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AN EXAMINATION OF NEWCOMER INTEGRATION PROCESSES IN SPORT  
TEAMS: A SOCIALIZATION PERSPECTIVE

by

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Bachelor of Science, Wilfrid Laurier University, 2010

Master of Science, Wilfrid Laurier University, 2012

DISSERTATION

Submitted to the Department of Psychology

In partial fulfillment of the requirement for

Doctor of Philosophy in Psychology

Wilfrid Laurier University

Alex J. Benson © 2016

## ABSTRACT

In highly interdependent groups, the ability to swiftly and successfully integrate newcomers is an important component to maintaining functional team dynamics. The current dissertation explored how sport teams structure the nature and timing of events that newcomers are put through by implementing specific socialization tactics. In the first manuscript, a qualitative study was initiated to garner descriptive insights into the tactics that are used to socialize athletes into sport teams. Semi-structured interviews were conducted with coaches, veteran athletes, and newcomer athletes (i.e., individuals in their first year as a team member). Participant insights were thematically analyzed and compared to existing theoretical accounts of organizational socialization processes. Key processes involved establishing congruent role expectations between incoming athletes and group leaders. Further, socialization tactics balanced individually tailored role communication with efforts to foster social connections within the group. In the second manuscript, a questionnaire was developed to assess individuals' perceptions of the socialization tactics used in their team. Across four studies, think aloud interviews ( $N = 8$ ), an expert panel review ( $N = 6$ ), two cross-sectional tests of the factor structure ( $N_{study\ 2} = 197$ ;  $N_{study\ 3} = 460$ ), and a two-wave correlational design ( $N_{study\ 4} = 194$ ) were used to evaluate the construct validity and reliability of the Sport Team Socialization Tactics Questionnaire (STSTQ). Collectively, these efforts helped to identify a three dimensional model underlying the STSTQ, and provided preliminary evidence for its validity and reliability. This dissertation offers insight into the processes through which newcomers are integrated into team sport environments. Moreover, the STSTQ will

augment future efforts to systematically examine the individual-level and group-level consequences associated with the socialization tactics implemented in sport teams.

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## FORMAT AND STATEMENT OF ORIGINALITY

This dissertation follows a multiple manuscript option structure, whereby each manuscript stands on its own as a coherent piece of research, with its own introduction, method, results, and discussion section. The dissertation begins with a general introduction (Chapter 1), followed by the two manuscripts (Chapters 2-3), and closes with a general discussion (Chapter 4). The first manuscript was published in the *Scandinavian Journal of Medicine and Science in Sports*, and is co-authored by Dr. Mark Eys and Dr. M. Blair Evans. The research contained within this manuscript is my original work, although it is important recognize that both co-authors provided valuable feedback in structuring the interview guide and preparing the manuscript for publication. The second manuscript was under peer-review at the time of submitting this document. Given that each manuscript is intended to serve as a standalone document, there are minor redundancies in the literature reviewed across the two manuscripts. Nonetheless, each manuscript pursues distinct research goals that collectively contribute to a better understanding of the socialization tactics used to integrate newcomers into sport teams.

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## CHAPTER 1

### GENERAL INTRODUCTION

A core feature of sport is that it allows individuals to embed themselves in an optimally distinct group (Brewer, 1991) characterized by a high degree of entitativity (Lickel et al., 2000). This is a powerful social context where people strongly identify with their respective teams and sharply distinguish between outsiders (i.e., non-group members) and insiders (i.e., group members) (Rees, Haslam, Coffee, & Lavalley, 2015). It is well-documented that groups serve an important social function in helping us to form meaningful and lasting social relationships (Baumeister & Leary, 1995). In addition, the ability to form groups and work cooperatively enables the accomplishment of feats that would otherwise be unattainable as individuals (Van Vugt, 2006). Although group membership is a valued and often beneficial aspect of sport participation (Carron & Eys, 2012), involvement in a team environment results in the application of numerous social pressures that can make group-life challenging (e.g., Martin, Wilson, Evans, & Spink, 2015; Pinkerton, Hinz, & Barrow, 1989). For this reason, it is crucial to understand the factors that contribute to a positive group environment in sport teams, and how to mitigate the potential issues that can arise in such tightly knit groups.

Based on theoretical and empirical accounts from organizational contexts, the timeframe within which initial interactions between newcomers and existing group members occur may be a key leverage point for managing psychosocial outcomes (Allen, 2006; Allen & Meyer, 1990; Bauer & Erdogan, 2014; Fang, Duffy, & Shaw, 2011; Saks & Ashforth, 1997) and creating the conditions for positive group dynamics (Hackman, 2012) in sport teams. Several reasons account for why this is the case. First, individuals

are more impressionable when they are transitioning into a new group role, and thus groups are likely to exert the greatest influence over newcomers (Feldman, 1981).

Second, groups are composed of socially constructed boundaries that govern how group members should interact with one another. Newcomers who are unfamiliar with such boundaries may engage in behaviours that breed interpersonal conflict (Jehn & Mannix, 2001), create communication issues (Benson, Hardy, & Eys, 2015), or lead to social exclusion (Price & Van Vugt, 2014; Van Maanen, 1978). Third, these boundaries can create a great deal of uncertainty and stress for newcomers as they accustom themselves to the norms, values, culture, and role expectations associated with group membership (Ellis et al., 2015). For example, *functional* boundaries differentiate individuals by the tasks they are expected to perform, which are instrumental to coordinating team members' responsibilities. A second type of boundary is the *hierarchical* distinctions among organizational members. That is, certain individuals are given authority over others as a way to imbue organizations with a clear social structure. A final point to consider is the presence of *inclusionary* boundaries. Although the distinction between outsiders and group members is often easily discernable, inclusionary boundaries also exist within teams. For example, the social norms underlying an interaction between a first-year athlete and a team's head coach likely differs from those between a senior team captain and the head coach. Considering these points in tandem, the arrival of newcomers to a sport team may spur a host of problems that could undermine functional team dynamics. Thus, it is important to understand how sport teams can manage group entry experiences in a way that is beneficial for the newcomer as well as the group.

Theory related to organizational socialization offers a potential framework for understanding the newcomer integration processes that occur in sport teams, as well as the potential consequences associated with various approaches. In essence, organizational socialization refers to the process where newcomers are taught the culture, norms, and expectations associated with team membership (Van Maanen & Schein, 1979). Broadly speaking, the organizational socialization literature is organized around three complementary perspectives. One perspective pertains to understanding the knowledge newcomers must acquire to become successfully socialized into a particular group (e.g., Chao, O’Leary-Kelly, Wolf, Klein, & Gardner, 1994). A second perspective focuses on newcomers as active agents of their own socialization experiences—offering insight into how individual tendencies (e.g., proactivity, information seeking strategies) facilitate or undermine newcomer adjustment processes (e.g., Nifadkar & Bauer, 2016). The third perspective, constituting the focus of this dissertation, is concerned with the tactics groups employ to socialize newcomers into their organizationally defined role. The term *socialization tactics* is defined as “the ways in which the experiences of an individual in transition from one role to another are structured for him by others in the organization” (Van Maanen & Schein, 1979, p. 34). As such, the study of organizational socialization tactics operates on the assumption that groups have the ability to structure the nature and timing of events that newcomers are put through, and thus retain a degree of control over their approach to socializing newcomers.

An individual’s transition from an *outsider* to a *group member* is a socialization process, and groups can manage this process by implementing specific tactics. This perspective to studying newcomer integration processes, however, does not presume that

individuals must be socialized to successfully assume a group position (i.e., personal agency is recognized, but is not the primary focus). Nor does this perspective presume that all socialization processes produce adaptations that are necessarily beneficial for either the person or the group. Moreover, it is important to recognize that the effect of a specific socialization process does not occur in isolation from other contextual and individual factors. Nonetheless, Van Maanen and Schein (1979) proposed that “if we gain a greater understanding and appreciation for the sometimes unintended consequences of a particular tactic, we can alter the strategy for the betterment of both the individual and the organization” (p. 36). Consistent with this proposition, a number of empirical studies have documented consistent links between the socialization tactics used by organizations and indices of newcomer adjustment, including role clarity, job-satisfaction, self-efficacy, social acceptance, and intentions to remain (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). Moreover, there is evidence for linkages between socialization tactics and group constructs, such as engendering perceptions of cooperative goal interdependence (Lu & Tjosvold, 2013).

Tying these empirical findings together, Ellis et al. (2015) proposed that the effects of organizational socialization tactics—and other socialization processes—can be understood from a stress perspective. Given that entry into a group is associated with a number of challenges and barriers, newcomer adjustment may depend on whether the demands encountered by a newcomer are appraised as a challenge or a hindrance (Lazarus & Folkman, 1984). When the demands associated with group entry experiences are perceived as a challenge, this elicits an adaptive motivated response where newcomers become more invested in their own socialization process. In contrast, when

the demands associated with group entry are perceived as a hindrance, newcomers become disengaged from their own socialization process in an attempt to conserve the resources they perceive to lack. Within Ellis et al.'s integrative model, socialization tactics can serve as both resources and demands for newcomers, depending on the individual and the group context. For example, institutionalized socialization tactics are suggested to provide newcomers with the social support and a sense of structure required to overcome the challenges of entering a new group. However, inappropriately managed socialization processes place additional demands on the newcomer and thus further exacerbate the difficulties of group entry. Put simply, theory related to organizational socialization offers a novel approach for investigating ways in which newcomers are ushered into sport teams.

### **Overview of Current Research**

Two fundamental and interrelated goals of scientific inquiry pertain to generating descriptive evidence for observed phenomena and advancing causal explanations for such phenomena. Recognizing that a clear description of a phenomenon is an essential precursor to advancing explanations for its occurrence (Rozin, 2009), the overarching purpose of this dissertation is to critically examine the ways in which newcomers are integrated into competitive sport teams. Consistent with this general purpose, Chapter 2 details a qualitative investigation that sought to better understand the nature of the socialization tactics used in competitive amateur team sport settings. Building upon this descriptive understanding, Chapter 3 details the development of the Sport Team Socialization Tactics Questionnaire (STSTQ). Across four studies, multiple methods (think aloud interviews, expert panel reviews, pilot studies, two-wave correlational

design) were used to evaluate the construct validity of the STSTQ. Overall, this research aims to delineate the socialization tactics used in team sport settings, and in doing so, advance the broader literature pertaining to how teams strategically socialize newcomers.



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**CHAPTER 2**  
**MANUSCRIPT 1: ORGANIZATIONAL SOCIALIZATION IN TEAM SPORT**  
**ENVIRONMENTS<sup>1</sup>**

The experience of entering a sport team environment is fraught with potential ambiguities surrounding how athletes will fulfill their role as a newcomer. Every sport team is situated within a unique environmental context (i.e., physical, task, social, personal) that is characterized by a distinct social reality (Martin, Bruner, Eys, & Spink, 2014). Whereas the cooperative nature of sport may imbue feelings of social connectedness and a strengthened sense of social identity among teammates (Bruner, Boardley, & Côte, 2014), newcomers are also entering a competitive status hierarchy (Jones & Wallace, 2005). This conflict is common across highly competitive sport and presents a complex reality related to the integration of newcomers into an existing team. Several avenues exist for understanding how newcomers are integrated into existing teams, which include not only how athletes navigate their personal transition experiences, but how existing group members attempt to socialize newcomers into the team.

Historically, the study of newcomer entry experiences in sport has operated from a developmental perspective, which situates normative (i.e., anticipated) and non-normative athlete transition events in context of their athletic, psychological, psychosocial, and academic/vocational level (Wylleman & Lavallee, 2004). Delineating the trajectory of athletes' careers from sport initiation to discontinuation offers valuable insights into the challenges athletes encounter as they progress to higher levels of

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<sup>1</sup> A version of this paper is published in the *Scandinavian Journal of Medicine and Science in Sports* (vol. 26). Copyright agreement is provided within Appendix A

competition (e.g., Jones, Mahoney, & Gucciardi, 2014; Wylleman & Reints, 2010). For example, in a study exploring the transition to university, MacNamara and Collins (2010) identified psychological strategies (e.g., goal setting, imagery, focus, and distraction control) that athletes relied upon to adapt to the level of competitiveness, different coaching styles, new teammates, and additional academic responsibilities. Moreover, Bruner, Munroe-Chandler, and Spink (2008) conducted a series of focus groups and explored how young athletes reconciled a reduction in playing time and a change in their circle of social support as they made the transition to an elite level of hockey. As such, capitalizing on opportunities that develop a sense of personal competence and/or social belongingness may be an important aspect of successful transition experiences.

However, the life-span perspective emphasized by Wylleman and Lavallee (2004), and the subsequent studies that have examined athlete transition through this lens, do not specifically attend to how the structuring of initial interactions from the group's perspective may influence newcomer adjustment. Considering that the integration of newcomers happens on a large scale at the beginning of every season, delineating the tactics sport teams employ throughout this process warrants considerable attention.

Theory regarding organizational socialization offers a promising framework to examine how sport teams manage initial entry experiences because it presumes that teams are active agents in newcomer socialization—using tactics that ideally combine to maximize outcomes for the individual as well as the group (Van Mannen & Schein, 1979). Notably, organizational socialization theories have provided insights into how to structure newcomer entry experiences in a way that reduces uncertainty for the individual (e.g., reduced role ambiguity, increased perceptions of fit) and create greater continuity at

the group level (e.g., reduced turnover, increased commitment; Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Kim, Cable, & Kim, 2005). Further, in contexts where success often hinges on coordinating cooperative efforts among team members (e.g., team sport), the successful socialization of newcomers may help to sustain high levels of team performance (Chen, 2005). In sum, elucidating the process of how newcomers are socialized into existing team sport environments has potential implications for lines of inquiry related to athlete transition experiences (e.g., Wylleman & Reints, 2010) and sport group dynamics (e.g., Martin et al., 2014).

### **The Socialization of Newcomers into Organizations and Teams**

Organizational socialization refers to the process of how individuals come to understand the responsibilities, norms, and culture of a specific group (Jones, 1986). In general, the process of socialization requires newcomers to learn what is expected of them in the appropriate contexts while developing the skills and abilities to meet those expectations (Jones, 1986). Klein and Heuser (2008) specified that people must accustom themselves to the politics, language, structure, working relationships, social relationships, goals and strategy, culture and values, rules and policies, inducements, and history of an interconnected group. In many ways, the experiences athletes undergo when entering a sport team resemble the experiences of employees entering a new workplace. This may not be surprising given that these settings share structural characteristics such as performance-oriented objectives, task and outcome interdependencies, role differentiation, and a hierarchy of responsibilities (Day, Gordon, & Fink, 2012).

Van Maanen and Schein's (1979) writings are instrumental for understanding the tactics used to socialize people into organizations. Their theory of organizational socialization expounded that organizations can vary across six general aspects of how they socialize newcomers, and served as the basis for much of the empirical work conducted to date. The first way in which socialization tactics may diverge is whether newcomers undergo uniform training experiences (i.e., collective tactics) or receive personalized training and instruction in isolation from others (i.e., individual tactics). The second way to distinguish between socialization processes is the degree of formality of these learning experiences. This ranges from the use of a regimented structure to communicate role expectations (i.e., formal tactics) to a reliance on learning through trial and error (i.e., informal tactics). A third aspect of socialization addresses whether one's progression of responsibilities follows a logical series of stages (i.e., sequential tactics) or if the stages of progression are unpredictable (i.e., random tactics). The fourth set of tactics also relates to the progression of responsibilities, but focuses on whether there is a well-defined timetable outlining the expected progression (i.e., fixed tactics) or if one's progression is not subjected to any predetermined timeline (i.e., variable tactics). A fifth aspect of socialization on which organizations may differ is whether veteran group members are encouraged to pass down information to newcomers (i.e., serial tactics) or if newcomers receive no guidance from their more experienced counterparts (i.e., disjunctive tactics). Finally, socialization processes may differ on the degree to which a newcomer's self-identity is reinforced or discouraged, which is represented by investiture or divestiture tactics, respectively.



Jones (1986) extended this conceptual work by differentiating each dimension of tactics along a continuum that ranged from an *institutionalized approach* to an *individualized approach*. More specifically, he contended that the use of institutionalized tactics (i.e., collective, formal, sequential, fixed, serial, investiture) represents a structured socialization regimen that aims to reduce uncertainty as a means to encourage a compliant stance toward organizationally defined expectations and policies. In contrast, he suggested that an individualized approach (i.e., individual, informal, disjunctive, variable, random, divestiture) reflects a more chaotic and unpredictable learning path, which encourages people to explore and redefine their organizational responsibilities. Further, Jones proposed that institutionalized tactics could be organized according to whether they dealt with the context (i.e., collective, formal), content (i.e., sequential, fixed), or social aspects (i.e., serial, investiture) of socialization into the group.

Two meta-analyses support this distinction between institutionalized and individualized approaches, as Bauer et al. (2007) and Saks, Uggerslev, and Fassina (2007) found that institutionalized socialization tactics were consistently associated with (a) reductions in negative role perceptions (i.e., role ambiguity and role conflict), (b) desirable psychosocial outcomes for the individual (i.e., social acceptance, self-efficacy, job satisfaction), and (c) more committed group members who have greater intentions to remain. However, Bauer et al. cautioned that researchers may lose out on valuable information when incorporating a composite rather than a faceted approach (i.e., six or three factor structure) to measure socialization tactics. Likewise, Saks et al. identified that certain tactics differentially influence outcome measures. For example, serial and investiture tactics were the strongest predictors of newcomer adjustment. Conversely,

collective and formal tactics were the weakest predictors of newcomer adjustment, exhibiting a non-significant relationship with role ambiguity, organizational commitment, intentions to quit, and acceptance of organizational responsibilities.

Adding clarity to when and why these institutionalized tactics are effective for newcomer adjustment, Kim et al. (2005) found a stronger positive relationship between institutionalized tactics and person-organization fit when newcomers were more proactive upon entry (i.e., socializing, positive framing). Further, Allen and Shanock (2013) demonstrated that both perceived organizational support and embeddedness mediated the effect of institutionalized tactics as predictors of higher commitment and less voluntary turnover. In sum, there is clear and consistent empirical support regarding the benefits conferred by organizational groups that emphasize institutionalized socialization tactics.

### **Overview of the Current Research**

The general purpose of this investigation was to examine the potential applicability and utility of organizational socialization as a framework for understanding which socialization tactics are employed in team sport environments. Sport offers a valuable context to not only adapt and test insights generated in the field of organizational behaviour, but to refine theories through the identification of conditions that may be overlooked in organizational groups (Day et al., 2012). With this in mind, the current research sought to achieve a descriptive understanding of the tactics that are used to socialize athletes into a given team sport environment. Qualitative methods are particularly effective for pursuing this type of research question given the richness of contextual descriptions they afford (Giorgi, 2009). As such, a qualitative approach was

used to understand how athletes are integrated into existing sport teams based on the personal accounts of coaches and athletes.

### **Method**

A constructivist theoretical orientation guided the methodological approach. Constructivism emphasizes a context-dependent perspective on the development and refinement of theories (Mir & Watson, 2000). Under the perspective that people construct their knowledge about the world through social interactions, constructivism also recognizes intersubjectivity of research and personal experiences as an inevitable component of research. Mir and Watson (2000) explained that “constructivism does not question the existence of phenomena, but rather our ability to understand them without a specific theory of knowledge” (p. 942). The constructivist approach advocated by Mir and Watson uniquely positions itself as an orientation that embraces epistemological relativism with ontological realism. That is, although phenomena exist independently from what researchers and participants perceive, people construct their understanding of reality through subjective frames of reference.

A range of actors, including coaches, veteran athletes, newcomers, sport administration, parents, and other relevant individuals contribute to the process of newcomer socialization. It was expected, however, that newcomer socialization is most pertinent for coaches, who are responsible for managing the team, along with athletes, who actually undergo the experience of socialization and are concurrently active agents in socializing their teammates. Each individual might hold a distinct perspective of the purpose, outcomes, and effectiveness of socialization processes. Coaches may consider the socialization process from a standpoint of long-term team success, whereas athletes

may be concerned with their own personal aspirations during socialization (Jones & Wallace, 2005). Even among athletes, newcomers may have distinct assumptions compared to veterans. In consideration of these points, multiple perspectives were sought from coaches, newcomer athletes, and veteran members on the nature of socialization in sport. These assumptions were ultimately consistent with a constructivist stance, which is revealed in the perspective that athletes are socialized into a group characterized by a unique social reality (Martin et al., 2014), and that athletes ultimately define their sense of meaning through interactions with relevant others (Van Maanen & Schein, 1979).

### **Participants**

Following institutional ethics approval (see Appendix B) and obtaining informed consent (see Appendix C), coaches and athletes from several Canadian Interuniversity Sport programs (i.e., basketball, football, hockey, lacrosse, and soccer) detailed their experiences related to how athletes are socialized into their teams. Twelve coaches ( $M_{\text{age}} = 46.50$ ;  $SD = 12.94$ ) participated in the study, who on average had 23.08 ( $SD = 14.48$ ) years of coaching experience, with 7.83 ( $SD = 6.51$ ) years spent with their current team. Despite there being an uneven sex distribution among the coaches interviewed (eleven males and one female), there was an equal representation of coaches from men's ( $n = 6$ ) and women's ( $n = 6$ ) sport teams. In addition, seven male and five female athletes ( $M_{\text{age}} = 20.92$ ;  $SD = 1.93$ ) participated. On average they had spent 2.23 ( $SD = 1.01$ ) years with their team at the time of the interview. To explore the boundaries of socialization tactics used in sport teams, efforts were directed to recruit athletes who were at different stages with respect to their socialization into their team. Although no potential participants were omitted because of their status, athletes from a range of sport experiences were

purposefully contacted. This approach resulted in the inclusion of athletes who (a) were not formally recruited to join the team ( $n = 5$ ), (b) were in their first year ( $n = 3$ ), (c) were formal leaders ( $n = 2$ ), (d) decided not to return to their team despite being eligible to do so ( $n = 2$ ), and (e) occupied both starting ( $n = 5$ ) and non-starting roles ( $n = 7$ ). All participants either competed or coached within the previous year at the time of the interview.

