 58 | .980 | .981 | .025 | .044 (.031-.057) | 6.27 | 8 | .617 | .000 | .005 |
| Invar./Covar. | 115.75 | 61 | .979 | .981 | .037 | .045 (.032-.057) | 6.22 | 3 | .101 | .001 | .001 |
| Latent Means | 119.49 | 63 | .978 | .981 | .037 | .045 (.032-.057) | 3.74 | 2 | .154 | .001 | .000 |
| **Sport Type** | | | | | | | | | | | |
| Configural | 85.28 | 38 | .979 | .969 | .029 | .055 (.040-.071) | | | | | |
| Weak | 99.10 | 44 | .976 | .969 | .038 | .056 (.041-.070) | 13.81 | 6 | .032 | .003 | .009 |
| Strong | 108.30 | 50 | .974 | .971 | .038 | .054 (.040-.068) | 9.20 | 6 | .163 | .002 | .002 |
| Strict | 115.45 | 58 | .975 | .976 | .038 | .050 (.035-.063) | 7.15 | 8 | .521 | .001 | .004 |
| Invar./Covar. | 119.40 | 61 | .974 | .976 | .044 | .049 (.036-.062) | 3.95 | 3 | .267 | .001 | .001 |
| Latent Means | 121.39 | 63 | .974 | .977 | .044 | .048 (.035-.061) | 1.99 | 2 | .370 | .000 | .001 |
| **Competitive Level Coached** | | | | | | | | | | | |
| Configural | 88.12 | 38 | .980 | .970 | .024 | .055 (.040-.070) | | | | | |
| Weak | 93.96 | 44 | .980 | .974 | .026 | .051 (.037-.065) | 5.84 | 6 | .442 | .000 | .004 |
| Strong | 99.03 | 50 | .980 | .978 | .026 | .047 (.033-.061) | 5.07 | 6 | .535 | .000 | .004 |
| Strict | 114.96 | 58 | .977 | .978 | .030 | .047 (.034-.060) | 15.93 | 8 | .043 | .003 | .000 |
| Invar./Covar. | 127.71 | 61 | .973 | .975 | .028 | .050 (.038-.062) | 12.76 | 3 | .005 | .004 | .003 |
| Latent Means | 144.00 | 63 | .967 | .971 | .027 | .054 (.042-.066) | 16.29 | 2 | <.001 | .006 | .006 |
| **Income** | | | | | | | | | | | |
| Configural | 74.65 | 38 | .985 | .978 | .027 | .046 (.030-.062) | | | | | |
| Weak | 78.92 | 44 | .986 | .982 | .028 | .042 (.026-.057) | 4.27 | 6 | .640 | .001 | .004 |
| Strong | 87.18 | 50 | .985 | .983 | .028 | .041 (.026-.055) | 8.26 | 6 | .220 | .001 | .001 |
| Strict | 99.39 | 58 | .984 | .984 | .032 | .041 (.026-.055) | 12.21 | 8 | .142 | .001 | .001 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Invar./Covar. | 105.80 | 61 | .982 | .984 | .036 | .041 (.026-.055) | 6.41 | 3 | .093 | .002 | .000 |
| Latent Means | 124.00 | 63 | .976 | .978 | .042 | .046 (.034-.058) | 18.2 | 2 | <.001 | .006 | .005 |

*Note:* Configural Model = no added constraints; Weak = factor loadings were constrained across groups; Strong = factor loadings and intercepts were constrained across groups; Strict = factor loadings, intercepts, and error variances were constrained across groups; Invar./Covar. = factor loadings, intercepts, error variances, as well as covariances and latent errors were constrained across groups. Latent Means = = factor loadings, intercepts, error variances, as well as covariances, and latent errors were constrained across groups, and latent means were constrained to 0; $\Delta\chi^2$ = difference in $\chi^2$ between models; $\Delta df$ = difference in number of degrees of freedom between models; $\Delta$CFI = difference in CFI values between models; $\Delta$RMSEA = difference in RMSEA values between models.

.001). In contrast, the difference test scores were inconsistent for competitive level and income level. Specifically, the $\chi^2$ difference tests indicated that these groups were not statistically invariant ($\Delta\chi^2 \leq .001$) while the other two difference test scores ($\Delta CFI \leq .006$; and $\Delta RMSEA \leq .006$) suggested that they were statistically invariant. Respondents scores on the latent means indicated that volunteer coaches scored lower than paid coaches on evaluative emotions (-0.35) and centrality (-0.41). Similarly, lower level coaches scored significantly lower than higher level coaches for evaluative emotions (-0.20) and centrality (-0.40).

## Discussion

The purpose of Study 2 was to further evaluate the factorial validity and reliability scores of the eight item CIPS. Furthermore, this study was designed to assess the nomological validity, group invariance, and concurrent validity of the respondents' scores of the CIPS items. Study findings provide support for the factorial validity of the CIPS with all factor loading scores being strong and consistent with those in Study 1. The fit index scores for the final eight item instrument were also similar to Study 1, as three of the fit index scores (*TLI* = .978; *CFI* = .986; *SRMR* = .022) exceeded the recommended "excellent" threshold value (Hu & Bentler, 1999; Marsh et al., 2004). Yet, the *RMSEA* index score (*RMSEA* = .065 (90% *CI* = .046-.085)) was slightly lower than the score reported in Study 1 which fell within the adequate criteria range (Marsh et al., 2004). In addition, the reliability scores for the two CIPS subscales were relatively consistent with Study 1 (evaluative emotions; $\alpha = 81$; $\omega = .90$; centrality; $\alpha = .92$; $\omega = .84$), as all reliability coefficient scores exceeding .80. These study results may be interpreted as

providing additional support for the factorial validity and reliability of the eight item CIPS.

Inspection of the path model between commitment and identity prominence yielded initial evidence of nomological validity, as commitment strongly predicted centrality and evaluative emotions. These findings were consistent with the theoretical contentions offered by McCall and Simmons (1978). Although the support for nomological validity is promising, further research must be conducted to examine more constructs in relation to identity prominence in order to fully support the nomological validity of the CIPS instrument.

Inspection of the sequence of increasingly constrained invariance tests using the difference in *CFI* scores as the criterion (Chen, 2007; Cheung & Rensvold, 2002), provided evidence of measurement and structural invariance of the CIPS across four groups. Therefore, the results from the invariance tests indicated that coaches of different genders, sport types, income levels, and competitive levels did not significantly differ in the following statistical parameters of their responses to the CIPS items – factor loadings, intercepts, item error variances, latent factor error variances, or latent factor covariances.

The study finding pertaining to the latent mean invariance tests indicated that as expected, coaches of varied gender and sport type did not differ significantly in their average scores for both CIPS subscales. The results of the latent mean difference tests did not fully support our hypotheses pertaining to the income level or competitive level of the coaches in our sample. Although the trend of latent mean scores were consistent with our hypotheses that higher paid coaches and coaches of higher level competitive athletes would score higher on both identity prominence subscales, only the chi-squared change

test demonstrated a lack of significant ($\Delta\chi^2 \leq .001$) invariance – or a difference. Yet, the

*CFI* change scores ($\Delta CFI \leq .006$) and *RMSEA* change scores ($\Delta RMSEA \leq .006$) did not

exceed Chen's (2007) criteria ($\Delta CFI \geq .01$; $\Delta RMSEA \leq .015$), which was indicative of

invariance (equivalence) in the latent mean scores for coaches of different income and

competitive levels. The trend in participants' latent mean scores for income level is

consistent with the theoretical rationale offered by McCall and Simmons (1978) that an

individual is more likely to have a prominent identity if they receive rewards for that

identity. A plausible explanation for the lack of significance of the *CFI* and *RMSEA*

difference test scores for the latent means is the nature with which participants were

grouped as either volunteer or paid coaches. Based on the open-ended responses, it is

possible that many of the paid coaches received little money for coaching, and therefore

may differ only marginally (or not at all) from volunteer coaches on their responses to

CIPS items. As a result this may have influenced the significance of the *CFI* and *RMSEA*

change scores for the latent means between coaches of different income levels. Future

studies should therefore consider differentiating coaches by the actual income they

receive from coaches, as opposed to paid versus unpaid.

Similar to paid coaches, higher competitive coaches scored higher on the CIPS

items for both subscales, as we would expect that coaches of provincial level athletes or

higher to personally identify themselves as a coach and experience greater emotional

responses upon appraising their coaching experience. It may be possible that the lack of

significance of latent mean difference reported was due to the division of participants into

groups based on the criterion of provincial level coaching status. Future studies with

larger samples sizes should perhaps consider conducting a tertile split in the data and

comparing high performance coaches (e.g., provincial level or higher) to entry level coaches (non-competitive, city based competition).  In doing so, this would avoid a potential limitation of this study, of placing coaches of moderate level of competitive athletes (e.g., AAA, college, or university level), with coaches of lower competitive level athletes.

## Overall Discussion

The purpose of this research was to present evidence pertaining to the development and psychometric properties of the respondents' scores to the CIPS.  An initial set of 20 items was generated based on semi-structured interviews, which were reduced to a final set of eight items dispersed between two subscales.  The first subscale – centrality – contained five items that addressed the importance or centrality of the coaching role, and is consistent with the primary definition of identity prominence (McCall & Simmons, 1978) and previous measures employed to measure this construct (e.g., Stets & Biga, 2003).  In contrast, the second subscale – evaluative emotions – contained three items and pertained to the feelings coaches experience and express when explaining how prominent their coaching role is.  The evaluative emotions items thus reflect Nuttbrock and Freudiger's (1991) conceptualization of identity prominence and are more consistent with previously used measures by Ellestad and Stets (1998).

Although an attempt was made to administer the survey to a diverse sample of coaches, the nature of the samples may serve as a limitation of this study.  The samples in Study 1 and Study 2 included participants that coached in Canada, that were contacted primarily online through coaching and sport organizations.  Therefore, coaches that do not use the internet, or are not affiliated with the organizations recruited would have been

underrepresented in this sample.  In addition, all validity and reliability tests of the CIPS – with the exception of content validity – were conducted with only two samples of coaches.  Therefore, although several invariance tests were conducted with the sample of Study 2, much more research must be conducted to test the generalizability of the CIPS. Future attempts must be made to test this instrument with various coaching populations (e.g., different countries, competitive levels, sports) and using different methods (e.g., recruiting coaches during a tournament).