### **Interview Guide**

Participant experiences related to the socialization processes that occur in team sport settings were explored through semi-structured interviews. The same concepts were explored in the interviews with coaches and athletes, although separate interview guides were constructed to capture each perspective (see Appendix D). Semi-structured interview techniques encompass a flexible mode of questioning and use probes to encourage detailed description, which can take on a variety of forms, such as asking participants to explain what strategies they think are effective for integrating newcomers. To avoid asking abstract conceptual questions and to ground participant responses in context of their actual experiences, Giorgi's (2009) phenomenological interview techniques were used. In doing so, athletes and coaches were asked to simply outline what occurred in their team (e.g., can you describe the types of information you had to acquire when joining your team?), and further probed those details to understand the aspects that contributed to a given experience. These included queries related to the content of learning experiences athletes underwent when entering the group, how social relationships within the group influenced adjustment to the group, and the factors that influenced athletes' understanding of what was expected of them as a group member. In

addition, Van Maanen and Schein's (1979) framework pertaining to organizational socialization informed the development of additional follow-up questions to ensure the nature of socialization was explored (e.g., Can you describe whether veteran members provided you with any information in terms of your role on the team?). The semi-structured nature of the interview meant that the sequencing of questions was often determined by what was most appropriate at the time, and additional probes (i.e., contrast, descriptive, elaborative) were implemented whenever necessary to fully explore each person's experience as it presents itself. On average, the interviews were 40 minutes ( $SD = 15.28$ ) in duration, which resulted in a total of 425 pages of transcribed data.

### **Collection and Analysis of Data**

An essential process to enhance rigour was to garner an authentic representation of participants' insights. This required acknowledging preconceived notions about the area of interest with the intent of maintaining a neutral and empathetic stance throughout the interviews and the subsequent analysis. This was established prior to conducting the interviews by participating in a bracketing interview, which requires researchers to ask themselves what is known to them and how they came to know it, as it pertains to the topic (Patton, 2002).

After gaining approval from the ethics review board, coaches and athletes were invited to participate in an in-person interview—one interview was conducted over the phone because of geographical constraints. Member checks were conducted to ensure that all participants had the opportunity to read over their interview transcript and provide any additional insights or comments about their experiences.

Interviews were conducted and analyzed in an ongoing manner to ensure a reflexive stance was maintained throughout the research process. This involved an iterative process of: (a) revisiting data for emerging theoretical insights, (b) revisiting the initial research questions, and then (c) examining which lines of inquiry required further exploration in subsequent interviews to ensure a deeper understanding of sport team socialization processes (Srivastava & Hopwood, 2009). For example, initial interviews with coaches revealed that peer mentors were viewed as important agents of socialization and, as such, the perspective of veteran leaders was purposefully sought. No additional participants were recruited once the insights garnered from the interviews generated substantive theoretical insights in relation to the nature of socialization tactics in sport teams.

The analysis began by reading over each transcript several times while making memos to facilitate a general understanding of participants' descriptions and to identify areas of theoretical interest. Memos were constantly referred back to and revised (Patton, 2002). Following suggestions by Giorgi (2009), each transcript was parsed out into segments of text to demarcate where significant shifts of meaning occurred. These meaning units were grouped together to form distinct categories using an open coding process. The categories were then compared and contrasted with one another until the content contained within a single category fit together in a meaningful way but was sufficiently distinct from the other categories. The latter stage of analysis proceeded in a recursive fashion, which involved circling back through each interview to ensure the contextual details of each meaning unit were relevant to the category for which it was assigned. Several key themes were identified in relation to the use of socialization tactics

in sport teams, at which point two additional researchers assessed each theme for coherency and distinctiveness. In the final stage of the analysis, the extant organizational socialization research was consulted to examine the theoretical relevance of these findings and to aid the refinement of key concepts.

### **Quality and Rigour**

Several processes were undertaken to develop a sense of rigour and credibility that was coherent with a constructivist methodological stance (i.e., member checks, iterative reflexive research process, ensuring coherency and distinctiveness of themes through an interactive process among researchers). Sparkes and Smith (2013), however, highlight that qualitative research is rarely effectively judged according to solely these. Rather, judgements of qualitative research should rely on the nature of the work itself, placed within a given context and methodology, as well as the degree of correspondence to flexible criteria such as whether it explored important topics, resonates with readers, and represents a contribution to understanding. The current work can be judged according to how it explores a process that athletes and coaches viewed to be a substantial component of their sport experience – a point that is supported through research regarding the integration of members into sport and organizational teams (Allen & Shanock, 2013; Bruner et al., 2008). As will become clear in the subsequent sections, by relating coaches' and athletes' perspectives to existing theory from other contexts, these findings offer alternative ways to think about how socialization tactics are implemented during the process of newcomer integration, in hopes of encouraging future discourse among researchers and practitioners.

## **Results**



### **Contingency-based Role Progression**

Coaches emphasized that an inherent difficulty of entering a competitive sport team is the uncertainty that athletes encounter in terms of the role they will eventually occupy, as task responsibilities are often predicated on performance relative to others in the group. For athletes who were formally recruited, coaches strove to create a realistic picture of what their role may entail:

I'm telling them exactly what they're buying into, so those expectations are known when they come in. Because it is no good for me to tell them, 'Okay you're going to start, this is going to happen', and then when they get here and they're discouraged and they end up leaving after year one or year two. (Coach 9, Women's Hockey)

Given the performance-oriented nature of university sport, none of the coaches attempted to outline concrete timelines for how an athlete would progress. This was simply not feasible because of the contingencies that had to be built into each athlete's role progression—in other words, there had to be a degree of role flexibility:

[We] try to tell young men the reason that we're recruiting you is that we know you can play at this level. What is tough for us to understand and predict is how long it takes you to adjust to the speed and size, and the technical differences; some guys it is two minutes; some guys it is two days; some guys it is two years. So that's one that we can't tell for sure, we try to get the best athletes we can to our training camp and how fast they make that transition, we try to help them through it, but each student athlete is a little bit different. (Coach 8, Men's Football)

Coaches balanced providing athletes with reassurance that they had the potential to contribute to team objectives while attempting to quell unrealistic expectations about how soon that time may come. Although none of the athletes stated that they were explicitly promised a roster position in the team, many athletes outlined that they had an idea of how they anticipated to progress in their role responsibilities:

First year you get beat up, you're a punching bag—you might get to dress. Second year, coaches know who you are, they start to keep an eye on you a bit more, you get a few more looks, you might get to dress a few more games, maybe you're on special teams a few times. Third year, coaches definitely know who you are, you've got some film, some game experience under your belt, you get to dress almost every game, and you play [special teams] consistently. (Athlete 11, Men's Football)

All of the athletes expected their role contributions to expand in some capacity each subsequent season. Indeed, difficulties adjusting to a new role were more likely to arise when athletes experienced a regression or stagnation in their responsibilities: "It's tough when your role is taken away almost. So the fact that my role was expanded was good for me" (Athlete 12, Women's Hockey).

In sum, the socialization process is quite variable in sport as it is highly contingent on the rate and nature of how all team members progress/regress in their team responsibilities, which may be influenced by the status and ability of the athlete entering the team.

### **Congruency of Role Expectations between the Coach and Athlete**

Considering the inherent volatility in athletes' role responsibilities, a predominant concern for coaches was establishing and maintaining clear role expectations for new team members as well as returning team members. To ensure athletes were clear about where they stood relative to others in the group, coaches emphasized that it was important to sit down with athletes and be honest when providing role performance feedback and discussing their strengths and weaknesses:

Players' expectations, we found, are a lot different than what our expectations are. You could have [an athlete] who scored one goal the first three years and she still thinks she should be on the power-play, so you have to be very specific in terms of where we see you fitting. (Coach 2, Women's Hockey)

It was commonplace for coaches to schedule several formal meetings—usually at the beginning, mid-point, and the end of the season—and all of the coaches said they encouraged an open-door policy if athletes wanted to set-up additional meetings. Yet, several coaches found it beneficial to proactively clarify role expectations outside of formally scheduled meetings:

If you can see a student-athlete struggling with the role that they have earned, you can proactively deal with them sometimes and explain to them technically, mentally, and socially why the role is their role and what they have to address to have a bigger role. (Coach 8, Men's Football)

Corroborating the emphasis coaches placed on clarifying role expectations, athletes expressed concern over how they were performing relative to others in the group: "I wasn't afraid to go and ask the coach what he thought, how he thought I was playing, where he saw me throughout the season, etcetera" (Athlete 4, Men's Football). While all

of the participants endorsed the need to communicate with one another as it pertained to the role expectations in the group, six of the athletes felt the role performance feedback they received from their coaches lacked tangible details to improve upon.

### **Shared Group Entry Experiences**

Athletes conveyed that a foremost concern upon entering the team was how they would be received by their teammates. A commonly described occurrence was the scheduling of group-oriented activities to provide athletes with ample opportunity to socially connect with others while going through this difficult adjustment period: “I really bonded with the other rookies. It was like the beginning of a brotherhood, you could say, because we were all there for the same reason. We’re all going through the two-a-day training camp practices and it is tough” (Athlete 7, Men’s Football). In addition to the strong sense of social affiliation that developed over the course of training camp, athletes described how their inclusion in daily social activities was a highlight during those first few weeks as a team member: “Then afterwards the girls invited me and the other rookies to go out to [a restaurant] afterwards for a lunch; so that was really nice; a really welcoming experience that the girls took on themselves to do” (Athlete 10, Women’s Basketball).

In line with these sentiments, coaches recognized the demands of training camp tended to foster a sense of camaraderie in the group, but also talked about the importance of facilitating positive group member interactions beyond the rigours of training camps. Traditional team bonding activities were the most commonly reported activity:

We went to a [baseball] game the next day, something completely away from our sport. Girls sat around, they ate horrible food for them and then we hopped on the

bus and came home and so it was just giving them a chance to relax...it was one of the best team building activities we did. (Coach 12, Women's Hockey)

Newcomers are thrust into unfamiliar territory as they attempt to forge social bonds with new teammates while vying for playing time against them. In this sense, perceptions of inclusivity may be a critical area of concern for athletes who do not occupy prominent task-oriented roles in the team.

### **Formality of Learning Experiences**

Coaches described the importance of formally establishing expectations early on to avoid instances of ambiguity in terms of team related policies and rules. All of the coaches identified techniques to convey these expectations that included a combination of providing an explicit overview of expectations during group meetings and providing written mandates highlighting issues related to team member accountability. Despite the authoritarian stance on certain issues, several coaches said that they allowed their athletes to democratically establish certain team principles to foster a sense of accountability in the group: "What they're here for; [athletes] have no say in those matters—CIS championship, OUA championship, this is how we get here and we reinforce that on a regular basis" (Coach 10, Women's Volleyball). The same coach then went on to discuss how certain expectations were consensually agreed upon by the athletes themselves:

Right, the team develops this [sheet of expectations] and you can see the signatures on this, and this is basically behavioural considerations that we—over time again as it says, it's always under construction—that we believe represent the brand and themselves. (Coach 10, Women's Volleyball)

Although every athlete recollected similar formal learning experiences (e.g., formal team meetings and collaborative group discussions)—albeit to varying degrees—athletes tended to place a greater emphasis on the need for continued learning opportunities as a newcomer to the group. Athletes’ descriptions made it clear that the sheer volume of new information they were exposed to as newcomers was overwhelming, and while the initial meetings were part of their knowledge acquisition process, much of their understanding came through informal learning experiences:

No form of coaches or players, in my opinion, can better prepare you or provide a realistic expectation of what practice is going to be like.... It’s very hard to describe that difference, it’s just one of those things that you have to see for yourself and experience for yourself. So in that sense, those roles and expectations are developed on the fly. (Athlete 9, Men’s Football)

### **The Role of Veterans during Newcomers’ Entry Experiences**

Athletes and coaches made it clear that they perceived veterans to play a prominent role in helping newcomers integrate what may have initially seemed like disparate pieces of information. In many ways, veterans acted as an extension of the coach by filling in gaps of knowledge about group life that coaches were not aware of or did not have time to address themselves. This ranged from clarifying specific task-oriented drills to reinforcing social norms of the group:

We [veteran leaders] come up with some rules that we’ve tweaked over the years. So one of the rules, for example, is no drinking before you’re on the field, you can’t go out the night before you’re on the field” (Athlete 11, Men’s Football).

Further, veterans offered guidance on issues that were not directly related to the team's instrumental objectives, such as advising new student-athletes on matters related to the increased academic demands as well as proper time management. As one athlete described, "If anyone was falling back with academics, school, or football, [veteran leaders] were always there to pick you up; not really lecture you, but give you a little point of how to improve yourself" (Athlete 7, Men's Football).

In addition to the opportunities to learn from veteran members, athletes emphasized that the initial and continued social support from experienced group members eased many of the difficulties they experienced that initial year:

You don't want to be in first year and go to coach and be like 'why am I not playing?' So just going to [veteran teammates] to help talk to you, help you feel good, any advice, academics, help you train to get better, anything really; it's like a big sister. (Athlete 8, Women's Basketball)

Along these same lines, coaches were well aware of how influential veterans were in the process of newcomer integration. Nine coaches reported that having veteran team members who displayed an exemplary work ethic and attitude were invaluable in establishing and reinforcing team rules and desired behaviours. One coach stated "What better way to pick up habits about how things are done than watching your veteran players; how to practice, how they prepare, how you do things, because sport is all about action" (Coach 2, Men's Hockey). Further, several coaches indicated that veteran athletes were a needed resource in managing concerns that coaches do not have the time, or ability, to help with:

[Mike] was like a den mother. If you had a problem he would solve it, he was helping you solve it... I would never hear anything about it, but now this year we don't have one of those guys so that comes back to me now. (Coach 4, Men's Basketball)

However, coaches cautioned that it was crucial to ensure that these social agents moved the group in a positive direction in terms of achieving team goals:

Choose your captains carefully. They are your role models, and their work ethic and just how they deal with anything and everything on this campus is going to be mimicked and repeated by the freshman because they are impressionable. So identifying who the leaders are and who you want the freshman to look up to is unbelievably important. (Coach 8, Men's Football)

Indeed, veterans were largely responsible for creating the dominant social reality of team membership, as their day-to-day actions and how they carried themselves signaled to newcomers how group members ought to behave.

In light of the potential influence that peer leaders had on newcomers, some coaches opted to formalize pairings between veterans and newcomers "We partner a first year with an upper year—always" (Coach 12, Women's Basketball). Other coaches, however, noted the importance of striking a balance between explicitly telling veterans they have a role in helping newcomers adjust and attempting to create a sense of personal accountability and ownership in relation to mentorship. These coaches attempted to develop a cycle of mentorship in a natural manner by creating situations that fostered mentor-protégé relationships:



If I've recruited the right guys and I've created the atmosphere, then you already know you've got to be supportive of these young guys and the better you are at that, then the better we are going to be as a basketball team.... I'm always trying to do it in a way where I'm giving you an opportunity to take ownership and these new guys are your teammates. (Coach 4, Men's Basketball)

Regardless of the actual method used to promote positive interactions between veterans and newcomers, all of the coaches agreed that it was beneficial to have a culture of veteran mentorship if there were suitable leaders in the group.

### **Expectations to Conform versus Encouragement of Individual Personalities**

The final theme covers the degree that athletes' identities were either reinforced or disconfirmed throughout their socialization experiences. On one hand, all of the coaches expected athletes to conform to their vision of the group, such that issues of practice attendance, adherence to team strategies, and commitment to the team principles were non-negotiable: "It's not a democracy. It's a benevolent dictatorship, and I'm the benevolent dictator" (Coach 11, Women's Basketball). Athletes were unanimous in echoing this same sentiment: "When you're talking about time punctuality and responsibilities, that's military, that's what is expected of you" (Athlete 8, Women's Basketball).

Within the firm boundaries set by group leaders, every athlete identified standard customary behaviours expected of first year members. These traditions were mostly restricted to activities such as putting away the equipment after practice because of a mandate prohibiting any behaviours that could be construed as hazing: "The first year guys, one of the expectations on them is to stay on the ice until the practice is done to

pick up the pucks and so the first year players kind of share that job” (Coach 1, Men’s Hockey). Nevertheless, these traditions enforced by veteran athletes appeared to be a rite-of-passage that served as a form of boundary maintenance by establishing the status hierarchy in the group.

Even though there was strict conformity to group norms in relation to task objectives, this did not apply to personality differences among teammates. In fact, every coach either directly expressed, or inferred, that they made attempts to create an inclusionary environment:

You come here and you’re accepted for who you are; we’re not going to tell you to change your beliefs or anything like that, or who you are, or your girlfriends, or your religion, nothing like that. (Coach 2, Men’s Hockey)

In fact, athletes talked at length about how their most salient concern prior to entering the team was related to how they would be received and viewed by their new teammates:

Meeting the group was a big challenge for me. You want to be friends with these guys, and you’re going to be around them a lot of the time, the majority of everyday and week so you want to have a good relationship with them. (Athlete 1, Men’s Soccer)

In line with coaches’ efforts to create an environment of social acceptance, eleven of the athletes said they felt accepted for who they are as it pertained to the social aspects of the group.

Overall, the nature of conformity expected of athletes in university sport teams differed markedly across task and social domains. Whereas there was little room for individuality when it came to matters that were task-oriented, personal acceptance was

encouraged by coaches and athletes when discussing matters that were social in nature.

### **Discussion**

The results of this study elucidate how team members are introduced and integrated into an existing team sport environment. Coach and athlete reflections revealed that a primary focus during socialization was developing a clear understanding of the newcomer's place within the team, and that the nature of the socialization process greatly differed according to the ability and status of the incoming athlete. New members were socialized through informal and formal shared learning experiences that ranged in the degree that they demanded conformity to group beliefs or encouraged individuality. Further, veteran athletes were relied on as an essential conduit for these aforementioned tactics, and specific approaches were dedicated to establishing mentorship relationships between experienced and new group members.

### **Conceptualizing Socialization Tactics in Sport**

In many ways, the types of tactics used by coaches to socialize newcomers into team sport environments can be classified within Van Maanen and Schein's (1979) taxonomy of socialization tactics. The widespread use of shared group learning experiences, and the formal manner in which training camps and practices were scheduled, corresponds to how collective and formal tactics are defined. Further, the degree of identity affirmation one experiences upon group entry, as well as the conformity expected of athletes to the rules and policies established by the coach, are tantamount to the concepts of investiture and divestiture tactics, respectively. Moreover, the importance of veterans in mentoring newcomers throughout this entire process

resembles the use of serial tactics. Lastly, the unpredictable nature of role progression in competitive sport teams necessitates the use of random and variable socialization tactics.

Notably, these findings revealed that there are instances where sport teams employ institutionalized and individualized tactics concurrently. Implementing certain individualized tactics alongside institutionalized tactics may allow sport teams to capitalize on the unique, but complementary, advantages associated with each approach. One case involving the concurrent use of institutionalized and individualized tactics involves formal versus informal tactics. Formalized team meetings offer a structured environment to clarify established team processes in a context removed from the ambiguities and distractions of daily practices and competitive events. In addition, athletes described their desire to receive individually tailored information from the coaching staff regarding their role in the group. However, these formal learning experiences do not preclude the concurrent use of tactics aimed at providing athletes with opportunities to informally discover the nuances of how activities, tasks, and tactical drills are actually executed on a daily basis. Athletes' endorsement of informal learning experiences (e.g., opportunities to observe their peers) aligns with Nelson, Cushion, and Potrac's (2006) suggestion that formal modes of learning are often de-contextualized from the realities that are encountered in sport, and thus, are most effective when nurtured by complementary informal learning experiences.

In a similar vein, coaches and athletes reflected on processes that served the purpose of ensuring newcomers felt welcome to the group, whereas conformity-based tactics were highlighted (i.e., denying personal expression) for establishing group rules, policies, and tactics. Together, social-oriented tactics may complement conformity-based

tactics in terms of fostering greater group identification in newcomers, albeit via different avenues. Allen and Shanock (2013) explained that an inclusionary environment signals to newcomers that the group cares about them, which in turn, elicits a reciprocal commitment from the newcomer toward the group. At the same time, coaches enforced conformity to task related expectations, but made an effort to include athletes in the process of setting these team principles. From a social identity perspective, delineating concrete principles on what it means to belong to a specific sport team creates a sense of group distinctiveness, which is a core property of groups toward which people gravitate (Ashforth & Mael, 1989). Overall, social-oriented and task-oriented tactics may work in tandem to facilitate newcomer adjustment.

Considering that the study of socialization processes in team sport is in a relatively nascent state, this work provides insight into how sport team socialization tactics can be operationalized. Notably, specific tactics were dedicated to helping newcomers adjust to the task and social aspects of group involvement. Echoing a sentiment put forth by organizational scholars (e.g., Fang, Duffy, & Shaw, 2011; Klein & Heuser 2008), successful socialization requires adeptness in task as well as social matters. In addition, peer-driven socialization processes in combination with individually tailored information provided by the coaching staff appear to constitute two major components of newcomer integration processes in team sport environments. Identifying and clarifying these theoretical constructs represents a critical step to establishing a conceptual basis for the study of sport team socialization processes.

### **Practical Implications**

Athletes' and coaches' experiences related to newcomer socialization processes reveal several issues of practical concern, and also offer insight into key agents who may be leveraged (e.g., veteran athlete leaders) throughout the socialization process. In accord with Jones and Wallace's (2005) stance on developing knowledge-for-understanding, it is perhaps premature to offer a practical blueprint for successful team member socialization. To avoid oversimplifying the struggles of newcomer socialization, the following section elaborates upon the issues that arise between athletes and coaches during the process of newcomer socialization.