In addition, despite the numerous psychometric properties tested in the research presented, several other validity (e.g., discriminant, convergent; Trochim & Donnelly, 2007) and reliability (e.g., test-retest reliability; Trochim & Donnelly, 2007) concerns have yet to be tested in relation to respondents CIPS scores.  Only one of McCall and Simmon's (1978) recommended determinants of coach identity prominence was tested, which provides only minimal evidence of the nomological validity of the CIPS. Considering this limitation, further research must examine the extent of the nomological network of coach identity prominence, including at minimum the other determinants recognized by McCall and Simmons (1978; self-support, social support, investment, intrinsic gratification, and extrinsic gratification), as well as behavioral (e.g., persistence, drop-out), cognitive (e.g., role conflict) and affective (e.g., passion), consequences. Additionally, future research should investigate the relationship between coach identity prominence and other conceptually similar constructs (e.g., integrated regulation and eudemonic well-being) to ensure that these constructs are correlated, yet distinct from one another.  One concept, drawn from self-determination theory (Deci & Ryan, 2002) that is conceptually similar to the centrality subscale is integrated regulation.  Integrated

regulation refers to engaging in an activity because the activity is part of the self and is

congruent with personally endorsed values, goals, and needs (Deci & Ryan, 2002). Since

the centrality subscale is concerned with the strength of one's internalized importance or

how central the identity is to his/her core self, it is expected that these concepts will be

strongly associated. However, we would anticipate that identity prominence would

predict integrated regulation, as integrated regulation is one's motivational drive to

engage in an activity as a result of the integration of that behaviour into the self (a.k.a.

centrality). In summary, although the findings presented in this paper offer initial support

for the psychometric properties of the CIPS, researchers should investigate the suggested

avenues of research in order to make greater contributions to the coaching literature.

**Notes**

3.  Contentions put forth by McCall and Simmons (1966) embedded within the role

    identity model are similar to Stryker (1980) and Burke's (1980) identity theory

    which were developed independently in the same time frame.  Therefore,

    although the concept of identity prominence was solely conceptualized by McCall

    and Simmons, some research acknowledges it under the theoretical framework of

    identity theory (Burke & Stets, 2009).

4.  The CVR (Lawshe, 1975; CVR = $[n_e - (N/2)]/ (N/2)$; $n_e$ = number of 'essential'

    responses; $N$ = total number of responses) was used to evaluate the degree to

    which the content of the items reflected the concept of identity prominence.  CVR

    scores can range from -1.00 to 1.00, with negative scores indicating that less than

    half of the judges rated the item as 'essential' and positive scores indicating that

    more than half of the participants rated the item as 'essential'.  Lawshe (1975)

    provided a suggested criterion for the selection of items, which was dependent on

    the number of judges (16 judges – CVR = 0.49; $p \leq .05$).  However, Lawshe,

    specified that if an item failed to reach that criterion, other forms of analysis may

    be used to determine the ultimate retention of the items, thus it is to be used as a

    guide rather than an objective tool.  For the purposes of this study, all items that

    scored below zero were removed from further evaluation in the studies that

    followed.

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MANUSCRIPT 3

FURTHER VALIDATION OF THE COACH IDENTITY PROMINENCE SCALE[3]

Identity prominence is defined as the way in which an individual views himself/herself, according to his/her ideals and desires or what is central and important to the individual (Burke & Stets, 2009).  Guided by the role identity model (McCall & Simmons, 1978), the Coach Identity Prominence Scale (CIPS; Pope & Hall, 2014) operationalized identity prominence with two subscales, which were labeled as centrality (five items) and evaluative emotions (three items).  The centrality subscale follows the original conceptualization of identity prominence (Burke & Stets, 2009; McCall & Simmons, 1978), and refers to one's perceived internalized importance or centrality of their coaching role.  The evaluative emotions subscale is consistent with previous operationalizations of identity prominence (Ellestad & Stets, 1998; Nuttbrock & Freudiger, 1991), and concerns the emotional responses evoked by one's appraisals of his/her coaching role.  The eight items that make up the CIPS were originally drawn from a study conducted by Pope, Hall, and Tobin (2014), which was the first of a series of studies to investigate this concept of identity prominence in the coaching context.

Pope and colleagues (2014) explored this concept of coach identity prominence – as well as coach identity meanings – with the intent of gaining a more in depth understanding of the coach identity.  Through semi-structured interviews, they explored how coaches value and internalize their coaching role and the emotions they experience

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when reflecting on the significance of coaching. When participants were asked to indicate where coaching fit into their lives, or how important coaching was to them, they provided responses that pertained to coaching as: (a) an element of their life, (b) a part of their personal identity, (c) a dominant role in their life, and (d) a passion, or they described the emotions that coaching elicited. This study made three contributions to existing research by providing empirical support for the theoretical contentions offered by other scholars (Burke & Stets, 2009; McCall & Simmons, 1978). First, the responses provided by participants demonstrated that identity prominence is a stable and enduring construct. Second, the study findings provided evidence that coach identity prominence serves as a determinant for important coaching behavioural factors, including future intention and persistence in coaching (Pope et al., 2014). Third, the results indicated that the concept of identity prominence may be operationalized in terms of the centrality/importance of a role as per theoretical propositions (e.g., McCall & Simmons, 1978), and by the emotions elicited from the coaching experience, which is consistent with several studies in other contexts (Nuttbrock & Freudiger, 1991; Ellestad & Stets, 1998). In addition to these three contributions, coaches' responses were used to generate items that were further tested by Pope and Hall (2014) and after some modifications, formed the final set of CIPS items.

In developing the CIPS, Pope and Hall (2014) contributed to the instrument development process by evaluating several psychometric properties of the instrument, including: factorial validity, group invariance, concurrent validity, nomological validity, and reliability. Two studies were presented in the paper by Pope and Hall (2014) that tested these psychometric properties with heterogeneous samples of coaches that had

between one and 60 years of experience, represented 60 different sports, and ranged from volunteer to professional level coaches. Evidence of factorial validity was provided with factor loading scores exceeding .60 for all items in both of the studies reported, and all fit indices (Comparative Fit Index, *CFI*; Tucker- Lewis Index, *TLI*; and Standardized Root Mean Residual, *SRMR*) exceeding the recommended "excellent" threshold (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004) with the exception of one fit index score (Root Mean Square Error of Approximation, *RMSEA*) which surpassed the "adequate" criterion. Support for the measurement and structural invariance (or stability) of the CIPS items across gender, sport type, income level, and competitive level was also garnered. Furthermore, tests of invariance of the latent means supported group invariance hypotheses for gender and sport type coached. While only partial support was provided for the concurrent validity of the CIPS, the strong beta score reported between commitment (the "paramount" predictor according to McCall and Simmons, 1978) and both CIPS subscales yielded initial support of the nomological validity of the CIPS. Lastly, Cronbach's (1951) α and McDonald's (1970) ω scores exceeded .80 for both studies which confirmed the internal consistency reliability of the CIPS, with the samples tested. Despite the strong support for the psychometric properties of the CIPS, Pope and Hall (2014) acknowledged the need to further test the validity of the instrument with other samples.

Accordingly, the purpose of the present study was to expand upon the psychometric testing of the CIPS by examining, in addition to factorial validity and reliability, three other types of validity: convergent, discriminant, and predictive. Convergent validity (constructs that should be conceptually related to each other are

observed to be correlated; Trochim, 2006) and discriminant validity (constructs that should not be conceptually related, are in fact, not correlated; Trochim, 2006) were measured in relation to specific motivation forms drawn from self-determination theory (SDT; Deci & Ryan, 2002). Deci and Ryan propose that motivation is best represented by six forms of motivation that exist along a continuum and differ in the degree to which they self-determined and internalized. The six motivation forms are labeled and characterized as follows; intrinsic motivation (engaging in a behaviour freely for the inherent interest and enjoying in the activity itself), integrated regulation (actions carried out because they are congruent with personally endorsed values, goals, and needs), identified regulation (a behaviour acted upon because it is personally important or valued), introjected regulation (an act carried out in order to avoid shame/guilt, or approach ego-enhancement or self-worth), external regulation (behaviour enacted to obtain tangible or social rewards, or to avoid punishment), and amotivation (passive action, or failure to act at all). From an SDT perspective (Ryan & Deci, 2003), it seems plausible that identity prominence would be most strongly correlated with intrinsic motivation, integrated regulation, and identified regulation (convergent validity), and not associated with amotivation (discriminant validity), although these relationships have never been empirically tested in any context. Specifically, we would anticipate that the CIPS subscale, evaluative emotions, would be more highly correlated with intrinsic motivation due to the affective component of both constructs. Additionally, we would expect that integrated regulation and the CIPS centrality subscale would be strongly related as both constructs refer to the integration of a behaviour/role into the self. Lastly, we estimated that both subscales would be non-significantly associated with amotivation

as identity prominence has been theoretically (McCall & Simmons, 1978) and

empirically (Pope & Hall, 2014) linked to persistence in corresponding behaviours, while

amotivation is essentially the lack of action.

The predictive validity of the CIPS was investigated to gain further insight into

how coach identity prominence may serve as an important predictor for understanding

complex processes of coaches. The specific coaching process that we sought to explore

in relation to the CIPS was passion. We examined passion because the concept of

identities and the internalization of identities (identity prominence) are at the core of

passion (Vallerand, 2012), and it has yet to be empirically assessed in relation to identity

prominence. Vallerand (2012) has stated that the activities or roles individuals enjoy and

engage in regularly eventually become incorporated into their personal identity when

they are highly valued, which in turn will lead to passion for that activity or role. The

concept of passion has received a great deal of empirical attention over the last decade

and has resulted in over 100 studies that have examined passion in relation to a number of

cognitive, affect, behavioural, relational, and performance constructs across hundreds of

activities including coaching (Vallerand, 2012). Therefore, examining passion as a

correlate of the CIPS would enhance our understanding of identity prominence and

contribute to the passion research being conducted in the coaching field. Over the last

decade, scholars interested in passion have adopted Vallerand's dualistic model of

passion which assumes that there are two forms of passion; harmonious passion, and

obsessive passion. Harmonious passion results from the autonomous internalization of an

identity into the self, while obsessive passion is internalized for controlling reasons

(Vallerand, 2012). Considering that the CIPS centrality items pertain to the importance

and centrality of the coaching role, yet do not address the autonomous/controlling nature of the internalization, we would expect this subscale to be significantly and positively associated with and predict both forms of passion. Similarly, we expected that the evaluative emotions subscale would be positively and significantly correlated with and predict harmonious passion. In contrast, we anticipated that evaluate emotions would be negatively related to and predict obsessive passion. This hypothesis was formed due to the positive affective component of evaluative emotions and the controlling nature of obsessive passion which has been adversely related to positive affect and well-being (Vallerand, 2012).