Many of the challenges related to effective socialization in sport teams centered on the potential for athletes to enter a group with unrealistic expectations for their performance and role within the team. The recruiting stage is an essential timeframe to ensure that athletes' task expectations will be congruent with what they actually experience as people have a tendency to inflate their expectations in anticipation of a new experience (Irving & Montes, 2009). However, the provision of accurate and detailed information prior to group-entry has been shown to offset some of the issues linked to unmet expectations, by leading to less role ambiguity and greater commitment to the group (Klein, Fan, & Preacher, 2006). Beyond the anticipatory stages of socialization, however, a second area concerns the issue of *maintaining* realistic role expectations, as athletes noted there was a tacit expectation to gain a more prominent role each subsequent year. To this end, it may be prudent for coaches to proactively and directly state that athletes should not expect a linear upward progression in role responsibilities from year to year, rather than reconciling disparate role expectations after they become problematic.

Extending this previous point, the manner in which social matters are handled is another key area to consider when discussing socialization into sport teams. A foremost concern for athletes upon first entering the group was gaining social acceptance from their teammates, which corresponds to recent accounts that underscore the importance of social affiliation motives in sport (e.g., Evans, Eys, & Wolf, 2012). Efforts to establish social bonds may be particularly relevant in sport settings because first year athletes competing at a more competitive level often occupy roles of relatively lower status (e.g., red shirt freshman in college) compared to roles that they may have previously occupied (e.g., star of high school team). Although this strong desire to form relationships with team members may help offset the difficulties associated with a change in status (Bruner et al., 2008), this also leaves athletes vulnerable to inflated social expectations. In addition to being cognizant of athletes' task expectations during the anticipatory socialization stages, coaches and practitioners would benefit from considering the relational expectations that are generated during this process. For example, if the nature of interpersonal interactions with potential teammates and the coaching staff prior to group-entry (i.e., recruiting stage) creates an expectation that does not reflect the reality of the group, this relational psychological contract breach could potentially undermine an athlete's trust in the team (Montes & Irving, 2008).

This desire for social acceptance may explain why veteran members were seen as integral contributors to athletes' transition experiences into the group. The perceived benefits associated with mentoring experiences conceptually aligns with examinations of socialization tactics in business settings, which consistently demonstrate that the degree of information passed down from veterans to newcomers is one of the most influential

tactics for alleviating role ambiguity and role conflict, improving performance outcomes, and influencing a more acceptant stance toward organizational expectations (Bauer et al., 2007; Saks et al., 2007). That said, coaches expressed concern about the potential for veterans with negative attitudes or behavioural tendencies to have pernicious effects on newcomer development. Cultivating mentorship through the identification of appropriate leaders and empowering them to help newcomers may serve to enhance group and individual performance and experiences (Allen, Eby, Poteet, Lentz, & Lima, 2004).

### **Limitations and Future Considerations**

The strength of a constructivist approach is in bringing the social realities of participants' experiences to the fore. As Williams (2000) noted, however, relying on idiographic details to make inferences about issues in the context of a broader social milieu requires careful consideration. By identifying the core consistencies that can be gleaned from participants' subjective frames of reference, researchers must then consider the transferability of these insights in a thoughtful and contextually situated manner, a process referred to as making *moderated generalizations*. For example, the challenges faced within intercollegiate teams are unique and may differ from other socialization contexts, such as entry into professional sport teams or joining a team mid-season (Bruner et al., 2008). Another relevant limitation stems from only interviewing athletes and coaches from five traditional team sports. When extrapolating these findings to other contexts, researchers should also consider that most of the athletes recalled socialization experiences that were generally positive (e.g., only two athletes indicated a lack of interest in rejoining their team the next season) and normative in nature. Athletes who had negative socialization experiences that resulted in early departure from the team may



offer insight into which aspects of socialization are most imperative for group member retention. Taken together, the transferability of these findings must be considered within the limitations of the present sample.

Nevertheless, these findings offer a basis to further explore how socialization tactics are implicated in the process of newcomer adjustment. Coaches and athletes often have divergent personal goals that cannot always be reconciled in the form of a unified collective interest (Jones & Wallace, 2005). Notably, newcomer socialization represents a volatile time period not only for newcomers, but for veterans as they inherit new responsibilities (e.g., mentor to newcomers) and attempt to secure their desired role for the upcoming season. Critical to this point is that coaches must continually calibrate how they interact with athletes as well as how they guide interactions between newcomers and veteran team members. This raises the question as to whether coaches strategically manipulate team conditions to ensure socialization processes continue beyond the initial stages of team involvement. Ethnography may be particularly well-suited to such questions because as Van Maanen and Schein (1979) emphasized, prolonged immersion in a specific social milieu yields a nuanced understanding of the daily realities that often go unnoticed or are inaccessible to outsiders.

Given ethnography's strength in capturing textured depictions of efforts undertaken to socialize newcomers from multiple perspectives, ethnography could also be used to explore how newcomers navigate their way through the socially constructed boundaries that exist within teams. Although organizational researchers have examined how newcomers seek information upon group entry, and the effect of certain behaviours (Kim et al., 2005), sport researchers and practitioners may benefit from grasping the

complexities of how athletes go about gaining the acceptance of other team members during their socialization into the group.

A final recommendation pertains to examining how socialization tactics influence athlete newcomer adjustment. Although the positive effects of institutionalized socialization tactics in business contexts are well-documented (Saks et al., 2007), there is a need to develop a measurement tool to assess socialization tactics specific to this context. Empirically distinguishing between the advantages of different socialization approaches would allow for the development of theory-based interventions that coaches and practitioners could use to facilitate positive psychosocial and group outcomes and maintain a greater continuity in team membership by staving off athlete attrition.

An attractive aspect of bringing conceptual clarity to how organizational socialization tactics are transferable to a sport team context is their intersection with other pertinent group-related issues in sport (e.g., Fletcher, Hanton, & Mellalieu, 2010; Martin et al., 2014). Recognizing that socialization tactics are essential for establishing newcomers' sense of their role, socialization tactics are particularly well-suited as a means of clearly situating members within their role, while also ensuring that they accept and are satisfied with their place on the team (Saks et al., 2007). In sum, continued efforts directed toward understanding the relative effects of different socialization tactics hold promise for a number of theoretical and practical advancements related to the emergence and management of group dynamics in sport teams.

### **Transition Statement**

The structure of most competitive sport teams dictates that newcomers must be integrated into existing groups on an annual basis. However, the extant sport literature

largely focuses on athlete transition experiences across the lifespan, rather than how athletes are integrated into specific groups. The insights garnered in the current research revealed that socialization processes in sport include deliberately structured events and naturally unfolding group processes. To build upon these descriptive insights, Chapter 2 details the development and evaluation of a measure to assess the socialization tactics used in sport teams.

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### CHAPTER 3

#### MANUSCRIPT 2: DEVELOPMENT OF THE SPORT TEAM SOCIALIZATION

##### TACTICS QUESTIONNAIRE

When individuals join a sport team, they are required to navigate the functional (i.e., task requirements), relational (i.e., social dynamics), and hierarchical (i.e., power dynamics) boundaries of their group. The ways in which a group ushers its newcomers across the socially constructed boundaries that separate *outsiders* from *group members* refer to a group's socialization tactics (Van Maanen & Schein, 1979). More precisely, socialization tactics include the events and processes that shape a newcomer's understanding of the norms, culture, and expectations associated with membership.

Research in organizational contexts has shown that properly structured socialization tactics are linked to numerous benefits, including enhanced perceptions of person-organization fit (Cooper-Thomas, van Vianen, & Anderson, 2004), psychological embeddedness (Allen, 2006), role clarity (Lapointe, Vandenberghe, & Boudrias, 2014), and cooperative goal interdependence (Lu & Tjosvold, 2013), as well as stronger team performance (Chen, 2005) and social networks throughout an organization (Fang, Duffy, & Shaw, 2011). Given that athletes must work cooperatively with one another in the pursuit of collective goals (Evans, Eys, & Bruner, 2012), the ability to socialize newcomers quickly and effectively is likely an important antecedent to fostering positive group dynamics in sport teams. For example, if a team struggles to assimilate its new members at the onset of a season, this could cascade into further difficulties throughout the season. In contrast, if a team is able to successfully integrate new members into its existing group structure, this may create a smoother path to achieving group success and



harmony among its members (Hackman, 2012). As such, investigating the socialization tactics used in sport teams has the potential to yield valuable insights into how to manage the integration of newcomers in a way that optimizes individual and collective outcomes. To enable such efforts, the purpose of this research is to develop a questionnaire to assess the socialization tactics used in sport teams.

### **The Measurement of Socialization Tactics in Organizational Contexts**

As a starting point, it is helpful to consider how socialization tactics have been operationalized in organizational contexts – an area where the study of newcomer socialization has gained considerable traction. Advancing Van Maanen and Schein’s (1979) framework, Jones (1986) developed the now widely used organizational socialization tactics measure. This questionnaire assesses newcomers’ perceptions of socialization tactics across six dimensions, where each dimension represents an opposing set of socialization tactics. *Collective* versus *individual* tactics refers to the extent that newcomers undergo shared training experiences when entering the group. *Formal* versus *informal* tactics are defined as the extent to which newcomers are oriented to group policies, expectations, and responsibilities prior to actually having to perform their “on-the-job” responsibilities. *Sequential* versus *random* tactics are characterized by the extent to which newcomer role progression follows a well-defined series of stages. *Fixed* versus *variable* tactics refers to the degree to which newcomer role progression follows a well-defined timeline. *Serial* versus *disjunctive* tactics encompass the extent to which veteran members share information and help newcomers adjust to group life. Finally, *investiture* versus *divestiture* tactics refers to the degree to which a newcomer’s self-identity is positively affirmed upon entry into the group.

Within Jones' (1986) measure, collective, formal, sequential, fixed, serial, and investiture tactics share a commonality in that they provide newcomers with a highly structured sequence of events that aim to reduce uncertainty for the newcomer. Together, these tactics reflect what Van Maanen and Schein (1979) described as an institutionalized approach to socializing newcomers<sup>1</sup>, an approach that has since been linked to numerous desirable outcomes. The opposing set of tactics (i.e., individualized, informal, random, variable, disjunctive, and divestiture tactics) reflect an individualized approach to socializing newcomers, which is characterized by an approach where newcomers are largely left to figure things out on their own. However, it should be emphasized that these tactics are not directly measured in the organizational literature. Instead, because these socialization tactics are operationalized along a bipolar continuum, the presence of an individualized tactic is inferred from the absence of an institutionalized tactic.

Despite the widespread adoption of Jones' (1986) organizational socialization tactics measure in the extant literature, there are concerns over its psychometric properties. Although initial and subsequent factor analyses supported the theorized six factor structure (Ashforth, Saks, & Lee, 1997; Jones, 1986), others found evidence in favour of single (Gruman, Saks, & Zweig, 2006) and three (Ashforth, Sluss, & Saks, 2007) factor structures. In any case, when authors have reported model fit indices (e.g., Ashforth et al., 1997; Ashforth et al., 2007; Gruman et al., 2006), these have not met traditional benchmarks of what would constitute appropriate levels of fit (Hu & Bentler,

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<sup>1</sup> Van Maanen and Schein (1979) conceptualized divestiture tactics as part of an institutionalized approach to socializing newcomers. In contrast, Jones (1986) contended that investiture processes are a component of an institutionalized approach to socializing newcomers. Ashforth and Saks (1996) brought clarity to this issue by noting that although Van Maanen and Schein originally described investiture as a process of identity confirmation, Jones operationalized investiture tactics as the extent to which newcomers receive social support upon group entry.

1999). Complicating matters further, Saks, Uggerslev, and Fassina (2007) noted that several researchers opted to use different shortened versions of the questionnaire (e.g., Cable & Parsons, 2001) and the internal consistency of the subscales varies widely across studies. These difficulties may, in part, be caused by issues in how certain items are worded. For example, some items, such as: “I am gaining a clear understanding of my role in this organization from observing my senior colleagues”, conflate socialization processes (i.e., information provided by senior colleagues) with socialization outcomes (i.e., a clear understanding of my role). Moreover, some questions are double-barreled, asking participants to render a single judgment on two separate issues: “I have had to change my attitudes and values to be accepted in this organization”. Considering these points in tandem, although socialization tactics are frequently measured in organizational contexts, there are concerns regarding the questionnaire’s psychometric properties.

### **Socialization Tactics in Sport Team Contexts**

Although the organizational literature provides a framework that delineates the types of socialization tactics used to integrate newcomers, and a wealth of evidence to inform hypotheses regarding the consequences of specific socialization tactics, existing measures cannot be readily modified to suit sport teams. Notably, the qualitative research described in the previous chapter revealed that the way in which socialization tactics are operationalized in organizational contexts is not wholly applicable to team sport. The socialization tactics described by coaches and athletes generally fit within the boundaries of Van Maanen and Schein’s (1979) framework, but the ways in which socialization tactics are implemented differs markedly because of the contextual and structural properties of sport teams. For example, after a competitive season, group

members spend less time interacting and formally training with one another due to the absence of formally scheduled competitions. During this time frame, sport teams actively recruit newcomers to offset the departure of veteran team members. Thus, when teams reconvene to begin training for the next competitive season, they must also deal with the difficulties of integrating newcomers into their existing group environment. Another unique property of sport is the concrete distinction between practice sessions and formally scheduled competitive events in sport. Given that group members practice and refine their skill-sets between intergroup competitions, there are built-in opportunities for newcomers as well as veterans to receive instruction on how to perform specific role functions. In contrast to how training protocols are structured in many organizations, these practice sessions occur several times per week and continue throughout the season. Taken together, the group properties of team sport environments further illustrate the need for a sport-specific measure of the socialization tactics.

### **Overview of Studies**

The current research aimed to develop a valid and reliable measure of the socialization tactics perceived to occur in sport teams. It should be noted that the constructs intended to be assessed by the questionnaire reflect individuals' perceptions of what generally occurs in their team. Put another way, the questionnaire is not meant to catalogue in-situ observations of the socialization tactics used in sport teams. In developing the Sport Team Socialization Tactics Questionnaire (STSTQ), three main objectives were pursued across four studies. The first objective (Study 1) was to generate items that covered the range of socialization tactics that can occur in team sport environments and evaluate their content validity. Based on existing organizational

socialization theory and insights from the qualitative work described in Chapter 2, a sport-specific item pool was generated and subsequently refined through cognitive interviews with athletes and an expert panel review. The second objective was to test the psychometric properties of the STSTQ. This was accomplished by moving from exploratory (Study 2) to confirmatory tests (Studies 3-4) of the STSTQ's factor structure. Measurement invariance was also examined across multiple subgroups (i.e., gender, starting status, tenure) (Study 3). The third objective was to test a nomological network based on conceptual linkages between socialization tactics and criterion measures (Study 4). Criterion measures (i.e., role clarity and efficacy, commitment, cohesion) were selected according to existing theory and evidence from the organizational domain. The hypothesized links are detailed in Study 4. Collectively, these processes aimed to refine and subsequently evaluate the construct validity of the STSTQ. Institutional ethical approval was obtained prior to undertaking Studies 1-4 (See Appendix E), and informed consent was obtained from participants in each respective phase of the questionnaire development process (Study 1, Phases 2-3; Studies 2-4) (See Appendix F).

### **Study 1**

Study 1 entailed a multi-phase questionnaire refinement process. In Phase 1, items were generated for the STSTQ. In Phase 2, a think aloud protocol was conducted with participants from the target population (i.e., competitive adult team sport athletes) to assess the clarity and comprehensibility of the items. Finally, in Phase 3, the remaining items were judged by a panel of experts for their item content relevance.

#### **Item Generation**

Questionnaire items were generated based on existing organizational socialization research (Ashforth et al., 1997; Ashforth et al., 2007; Jones, 1986; Van Maanen & Schein, 1979) in conjunction with the qualitative work described in the previous chapter. Although Jones (1986) operationalized socialization tactics along a single continuum ranging from institutionalized tactics (i.e., investiture, serial, formal, collective, sequential, fixed) to individualized tactics (i.e., divestiture, disjunctive, informal, individual, random, variable), it is possible that certain pairs of opposing tactics may actually be independent constructs. To err on the side of caution (i.e., to develop too many items rather than not enough), items were generated to represent institutionalized socialization tactics (investiture, serial, formal, collective, sequential, fixed), as well as separate items for each corresponding individualized socialization tactic (divestiture, disjunctive, informal, individual, random, variable). The qualitative findings offered insight into how to properly formulate items in a way to capture the socialization tactics that occur in sport teams. Notably, based on the *shared group entry experiences* theme, items were created to assess the extent to which group wide social activities are scheduled for newcomers, herein referred to as social inclusionary tactics. The definitions that guided item generation are presented in Appendix G.

Recognizing that people progress through a series of interrelated cognitive stages when responding to survey questions<sup>2</sup>, and each stage represents a potential source of response bias (Schwarz, 2007), care was taken to construct items in ways to minimize such biases. This was accomplished by avoiding jargon, using concrete terms whenever

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<sup>2</sup> The first stage requires people to comprehend what a particular question is asking of them. Next, people have to be able to retrieve the information required to answer the question from their memory. Third, respondents have to be able to make an accurate judgement based on this information. Finally, participants must be able to respond in a way that accurately reflects their judgement.

possible, avoiding double-barreled questions, using precise but simple language, and focusing on the processes that occur within the group rather than the outcomes of these processes. Each item was formulated as a statement, beginning with the stem “When new athletes join this team...”, and participants are asked to rate the extent to which they agree or disagree on a Likert-type scale, ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). In total, 78 items were constructed for the next phase.

### **Think Aloud Protocol**

A foundational aspect of construct validity is whether participants interpret a set of items in the way that was conceptually intended. To evaluate this component of validity, eight Canadian Interuniversity Sport athletes were asked to complete the STSTQ and verbalize their thought process while reading and responding to each item (Dietrich & Ehrlenspiel, 2010). Participants were encouraged to voice their thoughts to elicit additional information when necessary. Notes were collated to identify problematic items after all of the one-on-one interviews were completed. Items intended to reflect social-oriented sequential tactics and social-oriented fixed tactics (e.g., “Their inclusion in social outings tends to follow a specific timetable”) were uniformly confusing to athletes and thus eliminated. As a result of this process, 29 items were eliminated and 5 items were revised, reducing the item pool to 49 for the expert panel review.

### **Expert Panel Reviews**

To assess the content validity of the remaining items (Dunn, Bouffard, & Rogers, 1999), the questionnaire was distributed to six professors in the fields of organizational psychology ( $n = 2$ ) and sport group dynamics ( $n = 4$ ); none of whom had prior involvement with the study. Prior to rating the items, the experts were provided with

definitions of the seven intended socialization dimensions (see Appendix G). The experts then made judgements of how well each item mapped onto each possible dimension, on a scale ranging from 1 (*poor match*) to 5 (*excellent match*). The experts were blinded to the keyed dimension throughout the rating process. That is, each item was constructed to reflect a specific socialization tactic dimension, but the experts were not aware of which item mapped onto which dimension. They also made judgements of the extent to which each item reflected a task or social component of group involvement. The objective of this stage was to determine the extent to which an item clearly reflected its keyed dimension and a task or social aspect of group involvement. The experts made a total of 441 ratings across 49 items.

To ascertain whether experts agreed on an item's content relevance, a validity index known as Aiken's  $V$  was computed. Aiken's  $V$  indicates the extent to which the six experts agree in their validity judgements. For each item, each expert's validity rating was calculated by subtracting the lowest possible value of the rating scale from his/her item rating on the keyed dimension. Expert validity ratings were summed, represented by  $S$ , and entered into the equation below, where  $n$  represents the number of raters, and  $c$  represents the number of points on the rating scale. The resultant  $V$  is an index of an item's validity, which is then compared to a right-tailed binomial probability table (Aiken, 1985, p. 134). See Table 1 for a summary of the Aiken's  $V$  statistics.

$$V = S / [n (c - 1)]$$

This procedure, however, does not reveal whether an item overlaps with the other dimensions (i.e., non-keyed dimensions). This is important because each item was constructed to serve as an indicator of a single socialization tactic. As such, planned



contrasts were conducted to compare the average score an item received on its keyed dimension to the average score it received on each non-keyed dimension. An item's content relevance was supported when it received a high score on its keyed dimension and low scores on all of the non-keyed dimensions. Effect sizes were computed for each comparison, with large effect sizes (Cohen's  $d \geq 0.80$ ; Cohen, 1988) serving as the cut-off for evaluating whether an item served as a clean indicator of its keyed-dimension. These results are summarized in Table 2.

These statistical procedures informed decisions to eliminate, revise, or retain items. Items were eliminated if they exhibited a low validity index (Aiken's  $V < 0.83$ ) and item-content overlap with other dimensions ( $d < 0.80$ ). Items below only one of these cut-offs were inspected closely to determine whether the issue could be resolved through wording modifications. Experts were also given an opportunity to provide qualitative feedback on all of the items throughout the evaluation process, which was taken into account when modifying problematic items. Seven items were modified and eight items were eliminated, leaving 41 items.

### **Summary**

The foregoing questionnaire refinement processes led to multiple revisions of the initial item pool, reducing the item pool from 78 to 41. Each subsequent phase (i.e., think aloud protocol, expert panel review) further refined the questionnaire by identifying problematic items. In addition, Phase 2 provided evidence that the questionnaire items are unambiguous and well-understood by the target population. Finally, Phase 3 supported the content relevance of the remaining items.

## **Study 2**

In Study 2, the 41-item preliminary version of the questionnaire was distributed to Canadian Interuniversity Sport athletes to examine its factor structure. Conceptually, factors represent the ideal version of a construct, constituting the underlying cause of how items are answered (Hoyle, 2000). Much debate exists over the relative merits of exploratory and confirmatory factor analytic approaches for evaluating a questionnaire's factor structure. Although confirmatory factor analysis (CFA) is generally recommended when there is substantive theory to guide model specification, Myers, Chase, Pierce, and Martin (2011) noted that there are no clear guidelines for determining what constitutes sufficient a priori knowledge. In this case, Study 1 offers some evidence supporting an a priori factor structure. However, it is reasonable to question whether these socialization tactics are empirically distinguishable constructs when applied to a sport team context. For this reason, exploratory factor analysis (EFA) was conducted to gather preliminary evidence for the factor structure of the STSTQ.