## Methods

### Participants

Participants included 132 female and 203 male ($N = 336$) coaches who ranged from 17 to 74 ($M = 37.30$; $SD = 12.27$) years of age. These coaches averaged 13 ($SD = 9.90$; $Range = 1$-$50$) years of coaching experience, and represented 46 different sports, with the most frequently reported sports being swimming ($n = 111$), volleyball ($n = 93$), hockey ($n = 44$), soccer ($n = 31$), baseball ($n = 32$), basketball ($n = 29$), and rugby ($n = 20$). Participants self-identified themselves as either a head ($n = 194$), assistant ($n = 103$), or other type of coach (e.g., strength and conditioning, special skills), and selected the number of hours spent in their coaching role in a typical week; 1 – 9 hours ($n = 74$), 10 – 19 hours ($n = 126$), 20 – 29 hours ($n = 68$), 30 – 39 hours ($n = 30$), and 40 or more hours ($n = 39$). Additionally, coaches indicated that they coached only males ($n = 46$), only females ($n = 46$), or both genders ($n = 242$), and they identified the highest level athletes they had coached as recreational/non-competitive ($n = 23$), club ($n = 85$),

representative/select ($n = 71$), provincial ($n = 67$), national/international ($n = 81$), and

professional ($n = 10$).  Of the participants that provided a response, just over 43 percent

indicated that they were volunteer coaches and received no income from coaching, while

the remaining coaches were paid.  Lastly, 308 of the coaches in the study reported that

they currently or previously participated in the sport(s) that they coached, with 56 percent

having previous experience as an athlete at the provincial level or higher.

**Instruments**

      **Identity prominence.**  Coach identity prominence was measured using the Coach

Identity Prominence Scale (CIPS; Pope & Hall, 2014), which contains two subscales

labeled evaluative emotions (three items, example item; "I love my role as a coach") and

centrality (five items, example item: "coaching is a part of my personal identity").

Participants were instructed to answer the eight items considering their coaching role

over the past year with the 5-point Likert scale provided, which was anchored by 0 (*not

at all true*) and 4 (*completely true*).

      **Motivation.**  The Coach Motivation Questionnaire (CMQ; McLean, Mallett, &

Newcombe, 2012) was employed to assess participants' motives for coaching following a

self-determination theory perspective.  The CMQ measures six subscales, including –

intrinsic motivation (four items, example item: "Because I enjoy the interaction I have

with athletes"), integrated regulation (three items, example item: "Because coaching is

fundamental to who I am"), identified regulation (three items, example item: "Because it

is moving me toward my personal goals"), introjected regulation (four items, example

item: "Because I don't want to let my athletes down"), external regulation (four items,

example item: "Because I want to be appreciated by others"), and amotivation (four

items, example item: "Sometimes I question my desire to continue coaching").

Participants were asked in the stem to consider the reasons why they had coached over

the past year and were instructed to answer the 22 items using the 7-point Likert scale

provided that ranged from 1 (*not at all true*) to 7 (*very true*). Results from the initial

development and validation of the CMQ (McLean et al., 2012) provided evidence of

internal consistency (α = .62 - .81; *Mdn* = .79) and test-retest reliability across a two to

eight month time period. Additionally, study results supported the factorial and

convergent validity of participants' responses to the CMQ (*RMSEA* = .05; *CFI* = .98;

*SRMR* = .069; Non-Normed Fit Index, *NNFI* = .97; factor loadings ranged from .53 -

.92), as well as the discriminant, concurrent, and construct validity.

**Passion.** Participants' passion for coaching was measured using The Passion

Scale (Vallerand et al., 2003). The six items in each of the two subscales labeled

harmonious passion (example item: "Coaching is in harmony with other activities in my

life") and obsessive passion (example item: "If I could, I would only coach") were

worded to be specific to the coaching context. Participants were instructed to answer

each item thinking of their coaching over the past year, using a 7-point Likert scale,

anchored by 1 (*not at all agree*) and 7 (*very strongly agree*). Results from the initial

development of The Passion Scale (Vallerand et al., 2003) provided support for the

factorial validity of the instrument (*NNFI* = .912; *CFI* = .926; *RMSEA* = .073; factor

loadings ranged from .44 - .87), in addition to nomological validity and internal

consistency reliability (harmonious passion, α = .73; obsessive passion, α = .85).

**Procedures**

Upon attaining ethical approval from the host universities' Research Ethics Board, data collection commenced by contacting sporting/coaching organizations via publically available information or through personal contacts. Sporting/coaching organizations that expressed interest in the study were provided with a letter of information about the study. Additionally, they were asked to assist in the study by distributing the survey via e-mail, Facebook, or webpage format, or by setting up a meeting time, whereby the researcher could inform coach participants about the study. Coaches interested in participating in the study were then asked to click on a link that took them directly to an online survey (using the email, Facebook, or webpage format), or were asked to complete the survey in pen and paper format. The survey took approximately 15 to 20 minutes to complete and participants were afforded an opportunity to win a $100 gift card to Sport Chek.

**Data Analyses**

After removing all participants with missing data and screening the data for outliers, descriptive statistics, and Cronbach alpha coefficients were calculated for all constructs in the study. Next, we conducted a Confirmatory Factor Analysis (CFA) for the two-factor CIPS. Thereafter, bivariate correlation coefficient scores were computed between all variables. Lastly, a Structural Equation Model (SEM) including the CIPS subscales as exogenous variables and the passion subscales as endogenous variables was analyzed. Items were constrained to load on their corresponding factor, and each observed variable's error of measurement was uncorrelated for the CFA and SEM procedures. Model fit was assessed using the chi-square ($\chi^2$) test, Comparative Fit Index (*CFI*), Tucker-Lewis Index (*TLI*), Root Mean Square Error of Approximation (*RMSEA*),

and Standardized Root Mean Residual (*SRMR*).  Marsh and colleagues' (2004)

recommendations for evaluating fit index scores were used to guide the present study.

*CFI* and *TLI* values above 0.90, and *RMSEA* values around 0.08 were reported to reflect

acceptable fit, while .08 was recommended to be an excellent fit score for *SRMR*

according Marsh et al. (2004).  Bootstrapped maximum likelihood estimation was used in

the CFA and SEM procedures in order to provide a more robust and accurate estimate of

values (Byrne, 2010).

## Results

### Descriptive Statistics and CFA

The mean, standard deviation, skewness, kurtosis, and Cronbach alpha coefficient

scores of participants' responses to all variables are presented in Table 6.  On average,

participants scored above the midpoint for both CIPS subscales, yet higher on the

evaluative emotions subscale.  Participants' responses to the various motivation forms

yielded a pattern, whereby they scored highest on the intrinsic motivation subscale and

scored lower on each motivation form as it became more controlling, thereby scoring

lowest on the amotivation subscale.  Participants' responses to the harmonious passion

subscale were on average above the midpoint and below the midpoint for the obsessive

passion subscale.

The results from the confirmatory factor analysis of the two factor CIPS model

rendered strong fit index scores; $\chi^2(19) = 33.57$, $p = .021$; *TLI* = .988; *CFI* = .992;

*RMSEA* = .048 (90% *Confidence Interval* [*CI*] = .019 - .074); and *SRMR* = .026.  The

standardized factor loading scores for the evaluative emotions subscale ranged from .66

to .83 (*M* = .75; *SD* = .07), while the scores for the centrality subscale were slightly

Table 6

*Descriptive Statistics, Cronbach Alpha Coefficient Scores, and Bivariate Correlation Scores with CIPS Subscales*

|  | *M*(*SD*) | Range | Skewness | Kurtosis | α | Pearson *r* | |
|  |  |  |  |  |  | Evaluative Emotions | Centrality |
|---|---|---|---|---|---|---|---|
| Evaluative Emotions | 3.32(0.63) | 0-4 | -1.21 | 2.69 | .80 | - | .62** |
| Centrality | 2.58(0.97) | 0-4 | -0.42 | -0.49 | .92 | .62** | - |
| Intrinsic | 5.76(0.83) | 1-7 | -0.68 | 0.42 | .77 | .55** | .43** |
| Integrated Regulation | 5.07(1.26) | 1-7 | -0.69 | 0.31 | .79 | .42** | .75** |
| Identified Regulation | 4.82(1.27) | 1-7 | -0.50 | 0.07 | .77 | .36** | .43** |
| Introjected Regulation | 4.08(1.16) | 1-7 | 0.05 | -0.07 | .66 | -.03 | .18** |
| External Regulation | 2.97(1.27) | 1-7 | 0.33 | -0.53 | .76 | .07 | .18** |
| Amotivation | 2.60(1.43) | 1-7 | 0.91 | 0.11 | .84 | -.36** | -.06 |
| Harmonious Passion | 4.91(1.01) | 1-7 | -0.40 | 0.01 | .82 | .44** | .45** |
| Obsessive Passion | 2.71(1.32) | 1-7 | 0.68 | -0.25 | .85 | .21** | .49** |

*Note*: *M* = Mean; *SD* = Standard Deviation; α = Cronbach alpha coefficient. ** $p < .01$.

higher and ranged from .71 to .92 (*M* = .84; *SD* = .08).  The latent correlation score

reported between centrality and evaluative emotions was strong at .71.  The Cronbach

alpha coefficients for the two subscales were acceptable.

**Convergent Validity and Discriminant Validity**

The bivariate correlation scores reported between the CIPS subscales and all other

variables in the study can be viewed in Table 6.  The results of the bivariate correlation

scores demonstrated that evaluative emotions and centrality were moderately to strongly

positively correlated to intrinsic motivation, integrated regulation, and identified

regulation.  Evaluative emotions was most strongly correlated with intrinsic motivation

while centrality was most strongly associated with integrated regulation.  Additionally,

both subscales were negatively correlated with amotivation, yet only a significant

relationship was noted with evaluative emotions.  Lastly, positive moderate associations

were reported between centrality and both passion subscales.  Yet, evaluative emotions

was only weakly associated with obsessive passion and moderately associated with

harmonious passion in the positive direction.