**Participants.** Canadian Interuniversity Sport coaches were contacted to request to meet with the team to explain the study and distribute the questionnaire to interested athletes. An identical process was followed in Studies 3-4. Eleven coaches were contacted and subsequently granted permission to speak to their team. Near the beginning of the competitive season, the preliminary 41-item version of the STSTQ was distributed to 197 (104 females) athletes, who competed in either basketball ( $k = 6, n = 85$ ), hockey ( $k = 5, n = 97$ ), or volleyball ( $k = 1, n = 14$ ). On average, participants were 20.50 ( $SD = 1.77$ ) years of age with 2.25 ( $SD = 1.80$ ) years of experience at the Canadian Interuniversity Sport level of competition. In total, 68 athletes reported being in their first year as a team member. The sample included starters ( $n = 115$ ) and non-starters ( $n = 82$ ).

**Analytic strategy.** EFA was conducted using maximum likelihood (ML) extraction, with oblique geomin rotation to allow factors to be correlated. Given the relatively small number of teams in the current sample (i.e., 12), EFA was conducted at the individual level of analysis. To obtain a solution where each item highly loads onto a single factor in a conceptually coherent manner (i.e., simple structure), decisions in each subsequent factor analysis adhered to the same criteria. Decisions regarding how many factors to extract were based on inspecting the eigenvalues in conjunction with the scree plot. No additional factors were extracted once the scree plot began to visibly level off. This is consistent with Reise, Waller and Comrey's (2000) recommendation that over extraction can occur when decisions are based solely on how many eigenvalues exceed 1.0. After determining the number of factors to be extracted, the pattern matrix was inspected. Consistent with Hair, Anderson, Tatham, and Black's (1998) recommendation, the cut-off for significant factor loadings was set at 0.40 based on the sample size ( $N = 197$ ). Items that did not exhibit a pattern matrix coefficient of 0.40 or higher on a single factor, or exceeded this threshold on multiple items, were eliminated.

### **Results and Summary**

The initial EFA did not reveal a simple structure. Ten factors were extracted, but seven items either failed to substantially load onto a single factor (pattern matrix coefficients  $< .40$ ) or cross-loaded onto multiple factors. These items were eliminated and a second EFA was conducted. An acceptable factor solution was achieved after repeating this process four more times. Throughout this process, it became clear that the items constructed to represent individualized socialization tactics (i.e., divestiture tactics, disjunctive tactics, individual tactics, informal tactics, variable tactics, and random

tactics) produced excessive cross-loadings with one another. One possibility is that individualized socialization tactics may carry negative connotations because they indicate a lack of support provided to newcomers (e.g., “They are expected to learn their task responsibilities on their own, with minimal assistance”). As noted by Eys, Carron, Bray, and Brawley (2007), negatively worded items may elicit differential response patterns compared to positively worded items. As such, the factor loadings attributed to these items may be an artifact of the way the items are phrased, rather than their substantive content. Ultimately, these items were eliminated.

The final EFA produced a four factor structure underlying 15 items, which is displayed in Table 3. From an empirical standpoint, the four factor structure provides a relatively simple structure, with most items loading highly onto a single factor. The factor corresponding to *serial tactics* (three items,  $\alpha = .76$ ) represents the extent that veterans willingly share task-related information with newcomers upon their arrival to the group. The factor corresponding to *social inclusionary tactics* (four items,  $\alpha = .73$ ) represents the extent to which group wide social activities are scheduled for newcomers. However, one item did not dovetail with the other items in a conceptually coherent manner (“There are formal opportunities to learn team tactics and strategies”). This item was excluded when testing the revised factor structure in Studies 3-4. The third factor consists of items that were originally constructed to reflect sequential tactics and fixed tactics. These four items ( $\alpha = .81$ ) share a commonality in that they refer to the extent to which coaches provide newcomers with information regarding when and how they will progress in their role. Hereinafter this factor is referred to as *structured role progression tactics*. The final factor consists of items that were intended to represent two distinct

socialization tactics (i.e., individual tactics and formal tactics). However, these four items ( $\alpha = .76$ ) share a commonality in that they refer to the extent to which the coaching staff provides newcomers with task-related information regarding how to perform their group role. This factor is herein referred to as *functional role communication tactics*.

It should be noted that this factor structure stands in contrast to the findings of the expert panel review in Study 1, which demonstrated that the STSTQ items mapped onto the six socialization tactics reflected in Jones' questionnaire (with the additional dimension related to social inclusionary tactics). This departure may reflect the fact that certain socialization tactics, as they are defined in the organizational literature, are not empirically distinguishable in sporting contexts. For example, items related to fixed and sequential tactics combined to form a single factor. In sum, although Study 2 provided initial evidence for a four factor structure underlying the remaining 15 items, the factor structure was derived through a series of ad hoc modifications and thus requires further evaluation. In the next study, a more confirmatory approach is used in evaluating the factor structure of the STSTQ.

### **Study 3**

Study 3 further tested the psychometric properties of the STSTQ using exploratory structural equation modelling (ESEM). An ESEM allows one to specify a theorized factor structure based on a priori knowledge. ESEM was chosen because it integrates the advantages of EFA and CFA approaches (Asparouhov & Muthén, 2009; Marsh et al., 2009; Marsh, Morin, Parker, & Kaur, 2014). Although CFA also enables researchers to specify a theorized factor structure, an independent clusters model CFA operates on the assumption that all items load onto a single factor, and exhibit zero factor loadings with

the other factors (Marsh et al., 2009). Marsh et al. (2009) noted that this restrictive approach does not reflect the nature of most psychological instruments:

Factor structures based on measures used in applied research typically include cross-loadings that can be justified by substantive theory or by item content (e.g., method effects), or that simply represent another source of measurement error, whereby items are fallible indicators of the constructs and thus tend to have small residual associations with other constructs. (p. 87)

In the present study, ESEM with targeted rotation was used to test the factor structure identified in Study 2 (i.e., serial tactics, social inclusionary tactics, structured role progression tactics, functional role communication tactics).

Study 3 also tested for measurement invariance to evaluate the degree to which the STSTQ assesses the same construct across different groups. *Configural invariance* was tested to determine whether the items mapped onto the same latent factors across groups (i.e., no model constraints are imposed). Next, *metric invariance* was tested to determine whether the factor loadings were invariant across groups. *Scalar invariance* was then tested by constraining the intercepts of the observed variables across groups, which is a requirement for testing whether mean differences exist across groups. Finally, *latent mean invariance* was tested to determine if the average scores on a latent variable differ across groups. Demonstrating measurement invariance across newcomers (i.e., first-year athletes) and veterans (i.e., returning team members) was of substantive interest because both veterans and newcomers are involved in group socialization processes. In addition, measurement invariance across gender and starting status was tested because these

distinctions are commonplace in the sport group dynamics literature and are regularly examined as moderating variables (e.g., Carron, Colman, Wheeler, & Stevens, 2002).

## Method

**Participants and measure.** The 14-item STSTQ was distributed to 460 ( $n_{females} = 210$ ;  $n_{males} = 250$ ) Canadian Interuniversity Sport athletes during their competitive season. A range of sport types characterized by task interdependence were represented, including basketball ( $k = 5$ ,  $n = 70$ ), cheerleading ( $k = 1$ ,  $n = 32$ ), football ( $k = 2$ ,  $n = 140$ ), hockey ( $k = 5$ ,  $n = 78$ ), rugby ( $k = 2$ ,  $n = 57$ ), soccer ( $k = 3$ ,  $n = 73$ ), and volleyball ( $k = 1$ ,  $n = 10$ ). On average, participants were 19.92 ( $SD = 1.71$ ) years of age and had spent an average of 2.18 ( $SD = 1.19$ ) years with their current team. Athletes indicated if it was their first year as a team member ( $n = 174$ ) or they were returning team members ( $n = 284$ ); two athletes did not complete this demographic item. Athletes were asked to self-identify as either starters ( $n = 219$ ) or non-starters ( $n = 218$ ); 23 failed to indicate their starting status.

**Analytic strategy.** Prior to evaluating the factor structure identified in Study 2, one a priori modification was made to preserve the conceptual clarity of the questionnaire's potential dimensions. The 14-item version of the STSTQ was evaluated using ESEM with the robust maximum likelihood estimator (MLR) and oblique target rotation specifying four distinct factors. The standard errors derived from MLR are robust to non-normality and ordinal data. Oblique target rotation allowed items to freely load onto their conceptually intended factor, with target loadings set to zero for all other elements. When ESEM is used with target rotation, the factor pattern is rotated based on a priori specifications. Target loadings were specified to zero for elements expected to be small, rather than attempting to specify exact values for elements expected to be large (Browne,

2001). However, it should be noted that doing so does not force the target loadings to zero: "...elements of the rotated factor pattern matrix are only made as close to the specified zeros as possible" (Browne, 2001, p. 125). This allows researchers to identify misspecified elements by inspecting the standardized factor loadings and corresponding standard error estimates.

Even proponents of ESEM, however, note that if the more parsimonious CFA model provides a similar fit to the data, then a CFA is preferable (Marsh et al., 2009; Morin & Maïano, 2011; Myers et al., 2011). Consistent with this recommendation, a CFA was conducted based on the same 14-item, four factor structure. In testing both models, the chi-square value ( $\chi^2$ ), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used as absolute indices of model fit. The comparative fit index (CFI) and Tucker-Lewis index (TLI) were used as incremental indices of model fit. Hu and Bentler's (1999) suggestions were followed when evaluating model fit, where acceptable levels of fit would be indicated by: RMSEA < .06, SRMR < .08, CFI > .95, and TLI > .95.

***Measurement invariance.*** Measurement invariance testing was conducted in a sequential fashion; additional constraints were imposed only when there was support for measurement invariance in the previous stage (Muthén & Muthén, 2010). With each subsequent test of measurement invariance, the more restrictive model was compared to the less restrictive model. Comparing measurement invariance across gender (i.e., males and females) proceeded by first testing configural invariance (Model 1-1), then factor loading invariance (Model 1-2), and finally intercept invariance (Model 1-3). Strong measurement invariance is demonstrated when these three measurement properties are



invariant across subgroups. If this is the case, then researchers are able to meaningfully compare latent means across subgroups (Model 1-4). An identical procedure was carried out for testing for invariance across tenure (i.e., newcomers and veterans) and starting status (starters and non-starters).

Evidence for measurement invariance at each step was determined by jointly evaluating the Satorra-Bentler chi-squared ( $S\chi^2$ ) difference test as well as changes in fit indices. MLR produces a Satorra-Bentler scaled chi-square, which does not permit a traditional chi-squared difference test. As outlined by Muthén and Muthén (2010), scaling corrections were thus required to calculate the  $S\chi^2$  difference test. Each difference test scaling correction ( $cd$ ) was computed based on the formula below ( $d0$  = degrees of freedom in the nested model;  $d1$  = degrees of freedom in comparison model;  $c0$  = scaling correction factor of nested model;  $c1$  = scaling correction factor of comparison model):

$$cd = (d0 * c0 - d1 * c1) / (d0 - d1)$$

The Satorra-Bentler chi-squared difference test ( $TRd$ ) was then computed following this formula ( $T0$  = MLR chi-square value for the nested model;  $T1$  = MLR chi-square value for the comparison model):

$$TRd = (T0 * c0 - T1 * c1) / cd$$

As noted above, changes in model fit indices were also closely inspected. Several scholars note that  $\chi^2$  difference tests are overly sensitive to sample size, similar to the  $\chi^2$  statistic when evaluating model fit (Cheung & Rensvold, 2002; Chen, 2007). In fact, they caution that relying solely on this test statistic may lead authors to incorrectly reject measurement invariance. Changes in model fit indices were evaluated based on the following criteria: When a more restrictive model corresponded to a  $\Delta CFI < -.010$ ,

$\Delta\text{RMSEA} < +.015$ , and  $\Delta\text{SRMR} < +.030$ , this was interpreted as evidence supporting measurement invariance (Chen, 2007; Marsh, Hau, & Wen, 2004; Morin & Maïano, 2011). The TLI is also informative but there are no concrete guidelines for evaluating change statistics when comparing nested models (Chen, 2007). In each subsequent model, the TLI of the more restrictive model was inspected to determine whether it met guidelines for acceptable levels of model fit. It should be noted that TLI and RMSEA penalize less parsimonious models and thus a more restrictive model can actually contribute to improved model fit (i.e., lower RMSEA, higher TLI).

## Results

**Factor validity.** Comparing the four factor ESEM,  $\chi^2(41) = 67.294$ ,  $p = 0.006$ , CFI = .989, TLI = .975, SRMR = .016, and RMSEA = .037, 90% CI [.020, .053], to the equivalent four factor CFA,  $\chi^2(71) = 186.261$ , CFI = .951, TLI = .937, SRMR = .047, and RMSEA = .059, 90% CI [.049, .070], revealed slightly better model fit with the ESEM approach. However, the factor loadings and interfactor correlations presented in Table 4 highlights several issues with both models. With the ESEM approach, several items exhibited moderate to high cross loadings (FOR1, FOR3, FOR4, RP1, and RP2). In the CFA, this issue manifested itself in the form of a very high interfactor correlation between formal communication tactics and structured role progression tactics ( $r = .93$ ).

To address this issue, a revised factor structure was evaluated. The item FOR 3 (“They receive specific instructions from coaches during practice on how to best perform their position.”) was excluded from the subsequent model because it cross loaded with serial tactics. The common thread tying together the remaining seven items is that they assessed the extent to which coaches provided newcomers with explicit information

about their role as a team member. As such, a three factor model was specified where items related to functional role communication tactics and structured role progression tactics were combined to form a single factor of *coach-initiated role communication tactics*. The 13-item questionnaire with three underlying factors was then tested. See Table 5 for the items included in the final version of the questionnaire.

Comparing the three factor ESEM,  $\chi^2(42) = 89.326$ , CFI = .978, TLI = .958, SRMR = .021, and RMSEA = .049, 90% CI [.035, .064], to an equivalent three factor CFA,  $\chi^2(62) = 159.975$ , CFI = .954, TLI = .942, SRMR = .046, and RMSEA = .059, 90% CI [.049, .070], revealed better indices of model fit with the ESEM approach. The factor loadings and interfactor correlations are presented in Table 6. In both models, items loaded highly onto their conceptually intended factor. With the ESEM approach, the interfactor correlations were slightly lower. Overall, the ESEM with targeted rotation based on three distinct factors produced a well-fitting model. Acceptable levels of internal consistency were found for each of the resultant three subscales (serial tactics,  $\alpha = .83$ ; social inclusionary tactics,  $\alpha = .82$ ; coach-initiated role communication tactics,  $\alpha = .89$ ).

**Measurement invariance.** Multi-group measurement invariance was tested based on three factor ESEM described in the foregoing section. Table 7 depicts the model comparisons pertaining to gender, tenure, and starting status. These comparisons are discussed in the following three sections.

**Gender measurement invariance.** The fit indices of Model 1-1, Model 1-2, and Model 1-3 showed adequate fit (CFI  $\geq .950$ ; TLI  $\geq .950$ ; RMSEA  $\leq .060$ ; SRMR  $\leq .072$ ). In all subsequent model comparisons, the  $S\chi^2$  difference tests were significant. However,

the change statistics related to each model comparison were within an acceptable range. After establishing clear support for configural, metric, and scalar invariance, latent mean invariance was tested. Comparing Model 1-4 to Model 1-3 revealed worse fit indices, which indicates differences between the latent means. Model 1-3—where the latent means for males are freely estimated—was inspected to determine the direction and magnitude of the differences. Compared to females, males had a significantly lower factor mean for social inclusionary tactics ( $-0.32, p = .009$ ), and a significantly higher factor mean for coach-initiated role communication tactics ( $0.60, p < .001$ )<sup>3</sup>. There was no significant difference in the latent means for males and females related to serial socialization tactics ( $p = .166$ ).

***Tenure measurement invariance.*** The fit indices of Model 2-1, Model 2-2, and Model 2-3 all demonstrated good fit ( $CFI \geq .971$ ;  $TLI \geq .956$ ;  $RMSEA \leq .042$ ;  $SRMR \leq .075$ ). The  $S\chi^2$  difference tests related to metric and scalar invariance were non-significant. In addition, Model 2-2 showed improved model fit relative to Model 2-1 (increased CFI and TLI, decreased RMSEA). SRMR increased but stayed under the threshold for acceptable model fit. The fit indices of Model 2-3 did not substantially worsen relative to Model 2-2. Together, there is clear evidence for configural, metric, and scalar invariance. To examine latent mean invariance, Model 2-4 was compared to Model 2-3. The  $S\chi^2$  difference test was significant but the model fit indices were relatively unchanged. This indicates that the latent means did not significantly differ between newcomers and veterans.

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<sup>3</sup> Latent mean estimates for males are based on a comparison to the female latent mean fixed to zero. For comparison purposes, the means of these subscales when computed in SPSS version 23.0 are as follows: social inclusionary tactics ( $M_{male} = 7.54, M_{female} = 7.84$ ) and coach-initiated role communication tactics ( $M_{male} = 6.84, M_{female} = 6.16$ ).

*Starting status measurement invariance.* The fit indices of Model 3-1, Model 3-2, and Model 3-3 demonstrated good fit (CFI  $\geq$  .960; TLI  $\geq$  .945; RMSEA  $\leq$  .058; SRMR  $\leq$  .079). The  $S\chi^2$  difference test was non-significant for metric invariance. In addition, Model 3-2 improved in two indices of model fit (increased CFI, increased TLI) and did not substantially worsen in terms of RMSEA. SRMR worsened but stayed under the accepted upper limit. The  $S\chi^2$  difference test for scalar invariance was significant. However, model fit statistics were not substantially worse in the more restrictive model (Model 3-3). These sequential tests provide evidence supporting configural, metric, and scalar invariance. Next, latent mean invariance was examined. When comparing Model 3-4 to Model 3-3, the  $S\chi^2$  difference test was significant but the model fit indices were relatively unchanged. This demonstrates that the latent means do not significantly differ between starters and non-starters.

### **Summary**

Study 3 provided evidence to support three distinct factors underlying the 13-item Sport Team Socialization Tactics Questionnaire. In addition, each of the resultant subscales demonstrated acceptable levels of internal consistency ( $\alpha \geq$  .82). Serial tactics represent the extent to which veteran athletes share task-related information with newcomers. Social inclusionary tactics are also oriented around peer-interactions, but reflect a purely social aspect of group involvement (i.e., scheduling social activities). Finally, coach-initiated role communication tactics reflect the extent to which coaches provide newcomers with individually tailored role information upon group entry. In addition, this three factor model exhibited strong measurement invariance across gender (i.e., males vs. females), tenure (newcomers vs. veterans), and starting status (starters vs.

non-starters). Although there was evidence for latent mean variance when comparing males and females, this should not raise concerns over the psychometric properties of the questionnaire. Rather, this shows that, on average, male athletes reported lower levels of social inclusionary tactics and higher levels of coach-initiated role communication tactics. Overall, the three factor model appears to be well-supported, and the measurement model was shown to be invariant across multiple subgroups that are of substantive interest to sport and group dynamics scholars.

#### **Study 4**

Study 4 aimed to replicate the revised factor structure of the Sport Team Socialization Tactics Questionnaire (STSTQ) using the same analysis strategy with additional data. Study 4 also proposed and evaluated a nomological network that situates socialization tactics as antecedents to athletes' role perceptions, commitment to group members, and group cohesion. Providing evidence for these conceptual linkages would support the criterion validity of the questionnaire. Consistent with the extant organizational literature, the socialization tactics used in sport teams are expected to function as antecedents to a number of intrapersonal, interpersonal, and group-level outcomes. Decisions regarding which criterion variables to include, and their hypothesized relationships to specific socialization tactics, were based on the extant organizational socialization literature in conjunction with research in the area of role perceptions in sport.

Athletes' perceptions of role clarity and role efficacy were measured because successfully structured socialization processes require individuals to gain a clear understanding of their role and develop the necessary efficacy beliefs required to perform

their role functions. A meta-analysis conducted by Bauer, Bodner, Erdogan, Truxillo, and Tucker (2007) demonstrated a positive relationship between putting newcomers through a highly structured sequence of events (i.e., institutionalized socialization tactics) and role clarity. As such, in sport teams, when a team's overall approach to integrating newcomers aims to clearly situate newcomers in their group roles, this should correspond to higher perceptions of role clarity and role efficacy among both newcomers and veterans. Similarly, if it is normative for veterans to share task-related information with newcomers, then this should also correspond to higher perceptions of role clarity and role efficacy. Thus, coach-initiated role communication tactics and serial tactics were expected to positively predict perceptions of role clarity and role efficacy.

Another construct relevant to testing the criterion validity of the STSTQ is the extent to which group members are committed to one another, which is defined as a "volitional psychological bond reflecting dedication to and responsibility for a particular target" (Klein, Molloy, & Brinsfield, p. 137). Commitment to teammates is important to assess for newcomers because their initial interactions with teammates will likely shape the extent to which they feel psychologically bonded to them. For veterans, this also holds true. At the onset of a new season, the ways in which veterans interact with newcomers, as well as current teammates, will likely shape commitment perceptions. Socialization tactics that involve building social capital between newcomers and existing members are thus expected to promote higher levels of commitment toward teammates (Fang et al., 2011). Thus, social inclusionary tactics and serial tactics are both expected to positively predict commitment to teammates. Commitment to the coaching staff is also an important outcome related to socialization processes. When athletes recognize

that the coaching staff commits their own time and effort to providing tailored information to each newcomer, this should elicit reciprocal commitment from the newcomers and existing members (Allen & Shanock, 2013). Therefore, coach-initiated role communication tactics are expected to positively predict commitment to the coaching staff.

Group cohesion is also theoretically linked to socialization tactics (Saks & Ashforth, 1997). Cohesion is a multidimensional construct that encompasses the extent to which individuals are personally attracted to the task and social aspects of the group, and also the degree to which individuals perceive their group to be unified on task and social matters (Carron, Widmeyer, Brawley, 1985). Given the domain-specific links between role experiences and perceptions of cohesion (i.e., social-oriented role experiences have been linked to social cohesion and task-oriented role experiences have been linked to task cohesion; Benson, Irving, & Eys, 2016), socialization tactics that serve to reduce ambiguity around task-related role experiences (i.e., coach-initiated role communication tactics) should enhance perceptions of task cohesion. Similarly, engineering opportunities for newcomers and veterans to form—or further develop—social relationships (i.e., social inclusionary tactics) should enhance perceptions of social cohesion. When veterans regularly provide newcomers with pertinent group-related knowledge (i.e., serial tactics), this is expected to positively contribute to perceptions of social as well as task cohesion.

## **Method**

**Participants.** Canadian Interuniversity Sport athletes participated at the onset of the competitive season ( $N = 257$ , 154 females) and an average of 30 days later again near



the midpoint of the competitive season ( $N = 244$ , 125 females). Across both time points, 194 athletes (118 females) completed questionnaires and were thus included in the main analyses. A range of sport types were represented, including cheerleading ( $k = 1$ ,  $n = 31$ ), football ( $k = 1$ ,  $n = 43$ ), rugby ( $k = 2$ ,  $n = 54$ ), and soccer ( $k = 3$ ,  $n = 66$ ). Athletes were, on average, 19.42 ( $SD = 1.52$ ) years of age and had 2.11 ( $SD = 1.22$ ) years of experience with their current team. There were a comparable number of starters ( $n = 93$ ) versus non-starters ( $n = 96$ , five did not self-identify starting status), but slightly fewer athletes in their first year as a team member ( $n = 82$ ) versus veteran teammates ( $n = 112$ ).

**Procedure and measures.** To mitigate concerns over common method bias, athletes' perceptions of specific socialization tactics were measured at the onset of the season and the criterion variables were assessed near the midpoint of the season.<sup>4</sup> Pen and paper questionnaires were distributed to athletes at both time points, similar to the protocol described in Studies 2-3. At the initial time point, athletes completed the STSTQ. At the second time point, athletes completed measures of role clarity, role efficacy, commitment teammates, commitment to the coaching staff, and group cohesion.

**STSTQ.** The 13-item version of the STSTQ assessed athletes' perceptions of the socialization tactics used in their team across three dimensions. Three items measured serial tactics ( $\alpha = .85$ ), three items assessed social inclusionary tactics ( $\alpha = .74$ ), and seven items assessed coach-initiated role communication tactics ( $\alpha = .87$ ). All items are formatted as statements in which athletes must indicate their agreement on a scale

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<sup>4</sup> Criterion validity was evaluated by examining conceptual linkages between socialization tactics and several psychological variables. Although these relationships are tested across two distinct time points and thus could arguably refer to an evaluation of predictive validity, it is premature to make causal inferences at this stage of the questionnaire validation process.

ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). The final version of the questionnaire is included as Appendix H.

***Commitment.*** Commitment was assessed using Klein, Cooper, Molloy, and Swanson's (2014) target-free assessment of commitment. Athletes were asked to respond to three items ( $\alpha = .94$ ) with the coach as the target (e.g., How committed are you to your coach?) and three items ( $\alpha = .93$ ) with their teammates as the target (e.g., How committed are you to your teammates?), on a scale ranging from 1 (*not at all*) to 7 (*completely*). Higher scores indicate higher levels of commitment to the target person.

***Role efficacy.*** Athletes' beliefs in their ability to perform specific role functions was assessed with a four-item role efficacy measure (Bray & Brawley, 2002). Athletes self-identified up to three of their task-oriented role responsibilities within the group, and then rated their confidence in being able to successfully perform those role functions from 0% (not at all) to 100% (completely). Scores were averaged to form a role efficacy score, with higher scores representing stronger efficacy beliefs ( $\alpha = .77$ ).

***Role clarity.*** Role clarity was assessed with an abbreviated 12-item version of the multidimensional role clarity measure (Beauchamp, Bray, Eys, & Carron, 2002). The subscales for role clarity pertaining to scope of role responsibilities (e.g., "I understand the extent of my role responsibilities") and role clarity pertaining to behaviours necessary to perform role functions (e.g., "I know what behaviours are necessary to carry out my role responsibilities) were highly correlated with one another ( $r = .89$ ) and thus collapsed into a single six-item subscale ( $\alpha = .94$ ). Three items ( $\alpha = .92$ ) assessed clarity regarding how one's role is evaluated (e.g., "I understand how my role is evaluated) and three items ( $\alpha = .88$ ) assessed clarity of the consequences of not fulfilling one's responsibilities (e.g.,

“I understand the consequences of failing to carry out my role responsibilities”). Athletes rated their agreement with each statement on a Likert-type scale, ranging from 1 (*strongly disagree*) to 9 (*strongly agree*), with higher scores representing higher role clarity.

**Group cohesion.** Group cohesion was measured with the Group Environment Questionnaire (Carron et al., 1985). Four items ( $\alpha = .65$ ) assessed attractions to the group – task (ATG-T, e.g., “I’m happy with the amount of playing time I get”) and five items ( $\alpha = .89$ ) assessed attractions to the group – social (ATG-S, e.g., “Some of my best friends are on this team”). Five items ( $\alpha = .87$ ) assessed perceptions of group integration – task (GI-T, e.g., “Our team is united in trying to reach its goals for performance”) and four items ( $\alpha = .86$ ) assessed group integration – social (GI-S, e.g., “Members of our team would rather go out together than go out on their own”). Athletes rated their agreement with each statement on a scale ranging from 1 (*strongly disagree*) to 9 (*strongly agree*).

**Analytic strategy.** The factor structure of the STSTQ was tested using the same analysis strategy described in Study 3. That is, ESEM with oblique target rotation with MLR was used to determine whether the three factor structure provided a well-fitting model.

Next, separate multivariate regression models using subscales computed in SPSS version 23.0 were constructed to test the criterion validity of the STSTQ. In each model, one of the criterion variables measured at time point two was simultaneously regressed onto the three dimensions of the STSTQ measured at time point one. It was necessary to account for the non-independence of observations because athletes are nested within teams. However, multilevel modeling is not suitable for analyzing data with such few level-2 unit (i.e., six sport teams). Hayes (2013) noted that by creating  $k-1$  dummy codes

to identify group membership, these variables can then be included as covariates to effectively partial out the between-team variance in the outcome variables. This procedure was followed when constructing all of the regression models.

## Results

Means, standard deviations, and correlations are presented in Table 8. At the item level, the frequency of missing responses constituted less than 1% of the total dataset. In addition, Little's (1988) Missing Completely at Random (MCAR) statistic was non-significant,  $\chi^2(660) = 634.607, p = .754$ . As such, it was deemed appropriate to compute scales with mean-series replacement prior to testing the criterion validity of the STSTQ.

**Factor structure.** The three factor ESEM demonstrated acceptable levels of model fit,  $\chi^2(42) = 72.74, CFI = .971, TLI = .945, SRMR = .021, \text{ and } RMSEA = .053, 90\% \text{ CI } [.032, .074]$ . In addition, Table 9 illustrates that all of the targeted factor loadings were significant and all of the non-targeted factor loadings were non-significant.

**Criterion validity.** The relationships between socialization tactics and role perceptions were first tested (Table 10). Athletes' perceptions of socialization tactics jointly accounted for significant variance in each of the three sub-dimensions of role clarity ( $ps < .001$ ). As expected, coach-initiated role communication tactics positively predicted clarity related to scope of role responsibilities and behaviours ( $b = 0.21, p = .002$ ), the consequences of not fulfilling one's role responsibilities ( $b = 0.25, p = .003$ ), and how one's role will be evaluated ( $b = 0.27, p = .012$ ). Unexpectedly, social inclusionary tactics ( $b = 2.11, p = .034$ ) positively predicted role efficacy.

Next, the relationships between socialization tactics and commitment were tested (see Table 11). Athletes' perceptions of socialization tactics jointly accounted for

significant variance in commitment to teammates and commitment to the coaching staff ( $ps < .001$ ). As predicted, serial tactics ( $b = 0.19, p = .001$ ) positively predicted commitment to teammates. Interestingly, coach-initiated role communication tactics ( $b = 0.14, p = .008$ ) also emerged as a positive predictor of commitment to teammates. In line with expectations, coach-initiated role communication tactics ( $b = 0.36, p < .001$ ) positively predicted commitment to the coaching staff.

Finally, the relationships between socialization tactics and group cohesion were tested (Table 12). Athletes' perceptions of socialization tactics collectively accounted for significant variance in all four dimensions of cohesion ( $ps \leq .001$ ). As hypothesized, coach-initiated role communication tactics ( $b = 0.19, p = .033$ ) positively predicted personal attraction to the task aspects of the group. Serial tactics ( $b = 0.40, p < .001$ ) and coach-initiated role communication tactics ( $b = 0.17, p = .018$ ) positively predicted group integration on task matters. Also in line with expectations, serial tactics ( $b = 0.35, p < .001$ ) and social inclusionary tactics ( $b = 0.34, p = .001$ ) positively predicted personal attraction to the social aspects of the group. Likewise, serial tactics ( $b = 0.31, p < .001$ ) and social inclusionary tactics ( $b = 0.15, p = .047$ ) positively predicted group integration on social matters.

**Supplementary analysis with first-years and veterans separated.** Although the primary objective was to test the criterion validity of the STSTQ as it applies to athletes generally, it is possible that certain socialization tactics may be more (or less) relevant for newcomers versus veterans. To explore this possibility, post hoc parallel regression

models<sup>5</sup> were conducted with newcomers and veterans separated. Tables 13 and 14 depict the strength and significance of the relationships between socialization tactics and the criterion variables among veterans and newcomers, separately. Socialization tactics similarly predicted commitment to teammates and perceptions of social cohesion among both subgroups. In relation to the other variables, however, several differences emerged.

Among veterans, coach-initiated role communication tactics positively predicted role clarity across all three dimensions of role clarity (scope/behaviours, consequences, evaluation) and commitment to the coaching staff. Serial tactics emerged as the sole positive predictor of GI-T. However, none of the socialization tactics accounted for unique variance in perceptions of role efficacy or ATG-T.

In contrast, among newcomers, serial tactics and coach-initiated role communication tactics positively predicted role clarity (scope/behaviours, consequences) and GI-T. In addition, coach-initiated role communication tactics emerged as the sole positive predictor of role efficacy and ATG-T. However, none of the socialization tactics individually accounted for unique variance in role evaluation clarity or commitment to the coaching staff.

## **Summary**

Study 4 provides further evidence supporting a three factor structure underlying the STSTQ. In support of the measure's criterion validity, Study 4 also demonstrated that the socialization tactics measured by the STSTQ (i.e., coach-initiated role communication tactics, serial tactics, and social inclusionary tactics) differentially predicted pertinent

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<sup>5</sup> Moderation analysis would require separately testing how tenure moderates the relationship between each socialization tactic and each outcome variable (i.e., 30 separate regressions). In the absence of specific hypotheses regarding how these relationships might differ, separate multivariate regressions were conducted.

psychological outcomes among athletes. As expected, the socialization tactic dimension that captures the extent to which the coaching staff provides newcomers with individually tailored role instruction (i.e., coach-initiated role communication tactics) was positively related to how well athletes understood their role responsibilities as well as their perceptions of unity and closeness on task matters. Specifically, athletes reported higher perceptions of role clarity (i.e., scope and behaviours, evaluation, consequences), were more committed to the coaching staff, and reported higher perceptions of task cohesion (attraction to the group, perceptions of group integration) when they perceived their group to employ coach-initiated role communication tactics as a strategy to socializing newcomers.

Also consistent with expectations, the socialization tactic dimension that measures whether it is normative for veterans to share task-related information with newcomers (i.e., serial tactics) showed positive links with both social and task aspects of group involvement. Athletes reported greater commitment to their teammates, perceived their group to be more unified on task and social matters (GI-T, GI-S), and were more attracted to the social aspects of the group (ATG-S) when they perceived their group to endorse serial tactics.

Finally, the socialization tactic dimension that revolves around creating opportunities for social interaction (i.e., social inclusionary tactics) exhibited positive links with the social domains of group involvement. That is, athletes reported stronger perceptions of social cohesion (ATG-S, GI-S) as a function of social inclusionary tactics. Unexpectedly, social inclusionary tactics emerged as the sole positive predictor of role efficacy, which is inconsistent with the expectation that task-relevant socialization

processes (serial tactics, coach-initiated role communication tactics) would be responsible for predicting variation in role efficacy beliefs. However, the relationship between socialization tactics and efficacy beliefs is more in line with expectations when excluding veterans, as coach-initiated role communication tactics accounted for significant variance in role efficacy for newcomers. In any case, it should be noted that the bivariate correlations between socialization tactics and role efficacy beliefs are relatively weak and thus this relationship should be interpreted with caution. Given previous work demonstrating that athletes self-identify with roles that serve task as well as social functions (Benson, Surya, & Eys, 2014), it is perhaps worthwhile to evaluate efficacy beliefs related to specific task functions, rather than the roles athletes perceive to occupy.

An auxiliary finding is that different patterns emerged when examining these relationships as they specifically pertain to veterans and newcomers. For example, serial socialization tactics were additionally related to role clarity among newcomers. This is perhaps not surprising because, with serial tactics, newcomers benefit from receiving pertinent role-related information from more experienced peers. Although veterans may feel closer to their peers (e.g., commitment to teammates, group cohesion) when there are clear norms encouraging veterans to help newcomers, sharing information is unlikely to directly influence veterans' perceptions of role clarity. Coach-initiated communication tactics also showed differential relationships across veterans and newcomers. Whereas coach-initiated communication tactics exhibited positive links with role evaluation clarity and commitment to the coaching staff among veterans, coach-initiated communication tactics positively predicted role efficacy and task cohesion among newcomers. Overall, Study 4 provides further evidence for the validity of the STSTQ as a measure of three



distinct socialization tactics, and that these tactics are linked to a nomological network of psychological variables in competitive sport team settings.

### **Discussion**

Systematically investigating the socialization processes that occur in sport teams has broad implications for understanding the factors that facilitate newcomer adjustment and shape team dynamics. Despite empirical studies in the organizational domain demonstrating clear links between socialization tactics and outcomes of organizational interest (e.g., role clarity, self-efficacy, intentions to return; Bauer et al., 2007; Saks et al., 2007), there is no comparable framework for investigating newcomer integration processes in sport. To enable systematic inquiry into the ways newcomers are socialized into sport teams, and the consequences of such tactics, the current research developed the Sport Team Socialization Tactics Questionnaire (STSTQ).

Across four studies, the construct validity of the STSTQ was demonstrated by assessing its item content-relevance (Study 1: expert panel review), factorial validity (Studies 2-4: ESEM), measurement invariance (Study 3: invariance across gender, status, and tenure), and criterion validity (Study 4: correlational study). In addition, the three subscales of the STSTQ exhibited acceptable levels of internal consistency (Studies 3-4). Collectively, these efforts helped to identify a three dimensional model underlying the STSTQ, which provides initial evidence for its validity and reliability as a measure of the socialization tactics perceived to occur in sport team environments.

### **Conceptual Basis and Structure of the STSTQ**

The dimension of *serial tactics* refers to the extent to which veterans share advice that is pertinent to newcomers' understanding and performance of their task-related role

responsibilities. This is parallel to how serial socialization tactics are described and measured in organizational socialization research (Jones, 1986; Bauer et al., 2007). The dimension of *social inclusionary tactics* refers to the extent to which structured social events are scheduled for newcomers to participate in upon their arrival to the group. Although this construct is not directly analogous to any of the socialization tactics in Jones' (1986) measure, social inclusionary tactics are similar to investiture tactics in that they both target the development of interpersonal relationships. In addition, social inclusionary tactics are similar to collective tactics in that they both revolve around shared group experiences. However, a key difference is that collective tactics refer to task-related group learning experiences, whereas social inclusionary tactics refer to the scheduling of events that lead to shared social experiences. The third dimension of *coach-initiated role communication tactics* refers to the extent to which the coaching staff provides newcomers with individually tailored role information. This construct cuts across several of the socialization tactics in the extant organizational literature (i.e., fixed tactics, sequential tactics, and individual tactics) by capturing an athlete-centered approach to communicating how and when one's role will progress.

The STSTQ focuses on the tactics and strategies that group members perceive to occur during newcomer integration processes. A deliberate point of departure from existing organizational socialization tactics measures (e.g., Jones, 1986; Taormina, 1994) is that the STSTQ asks participants to reflect upon their team's overall approach to integrating newcomers. By offering flexibility in terms of who is able to complete the questionnaire, this affords researchers the opportunity to examine socialization processes from the perspective of multiple social actors (e.g., coaches, veteran athletes, parents). In

terms of conceptual clarity, operationalizing socialization tactics as a group-level strategy is consistent with the way Van Maanen and Schein (1979) originally conceptualized organizational socialization tactics.

The parsimonious nature of the STSTQ also offers several advantages. Foremost, its brevity reduces participant burden, which is a valuable asset when collecting data from naturalistic group settings. In addition, the moderate positive interfactor correlations indicate that the three dimensions are related but distinct constructs. Conceptually, the STSTQ measures peer-driven processes (social inclusionary tactics, serial tactics) and coach-driven processes (coach-initiated role communication tactics). Further, these socialization tactics also differ with respect to whether they primarily target the task aspects of group involvement (coach-initiated role communication tactics), social aspects of group involvement (social inclusionary tactics), or both social and task elements of group participation (serial tactics). Although the three socialization tactics captured by the STSTQ are not intended to represent an exhaustive list of the socialization processes that athletes may experience upon group entry, the STSTQ covers a meaningful range of newcomer integration processes.

The conceptual linkages between athletes' perceptions of sport team socialization tactics and a constellation of psychological variables further supports the construct validity of the STSTQ. Consistent with theorizing, the dimensions of the STSTQ exhibited differential relationships with athletes' role perceptions, commitment to both their teammates and coaching staff, and perceptions of cohesion. Considering that socialization tactics are theoretically situated as predictors of numerous other outcomes in the organizational literature (e.g., person-group fit, social identity, skill acquisition, role

orientation, motivation, Saks & Ashforth, 1997), the STSTQ may offer insight into a host of issues that underlie newcomer integration processes in sport. Notwithstanding the need to replicate the current findings with a larger sample and using a multi-wave design, these findings provide preliminary evidence to suggest that there are benefits to socializing newcomers through processes that focus on nurturing relationships between newcomers and veterans (i.e., serial tactics and social inclusionary tactics) and clearly situating newcomers in their role (i.e., coach-initiated role communication tactics).

### **Limitations and Future Considerations**

The current research provides initial evidence supporting the STSTQ as a valid and reliable measure of the socialization tactics that occur in team sport environments. However, there are several limitations to consider. One limitation is that multilevel modeling was not used to account for the nested data structure when examining the conceptual linkages between socialization tactics and relevant psychological outcomes (Study 4). It should be noted that the decision to forego multilevel modeling was because such analytic techniques are inadvisable when there are so few group-level observations (Maas & Hox, 2005). To address concerns over non-independence, dummy variables that signified team membership were created and then used to statistically control for between-team variance in the first step of all regression models. This technique effectively accounts for between-team variance in the intercepts, although it does not account for whether regression coefficients vary at the group-level (Hayes, 2013). Future research into the socialization tactics used in sport teams would benefit from achieving sample sizes that are more amenable to multilevel modeling techniques. This would afford researchers novel analytic opportunities, such as simultaneously examining the

contextual-level (i.e., socialization tactic scores aggregated to the group-level) and individual-level (i.e., athletes' perceptions deviated around the group mean) effects related to socialization tactics.

A second limitation is that the validity and reliability of the STSTQ was only evaluated using samples of adult-aged, competitive interuniversity sport athletes from seven different task interdependent sport types, in a North American sporting context. Based on Wylleman and Lavallee's (2004) developmental model, newcomer integration processes may pose different challenges based on an individual's stage of athletic career (e.g., mastery versus skill-development stage), psychological development (e.g., adolescence versus adulthood), the importance of specific social relationships (e.g., the importance of parental influence during youth versus the importance of coach influence during adulthood), and academic/vocational level. Thus, the current research cannot speak to the validity of the STSTQ as it pertains to different sporting contexts (e.g., recreational youth sport, professional sport).

Another point to consider is that, although the current research demonstrated links between socialization tactics and several pertinent variables, socialization tactics do not operate in isolation from other factors during newcomer integration processes. Organizational research has shown that the behavioural tendencies of newcomers are implicated in the success of socialization efforts. For example, newcomers' willingness to actively seek-out information from more experienced peers and individuals in positions of formal authority positively predicts the accumulation of task-related knowledge and, in turn, their perceptions of task-mastery and objective task performance (Nifadkar & Bauer, 2016). Moreover, research has demonstrated that newcomer

proactivity interacts with institutionalized socialization tactics in predicting outcomes such as social integration, job satisfaction, and intentions to return (Gruman et al., 2006). As another example, Kim, Cable, and Kim (2005) demonstrated that institutionalized socialization tactics exerted a greater influence on perceptions of person-organization fit when newcomers framed events in a positive light and frequently socialized with co-workers. These studies suggest that the proximal and distal consequences associated with particular socialization tactics in sport teams may partly depend on the characteristics and tendencies of the newcomers. For this reason, examining the role of socialization tactics, in conjunction with other factors that are relevant to newcomer integration processes (e.g., personality characteristics of the newcomer, MacNamara & Collins, 2010), would provide a more nuanced understanding of how socialization processes unfold in sport team settings.

In conclusion, sport teams regularly encounter the challenge of integrating new members into their existing group, a timeframe that is linked to a host of consequences in organizational contexts (Bauer et al., 2007; Saks et al., 2007). The impetus for developing the STSTQ was to enable systematic inquiry into the tactics sport teams employ to manage the integration of new members, and the relevance of such tactics in relation to team dynamics and newcomer adjustment processes. Moving forward, it is hoped that the STSTQ will complement future efforts to understand how socialization processes unfold in sport teams, and in doing so, yield insight into how these processes can be managed in a way that benefits individual as well as collective interests.