**Predictive Validity**

The results from the SEM which included the CIPS subscales as exogenous

variables and harmonious passion and obsessive passion as endogenous variables are

presented in Figure 2.  The standardized regression weights demonstrate that evaluative

emotions most strongly predicted harmonious passion while centrality most strongly

predicted obsessive passion.  Additionally, evaluative emotions negatively and strongly

predicted obsessive passion while centrality weakly and positively predicted harmonious

Figure 2: Relationship Between the CIPS Subscales and the Passion Subscales
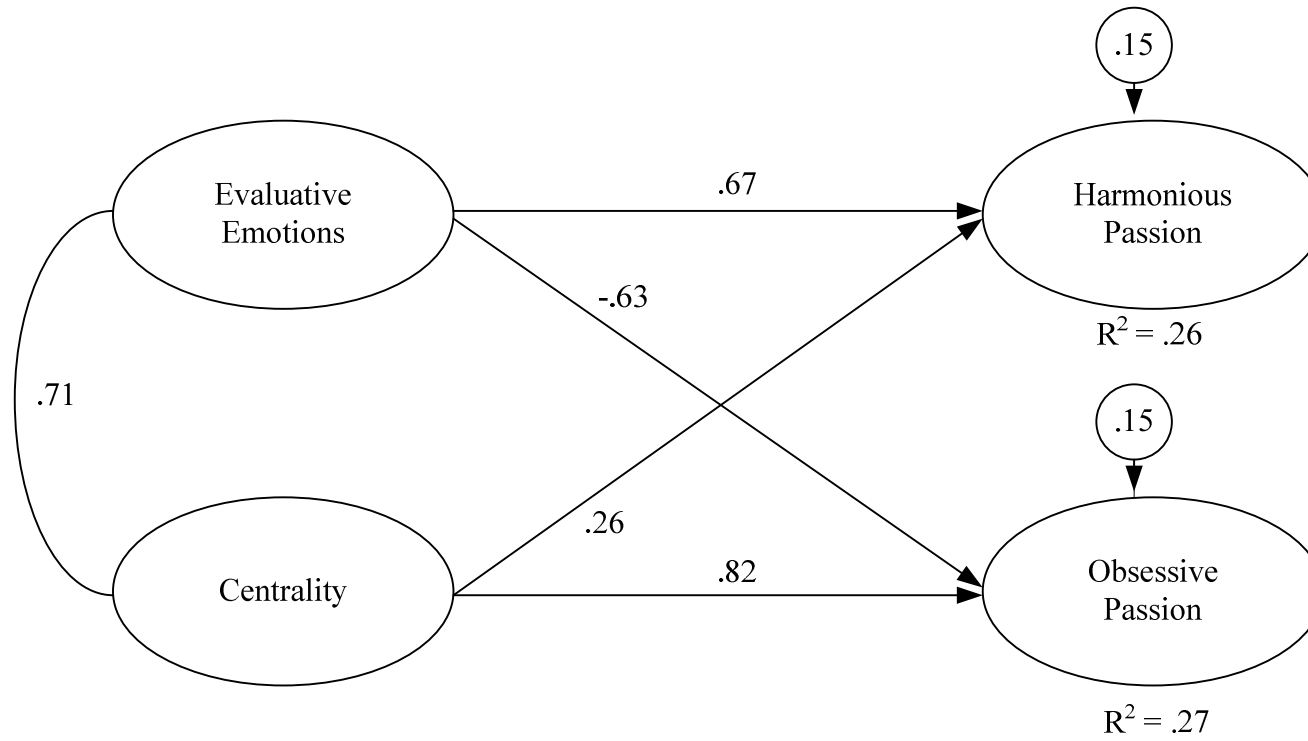
passion. The fit indices for this SEM were as follows; $\chi^2(165) = 484.70$, $p = .000$; $TLI = .900$; $CFI = .913$; $RMSEA = .076$ (90 $CI = .068$-$.084$), $SRMR = .084$.

## Discussion

This study was designed to further test select psychometric properties of the CIPS, including: Factorial validity and reliability, convergent validity, discriminant validity, and predictive validity. Similar to the two studies conducted by Pope and Hall (2014), the present study provided evidence of reliability ($\alpha \geq .80$) and factorial validity (factor loadings $\geq.65$; fit index scores exceeded "adequate" or "excellent" criteria established by Marsh et al., 2004) for respondents scores to the CIPS. Following recommendations provided by Pope and Hall (2014), we examined the association between the CIPS subscales and various motivation forms as a test of convergent and discriminant validity. As anticipated, centrality and evaluative emotions were significantly and positively associated with intrinsic motivation, integrated regulation, and identified regulation, thus supporting the convergent validity of the CIPS. Furthermore, the bivariate correlation scores reported between the CIPS subscales and Amotivation demonstrated only partial support for the discriminant validity of the CIPS as only Centrality was non-significantly associated with amotivation, while evaluative emotions was negatively related to amotivation. The relationships between the CIPS subscales and amotivation should be subsequently tested to determine (a) if the findings in the present study are replicable, and (b) if a conceptual rationale exists for the negative relationship reported between evaluative emotions and amotivation. Additionally, researchers should consider examining other constructs that have no theoretical rationale for being associated with the CIPS subscales (e.g., interactive coaching styles).

The predictive validity of respondents' scores to the CIPS items was tested by examining the relationships between the CIPS subscales and passion subscales using structural equation modeling. The results of the present study demonstrated that as we hypothesized, centrality positively predicted harmonious passion and obsessive passion. This hypothesis was formulated based on the notion that both forms of passion are internalized into the self, yet are differentiated by the autonomous/controlling nature of the passion (Vallerand, 2012). Considering that centrality is concerned with how important and central the coaching role is (Pope & Hall, 2014) and does not address the autonomous/controlling nature, we expected that centrality would positively predict both passion forms. In contrast, we expected that evaluative emotions would positively predict harmonious passion and negatively predict obsessive passion based on the affective component of evaluative emotions, and this proved to be the case. It is likely that passion experts would support our hypothesis as Vallerand (2012) has clearly articulated that harmonious passion is positively related with psychological well-being – including positive affect – while the inverse relationship is evident with obsessive passion.

In addition to providing support for the various psychometric properties tested in this study, these findings have rendered one primary noteworthy point of consideration. Although centrality and evaluative emotions were highly correlated in the present and previous study (Pope & Hall, 2014), the results of this study demonstrated that these subscales are differentially related to or predict other constructs in strength and direction. This demonstrates that centrality and evaluative emotions are discrete components of coach identity prominence. Furthermore, this phenomenon may have implications for the

manner in which identity prominence plays a role in the behavioural, relational, emotional, and cognitive experiences of coaches. The results of the present study indicate that centrality is more strongly associated with the degree to which the coaching role is internalized (e.g., integrated regulation, $r = .75$). Considering this finding and the conceptualization of centrality, we propose that centrality may be more strongly related to cognitive outcomes – although this conclusion is largely speculative. In contrast, evaluative emotions was reported to be differentially related to and predict desirable (e.g., intrinsic motivation, $r = .62$; harmonious passion, $\beta = .67$), and undesirable (e.g., amotivation, $r = -.36$; obsessive passion, $\beta = -.63$) psychological processes. Based on this finding, we would expect that coaches who experience high levels of evaluative emotions are more likely to have favourable experiences and less likely to encounter adverse consequences in coaching. Additionally, we anticipated that due to the affective component of evaluative emotions, this subscale is more likely to facilitate affective outcomes, as opposed to centrality. Scholars interested in contributing to the coaching literature should not only investigate how the coaching identity is linked to other coaching constructs, but should also examine how the two CIPS subscales are differentially related to other constructs.

The primary limitation of this study was the cross-sectional nature in which it was conducted. As a result, we cannot infer any causal relationship between the CIPS subscales and the passion subscales. Secondly, this study utilized a heterogeneous sample of Canadian coaches whose affiliated sport or coaching organizations chose to endorse the study. Therefore, the results of the study may not be generalizable to other coaching cohorts (e.g., coaches from other countries or coaches of professional level

athletes). Lastly, this study only examined a limited number of constructs (e.g., six forms of motivation and two forms of passion) as tests of various validity and reliability concerns. Although the results did demonstrate support for respondents' scores to these validity and reliability concerns, many more studies must be conducted in order to conclude that the CIPS is a valid and reliable instrument.

The future direction that would be of greatest significance to the development of the CIPS as well as the coaching literature would be a series of longitudinal studies that examine the CIPS with other constructs of interest. From an instrument development perspective, researchers could investigate the test-retest reliability of the CIPS and further examine the nomological validity of the CIPS by identifying antecedents and consequences of the CIPS. Researchers interested in examining the antecedents of identity prominence should focus on the six identified by McCall and Simmons (1978), including: Commitment, investment, internal gratification, external gratification, social support, and internal support. However, before examining these antecedents, we recommend careful consideration of the measures of these constructs, as such measures are either non-existing or have yet to be subjected to rigorous testing in any context. Lastly, scholars could further the development of the CIPS by testing it with various samples. In doing so, one could determine if coaches of varied characteristics and experiences (a) respond differently to the CIPS, (b) are differentially influenced by various antecedents, or (c) vary in the impact coach identity prominence has on their coaching experience.

From an applied perspective, the inclusion of the CIPS in future studies may contribute to our understanding of the core psychological mechanisms of coaches.

McCall and Simmons (1978) have stated that identity prominence is a primary determinant of engagement in behaviour. Furthermore, the strength of one's identity prominence for a given role has been reported as an antecedent for the selection of enacting one role over another (Burke & Stets, 2009; McCall & Simmons, 1978). Therefore, the CIPS may be used to address potential concerns of sporting organizations and the coaching community alike. These concerns may include coaching retention issues, such as methods of fostering coach persistence, and reducing termination. The coaching community may also be interesting in ways of providing an ideal coaching environment that optimizes coaches' psychological well-being and satisfaction. The CIPS could also be used by identifying psychological factors of coaches that may impact the athletes' overall experience. Finally, future research including the CIPS may be useful to sporting and coaching organizations that wish to gain insight in to why coaches adopt a particular role over another during their lives (e.g., coach, volunteer, parent, sibling, or athlete).

In the last decade, several scholars have emphasized the need to understand the factors and psychological processes that drive coaching behaviour and impact their coaching experience (Amorose, 2007; McLean et al., 2012; Stebbings, Taylor, & Spray, 2011). In an attempt to contribute to our knowledge of the psychological processes of coaches, the CIPS was developed (Pope & Hall, 2014). Although the CIPS was previously tested for various types of validity (factorial validity, nomological validity, concurrent validity, and group invariance), the present study was designed to extend the psychometric analysis of the CIPS. The findings reported in this study demonstrate support for the reliability, factorial validity, convergent validity, and predictive validity,

and partial evidence of discriminant validity of the CIPS. Although we recognize that many more studies must be conducted to ensure that the CIPS is a valid and reliable measure, we believe that researchers can be confident that the CIPS is a psychometrically sound measure. We encourage scholars to utilize this instrument to further understand the psychological processes of coaches. Furthermore, we advocate that researchers approach this line of research not only from a role identity model framework (McCall & Simmons, 1978), but also from a SDT (Deci & Ryan, 2002) perspective. Due to the strong correlation reported between the CIPS and core constructs of SDT (e.g., motivation), as well as the extensive nomological network of such constructs (Deci & Ryan, 2008), we believe that incorporating the CIPS into SDT based research may make a significant contribution to the coaching literature.