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## CHAPTER 4

### GENERAL DISCUSSION AND CONCLUSION

A certain area within a channel may function as a “gate”; the constellation of the forces before and after the gate region is decisively different in such a way that the passing or not passing of the unit through the whole channel depends to a high degree upon what happens in the gate region. This holds not only for food channels but also for the travelling of a news item through certain communication channels in a group, for movement of goods, and the social locomotion of individuals in many organizations. (Lewin, 1947, p. 145)

This quote by Kurt Lewin, who is recognized as one of the founders of the formal study of group dynamics, reveals that scholars have had a longstanding curiosity in the processes that occur when individuals cross the boundaries associated with group membership. Given the central role that groups occupy in our daily lives, this is perhaps not surprising. In the current dissertation, it was argued that because the arrival of new group members is a frequent and consequential occurrence in sport teams, there is a need to systematically examine the processes through which newcomers are integrated into sport teams. The research described in the previous chapters addressed this gap in the literature by initiating a line of research that adapted and applied theory related to organizational socialization to better understand how newcomers are integrated into competitive sport teams.

As noted at the outset of this dissertation, a primary goal was to obtain a clearer description of the phenomena related to the integration of newcomers in competitive sport teams. Consistent with this objective, the first manuscript detailed insights from

athletes' and coaches' personal experiences of how newcomers are socialized into sport teams. This research raised awareness of the demands placed upon newcomers during their socialization process and elucidated how teams strategically socialize newcomers. Common socialization tactics included deliberately scheduling group-wide social events, encouraging the transfer of knowledge between more experienced peers and newcomers, and the provision of explicit role-related information. The second manuscript extended this work by developing a psychometrically sound measure of these socialization tactics (i.e., serial tactics, social inclusionary tactics, and coach-initiated role communication tactics) through a multi-stage questionnaire development process. In addition, conceptual linkages were demonstrated between athletes' perceptions of socialization tactics and a number of group dynamic variables (i.e., role clarity, group cohesion, commitment to teammates, and commitment to the coaching staff). Overall, these descriptive efforts provide insights into the socialization processes that occur in sport teams.

Armed with these descriptive insights, it is useful to consider the socialization processes that unfold in sport teams in the context of prevailing models of organizational socialization. The socialization tactics used by sport teams clearly differ from the tactics readily observed and measured in organizational contexts (Jones, 1986). Yet the general premise that newcomers encounter numerous demands upon joining a group, and that they must subsequently adjust to these demands to become successfully integrated into the group (Van Maanen & Schein, 1979), is one that applies to both sport and organizational contexts. On the one hand, properly structured socialization tactics serve as a resource for athletes during their transition into the group. On the other hand, ill-advised socialization tactics can impose additional demands upon newcomer athletes thus

undermining their adjustment. Consistent with Ellis et al.'s (2015) stress model of socialization, if the goal is to facilitate newcomer adjustment, then socialization tactics should be calibrated to help athletes overcome the demands associated with group-entry experiences. Although there is likely to be individual variability in how athletes respond to certain tactics, the three socialization tactics captured by the STSTQ appear to be well-suited to address some of the challenges and difficulties athletes encounter during their entry into highly competitive sport teams. Notably, coach-initiated role communication tactics provide newcomers with direct, individualized, and functional information regarding their task responsibilities in the group. Similarly, serial tactics provide newcomers with potential role models who have access to "insider information" regarding the state of affairs in the team. In addition, the willingness of veterans to share information may help to alleviate newcomer concerns over social acceptance. Finally, social inclusionary tactics may be a valuable resource in helping newcomers develop social bonds with other group members.

A second point related to Ellis et al.'s (2015) framework, which is relevant to sport team socialization processes, is that newcomers are active agents in their own socialization process and thus are likely to have their own set of strategies. For example, newcomers may proactively seek-out information from other group members (Bauer, Erdogan, Bodner, Truxillo, & Tucker, 2007) and work to actively expand their social network within the group (Gruman, Saks, & Zweig, 2006). Although newcomer-initiated socialization tactics explain unique variance in newcomer adjustment (Bauer et al., 2007; Nifadkar & Bauer, 2016), a newcomer's appraisal of his/her ability to cope with the demands of the transition process is likely a product of how newcomer-initiated



socialization tactics interact with the tactics implemented by the group (Gruman et al., 2006; Kim, Cable, & Kim, 2005). As such, it is important to acknowledge that sport teams do not fully control the socialization processes experienced by newcomers.

To fully understand the socialization processes that occur in sport teams, however, there is a need to recognize that newcomer integration processes are likely to affect other members in the group. This is perhaps a shortcoming of the newcomer-centric focus that characterizes the dominant models of organizational socialization (e.g., Bauer et al., 2007; Bauer & Erdogan, 2014; Saks, Uggerslev, & Fassina, 2007; Ellis et al., 2015). The descriptive insights from Chapter 2 revealed that existing team members may influence, as well as be influenced by, newcomer integration processes. In addition, Chapter 3 found that veterans' perceptions of serial socialization tactics, social inclusionary tactics, and coach-initiated role communication tactics were positively related to a number of desirable psychological outcomes.

Another way that newcomer-centric models of organizational socialization could be extended is by recognizing that newcomer adjustment is not always indicative of a successful socialization process. As noted by Moreland and Levine (2008), group socialization is "a process of mutual adjustment" (p. 469). What is desirable from a newcomer's perspective (or any single group member) is not necessarily advantageous for the group. Likewise, what is advantageous for the group is not always desirable from an individual's perspective. In ideal circumstances, there would be a mutually symbiotic relationship between what newcomers contribute to a group and what a group provides to its newcomers throughout the socialization process. However, in sport teams where individual opportunities to contribute may actually be constrained for the betterment of

the group (Benson, Eys, & Irving, 2016), this is not always possible. Furthermore, groups may actually incur costs in their attempts to accommodate and ultimately assimilate a newcomer. Overall, determining the relative success of newcomer socialization not only requires consideration of their personal adjustment to the group, but also the resources required to facilitate such an adjustment, and the group-level outcomes associated with their assimilation.

### **Conclusion**

Although we occupy numerous groups throughout the lifespan, some fleeting and others long lasting, membership in certain groups can leave a lasting impression on us. The current dissertation investigated the processes through which individuals are integrated into sport teams. For some individuals, the process of transitioning into an unfamiliar group may unfold seamlessly. They quickly accustom themselves to the norms, values, culture, and role expectations associated with group membership. For others, however, this transition process may be challenging as they attempt to adjust to, or merely come to understand, what is expected of them as a group member. Continued systematic investigation into the socialization tactics used by sport teams, and the consequences of various approaches, will ultimately enable a better understanding of why some groups are able to swiftly and successfully integrate newcomers into their team.

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**TABLES**

Table 1

*Study 1: Validity Index Ratings*

Item #	Tactic	Social vs. Task	Aiken's V	
	<i>M (SD)</i>	<i>M (SD)</i>	Tactic	Social vs. Task
1. ID-S	5.00 (0.00)	4.17 (0.98)	1.00**	0.79*
2 FI-T	2.67 (1.97)	5.00 (0.00)	0.42	1.00**
3. IS-S	4.67 (0.82)	5.00 (0.00)	0.92**	1.00**
4. SD-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
5. CI-T	4.17 (1.60)	4.33 (1.21)	0.79*	0.83**
6. ID-S	4.83 (0.96)	4.00 (0.89)	0.96**	0.75*
7. IS-S	4.17 (1.60)	5.00 (0.00)	0.79*	1.00**
8. CI-T	4.67 (0.82)	5.00 (0.00)	0.92**	1.00**
9. FI-T	3.50 (1.52)	5.00 (0.00)	0.63	1.00**
10. IS-S	4.83 (0.41)	5.00 (0.00)	0.96**	1.00**
11. FV-T	4.33 (1.64)	4.67 (0.52)	0.83**	0.92**
12 .ID-T	4.83 (0.41)	5.00 (0.00)	0.96**	1.00**
13. FI-T	3.00 (2.19)	5.00 (0.00)	0.50	1.00**
14. CI-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
15. IS-S	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
16. FR-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
17. ID-T	1.50 (1.22)	5.00 (0.00)	0.13	1.00**
18. FI-T	3.50 (1.38)	4.50 (0.84)	0.63	0.88**
19. CI- T	3.67 (1.63)	4.83 (0.41)	0.67	0.96**
20. IS-S	4.83 (0.41)	5.00 (0.00)	0.96**	1.00**
21. ID-S	4.83 (0.41)	3.33 (1.37)	0.96**	0.58
22. SD-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
23. FI-T	3.50 (1.97)	5.00 (0.00)	0.63	1.00**
24. CI-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**

25. SR-T	4.67 (0.82)	5.00 (0.00)	0.92**	1.00**
26. ID-T	3.67 (1.51)	4.33 (0.82)	0.67	0.83**
27. SD-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
28. FI-T	4.00 (1.67)	4.17 (1.17)	0.75*	0.79*
29. CI-T	4.50 (0.84)	4.83 (0.41)	0.88**	0.96**
30. SR-T	4.50 (0.84)	5.00 (0.00)	0.88**	1.00**
31. ID-T	2.17 (1.83)	3.83 (1.33)	0.29	0.71
32. FI-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
33. CI-T	4.33 (1.63)	5.00 (0.00)	0.83**	1.00**
34. SD-S	4.33 (0.83)	4.67 (0.82)	0.83**	0.92**
35. FI-T	3.33 (1.97)	4.83 (0.41)	0.58	0.96**
36. FV-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
37. SD-T	4.33 (1.63)	5.00 (0.00)	0.83**	1.00**
38. SR-T	5.00 (0.00)	5.00 (0.00)	1.00**	1.00**
39. SD-S	3.83 (1.17)	5.00 (0.00)	0.71	1.00**
40. SR-T	4.33 (1.63)	5.00 (0.00)	0.83**	1.00**
41. FV-T	3.50 (1.64)	4.00 (1.27)	0.63	0.75*
42. SD-T	4.16 (1.60)	5.00 (0.00)	0.79*	1.00**
43. FV-T	4.33 (0.82)	5.00 (0.00)	0.83**	1.00**
44. ID-S	4.83 (0.41)	4.67 (0.52)	0.96**	0.92**
45. SD-S	3.33 (1.36)	4.83 (0.96)	0.58	0.96**
46. SR-T	2.83 (1.47)	4.83 (0.41)	0.46	0.96**
47. FV-T	4.83 (0.41)	5.00 (0.00)	0.96**	1.00**
48. ID-S	5.00 (0.00)	3.00 (1.41)	1.00**	0.50
49. SD-S	3.67 (1.21)	4.33 (1.63)	0.67	0.83**

*Note.* ID-S: Items keyed for investiture-divestiture, social. ID-T: Items keyed for investiture-divestiture, task. FI-T: Items keyed for formal-informal, task. IS-S: Items keyed for social inclusionary tactics, social. SD-T: Items keyed serial-disjunctive, task. SD-S: Items keyed for serial-disjunctive, social. CI-T: Items keyed for collective-individual, task. FV-T: Items keyed for fixed-variable, task. SR-T: Items keyed for serial-random, task. \* $p < .05$ . \*\* $p < .01$ .

Table 2

*Study 1: Planned Contrasts of Keyed and Non-keyed Dimensions*

Item	Organizational Socialization Tactics Dimension							Domain of Group Involvement	
	Investiture vs. Divestiture	Serial vs. Disjunctive	Formal vs. Informal	Collective vs. Individual	Social Inclusionary Tactics	Sequential vs. Random	Fixed vs. Variable	Task	Social
	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>	<i>M (d)</i>
1.		1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	2.50 (1.05)	
6.		1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	2.17 (1.25)	
12.		1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)		1.00 (-)
17.		1.00 (0.41)	2.67 (-0.67)	1.67 (-0.08)	1.00 (0.41)	1.67 (-0.09)	1.00 (0.41)		2.17 (0.90)
21.		1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	2.83 (0.21)	
26.		1.00 (1.77)	1.00 (1.77)	1.00 (1.77)	1.00 (1.77)	1.00 (1.77)	1.00 (1.77)	2.00 (1.55)	
31.		1.00 (0.64)	3.50 (-2.92)	1.00 (0.64)	1.00 (0.64)	1.00 (0.64)	1.00 (0.64)		2.33 (0.75)
44.		1.00 (9.39)	1.00 (9.39)	1.17 (6.96)	1.50 (2.72)	1.00 (9.39)	1.00 (9.39)	1.00 (7.10)	
48.		1.00 (-)	1.00 (-)	1.00 (-)	1.17 (9.39)	1.00 (-)	1.00 (-)	3.50(-0.28)	
4.	1.00 (-)		1.17 (9.39)	1.17 (9.39)	1.00 (-)	1.00 (-)	1.00 (-)	1.17 (9.39)	
7.	1.33 (1.87)		1.83 (0.77)	1.17 (1.91)	1.50 (1.60)	1.00 (1.98)	1.00 (1.98)	1.00 (-)	
22.	1.00 (-)		1.17 (9.39)	1.17 (9.39)	1.00 (-)	1.00 (-)	1.00 (-)		1.67 (2.04)



27.	1.00 (-)		1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)
34.	1.00 (1.21)		1.00 (2.75)	1.33 (1.96)	1.50 (1.60)	1.00 (2.75)	1.00 (2.75)	1.67 (1.27)	
37.	1.00 (1.63)		2.00 (0.76)	1.33 (1.77)	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)		1.00 (-)
39.	1.00 (1.17)		1.67 (1.34)	1.00 (2.42)	2.83 (0.59)	1.00 (2.42)	1.00 (2.42)	1.00 (-)	
42.	1.00 (1.60)		1.33 (1.73)	2.00 (0.72)	1.00 (1.98)	1.00 (1.98)	1.00 (1.98)		1.00 (-)
45.	1.17 (1.39)		1.67 (0.73)	1.33 (1.38)	2.33 (0.63)	1.00 (1.71)	1.00 (1.71)	1.00 (9.38)	
49.	1.00 (1.21)		1.00 (2.20)	1.17 (1.79)	3.33 (0.11)	1.00 (2.20)	1.00 (2.20)	1.67 (0.85)	
2.	1.00 (0.85)	1.00 (0.85)		1.00 (0.85)	1.00 (0.85)	2.83 (-0.05)	1.83 (0.29)		1.00 (-)
9.	1.00 (1.65)	1.00 (1.65)		4.00 (0.19)	1.00 (1.65)	1.00 (1.65)	1.00 (1.65)		1.00 (-)
13.	1.00 (0.91)	1.00 (0.91)		3.00 (0)	1.00 (0.91)	1.17 (0.88)	1.00 (0.91)		1.00 (-)
18.	1.00(1.81)	1.67 (0.86)		1.50 (1.17)	1.00 (1.81)	1.33 (1.44)	1.00 (1.81)		1.00 (4.18)
23.	1.00 (1.27)	2.17 (0.50)		1.50 (0.71)	1.00 (1.27)	1.00 (1.27)	1.00 (1.27)		1.00 (-)
28.	1.00 (1.79)	1.67 (1.13)		1.33 (1.14)	1.00 (1.79)	1.00 (1.79)	2.00 (1.17)		2.00 (1.17)
32.	1.00 (-)	1.00 (-)		1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)		1.17 (9.39)
35.	1.00 (1.19)	2.17 (0.46)		1.50 (0.89)	1.00 (1.19)	1.00 (1.19)	1.00 (1.19)		1.00 (9.39)
5.	1.00 (1.98)	1.00 (1.98)	3.17 (0.36)		1.00 (1.98)	1.00 (1.98)	2.17 (1.17)		2.17 (1.17)
8.	1.00 (4.49)	1.00 (4.49)	1.67 (2.64)		1.00 (4.49)	1.00 (4.49)	1.00 (4.49)		1.00 (-)
14.	1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)
19.	1.50 (0.99)	1.50 (1.29)	1.50 (1.29)		1.00 (1.63)	1.00 (1.63)	1.00 (1.63)		1.00 (9.39)

24.	1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)
29.	1.00 (4.18)	1.33 (3.11)	1.80 (1.49)		1.00 (4.18)	1.33 (2.06)	1.00 (4.18)		1.33 (4.11)
33.	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)		1.00 (2.04)	1.00 (2.04)	1.00 (2.04)		1.00 (-)
3.	1.00 (4.49)	1.00 (4.49)	1.00 (4.49)	1.00 (4.49)		1.00 (4.49)	1.00 (4.49)	1.00 (-)	
10.	1.00 (9.39)	1.33 (2.97)	1.00 (9.39)	2.17 (1.31)		1.00 (9.39)	1.00 (9.39)	1.00 (-)	
15.	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)	1.00 (-)	1.00 (-)	
20.	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)		1.00 (9.39)	1.00 (9.39)	1.00 (-)	
25.	1.00 (4.49)	1.00 (4.49)	1.00 (4.49)	1.00 (4.49)	1.00 (4.49)		1.00 (4.49)		1.00 (-)
38.	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)		1.00 (-)		1.00 (-)
40.	1.67 (0.85)	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)		1.00 (2.04)		1.00 (-)
46.	1.00 (1.25)	1.17 (1.10)	2.17 (0.25)	1.00 (1.25)	1.00 (1.25)		2.50 (0.14)		1.33 (2.97)
11.	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)	1.00 (2.04)	1.83 (0.92)			2.17 (1.84)
36.	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.00 (-)	1.83 (1.98)			1.00 (-)
41.	1.00 (1.52)	1.00 (1.52)	1.33 (1.04)	1.00(1.52)	1.00 (1.52)	3.50 (0)			1.67 (1.29)
43.	1.00 (4.08)	1.17 (3.26)	1.17 (3.26)	1.00 (4.08)	1.00 (4.08)	3.33 (0.42)			1.00 (-)
47.	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.00 (9.39)	1.33 (4.12)			1.00 (-)

*Note.*  $M$  = mean rating of item;  $d$  = effect size based on comparison with item on keyed dimension. (-) = An effect size could not be computed due to a lack of item variance and covariance between comparison items (i.e., when the mean score on the keyed dimension = 5 and the mean score on the non-keyed dimension = 1). Blanks indicate the keyed dimension for each item.

Table 3

*Study 2: Exploratory Factor Analysis*

<i>Dimension/Item</i>	<i>“When newcomers join this team...”</i>	1	2	3	4
<i>Serial tactics</i>					
More experienced teammates are there to assist in helping them improve their skill-set	<b>.79</b>	.03	.06	-.03	
More experienced group members are there to give advice on how to improve their skills	<b>.86</b>	.04	-.02	.01	
More experienced team members go out of their way to make sure that newcomers understand their task responsibilities	<b>.39</b>	-.08	.33	.06	
<i>Social inclusionary tactics</i>					
They all participate in similar social activities together	.07	<b>.58</b>	.25	-.16	
Group social events are scheduled for all new members to participate in	.02	<b>.69</b>	-.10	.07	
They are invited to participate in team wide social events	.26	<b>.35</b>	-.01	.05	
*There are formal opportunities to learn team tactics and strategies	-.04	<b>.46</b>	.06	.22	
<i>Structured role progression</i>					
The coaching staff communicates a general timeframe it will take to achieve more prominent task responsibilities in the group	.00	.12	<b>.78</b>	.02	
The amount of time it will take to achieve more task responsibilities in the group is clearly communicated to them	-.03	.06	<b>.80</b>	.02	
Our coach outlines a timeline of when they will progress in their responsibilities	.02	-.07	<b>.55</b>	.07	
Acquiring new task responsibilities follows a distinct series of steps	.05	-.22	<b>.52</b>	.09	
<i>Functional role communication</i>					
They are given personal preseason instruction from the coach on how to prepare for the season	.09	-.01	.21	<b>.48</b>	
The coaching staff ensures there are learning opportunities designed to give newcomers an understanding of their task responsibilities	.00	.18	.17	<b>.53</b>	

They receive specific instructions from coaches during practice on how to best perform their position	.13	.02	-.03	<b>.78</b>
Coaches clearly state what newcomers need to accomplish to acquire a more prominent role in competitive situations	-.03	-.14	.04	<b>.63</b>

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*Note.* Bolded numbers identify item groupings. \*Item does conceptually align with other items. All pattern matrix coefficients are based on a geomin rotation.

Table 4

*Study 3: Factor Loadings and Interfactor Correlations (Four Factor Structure)*

Items	Confirmatory factor analysis				Exploratory structural equation model			
	<i>Standardized factor loadings</i>				<i>Standardized factor loadings</i>			
	SER ( $\lambda$ )	SI ( $\lambda$ )	FOR ( $\lambda$ )	RP ( $\lambda$ )	SER ( $\lambda$ )	SI ( $\lambda$ )	FOR ( $\lambda$ )	RP ( $\lambda$ )
SER1	<b>.806</b>				<b>.614</b>	.140	.118	-.008
SER2	<b>.843</b>				<b>.920</b>	.017	.002	-.101
SER3	<b>.728</b>				<b>.634</b>	.076	-.036	.115
SI1		<b>.801</b>			-.034	<b>.855</b>	-.023	.012
SI2		<b>.807</b>			.168	<b>.651</b>	.134	-.149
SI3		<b>.738</b>			.009	<b>.786</b>	-.186	.149
FOR1			<b>.664</b>		-.059	.132	<b>.389</b>	<b>.350</b>
FOR2			<b>.808</b>		.117	.070	<b>.640</b>	.124
FOR3			<b>.772</b>		<b>.294</b>	-.009	<b>.489</b>	.117
FOR4			<b>.682</b>		.211	-.157	<b>.216</b>	<b>.475</b>
RP1				<b>.784</b>	.040	.111	<b>.562</b>	<b>.228</b>
RP2				<b>.796</b>	.072	.080	<b>.341</b>	<b>.438</b>
RP3				<b>.698</b>	-.039	.052	.124	<b>.673</b>
RP4				<b>.723</b>	.080	-.006	-.038	<b>.817</b>
<i>Factor correlations</i>								
Factor		SI	FOR	RP		SI	FOR	RP
SER		.720	.713	.615		.634	.584	.414
SI			.428	.355			.324	.169
FOR				.934				.622

*Note.*  $\lambda$  = standardized factor loading; SER = serial tactics; SI = social inclusionary tactics; FOR = formal communication tactics; RP = structured role progression tactics. Greyscale background indicates targeted factor loadings for exploratory structural equation model. Bolded values indicate significant factor loadings. All factor correlations are statistically significant at  $p \leq .001$ .