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SUMMARY, FUTURE DIRECTIONS, AND CONCLUSIONS

The ultimate purpose of this dissertation was to design a psychometrically sound measure of coach identity prominence using the role identity model (McCall & Simmons, 1978) as a guiding framework. In the pursuit of achieving this purpose, multiple studies were conducted, which were described across three manuscripts. Manuscript 1 presented a qualitative study that was conducted in order to gain a more comprehensive understanding of the coach identity. Eight coaches participated in individual semi-structured interviews following an interview guide that was designed based on the central concepts of identity theory (Burke, 1980; Burke & Stets, 2009; Stryker, 1980) and the role identity model (McCall & Simmons, 1978). Although the results reported in Manuscript 1 address several concepts (e.g., behavioural and cognitive meanings, emotions, and centrality), the findings pertaining to coach identity prominence were of primary concern. In short, the results of this exploratory study demonstrated that coach identity prominence may be explained by the centrality/importance (McCall & Simmons, 1978) of the coaching role and the emotions coaches experience when evaluating their role as a coach (Nuttbrock & Freudiger, 1991)[6]. Furthermore, the responses provided by participants in this study were used to design 20 items to measure coach identity prominence. Following a protocol advocated by Devellis (2003), the items were further evaluated and tested for multiple forms of validity and reliability in the research presented in Manuscript 2 and Manuscript 3.

Manuscript 2 consisted of three studies; an item generation and pilot study, Study 1, and Study 2. The item generation and pilot study asked six construct (e.g., scholars

familiar with identity prominence) and ten context specialists to evaluate the technical qualities and item content relevance of the CIPS items following recommendations of Dunn and colleagues (Dunn, Bouffard, & Rogers, 1999) and Devellis (2003). Of the 20 items that were originally generated, 13 items were selected to be further tested, four of which were modified based on the open-ended feedback from participants. Considering the responses provided by participants, it appeared that the 13 items were technically sound and adequately addressed the concept of coach identity prominence (item content relevance). The final two studies (Study 1 and Study 2) presented in the manuscript were designed to test the psychometric properties of CIPS items with heterogeneous samples of coaches. Based on the findings of Study 1, the 13 items were reduced to eight, with five items placed in the centrality subscale, and three placed in the evaluative emotions subscale. The results from Study 1 and Study 2 provided support for the reliability and factorial validity of participants' scores on the CIPS items. Inspection of the analysis pertaining to group invariance in Study 2 demonstrated that coaches of groups (e.g., gender and sport type) that should not theoretically differ in their coach identity prominence were statistically invariant in their responses to the CIPS items. Similarly, coaches of different levels of income and competitive level did not differ significantly in their responses to the CIPS – although the expected trend was evident – thereby providing only partial support for the concurrent validity of the CIPS. Finally, Study 2 demonstrated evidence of nomological validity as commitment (the paramount antecedent of identity prominence; McCall & Simmons, 1978), positively and significantly predicted coach identity prominence. In order to provide further evidence of

validity and reliability of respondents' scores to the CIPS items, one additional study presented in Manuscript 3 was conducted.

The primary purpose of Manuscript 3 was to examine three forms of validity that had yet to be tested in relation to the CIPS, namely, the convergent, discriminant, and predictive validity. Considering the theoretical overlap that exist between the role identity model (McCall & Simmons, 1978) and self-determination theory (SDT; Deci & Ryan, 2002), we examined identity prominence in relation to SDT based concepts to test the three forms of validity previously mentioned. As anticipated, self-determined motives (intrinsic motivation, integrated regulation, and identified regulation) were positively related to identity prominence while amotivation was negatively related to identity prominence, which provided support for the convergent and discriminant validity of the CIPS. In addition, as evidence of predictive validity, the CIPS subscales predicted harmonious and obsessive passion in the hypothesized direction. In summary, the research presented in Manuscript 1 through 3 attained the overall purpose of this study in that a psychometrically sound measure of coach identity prominence was generated.

Although the research presented in this dissertation is promising, the value of its contributions to the literature is dependent on the use of the CIPS in future studies. Thus, we present three primary areas of research that scholars should focus on to advance this line of research. First, considering that the psychometric testing of this instrument is only in its infancy, researchers must continue to rigorously test the validity and reliability of the CIPS. Specifically, scholars should focus on test-retest reliability, and continue to test the various types of criterion-related validity, including predictive, concurrent, convergent, and discriminant validity. In order to further test these reliability and validity

concerns, researchers should utilize a longitudinal design and/or various samples of coaches (e.g., from different countries, different levels of certification, different levels of social recognition). Researchers interested in conducting longitudinal based studies with the CIPS may be interested in the results of secondary bivariate correlation analyses between CIPS subscales and number of years coached, which were conducted with the participants in Manuscript 2, Study 1 and Study 2, as well as Manuscript 3. The results demonstrated that the number of years coached was non-significantly or weakly correlated to both CIPS subscales in the positive direction. Thus, the specific length of the longitudinal design should be determined by the form of validity/reliability tested and/or the research question, as these results do not provide strong evidence that coach identity prominence is associated with the number of years coached.

Second, it may be of interest to the academic and coaching/athletic community if a line of research focussed on the antecedents that facilitated or thwarted coach identity prominence. McCall and Simmons (1978) offered factors that are believed to influence the prominence of a role-identity. Yet, to date only commitment, which was viewed as the "paramount" antecedent (McCall & Simmons, 1978), has been investigated in relation to coach identity prominence (see Manuscript 2). Thus, researchers should investigate the remaining five antecedents, including; social support, self-support, investment, intrinsic gratitude, and extrinsic gratitude. By conducting this research, scholars may gain insight into the environmental factors that may optimize or inhibit the prominence of the coach identity, which should have implications for coaching organizations, parents, athletes, and other coaches.

At the other end of the spectrum, and perhaps of greatest importance to the academic and coaching community, researchers should explore the factors that are influenced by coach identity prominence.  Unlike the antecedents, McCall and Simmons (1978) did not specify any outcomes of identity prominence, but did elude to the fact that identity prominence may have cognitive, behavioural, and affective ramifications. Scholars could approach this line of research through two avenues – either the implications for coaches or for the athletes.  Some researchers have argued that the exploration of psychological factors that may influence the well-being and overall experience of the coach is an important research undertaking as coaches are people too (Allen & Shaw, 2009; Giges, Petitpas, & Vernacchia, 2004).  Researchers may wish to extend upon the coaching literature by exploring how coach identity prominence influences coach burnout, persistence/retention, well/ill-being, self-esteem, or the overall coaching experience.  Researchers interested in the athlete-centered approach may wish to explore how coach identity prominence influences their interactive style, athlete psychological variables (e.g., motivation or well-being), and their persistence as an athlete.  Although only several ideas have been presented, the potential factors that could be explored are extensive.  However, conclusions regarding the influence of the prominence of the coach identity cannot be drawn until such studies are conducted.

In conclusion, the primary contribution of the research presented in this dissertation is of greatest value to the academic world, as scholars now have access to a psychometrically sound measure of coach identity prominence.  Thus, this dissertation could be viewed as an initial, yet essential step in furthering our understanding of the important psychological processes of coaches.  In turn, the CIPS may be used in the

future to answer "why" coaches behave in the manner that they do, or potentially assist in

our knowledge of how to facilitate the optimal coach environment.

Notes

6.  The number of subscales included the CIPS was given considerable thought.

    From a dictionary definition perspective, it may have been plausible that there

    were three subscales, including: Centrality, importance, and evaluative emotions.

    Conceptually, researchers tend to identify two subscales (importance/centrality

    and emotions).  Yet, existing measures have operationalized identity prominence

    with only one subscale.  Open-ended suggestions provided by  two participants in

    Manuscript 1 indicated that coach identity prominence would be best represented

    by the two subscales mentioned above.  In order to provide additional support for

    the number of subscales selected to operationalize coach identity prominence, the

    one-factor and two-factor measurement models reported in Manuscript 2, Study 1,

    as well as a three-factor measurement model were tested.  The results for the

    three-factor measurement model demonstrated that all fit index scores were worse

    than that of the two-factor measurement model.  Based on the suggestions of

    participants in Manuscript 1, Manuscript 2, Study 2, and the results presented in

    the previous sentence, we felt confident in proceeding in the psychometric testing

    of the CIPS with only two subscales.

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## Appendix A

### MANUSCRIPT 1 – INTERVIEW GUIDE

***Introduction:*** *To begin I am just going to ask you questions about your coaching experiences, in order to learn more about you as a coach.*

1.) Could you tell me a little about the team(s) you are coaching right now?
2.) I understand that you have been coaching for a little while, but could you reflect back to your very first coaching experience, and tell me about that experience?
   *Probes* – why did you start coaching?
   - How did you get into coaching?
   - When you started coaching did you know that you wanted to coach long term?
3.) Could you summarize your history as a coach, beginning with the start of your coaching career?
   *Probes* – what sports were you coaching?
   - What level of competition?
   - How old were they?
   - How many years did you coach?
   - What genders have you coached?
   - How would you classify your coaching in terms of financial support? Primary source, ect
4.) What is your fondest memory you have as a coach?
5.) I would like to know more about your coach education and certification that you have taken over the years. Could you explain what coaching certificates you have?
   - Are there any other methods that you have used to educate yourself on coaching?

***Transition (Norm Reference***): *Now I am going to shift the focus a little and ask you some questions about coaching in general.*

1.) Could you describe the stereotypical coach?
   *Probes* – what is a coach like?
   - How does a coach act? (how have you heard others explain a coaches actions)
   - What does a coach say?
2.) Could you explain what is expected of coaches in general?
   a. From athletes?
   b. From parents?
   c. From administration?
3.) What are some characteristics that you have heard others use to describe a stereotypical coach?

***Transition (Subjective Norm):*** *Ok, now that I have heard how you believe coaches are viewed by the general public I would now like to learn more about your perspective.*

1.) When you hear the word "coach" what pops into your head?

*Probes* – could you explain in more detail?
- How does the coach act from your perspective?
- How should a coach interact with others in the athletic environment?
- How should coaches present themselves?
- What are your expectations of you as a coach?

2.) Could you explain the similarities between your perspective of a coach and the stereo-typical coach?
*Probes* - Could you explain further?

3.) Could you explain any differences between your views and the stereotypical coach?
Why do you think there is a difference?

**Transition (Influential factors):** *Now that we have gone over some of your history in coaching, as well as identifying a typical coach and your perspective of the coach. I would now like to learn more about factors that influence you as a coach.*

1.) Can you identify and explain any factors that have influenced you as a coach?

2.) How would you describe the relationships you have with others in your coaching role?
*Probes* –
- How would you describe the strength of the relationships that you have formed as a coach?
- How would you describe the amount of relationships you have as a coach

Is there anyone in particular that has had a large impact on you as a coach?

Explain
- What about players you have coached?
- What about other coaches you have coached with?

3.) Could you tell me about any barriers that you have encountered that have hindered your ability to coach?

4.) Thinking about all the roles you have in your life, how does your role as a coach play a part in your life?
*Probes* - Where does coaching fit into your life in comparison to your other roles?

5.) Before I move on, can you think of anything else or anyone else that has influenced you in your role as a coach?

**Transition (Identity):** *Great, now I would like to shift focus again, and I would like to learn about how important coaching is to you.*

1.) First, could you explain your coaching philosophy to me?
*Probes* - Could you go into a little more detail?
- Has your philosophy changed over the years?
- What has influenced this change?

2.) Could you explain how important it is for you to coach?
*Probes* - Why is coaching so important to you?

3.) Considering the roles people play in their lives, people are often able to explain what a particular role means to them. Could you explain what it means to you to be a coach?
*Probes* -

- What are some words that you would use to describe coaching?
- Are there any specific characteristics that you would use to describe your coaching?
- How does coaching make you feel?

4.) If you couldn't coach, how do you think you would feel?
*Probes* - How would this influence your life?
- How do you think it would influence you as a person?

5.) Is there anything else that you would like to say about the meaning that you attribute to your role as a coach?

*Wrap-up:* That ends the main questions I want to ask you. Now I am going to ask you to reflect back to the questions I have asked you today. Specifically I asked you about your experiences in order to understand who you are as a coach and how that has evolved. I have also asked you questions about the stereotypical coach and how your perspective of "the coach" compares to the social norm. After that I learned about the factors that have influenced you in your ability to be a coach. Finally, perhaps the most important part of this interview, you explained to me why coaching is important and meaningful to you. Considering what we have talked about today, I would like to ask you to consider the questions that I asked you and answer the following questions.

1.) First, is there anything else that you would like to add to any of the comments that you have made?
2.) Is there anything else that you would like to say that would help me to understand how meaningful coaching is to you and any factors that may influence this?
3.) Are there any additional questions you think I should ask?

As you know this process is a learning process for myself, and I want to become better at interviewing coaches in order to learn more from you as coaches, are there any comments or suggestions you coach make about me as an interviewer?

Appendix B

MANUSCRIPT 2 – PILOT STUDY QUESTIONNAIRE

**Demographics – For Construct Specialists**

The following questions are designed to gain an understanding of your background characteristics as an Identity Theory expert. These questions are important and will provide information pertaining to the nature of the participants in our study sample. There are no right or wrong answers, so please answer as openly and honestly as possible.

1. What is your age?  _____

2. What is your gender?
   Male
   Female

3. What is the highest level of education that you have attained?
   High school diploma
   College degree
   University bachelor degree
   University masters degree
   University PhD

4. What is your current professional rank (e.g., assistant, full professor)?
   _____

5. Are you currently conducting research using the theoretical framework of role identity theory?
   Yes
   No

6. What is the name of the academic department you are currently appointed to at your University?
   _____

7. What is the name of the academic faculty that you are currently appointed to at your University?
   _____

**Demographics – For Context Specialists**

The following questions are designed to gain an understanding of your background characteristics as a coach. These questions are important and will provide information pertaining to the nature of the participants in our study sample. There are no right or wrong answers, so please answer as openly and honestly as possible.

1. What is your age? _____

2. What is your gender?
> Male
> Female

3. Do you have any coaching certifications?
> Yes
> No

If yes, please specify which certification(s): _____

4. Which statement best describes your current status as a coach?
> Full-time
> Part-time
> I do not coach
> Other (Please specify): _____

5. Which statement best describes your financial income associated with your coaching position?
> Primary income source
> Secondary income source
> I do not receive any money for coaching
> Other (Please specify): _____

6. Which statement best describes the position you hold as a coach?
> Head coach
> Assistant coach
> Other (Please specify): _____

7. What sport(s) are you currently coaching? (Please consider the entire year, not just the present season) _____

8. What is the highest level of sport that you have coached during your coaching career? _____

9. What level of sport are you currently coaching? (Please consider the entire year, not just the present season)_____

10. How many years have you coached sport? _____

**Technical Quality of the Coach Identity Prominence Scale**

       This section is the second of three sections that will ask you questions pertaining to a set of statements designed to assess coach identity prominence. More specifically, this section will ask you questions about how clear and comprehendible you feel the 20 items are.

       The following 20 items have been created to measure identity prominence in the coaching role. The instructions that will proceed the 20 items will be "Please rate the extent to which the following statements are true regarding your role as a coach." The five point Likert scale will range from 0 (not true), to 1 (slightly true), to 2 (fairly true), to 3 (very true) to 4(completely true).

       **INSTRUCTIONS:** We would like you to evaluate the technical qualities of the 20 items using the 4 questions listed below.  Please refer to the items listed below the questions when considering your answers. Also, please use the comment box provided to explain any of your answer.

1. Do you feel that any of the items are exceptionally lengthy?
       Yes
       No
Comment:

2. Do you feel that any of the items are too difficult to read?
       Yes
       No
Comment:

3. Do you feel that any of the items are unclear?
       Yes
       No
Comment:

4. Do you feel that any of the items ask about more than one concept?
       Yes
       No
Comment:

Item 1: I am a coach by nature.
Item 2: I love my role as a coach.
Item 3: A major role in my life is coaching.
Item 4: Coaching gives me a sense of fulfillment.
Item 5: Coach is what I need to do.
Item 6: If I was unable to coach, I would feel very empty.
Item 7: A coach is the type of person I am.
Item 8: Coaching is very important to me.
Item 9: I find coaching satisfying.
Item 10: Coaching is part of my personal identity.
Item 11: Coaching is a big part of my life.
Item 12: I constantly think about coaching.
Item 13: If I could not coach, there would be a big void in my life.
Item 14: I would feel a sense of loss if I was not able to coach.
Item 15: I am best suited for being a coach.
Item 16: Coaching is the role that is right for me.
Item 17: Coaching is my part in society.
Item 18: I am passionate about coaching.
Item 19: Coaching is a part of who I am.
Item 20: Coaching is part of my personality.

**Item Content Ratio**

This section was designed to capture your feelings regarding the usefulness of each of the 20 items in assessing coach identity prominence. Coach IDENTITY PROMINENCE REFERS TO THE IDEAL SELF, OR THE EXTENT TO WHICH ONE'S COACHING IDENTITY IS CENTRAL TO WHO THE INDIVIDUAL IS AS A PERSON (McCall & Simmons, 1966). Identity prominence is concerned with the IMPORTANCE an individual ascribes to a particular role (McCall & Simmons, 1966). Additionally, identity prominence refers to the strength of the emotions elicited by evaluating how important a role is to the individual (Nuttbrock & Freudiger, 1991).

**INSTRUCTIONS:** We would like your opinion of each of the 20 items contained within the Coach Identity Prominence Scale. Please read each item, then rate how 'essential' you feel the content of each item is to measuring coach identity prominence. Please use the comment box provided to further explain any of your answers.

Item 1: I am a coach by nature.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:


Item 2: I love my role as a coach.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:


Item 3: A major role in my life is coaching.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:


Item 4: Coaching gives me a sense of fulfillment.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:


Item 5: Coaching is what I need to do.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:


Item 6: If I was unable to coach, I would feel very empty.
☐ Not necessary          ☐ Useful          ☐Essential
Comment:

Item 7: A coach is the type of person I am.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 8: Coaching is very important to me.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 9: I find coaching satisfying.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 10: Coaching is part of my personal identity.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 11: Coaching is a big part of my life.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 12: I constantly think about coaching.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 13: If I could not coach, there would be a big void in my life.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 14: I would feel a sense of loss if I was not able to coach.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 15: I am best suited for being a coach.
☐ Not necessary ☐ Useful ☐Essential
Comment:

Item 16: Coaching is the role that is right for me.
☐ Not necessary ☐ Useful ☐Essential
Comment:


Item 17: Coaching is my part in society.
☐ Not necessary ☐ Useful ☐Essential
Comment:


Item 18: I am passionate about coaching.
☐ Not necessary ☐ Useful ☐Essential
Comment:


Item 19: Coaching is a part of who I am.
☐ Not necessary ☐ Useful ☐Essential
Comment:


Item 20: Coaching is a part of my personality.
☐ Not necessary ☐ Useful ☐Essential
Comment:

**Thank you**
If you have any additional comments, either specific or general that you wish to address,
please do so in the space provided below.

Appendix C

MANSCRIPT 2 – STUDY 2 QUESTIONNAIRE

**Demographics**

The following questions are designed to gain an understanding of your background characteristics as a coach. These questions are important and will provide information pertaining to the nature of the participants in our study sample. There are no right or wrong answers, so please answer as openly and honestly as possible.

1. What is your age? _____

2. What is your gender?
   Male
   Female

3. How many years have you coached sport? _____

4. What sports have you coached in the past year? _____

5. What gender of athletes do you coach?

   Males
   Females
   Both

6. What are the ages of the athletes that you coach? _____

7. What is the competitive level of the athletes that you coach? _____

8. What is the status of the income you receive from coaching? _____

   Primary source of income
   Secondary source of income
   I do not get paid for coaching
   Other (please specify): _____

9. What is the status of your coaching position?
   Head coach
   Assistant coach
   Other (Please specify): _____

10. Which coaching certifications do you currently hold? _____

## Coach Identity

Please rate the extent to which you agree with the following statements regarding your role as a coach relative to other roles in your life (for example, parent, spouse, employee, exerciser, committee member, or blood donor) in the past year.

|  | 0 = not at all true | 1 = slightly true | 2 = fairly true | 3 = very true | 4 = completely true |
|---|---|---|---|---|---|
| I love my role as a coach. | 0 | 1 | 2 | 3 | 4 |
| A major role in my life is coaching. | 0 | 1 | 2 | 3 | 4 |
| Coaching gives me a sense of fulfillment. | 0 | 1 | 2 | 3 | 4 |
| Coaching is central to who I am. | 0 | 1 | 2 | 3 | 4 |
| Coaching is very important to me. | 0 | 1 | 2 | 3 | 4 |
| I find coaching satisfying. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a part of my personal identity. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a big part of my life | 0 | 1 | 2 | 3 | 4 |
| If I could not coach, there would be a void in my life. | 0 | 1 | 2 | 3 | 4 |
| I would feel a sense of loss, if I were not able to coach. | 0 | 1 | 2 | 3 | 4 |
| I am passionate about coaching. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a part of who I am. | 0 | 1 | 2 | 3 | 4 |
| Coaching fits with my personality. | 0 | 1 | 2 | 3 | 4 |

**Coach Motives**

Coaches choose to coach sport for a variety of reasons. Please indicate how true each reason is for you in terms of why you have coached sport for the past year. Using the scale provided for each statement below, complete the following sentence "I coach sport..."

|  | 1 = not at all true | 2 | 3 | 4 | 5 | 6 | 7 = very true |
|---|---|---|---|---|---|---|---|
| because it is an integral part of me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| but I question why I continue. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because it is interesting. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| for the tangible benefits of being a coach. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I would feel like a failure if I did not. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I feel internally obligated to. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because the benefits of coaching are important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I would feel guilty if I did not. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| for the pleasure I experience when coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| for the social prestige of being a coach. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| for the internal satisfaction I experience when coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| but the reasons why are not clear to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I enjoy it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| but I wonder what the point is. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because it is a part of who I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because it is consistent with my values. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because fostering player development is important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| to satisfy other people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because it helps me achieve my goals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I feel pressure from others to coach. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I must coach to feel good about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because it is consistent with my core principles. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| because I want to give back to my sport(s). | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| but I question why I am putting myself through this. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Emotions in Coaching**

Instructions: Coaches can experience different feelings and emotions when coaching sport. Read each item and then mark the appropriate answer in the space next to that work. Indicate the extent you have felt this way when coaching in the past year. Use the following scale to record your answer.