Table 5

*Study 3: Items included in the Final Version of the STSTQ*

<i>Dimension/Item</i>	<i>“When newcomers join this team...”</i>
<i>Serial tactics</i>	
	SER1: More experienced teammates are there to assist in helping them improve their skill-set
	SER2: More experienced group members are there to give advice on how to improve their skills
	SER3: More experienced team members go out of their way to make sure that newcomers understand their task responsibilities
<i>Social inclusionary Tactics</i>	
	SI1: They all participate in similar social activities together
	SI2: Group social events are scheduled for all new members to participate in
	SI3: They are invited to participate in team wide social events
<i>Coach-initiated role communication tactics</i>	
	CC1: They are given personal preseason instruction from the coach on how to prepare for the season
	CC2: The coaching staff ensures there are learning opportunities designed to give newcomers an understanding of their task responsibilities
	CC3: Coaches clearly state what newcomers need to accomplish to acquire a more prominent role in competitive situations
	CC4: The coaching staff communicates a general timeframe it will take to achieve more prominent task responsibilities in the group
	CC5: The amount of time it will take to achieve more task responsibilities in the group is clearly communicated to them
	CC6: Our coach outlines a timeline of when they will progress in their responsibilities
	CC7: Acquiring new task responsibilities follows a distinct series of steps

Table 6

*Study 3: Factor Loadings and Interfactor Correlations (Three Factor Structure)*

Confirmatory factor analysis			Exploratory structural equation model			
Items	SER ( $\lambda$ )	SI ( $\lambda$ )	CC ( $\lambda$ )	SER ( $\lambda$ )	SI ( $\lambda$ )	CC ( $\lambda$ )
SER1	<b>.809</b>			<b>.632</b>	.119	.120
SER2	<b>.834</b>			<b>.853</b>	.046	-.026
SER3	<b>.737</b>			<b>.604</b>	.056	.130
SI1		<b>.806</b>		-.069	<b>.888</b>	.010
SI2		<b>.803</b>		.242	<b>.628</b>	-.048
SI3		<b>.740</b>		-.047	<b>.766</b>	.028
CC1			<b>.670</b>	-.056	.089	<b>.672</b>
CC2			<b>.774</b>	.243	.006	<b>.604</b>
CC3			<b>.678</b>	.104	-.167	<b>.688</b>
CC4			<b>.782</b>	.123	.043	<b>.672</b>
CC5			<b>.788</b>	.040	.025	<b>.749</b>
CC6			<b>.690</b>	-.202	.030	<b>.832</b>
CC7			<b>.722</b>	-.110	-.037	<b>.830</b>
<i>Factor correlations</i>						
Factor		SI	CC		SI	CC
SER		.717	.648		.635	.571
SI			.375			.330

*Note.*  $\lambda$  = standardized factor loading; SER = serial tactics; SI = social inclusionary tactics; CC = coach-initiated role communication tactics. Greyscale background indicates targeted factor loadings for exploratory structural equation model. Bolded values indicate significant factor loadings. All interfactor correlations are statistically significant at  $p \leq .001$ .

Table 7

*Study 3: Measurement Invariance Testing*

	$\chi^2$ (df)	CFI	TLI	RMSEA	90% CI	SRMR	CM	$\Delta S\chi^2$ (df)	$\Delta$ CFI	$\Delta$ TLI	$\Delta$ RMSEA
Gender											
1-1: Configural invariance	148.030 (84)	.971	.946	.058	.042, .073]	.025	-	-	-	-	-
1-2: $\lambda$ invariant	194.556 (114)	.963	.950	.055	[.042, .069]	.064	1-1	52.57 (30)**	-.008	+.004	-.003
1-3: $\lambda, \tau$ invariant	217.921 (124)	.957	.946	.057	[.045, .070]	.072	1-2	21.24 (10)*	-.006	-.004	+.002
1-4: $\lambda, \eta$ invariant	256.918 (127)	.941	.927	.067	[.055, .078]	.090	1-3	29.78 (3)**	-.016	-.019	+.010
Tenure											
2-1: Configural invariance	135.627 (84)	.976	.956	.052	[.035, .067]	.025	-	-	-	-	-
2-2: $\lambda$ invariant	166.208 (114)	.976	.967	.045	[.029, .059]	.056	2-1	30.06 (30)	.000	+.011	-.007
2-3: $\lambda, \tau$ invariant	175.275 (124)	.977	.971	.042	[.027, .056]	.057	2-2	10.70 (10)	+.001	+.004	-.003
2-4: $\lambda, \eta$ invariant	190.228 (127)	.971	.965	.047	[.032, .060]	.075	2-3	11.83 (3)*	-.006	-.006	+.005
Starting status											
3-1: Configural invariance	146.737 (84)	.970	.945	.058	[.042, .074]	.027	-	-	-	-	-
3-2: $\lambda$ invariant	169.877 (114)	.975	.965	.046	[.030, .061]	.063	3-1	20.77 (30)	+.005	+.020	+.011
3-3: $\lambda, \tau$ invariant	191.232 (124)	.968	.960	.050	[.035, .063]	.071	3-2	55.33 (10)**	-.007	-.005	+.004
3-4: $\lambda, \xi/\phi, \eta$ invariant	210.471 (127)	.960	.951	.055	[.041, .068]	.079	3-3	15.61 (3)**	-.008	-.006	+.005

*Note.*  $\lambda$  = factor loading;  $\tau$  = intercept;  $\eta$  = latent mean; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean-square error of approximation; 90% CI = 90% confidence interval of RMSEA; SRMR = standardized root mean square residual;  $\Delta S\chi^2$  (df) = scaled chi-square difference tests calculated using procedures outlined by Satorra and Bentler (2001); CM: Comparison model. Gender comparisons based on male ( $n = 250$ ) versus female ( $n = 210$ ). Tenure comparisons based on newcomers ( $n = 174$ ) and veterans ( $n = 284$ ). Starting status comparisons based on starters ( $n = 219$ ) and non-starters ( $n = 218$ ).



Table 8

*Study 4: Descriptive Statistics and Correlations*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Serial tactics	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Social inclusionary tactics	.50**	-	-	-	-	-	-	-	-	-	-	-	-
3. Coach-initiated role communication	.37**	.25**	-	-	-	-	-	-	-	-	-	-	-
4. Scope and behaviours	.36**	.30**	.34**	-	-	-	-	-	-	-	-	-	-
5. Evaluation	.24**	.26**	.31**	.76**	-	-	-	-	-	-	-	-	-
6. Consequences	.31**	.20**	.32**	.73**	.67**	-	-	-	-	-	-	-	-
7. Efficacy	.13	.20**	.21**	.22**	.11	.01	-	-	-	-	-	-	-
8. Commitment to teammates	.41**	.34**	.29**	.41**	.25**	.38**	.13	-	-	-	-	-	-
9. Commitment to coaching staff	.16*	.10	.45**	.34**	.30**	.36**	.12	.65**	-	-	-	-	-
10. Attraction to group – task	.35**	.30**	.24**	.62**	.56**	.45**	.19*	.47**	.36**	-	-	-	-
11. Attraction to group – social	.48**	.48**	.25**	.40**	.27**	.31**	.23**	.65**	.34**	.56**	-	-	-
12. Group integration – task	.55**	.33**	.35**	.61**	.48**	.55**	.12	.48**	.31**	.69**	.59**	-	-
13. Group integration – social	.53**	.45**	.18*	.42**	.29**	.32**	.13	.55**	.22**	.54**	.73**	.67**	-
<i>Means</i>	7.59	7.95	6.82	7.81	7.30	7.73	80.74	6.35	6.16	7.22	7.92	7.53	7.90
<i>SD</i>	1.27	1.11	1.29	1.08	1.64	1.23	11.20	0.83	1.00	1.42	1.38	1.23	1.12

*Note.* Variables 1-3 refer to socialization tactics dimensions, measured on a 9-point scale. Variables 4-6 refer to role clarity dimension, measured on a 9-point scale. Variable 7 refers to role efficacy, measured on a 100-point scale. Variable 8-9 refer to commitment to specific targets, measured on a 7-point scale. Variables 10-13 refer to cohesion dimensions, measured on a 9-point scale. \* $p \leq .05$ ; \*\*  $p \leq .01$ .

Table 9

*Study 4: Exploratory Structural Equation Model Factor Loadings*

Items	SER ( $\lambda$ )	IS ( $\lambda$ )	CC ( $\lambda$ )
SER1	<b>.905</b>	-.072	-.018
SER2	<b>.771</b>	.022	.009
SER3	<b>.641</b>	.134	.049
IS1	.146	<b>.703</b>	.001
IS2	-.016	<b>.896</b>	.045
IS3	-.056	<b>.640</b>	-.038
CC1	.076	-.038	<b>.599</b>
CC2	-.022	.174	<b>.716</b>
CC3	-.068	.038	<b>.643</b>
CC4	.060	.048	<b>.751</b>
CC5	.054	.001	<b>.758</b>
CC6	-.084	-.040	<b>.778</b>
CC7	-.009	-.110	<b>.604</b>

*Note.*  $\lambda$  = standardized factor loading. Greyscale background indicates targeted factor loadings for exploratory structural equation model. Bolded values indicate significant factor loadings.

Table 10

*Study 4: Socialization Tactics as Predictors of Role Perceptions*

	Scope and behaviours	Evaluation	Consequences	Role efficacy
	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )
Step 1				
Constant	7.69 (.13)	7.05 (.19)	7.70 (.15)	83.72 (1.54)
$R^2$ (cluster effects)	.10***	.10**	.07*	.04
Step 2				
Constant	4.33 (.59)	3.07 (.92)	4.52 (.69)	52.91 (7.23)
Serial tactics	0.12 (.07)	0.33 (.11)	0.16 (.08)	1.20 (.88)
Social inclusionary tactics	0.14 (.08)	0.25 (.12)	0.04 (.10)	2.11 (.98)*
Coach-initiated role communication	0.21** (.07)	0.27* (.11)	0.25** (.08)	0.93 (.84)
$\Delta R^2$	.15***	.09***	.12***	.09***
$R^2$ (overall model)	.25***	.19***	.19***	.13***
$F$ ( $df$ )	7.71 (8, 182)	5.37 (8, 182)	5.24 (8, 182)	3.39 (8, 179)

*Note.* *b* = unstandardized regression coefficient; *SE* = standard errors. Scope and behaviours, evaluation, and consequences all refer to perceptions of role clarity. Role clarity is measured on a 9-point scale; role efficacy is measured on a 100-point scale. \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

Table 11

*Study 4: Socialization Tactics as Predictors of Commitment*

	Commitment to	Commitment to the
	Teammates	Coaching Staff
	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )
Step 1		
Constant	6.12 (.10)	6.17 (.12)
$R^2$ (cluster effects)	.04	.09**
Step 2		
Constant	3.29 (.45)	3.78 (.54)
Serial tactics	0.19*** (.05)	0.04 (.06)
Social inclusionary tactics	0.06 (.05)	-0.06 (.07)
Coach-initiated role communication	0.14** (.05)	0.36*** (.06)
$\Delta R^2$	.20***	.17***
$R^2$ (overall model)	.24***	.26***
$F$ ( <i>df</i> )	7.26 (8, 181)	16.07 (8, 186)

Note. *b* =unstandardized regression coefficient; *SE* = standard errors. \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

Table 12

*Study 4: Socialization Tactics as Predictors of Cohesion*

	ATG-T	GI-T	ATG-S	GI-S
	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )
Step 1				
Constant	6.88 (.17)	7.51 (.15)	7.60 (.17)	7.47 (.13)
$R^2$	.18***	.10***	.06	.17***
Step 2				
Constant	3.38 (.76)	2.73 (.60)	1.83 (.71)	3.48 (.55)
Serial tactics	0.14 (.09)	0.40*** (.07)	0.35*** (.08)	0.31*** (.07)
Social inclusionary tactics	0.15 (.11)	0.10 (.08)	0.34*** (.10)	0.15* (.08)
Coach-initiated role communication	0.19* (.09)	0.17* (.07)	0.10 (.08)	0.09 (.07)
$\Delta R^2$	.10***	.29***	.28***	.22***
$R^2$ (overall model)	.27***	.39***	.34***	.40***
$F$ ( <i>df</i> )	8.42 (8, 179)	14.33 (8, 179)	11.32 (8, 179)	14.60 (8, 179)

*Note.* *b*: unstandardized regression coefficient; *SE* = standard errors; ATG-T = attraction to the group-task; GI-T = group integration-task; ATG-S = attraction to the group-social; GI-S = group integration-social. \* $p \leq .05$ . \*\* $p \leq .01$ . \*\*\* $p \leq .001$ .

Table 13

*Study 4: Comparing Relationships for Veterans and Newcomers (Role Perceptions and Commitment)*

	Role clarity			Role Efficacy	Commitment	
	Scope/beh	Conseq	Evaluation		Teammates	Coaches
	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )		<i>b</i> ( <i>SE</i> )	<i>b</i> ( <i>SE</i> )
Veterans						
SER	0.02 (.10)	0.09 (.12)	-0.11 (.16)	1.45 (1.22)	0.22** (.08)	-0.02 (.10)
SI	0.14 (.11)	0.08 (.14)	0.20 (.18)	1.20 (1.39)	0.13 (.09)	-0.06 (.11)
CC	0.28** (.10)	0.26* (.12)	0.40* (.15)	0.78 (1.18)	0.13 (.08)	0.45 (.10)**
Newcomers						
SER	0.22* (.10)	0.26* (.11)	0.18 (.15)	2.13 (1.34)	0.18* (.07)	0.09 (.08)
SI	0.07 (.13)	-0.06 (.14)	0.32 (.19)	0.62 (1.56)	-0.07 (.09)	0.01 (.10)
CC	0.23 (.12)*	0.28* (.13)	0.12 (.19)	3.16* (1.44)	0.15 (.09)	0.11 (.09)

*Note.* *b* = unstandardized regression coefficient; *SE* = standard errors; Scope/beh = role clarity related to scope of responsibilities and behaviours; Conseq = role clarity related to role consequences; Evaluation = role clarity related to evaluation; Teammates = commitment to teammates; Coaches = commitment to coaching staff; SER = serial tactics; SI = social inclusionary tactics; CC = coach-initiated role communication tactics. Newcomers (*n* = 82); Veterans (*n* = 112). \**p* < .05; \*\**p* < .01.

Table 14

*Study 4: Comparing Relationships for Veterans and Newcomers (Cohesion)*

	Cohesion			
	ATG-T <i>b</i> ( <i>SE</i> )	GI-T <i>b</i> ( <i>SE</i> )	ATG-S <i>b</i> ( <i>SE</i> )	GI-S <i>b</i> ( <i>SE</i> )
	Veterans			
SER	0.12 (.13)	0.35 (.10)**	0.36** (.12)	0.40 (.09)**
SI	0.17 (.15)	0.15 (.11)	0.27* (.14)	0.20 (.10)
CC	0.18 (.13)	0.13 (.09)	0.20 (.12)	0.05 (.09)
	Newcomers			
SER	0.20 (.12)	.48** (.10)	0.37** (.12)	0.22* (.10)
SI	0.00 (.15)	-0.01 (.13)	0.33* (.16)	0.05 (.12)
CC	0.31* (.15)	0.28* (.13)	0.01 (.15)	0.13 (.12)

*Note.* *b* = unstandardized regression coefficient; *SE* = standard errors; ATG-T = attraction to the group-task; GI-T = group integration-task; ATG-S = attraction to the group-social; GI-S = group integration-social; SER = serial tactics; SI = social inclusionary tactics; CC = coach-initiated role communication tactics. Newcomers (*n* = 82); Veterans (*n* = 112). \**p* < .05; \*\**p* < .01

**APPENDICES**



## Appendix A: Copyright Clearance Request

### JOHN WILEY AND SONS LICENSE TERMS AND CONDITIONS

Apr 08, 2016

This Agreement between Alex J Benson ("You") and John Wiley and Sons ("John Wiley and Sons") consists of your license details and the terms and conditions provided by John Wiley and Sons and Copyright Clearance Center.

License Number	3844220746801
License date	Apr 08, 2016
Licensed Content Publisher	John Wiley and Sons
Licensed Content Publication	Scandinavian Journal of Medicine & Science In Sports
Licensed Content Title	Organizational socialization in team sport environments
Licensed Content Author	A. J. Benson, M. B. Evans, M. A. Eys
Licensed Content Date	Apr 27, 2015
Pages	11
Type of Use	Dissertation/Thesis
Requestor type	Author of this Wiley article
Format	Print and electronic
Portion	Full article
Will you be translating?	No
Title of your thesis / dissertation	An examination of how newcomers are integrated into sport teams
Expected completion date	Jul 2016
Expected size (number of pages)	150
Requestor Location	Alex J Benson 122 Marshall None None Waterloo, ON N2J2T7 Canada Attn: Alex J Benson
Billing Type	Invoice
Billing Address	Alex J Benson 122 Marshall None None Waterloo, ON N2J2T7 Canada Attn: Alex J Benson
Total	<b>0.00 CAD</b>

## Appendix B: Research Ethics Board Approval (Manuscript 1)

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October 29, 2012

Dear Alex,

REB # 3383

Project, "Delineating the Socialization Strategies used in Sport Teams"

Expiry Date: January 31, 2014

The Research Ethics Board of Wilfrid Laurier University has reviewed the above proposal and determined that the proposal is ethically sound. If the research plan and methods should change in a way that may bring into question the project's adherence to acceptable ethical norms, please submit a "Request for Ethics Clearance of a Revision or Modification" form for approval before the changes are put into place. This form can also be used to extend protocols past their expiry date, except in cases where the project is more than four years old. Those projects require a new REB application.

Please note that you are responsible for obtaining any further approvals that might be required to complete your project.

If any participants in your research project have a negative experience (either physical, psychological or emotional) you are required to submit an "Adverse Events Form" to the Research Office within 24 hours of the event.

According to the Tri-Council Policy Statement, you must complete the "Annual/Final Progress Report on Human Research Projects" form annually and upon completion of your project. All forms, policies and procedures are available on the Research Office website at <http://www.wlu.ca/research>.

All the best for the successful completion of your project.

Yours sincerely,



Robert Basso, PhD  
Chair, University Research Ethics Board

## **Appendix C: Letters of Informed Consent (Manuscript 1)**

### **Letter of informed consent for coaches**

You are invited to participate in a research study. The purpose of the present study is to explore the strategies that sport teams use to help orient athletes to what is expected of them within the group. In organizational teams, research has demonstrated that the use of the appropriate socialization strategies can positively influence individuals' satisfaction, commitment to the group, and retention. However, currently there is minimal to no understanding as to what strategies are beneficial in a sport team environment. This research study is being conducted by Alex Benson (Ph.D. candidate, Social Psychology) and Mark Eys (Ph.D., Departments of Kinesiology/Physical Education and Psychology).

### **INFORMATION**

The full extent of your participation involves reading the letter of information, signing the informed consent form, filling out a brief demographic questionnaire, and participating in a single in-person interview conducted by Alex Benson that is designed to (a) explore your general thoughts on what information athletes have to acquire when entering a new sport team, (b) the learning experiences athletes go through when entering a new sport teams, and (c) the progression of athletes from newcomers to in-group members. The background questionnaire and interview will take approximately 45-60 minutes of your time. Approximately 10-15 coaches from both interuniversity and club sport teams in Ontario will be interviewed in total. For the purposes of accuracy, we would like to digitally audio-record the interview. If you would not like the interview to be taped, then you are free to withdraw from the study. The audio-recording will be transcribed in full at a later date. We will send a copy of the transcription of your interview to you to ensure its accuracy and to allow you to clarify or retract any information you provided. In addition, 10-15 athletes from Ontario University Athletic teams are also being interviewed on their personal experiences during their transition into new sport teams. This will ensure a holistic perspective is obtained on what occurs during the early stages of team involvement.

### **RISKS**

There are potential psychological or emotional risks associated with this study including boredom, regret over the revelation of personal information to the interviewer, and disruption of work/family time. These feeling are normal and should be temporary. You will be offering responses related to your personal experiences and insights related to coaching. It is important to note that your real name will not be used at any time during the communication of results. Furthermore, any identifying statements made will be omitted from the final analysis to ensure anonymity. In addition, there are no anticipated physiological risks. Please feel free to contact Alex Benson, Ph.D. candidate, Mark Eys, Ph.D., or the WLU research office (see contact information below) in the event that you have concerns/questions.

### **BENEFITS**

The present study is intended to explore the appropriate use of socialization strategies during the early stages of an athlete's team involvement, which has the potential for improving athletes' psychosocial outcomes. For example, organizational literature suggests that the use of appropriate socialization strategies is positively linked to increased employee retention, employee satisfaction, and commitment to the group (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). Lastly, if you wish to obtain a summary of the final results, you may contact the researcher (please see contact information listed below).

### **CONFIDENTIALITY**

Several measures will be taken to ensure confidentiality of all your responses pertaining to the interview. Any identifying information (i.e., your contact information, audio files, and identifiable transcripts) will be deleted by Alex Benson upon completion of the study (i.e., January 31, 2014). Only the researchers listed will have access to the data. All electronic data will be stored on a password protected computer (i.e., de-identified transcripts, computer files) and all hardcopy data (questionnaires, written notes, informed consent forms) will be locked in a filing cabinet in a secure card access only office, and will be shredded and destroyed as of January 31, 2020 by Dr. Mark Eys. Quotations from the interviews may be utilized in future publications, as well as presentations. However, those quotations will not allow you to be identified. The lead researcher will replace the real name of each participant with a pseudonym within each transcribed interview to maintain anonymity; however, complete anonymity cannot be guaranteed. Also, any potentially identifying information in reference to timelines, team affiliation etc. will be removed. You will be asked for permission to use your quotations at the end of this form. Following your interview, the researchers will email you an electronic version of your transcript for review and approval. Please note that because this project employs e-based data collection techniques (the e-mailing of quotations), the confidentiality and privacy of data cannot be guaranteed during web based transmission.