The following questions concern your feelings about your coaching during the last year. (If you have been coaching for less than a year, this concerns the entire time you have been coaching). Please indicate how true each of the following statement is for you given your experiences coaching. Please use the following scale in responding to the items.

|  | 1 – very slightly or not at all | 2 – a little | 3 - moderately | 4 – quite a bit | 5 - extremely |
|---|---|---|---|---|---|
| Distressed | 1 | 2 | 3 | 4 | 5 |
| Excited | 1 | 2 | 3 | 4 | 5 |
| Upset | 1 | 2 | 3 | 4 | 5 |
| Scared | 1 | 2 | 3 | 4 | 5 |
| Enthusiastic | 1 | 2 | 3 | 4 | 5 |
| Alert | 1 | 2 | 3 | 4 | 5 |
| Inspired | 1 | 2 | 3 | 4 | 5 |
| Nervous | 1 | 2 | 3 | 4 | 5 |
| Determined | 1 | 2 | 3 | 4 | 5 |
| Afraid | 1 | 2 | 3 | 4 | 5 |

## Feelings about Coaching

The following questions concern your feelings about your coaching during the last year. Please indicate how true each of the following statements is for you given your experiences coaching. Please use the following scale to respond to the items.

| | 1 = not at all true | 2 | 3 | 4 = some what true | 5 | 6 | 7 = very true |
|---|---|---|---|---|---|---|---|
| I feel like I can make a lot of inputs to deciding how my coaching gets done. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I really like the people I work with in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People tell me I'm good at coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I get along with people I work with in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I am free to express my ideas and opinions in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I consider the people I work with in my coaching role to be my friends. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have been able to learn interesting new skills through coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Most days I feel a sense of accomplishment from coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My feelings are taken into consideration when I am coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People I work with in my coaching role care about me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel like I can pretty much be myself when I am coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People I work with in my coaching role are pretty friendly toward me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Commitment**

Please read the following statements and indicate the extent to which you agree with each statement in relation to coaching with the scales provided.

1. I will continue coaching for at least the next 12 months.
    1 – strongly disagree
    2
    3
    4
    5 – strongly agree

2. How long would you like to stay in coaching?
    1 – a short time
    2
    3
    4
    5 – very long

3. How committed are you to coaching?
    1 – not at all
    2
    3
    4
    5 – very much so

4. How attached are you to coaching?
    1 – not at all
    2
    3
    4
    5 – very much so

Thank you for completing the survey. If you wish to have your name entered in a draw to win a $100 gift certificate for Sport Chek, please email your contact information to XX.

Appendix D

MANUSCRIPT 3 – QUESTIONNAIRE

**Demographics**

The following set of questions is designed to gain an understanding of your background characteristics as a coach. These questions are important and will provide information pertaining to the nature of the participants in our study sample. There are no right or wrong answers, so please answer as openly and honestly as possible.

1.  What is your age?_____
2.  What is your gender? _____
3.  How many years have you coached sport?  _____
4.  What sport(s) have you coached in the past year?_____
5.  What gender of athletes have you coached over the past year? (please circle)

    a.  Males
    b.  Females
    c.  Both Males and Females

6.  What are the ages of the athletes that you have coached over the past year? (Please circle all that apply)

    a.  0-5
    b.  6-12
    c.  13-18
    d.  19-25
    e.  26-50
    f.  50+

7.  What is the highest level of athletes that you have ever coached? (Please circle)
    a.  Recreational/non-competitive
    b.  Club/school
    c.  Representative/select
    d.  Provincial
    e.  National/international
    f.  Professional

8.  What level of income do you currently receive for coaching, annually? (Please circle)
    a.  $0
    b.  $1 - $999
    c.   $1 000 - $4 999
    d.  $5 000 - $9 999
    e.  $10 000 - $19 999

      f.   $20 000 - $39 999
      g.  $40 000+

9. What is the status of your coaching position? (Please circle)
   a. Head coach
   b. Assistant Coach
   c. Other: _____

10. What is the average number of hours that you spend doing coaching related activities in a typical week (e.g., planning practice, transportation to coaching activities, coaching practices and competitions)?

   a. 1-9
   b. 10-19
   c. 20-29
   d. 30-39
   e. 40-49
   f. 50+

11. Did you or do you currently participate in the sport(s) that you coach?

   a. Yes
   b. No

12. **If you answered yes** to the previous question, what is the highest level that you competed in the sport(s)?

   a. Recreational/non-competitive
   b. Club/school
   c. Representative/select
   d. Provincial
   e. National/international
   f. Professional

# Coach Identity

Please rate the extent to which you agree with the following statements regarding your role as a coach relative to other roles in your life (for example, parent, spouse, employee, exercise, committee member, or blood donor) in the past year.

| | 0 = not at all true | 1 = slightly true | 2 = fairly true | 3 = very true | 4 = completely true |
|---|---|---|---|---|---|
| I love my role as a coach. | 0 | 1 | 2 | 3 | 4 |
| A major role in my life is coaching. | 0 | 1 | 2 | 3 | 4 |
| Coaching gives me a sense of fulfillment. | 0 | 1 | 2 | 3 | 4 |
| Coaching is central to who I am. | 0 | 1 | 2 | 3 | 4 |
| Coaching is very important to me. | 0 | 1 | 2 | 3 | 4 |
| I find coaching satisfying. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a part of my personal identity. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a big part of my life | 0 | 1 | 2 | 3 | 4 |
| If I could not coach, there would be a void in my life. | 0 | 1 | 2 | 3 | 4 |
| I would feel a sense of loss, if I were not able to coach. | 0 | 1 | 2 | 3 | 4 |
| I am passionate about coaching. | 0 | 1 | 2 | 3 | 4 |
| Coaching is a part of who I am. | 0 | 1 | 2 | 3 | 4 |
| Coaching fits with my personality. | 0 | 1 | 2 | 3 | 4 |

**Feelings about Coaching**

The following questions concern your feelings about your coaching during the last year. Please indicate how true each of the following statements is for you given your experiences coaching. Please use the following scale to respond to the items.

| | 1 = not at all true | 2 | 3 | 4 = some what true | 5 | 6 | 7 = very true |
|---|---|---|---|---|---|---|---|
| I feel like I can make a lot of inputs to deciding how my coaching gets done. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I really like the people I work with in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People tell me I'm good at coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I get along with people I work with in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I am free to express my ideas and opinions in my coaching role. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I consider the people I work with in my coaching role to be my friends. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have been able to learn interesting new skills through coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Most days I feel a sense of accomplishment from coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My feelings are taken into consideration when I am coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People I work with in my coaching role care about me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel like I can pretty much be myself when I am coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| People I work with in my coaching role are pretty friendly toward me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## Coach Motives

The following questions address the reasons why you have coached over the past year. Please indicate how true each of the following statements is for why you coach your sport(s) using the scale provided.

| | 1 = not at all true | 2 | 3 | 4 | 5 | 6 | 7 = very true |
|---|---|---|---|---|---|---|---|
| Because coaching is integral to my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because it allows me to achieve my personal goals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I get a good feeling out of it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| To be respected by others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I enjoy the interaction I have with athletes. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I like the extrinsic rewards (i.e., money) associated with winning. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because it personifies my values and beliefs. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because it contributes to my development as a person. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I don't want to let my athletes down. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I feel pressure from myself to win. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I feel responsible for the athletes' performance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sometimes I don't know why I coach anymore. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| To get recognition from others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sometimes I question my desire to continue coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because if I quit it would mean I'd failed. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I often think my coaching efforts are a waste of time. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I find it stimulating. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sometimes I feel the costs outweigh the benefits. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I enjoy the effort I invest. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because I want to be appreciated by others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because coaching is fundamental to who I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Because it is moving me toward my personal goals. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Passion**

While thinking of your coaching over the past year and using the scale below, please indicate your level of agreement with each statement.

| | 1 = not agree at all | 2 | 3 | 4 = moderately agree | 5 | 6 | 7 = very strongly agree |
|---|---|---|---|---|---|---|---|
| Coaching is in harmony with the other activities in my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have difficulties controlling my urge to coach. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The new things that I discover from coaching allow me to appreciate it even more. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have almost an obsessive feeling for coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching reflects the qualities I like about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching allows me to live a variety of experiences. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is the only thing that really turns me on. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is well integrated in my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If I could, I would only coach. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is in harmony with other things that are part of me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is so exciting that I sometimes lose control over it. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I have the impression that coaching controls me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I spend a lot of time coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I like coaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is important for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is a passion for me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Coaching is part of who I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Burnout**

Consider the following statements in relation to how you have felt about your coaching over the past year.  Please use the scale below to respond to each statement as honestly as you can.

| | 0 = never | 1 | 2 | 3 | 4 | 5 | 6 = always |
|---|---|---|---|---|---|---|---|
| I feel emotionally drained from coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Working with athletes requires a great deal of effort. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel like my coaching is breaking me down. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel frustrated by my coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel I work too hard at coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Working with athletes directly, stresses me too much. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel like I'm at the end of my rope. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel I treat some athletes impersonally, as if they are objects. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel tired when I get up in the morning and have to face another day of coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I have the impression that my athletes make me responsible for some of their problems. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I am at the end of my patience at the end of a coaching session (e.g., practice) | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I really don't care about what happens to some of my athletes. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I have become more insensitive to athletes since I've been coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I'm afraid that coaching is making me uncaring. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I accomplish many worthwhile things while coaching. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel full of energy. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I am easily able to understand what my athletes feel. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I deal with my athletes problems very effectively. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I handle emotional problems very calmly. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Through my coaching, I feel that I have a positive influence on people. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I am easily able to create a relaxed atmosphere with my athletes. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| I feel refreshed when I have been working close with my athletes. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Appendix E

MANUSCRIPT 1 - ETHICS APPROVAL

## Office of Research Ethics

The University of Western Ontario
Room 5150 Support Services Building, London, ON, Canada N6A 3K7
Website:   www.uwo.ca/research/ethics

### Use of Human Subjects - Ethics Approval Notice

Principal Investigator:  Dr. C. Hall
Review Number:  176515      Review Level: Full Board
Review Date: January 07, 2011      Approved Local# of Participants:  10
Protocol Title: What is the meaning of coaching high level sport?
Department and Institution: Kinesiology, University of Western Ontario
Sponsor:
Ethics Approval Date: February 24, 2011      Expiry Date: January 31, 2012
Documents Reviewed and Approved: UWO Protocol. Letter of Information and Consent. Email and Telephone Script.

Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the study or consent form may be initiated without prior written approval from the NMREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the NMREB:
   a)   changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
   b)   all adverse and unexpected experiences or events that are both serious and unexpected;
   c)   new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the NMREB.

Chair of NMREB:  Dr. Riley Hinson
FDA Ref. #:  IRB 00000941

Appendix F

MANUSCRIPT 2 – PILOT STUDY ETHICS APPROVAL

Use of Human Participants - Ethics Approval Notice

**Research Western**

Principal Investigator: Dr. Craig Hall
Review Number: 18317S
Review Level: Full Board
Approved Local Adult Participants: 20
Approved Local Minor Participants: 0
Protocol Title: An initial evaluation of the content validity and technical qualities of the Coach Identity Salience Scale
Department & Institution: Kinesiology,University of Western Ontario
Sponsor:
Ethics Approval Date: October 25, 2011 　　　　　Expiry Date: September 30, 2012

Documents Reviewed & Approved & Documents Received for Information:

| ttJocurrent anae | Con1n1ents | Version Date |
|---|---|---|
| IUWO Protocol | | |
| lLetter of Informatio11 | | |
| Other | Initial Contact Script | |
| Other | Follow up Email | |

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

Members of tile NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

Ethics Officer to Contact for Further Information

Grace Kelly 　　　　　　　　　　Janice Sutherland

*This is an official document. Please retain the original in your files.*

The University of Western Ontario
Office of Research Ethics
Support Services Building Room 5150 · London, Ontario · CANADA- N6G 1G9

Appendix G

MANUSCRIPT 2 – STUDY 2 ETHICS APPROVAL

Use of Human Participants -Ethics Approval Notice

**Research**
**Western**

Principal Investigator: Dr. Craig Hall
Review Number: 18725S
Review Level: Full Board
Approved Local Adult Participants: 500
Approved Local Minor Participants: 0
Protocol Title: Understanding coach motives, identity, commitment, and emotions.
Department & Institution: Kinesiology, University of Western Ontario
Sponsor:
Ethics Approval Date: January 24, 2012                    Expiry Date: February 28, 2013

Documents Reviewed & Approved & Documents Received for Information:

| Document Name | Comments | Version Date |
|---|---|---|
| IUWO Protocol | | |
| [other | Initial contact script for directors | |
| other | Initial contact script for participants | |
| !Letter of Information | Online | |

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health & Human Services und(!)I IRB registration number IRB 00000941.

Ethics Officer to Contact for Further Information

Janice Sutherland

*This is an official document. Please retain the original in your files.*

The University of Western Ontario
Office of Research Ethics
Support Services Building Room 5150 · London, Ontario · CANADA- N6G 1G9

## Appendix H

## MANUSCRIPT 3 - ETHICS APPROVAL

**Western Research**

Research Ethics

Use of Human Participants · Ethics Approval Notice

Principal Investigator: Dr. Craig Hall
File Number: 103619 Review Level: Full Board
Approved Local Adult Participants: 550
Approved Local Minor Participants: 0
Protocol Title: Exploring coach identity prominence, motivation, basic needs, burnout, and passion. Department & Institution: Health Sciences\Kinesiology,Western University
Sponsor:
Ethics Approval Date: April 11, 2013                    Expiry Date: April 30, 2014

Documents Reviewed & Approved & Documents Received for Information:

| Document Name | Comments | Version Date |
|---|---|---|
| ‡UWO Protocol | | |
| ‡other | Initial contact script for directors | |
| other | Initial contact script for participants | |
| ‡Letter of Information | Online | |

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussions related to, nor vote on, such studies when they are presented to the NMREB.

The Chair of the NMREB is Dr. Riley Hinson. The UWO NMREB is registered with the U.S. Department of Health & Human Services und(i)i IRB registration number IRB 00000941.

Ethics Officer to Contact for Further Information

Janice Sutherland

*This is an official document. Please retain the original in your files.*

**The** University *of* Western Ontario
**Office of Research Ethics**
Support Services Building Room 5150 · London, Ontario · CANADA- N6G 1G9

# Curriculum Vitae

**Name:** J. Paige Pope (née Gregson)

**Post-secondary Education and Degrees:**

Brock University
St. Catharines, Ontario, Canada
2003-2008 BPhEd

Brock University
St. Catharines, Ontario, Canada
2008-2010 M.A.

Western University
London, Ontario, Canada
2010-2014 Ph.D.

## AWARDS & HONOURS

2013-2013    *Ontario Graduate Scholarship with Distinctions Doctoral Scholarship*
Value: $16, 500

2010-2014    *Social Science and Humanities Research Council (SSHRC) Doctoral Scholarship*
Value: $105, 000

2010-2011    *Ontario Graduate Scholarship (Granted)*
Value: $15, 000, declined in lieu of SSHRC

2009-2010    *Ontario Graduate Scholarship Master's Scholarship*
Value: $15, 000

2008-2009    *Social Science and Humanities Research Council (SSHRC) Master's Scholarship*
Value: $15, 000

2010-2014    *Ontario Graduate Scholarship Master's Scholarship*
Value: $15, 000, declined in lieu of SSHRC

2008    *Women of Influence Award, Ontario University Athletes*
Presented to one female varsity athlete at each university that excelled in both academics and athletics during the school year.

2005-2009    *Canadian Interuniversity Sport Academic All Canadian*

2010    *President's Surgite Award, Brock University*
      Value; $1, 000
      Awarded to a student who made a difference at Brock University, in
      student government, academics, athletics, or service to the community.

2010    *Excellence in Research Award, Brock University*
      Value; $1, 500
      Awarded to graduate students for outstanding research

## PUBLICATIONS

**Empirical Book Chapters**

Mack, D. E., Wilson, P. M., Sylvester, B. D., **Gregson, J. P.,** Cheung, S., & Rimmer, S.
  (2010). The relationship between social physique anxiety and exercise behavior:
  Does the fulfillment of basic psychological needs matter? In T. M. Robinson (Ed.)
  *Social anxiety: Symptoms, causes, and techniques* (pp 93-105). Hauppauge, NY:
  Nova Science Publishers.

Wilson, P. M., **Gregson, J. P.,** & Mack, D. E. (2009). The importance of interpersonal
  style in competitive sport: A Self-Determination Theory approach. In C. H. Chang
  (Ed.), *Handbook of Sport Psychology.* Hauppauge, NY: Nova Science Publishers.

Wilson, P. M., Mack, D. E., Gunnell, K., Oster, K., & **Gregson, J. P.** (2008). Analyzing
  the measurement of psychological need satisfaction in exercise contexts:
  Evidence, issues, and future directions. In M. P. Simmons (Ed.), *Sport and
  Exercise Psychology Research Advances* (pp. 361-392). Hauppauge, NY: Nova
  Science.

**Journal Publications**

**Pope, J. P.,** & Wilson, P. M. (In press).  Testing a sequence of relationships from
  interpersonal coaching styles to rugby performance, guided by the coach-athlete
  motivation model. *International Journal of Sport & Exercise Psychology.*
  Manuscript ID: RIJS-2013-0023.R2.

**Pope, J. P.,** & Hall, C. R. (In press).  Further Validation of the Coach Identity
  Prominence Scale. *Measurement in Physical Education & Exercise Science.*
  Manuscript ID: HMPEE-2014-0010.

**Pope, J. P.,** & Hall, C. R. (2014).  Initial development of the Coach Identity Prominence
  Scale:  A role identity model perspective. *Journal of Sport & Exercise
  Psychology, 36,* 244-257. doi: 10.1123/jsep.2013-0039

**Pope, J. P.,** & Hall, C. R., & Tobin, D. (2014). How do coaches identify with their role as a coach? Exploring coach identity through a role identity theory lens. *Identity: International Journal of Theory & Research, 14*(2), 136-152. doi: 10.1080/15283488.2014.897951

Westlund, N., **Pope, J. P.**, & Tobin, D. (2012). Cognitive general imagery: The forgotten imagery function? *Journal of Imagery Research in Sport and Physical Activity,* 7(1), Article 1. doi:10.1515/1932-0191.1075

**Pope, J. P.,** & Wilson, P. M. (2012). Understanding motivational processes in university rugby players: A test of the Hierarchical Model of Intrinsic and Extrinsic Motivation at the contextual level. *International Journal of Sport Science & Coaching, 7*(1), 89-108.

Tobin, D., & **Pope, J. P.** (2012). Getting back into squash. *Business of Squash*. Retrieved from http://businessofsquash.squashontario.com/index.php?option=com_content &view=article&id=173:getting-back-into-squash&catid=34:rss&Itemid=232

**Publications in Progress**

**Pope, J. P.,** Law, B., Hall, C. R., Gregg, M., & Robertson, R. (Under review). Knowledge Transfer of Sport Psychology to Coaches: Coaches Use of Online Resources. *Submitted to International Journal of Sport Science & Coaching December 5, 2013.*

**Pope, J. P.,** & Hall, C. R. (Under review). Understanding the relationship between coaches' basic psychological needs and identity prominence with commitment, positive affect, and intentions to persist. *Submitted to Self & Identity, March 12, 2014.*

## SCHOLARLY ACTIVITIES

**Research Service**

2011       ***Co-reviewer***, *Psychology of Sport & Exerciser*

2011       ***Co-reviewer***, *Journal of Applied Social Psychology*

2010       ***Co-reviewer***, *Research Quarterly for Exercise & Sport*

**Other Scholarly Services**

2012-2013       ***Kinesiology Graduate Board Member***
Western University

2012       ***Conference Committee Member***

Eastern Canada Sport & Exercise Psychology Symposium

2009-2010    ***Research Ethics Board Member***
Brock University

# TEACHING EXPERIENCE

2012    ***Instructor***, *Introduction to Exercise Psychology*
Western University

2012    ***Teaching Assistant***, *Psychological Interventions in Exercise, Sport,&*
*Injury Rehabilitation*
Western University

2010    ***Teaching Assistant***, *Introduction to Exercise Psychology*
Western University

2010    ***Teaching Assistant***, *Foundations in Adapted Physical Education &*
*Disability*
Brock University

2009    ***Teaching Assistant***, *Quantitative Analysis*
Brock University

2008/2009    ***Teaching Assistant***, *Sport Psychology I*
Brock University