### **CONTACT**

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Alex Benson, Ph.D. candidate, Department of Psychology Wilfrid Laurier University, Waterloo, ON, N2L 3C5, bens9230@mylaurier.ca. Alternatively, you may contact Mark Eys (supervisor), Ph.D., Departments of Kinesiology/Physical Education and Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, Tel: 519-884-0710 x4157, meys@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board (REB #3383). If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 4994 or rbasso@wlu.ca

### **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time

without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, every attempt will be made to remove your data from the study, and have it destroyed. You have the right to omit any question(s)/procedure(s) you choose.

### **COMPENSATION**

For participating in this study you will be entered into a draw for a chance to win a \$25.00 gift certificate redeemable at Tim Horton's. If you choose to withdraw from the study prior to its completion, or ask to have your interview responses omitted you will still be entered into the draw.

### **FEEDBACK AND PUBLICATION**

The results of this study will be used within the lead researcher's written Dissertation. In addition the results are also anticipated to be communicated at academic conferences and within written publications. If you would like a summary of the results or publications, please feel free to contact the lead researcher (Alex Benson, Ph.D. candidate, bens9230@mylaurier.ca). The results will be available by January 31, 2014.

### **CONSENT**

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

"I agree to allow the researchers to use quotes from my interview in academic publications/presentations with the explicit understanding that I will not be identified through these quotes. I understand that the researchers will email me a copy of my interview transcript to review and approve."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

## **Letter of informed consent for athletes**

You are invited to participate in a research study. The purpose of the present study is to explore the strategies that sport teams use to help orient athletes to what is expected of them within the group. In organizational teams, research has demonstrated that the use of the appropriate socialization strategies can positively influence individuals' satisfaction, commitment to the group, and retention. However, currently there is minimal to no understanding as to what strategies are beneficial in a sport team environment. This research study is being conducted by Alex Benson (Ph.D. candidate, Department of Psychology) and Mark Eys (Ph.D., Departments of Kinesiology/Physical Education and Psychology).

### **INFORMATION**

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### **RISKS**

There are potential psychological or emotional risks associated with this study including boredom, regret over the revelation of personal information to the interviewer, and disruption of work/family time. These feelings are normal and should be temporary. You will be offering responses related to your personal experiences and insights related to your sporting career. It is important to note that your real name will not be used at any time during the communication of results. Furthermore, any identifying statements made will be omitted from the final analysis to ensure anonymity. In addition, there are no anticipated physiological risks. Please feel free to contact Alex Benson, Ph.D. candidate, Mark Eys, Ph.D., or the WLU research office (see contact information below) in the event that you have concerns/questions.

### **BENEFITS**

The present study is intended to explore the appropriate use of socialization strategies during the early stages of an athlete's team involvement, which has the potential for improving athletes' psychosocial outcomes. For example, organizational literature

suggests that the use of appropriate socialization strategies is positively linked to increased employee retention, employee satisfaction, and commitment to the group (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007).

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### **CONTACT**

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### **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, every attempt will be made to remove your data from the study, and have it destroyed. You have the right to omit any question(s)/procedure(s) you choose.

**FEEDBACK AND PUBLICATION**

The results of this study will be used within the lead researcher's written Dissertation. In addition the results are also anticipated to be communicated at academic conferences and within written publications. If you would like a summary of the results or publications, please feel free to contact the lead researcher (Alex Benson, Ph.D. candidate, bens9230@mylaurier.ca). The results will be available by January 31, 2014.

**COMPENSATION**

For participating in this study you will be entered into a draw for a chance to win a \$25.00 gift certificate for Tim Horton's. If you choose to withdraw from the study prior to its completion, or ask to have your interview responses omitted you will still be entered into the draw.

**CONSENT**

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

"I agree to allow the researchers to use quotes from my interview in academic publications/presentations with the explicit understanding that I will not be identified through these quotes. I understand that the researchers will email me a copy of my interview transcript to review and approve."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_



## Appendix D: Interview Guides (Manuscript 1)

### Coach Interview Guide

*Note.* The interviews are semi-structured in nature. With this consideration in mind, the following script does not represent a verbatim portrayal of what the researcher will be asking the participants. The purpose of the guide is to provide the researcher with key questions to ask each participant. In addition, the sequence of questions are subject to change dependent on the responses provided by the participant, and what is deemed as the most appropriate direction for the interview to follow. When appropriate, the use of probing questions may be utilized in order to maximize the richness of the data within the interviews. These consist of elaborative, clarification, and contrast type probes.

#### Introductory Oral script:

I am a doctoral student in Social Psychology at Wilfrid Laurier University who is interested in understanding how sport teams manage the entry experiences of incoming athletes. This interest stems not only from my academic research, but I am also a former intercollegiate athlete. I appreciate you volunteering your time to provide and share your insights as a high-level coach. I will be asking you questions regarding your experience as a coach on the strategies that your team uses to facilitate the transition of incoming athletes into the group. Your participation in this interview is completely voluntary, and if at any time you do not wish to continue, you may stop the interview. In addition, all the information you provide during this interview will be strictly confidential. The following interview will be recorded and then transcribed verbatim. However your name will be replaced with a pseudonym to ensure anonymity. The following interview will last approximately one hour in length. Please feel free to take your time to gather your thoughts if needed for any of the questions. Lastly, there are no right or wrong answers to any of these questions as I am interested in your own personal experiences as a coach. Do you have any questions before we start with the interview?

**Begin interview by asking coach to provide a brief background about his/her coaching experience.**

#### General orientation questions

1. Generally speaking, I'm interested in the strategies that teams implement to orient an athlete to the knowledge and skills required of them as a member the group. Can you please describe the types of information athletes must acquire when joining a team?
  - Ask about task-related information
  - Ask about social-related information
  - Ask about general adjustments to group life

2. Can you please describe a past experience of a specific athlete who had a successful transition into the group?
  - In contrast, can you please describe a prior experience of an athlete who struggled in his/her transition into the group?
  -

**Key questions pertaining to socialization strategies used in sport teams**

1. Now that we discussed some polar ends of athletes' entry experiences, I'm interested in the various strategies that can either facilitate, or hinder, the early stages of an athlete's team involvement. From your experience, can you speak to any situations where athletes undergo common learning experiences as a group at the beginning of a season?
  - In your experience, what outcomes are associated with athletes undergoing common learning experiences together?
  - Do rookies participate in any separate activities from veteran athletes?
  -
2. Can you please describe any learning experiences that are carried out in isolation from other group members?
  - Can you please describe the outcomes associated with athletes undergoing individual learning experiences apart from group members?
3. I am also interested in the degree of formal instruction that is provided to incoming athletes, or alternatively, whether they are expected to pick up things as the season progresses. Can you describe any instances where you explicitly instruct athletes on their responsibilities within the team?
  - In your experience, what outcomes are associated with this formal instruction?
4. Can you describe any situations where athletes are expected to learn their responsibilities on- the-field/court/ice?
  - What outcomes are associated with having athletes learn in this manner?
5. Can you please describe whether there is a well-defined sequence of events that athletes go through when progressing towards their desired role?
  - \*If there is a sequence of events: Can you please outline what a typical progression for an athlete is like? (use contrast probe to investigate instances when an athlete regresses)
  - In your experience, what outcomes are associated with athletes progressing in this manner?
6. Alternatively, can you describe any situations where an athlete's progression was difficult to outline?
  - Can you describe the outcomes associated with having athletes progress in this manner?
7. Can you describe whether there is any set time-table for an athlete's progression in terms of his/her role on the team?

- Can you describe the outcomes associated with athletes understanding the timing of how they will progress within the group?
8. Can you explain whether there are certain aspects of an athlete's progression within the group that are more difficult to put a time-line on than others?
    - Can you describe the outcomes associated with athletes not knowing their progression within the team?
  9. Can you please describe the role that veteran members play in helping incoming players to get oriented towards their responsibilities?
    - If there is an indication of peer mentorship within the group, then ask: What types of information do veteran team members provide incoming players with?
    - Can you describe the outcomes associated with having veteran players pass down their knowledge to incoming athletes?
  10. Can you describe any situations where incoming athletes do not have veteran members providing them with information about what is expected of them within the team?
    - Can you please speak to the outcomes associated with this?
  11. A final area I'm interested in is the concepts of investiture and divestiture. Investiture describes a process where individuals are welcomed into the group as they are. In other words, the skills, knowledge, and attitudes from an individual's prior experiences are welcomed as an addition to the group. In contrast, divestiture describes a process where individuals are expected to change their attitudes and values upon entering the group to conform to a new set of expectations. From your perspective as a coach, can you describe the extent to which either of the processes occurs for rookie athletes?
    - Can you describe whether either of these processes is more relevant to certain aspects of an athlete's transition?
    - Can you please describe the outcomes associated with investiture type processes? (follow with a contrast probe in reference to divestiture type processes)

## **Athlete interview guide**

### Introductory Oral script:

I am a doctoral student in Social Psychology at Wilfrid Laurier University who is interested in understanding how sport teams manage the entry experiences of incoming athletes. This interest stems not only from my academic research, but I am also a former intercollegiate athlete. I appreciate you volunteering your time to provide and share your insights as a high-level athlete. I will be asking you questions regarding your experiences as an athlete transitioning into a new sport team. Your participation in this interview is completely voluntary, and if at any time you do not wish to continue, you may stop the interview. In addition, all the information you provide during this interview will be strictly confidential. The following interview will be recorded and then transcribed verbatim. However your name will be replaced with a pseudonym to ensure anonymity. The following interview will last approximately one hour in length. Please feel free to take your time to gather your thoughts if needed for any of the questions. Lastly, there are no right or wrong answers to any of these questions as I am interested in your own personal experiences as an athlete. Do you have any questions before we start with the interview?

### **Begin interview by asking athlete to describe what they are currently doing in relation to their sport.**

#### **General orientation questions**

1. Generally speaking, I'm interested in the strategies that teams implement to orient an athlete to the knowledge and skills required of them as a team member.  
Can you please describe the types of information you had to acquire when joining your team?

#### Specific probing questions

- Ask about task-related information
- Ask about social-related information
- Ask about general adjustments to group life

#### **Key questions pertaining to socialization strategies used in sport teams**

2. From your experiences this prior season, can you speak to any situations where you underwent common group learning experiences upon entering the team?
  - How were you influenced by these common group learning experiences?
  - As a rookie did you participate in any separate activities from veteran athletes?
3. Can you describe any learning experiences that are carried out in isolation from your teammates?
  - How were you influenced by these individual learning experiences apart from group members?

4. I am also interested in the degree of formal instruction that is provided to incoming athletes, or alternatively, whether they are expected to pick up things as the season progresses. Can you describe any instances where you were explicitly instructed on what your responsibilities within the team were?
  - How were you influenced by this formal instruction?
5. Can you describe any situations where you were expected to learn your responsibilities on- the-field/court/ice?
  - How were you influenced by learning in this manner?
6. Can you please describe whether the progression of your role within the team followed a well-defined sequence of events?
  - \*If there is a sequence of events: Can you please outline the steps in terms of your progression? (use contrast probe to investigate instances of athlete regressing in his/her role)
  - How did progressing in this manner influence your transition into the team?
7. Alternatively, can you describe any situations where the progression of your role within the team was difficult to outline?
  - Can you describe how progressing in this manner influenced your transition into the team?
8. Can you describe whether there was any set time-table of your progression outlined for you?
  - \*If athlete described having a well-defined timetable of progression: How were you influenced by understanding the timing of your progression in the group?
9. Can you explain whether there were certain aspects of your progression within the group that were more difficult to put a time-line on than others?
  - \*If athlete described having a well-defined timetable of progression: How were you influenced by not knowing having a timeline of how you were going to progress within the team?
10. Can you please describe whether veteran members provided you with any information in terms of your role on the team?
  - If there is an indication of peer mentorship within the group, then ask: How did this influence you as an incoming athlete?
  -
11. Can you please describe any aspects of your experience as a rookie where you did not have any veteran mentorship?
  - How were you influenced by this lack of peer mentorship?
12. A final area I'm interested in is the concepts of investiture and divestiture. Investiture describes a process where individuals are welcomed into the group as they are. In other words, the skills, knowledge, and attitudes you brought with you from your prior sport experiences are welcomed as an addition to the group. In contrast, divestiture describes a

process where you are expected to change your attitudes and values upon entering the group to conform to a new set of expectations. From your experience as an athlete, can you describe the extent to which either of the processes occurred for you?

- Can you describe whether either of these processes was more relevant to specific aspects of your transition?
- Can you describe the amount of social support you received from veteran players as an incoming rookie?
- Can you describe the amount of social support you received from coaches as an incoming rookie?
- Can you please how going through this process influenced you? (follow with a contrast probe in reference to divestiture type processes)

## Appendix E: Research Ethics Board Approval (Manuscript 2)

REB # 3878

Project, "Organizational Socialization in Sport Teams"

Expiry Date: January 31, 2016

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The Research Ethics Board of Wilfrid Laurier University has reviewed the above proposal and determined that the proposal is ethically sound. If the research plan and methods should change in a way that may bring into question the project's adherence to acceptable ethical norms, please submit a "Request for Ethics Clearance of a Revision or Modification" form for approval before the changes are put into place. This form can also be used to extend protocols past their expiry date, except in cases where the project is more than four years old. Those projects require a new REB application.

Please note that you are responsible for obtaining any further approvals that might be required to complete your project.

If any participants in your research project have a negative experience (either physical, psychological or emotional) you are required to submit an "Adverse Events Form" to the Research Office within 24 hours of the event.

According to the Tri-Council Policy Statement, you must complete the "Annual/Final Progress Report on Human Research Projects" form annually and upon completion of your project. All forms, policies and procedures are available via the REB website: <http://www.wlu.ca/research/reb>.

All the best for the successful completion of your project.

Yours sincerely,



Robert Basso, PhD  
Chair, University Research Ethics Board  
Wilfrid Laurier University

## **Appendix F: Letters of Informed Consent (Manuscript 2)**

### **Informed Consent for Think Aloud Protocol**

You are invited to participate in a research study. The purpose of the present study is to develop a questionnaire to assess the types of socialization tactics used in a sport team setting, and in turn, provide a basis for our future work that will aim to delineate the effectiveness of different socialization strategies as it pertains to newcomer adjustment and team performance. This research study is being conducted by Alex Benson (PhD student, Department of Psychology) and Mark Eys (Ph.D., Departments of Kinesiology/Physical Education and Psychology).

### **INFORMATION**

The full extent of your participation involves reading and completing the letter of informed consent, filling out a single questionnaire concerning the strategies used to help integrate newcomers into the team while providing verbal feedback about the items—a protocol referred to as the think aloud protocol, and providing some demographic information (e.g., age, gender). The entire process is to be performed individually and will take approximately 20 minutes. This procedure will be performed in person and your verbal comments will be audio-recorded so they can be transcribed verbatim. You may refuse to be audio-taped, at which point the researcher will only record information via written notes. Approximately 8-10 Intercollegiate and Interuniversity athletes at Canadian institutions will complete this protocol, with an expected age range of 18-24. Participants must be at least 18 years of age to participate in the study. In addition, we are asking 5-7 experts in the area of group dynamics in sport and organizational behaviour to provide feedback on the initial questionnaire items. Subsequent to this phase of work, we will be revising any problematic questionnaire items and then pilot testing the questionnaire on 500-600 Intercollegiate and Interuniversity athletes at Canadian institutions. Please note that you may be contacted about participating in the future pilot testing of the questionnaire. However, your participation in the third phase of the project is completely voluntary and is in no way linked to your participation in the think-aloud protocol.

### **RISKS**

There are minimal psychological or emotional risks associated with this study including boredom, disruption of work/family time/school, and revelation of personal information on the questionnaires. These feelings are normal and should be temporary. As a part of the study you will be asked to provide personal responses regarding perceptions of your athlete experience and provide comments on any questionnaire items that you think are potentially ambiguous or unclear. You may skip any question or withdraw from the study at any time.

### **BENEFITS**

The present study is intended to develop a psychometrically sound questionnaire that will assess the processes through which athletes are socialized into existing team sport settings. The benefits of this study are largely theoretical, but the findings will also provide a foundation for future research focused on establishing guidelines pertaining to beneficial socialization strategies that can be implemented in competitive sport teams.



Lastly, if you wish to obtain a summary of the final results, you may provide your contact information (see below for details).

### **CONFIDENTIALITY**

In order to ensure confidentiality of your responses, none of your comments will be reported in future reports, as we will only be using comments to revise any problematic questionnaire items. Further, your answers on the questionnaire itself will not be analyzed, as we are only interested in your thoughts on the readability and clarity of the questionnaire items. Only Alex Benson and Mark Eys will have access to the data. All electronic data will be stored on a password protected external hard drive (i.e., de-identified transcripts, computer files) and all hardcopy data (questionnaires, informed consent forms) will be locked in a filing cabinet in Mark Eys' Group Dynamics and Physical Activity Laboratory (NC-120) at Wilfrid Laurier University, and will be shredded and destroyed as of January 31, 2022 by Mark Eys. All identifying information (i.e., audio-recording of interview, e-mail addressing that will be provided by participants who are interested in receiving a study summary) will be stored on a password-protected computer or in a locked filing cabinet in Mark Eys' Group Dynamics and Physical Activity Laboratory (NC-120) and will be deleted or destroyed by Alex Benson on January 31<sup>st</sup> 2016. Participants will have the opportunity to provide their e-mail address below if they wish to receive an electronic copy of the study results. This information will be securely stored in a password-protected file and will be deleted by the researchers by January 31, 2016.

### **CONTACT**

If you have questions at any time about the study or the procedures (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Alex Benson, Department of Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, ext. 3691 or via bens9230@mylaurier.ca. You may also contact Mark Eys, Ph.D., Departments of Kinesiology/Physical Education and Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, extension 4157 or via meys@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board (tracking number # 3878). If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 4994 or rbasso@wlu.ca.

### **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time. You have the right to omit any question(s) you choose. If you withdraw from the study, every attempt will be made to remove your data from the study, and have it destroyed. Your data cannot be removed after data collection is complete because they are stored without identifiers.

### **COMPENSATION**

No compensation is being offered for participation in the present study.

**FEEDBACK AND PUBLICATION**

It is anticipated that the results of this study will be communicated at academic conferences, within written journal articles, and Alex Benson's dissertation. The results will also be communicated to Sport Canada via a short written report. A summary of the study results will be sent to all individuals who indicate interest below and provide their e-mail address. This executive summary will be provided by January 31<sup>st</sup>, 2016, following the completion of data analysis.

**CONSENT**

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

**If you would like to receive the results of the study upon completion, please provide your email address below:**

\_\_\_\_\_

### **Informed Consent for Expert Panel Review**

You are invited to participate in a research study. The purpose of the present study is to develop a questionnaire to assess the types of socialization tactics used in a sport team setting, and in turn, provide a basis for our future work that will aim to delineate the effectiveness of different socialization strategies as it pertains to newcomer adjustment and team performance. This research study is being conducted by Alex Benson (PhD student, Department of Psychology) and Mark Eys (Ph.D., Departments of Kinesiology/Physical Education and Psychology).

### **INFORMATION**

Your initial participation has involved following the instructions sent to you via e-mail regarding how to access the online questionnaire. You are now asked to first read this informed consent statement (5 minutes). If consent is provided, you will also be asked to evaluate a questionnaire that will focus on the appropriateness of the proposed dimensions as well as the individual items, and to provide basic demographic information such as age, sex, and area of expertise (40 minutes). The entire process is performed individually and will take approximately 45 minutes of your time. We are asking 5-7 experts in the area of group dynamics in sport and organizational behaviour to provide feedback on the initial questionnaire items and proposed dimensions. We previously conducted a think aloud protocol with 8-10 Intercollegiate and Interuniversity athletes Canadian institutions. Following expert feedback we will then be pilot testing the questionnaire on 500-600 Intercollegiate and Interuniversity athletes from Canadian institutions.

### **RISKS**

There are minimal psychological or emotional risks associated with this study including boredom and disruption of work/family time/school. These feelings are normal and should be temporary. Please know that you are free to skip any question or procedure and/or withdraw from the study at any time.

### **BENEFITS**

The present study is intended to develop a psychometrically sound questionnaire that will assess the processes through which athletes are socialized into existing team sport settings. The benefits of this study are largely theoretical, but the findings will also provide a foundation for future research focused on establishing guidelines pertaining to beneficial socialization strategies that can be implemented in competitive sport teams.

### **CONFIDENTIALITY**

In order to ensure anonymity of your data, there will be no way to associate your e-mail address with your study responses (i.e., e-mail address will not be provided during questionnaire completion). Note too that data collected electronically can never be guaranteed as confidential during the process of data transfer (from online to server). We will disable the identification capabilities of our Qualtrics survey design software to avoid tracking participant IP addresses without their knowledge or consent. All individual responses will also be protected from public disclosure as they will be collected, handled, analyzed, and reported by the main investigators only. Data from this study will be

stored separately from any identifying information on a password-protected external hard drive of Alex Benson in the Group Dynamics and Physical Activity Laboratory (NC-120) at Wilfrid Laurier University. Identifying information consists of the e-mail addresses that will be provided by participants who are interested in receiving a study summary. Participants will have the opportunity to provide their e-mail address on the final page, after completing the study. All identifying information will be stored on a password-protected external hard drive and will be destroyed by Alex Benson on January 31<sup>st</sup> 2016. Unidentified, electronic, data will be destroyed by Mark Eys by January 31<sup>st</sup>, 2022. Data will be presented in aggregate form in any publications resulting from this study.

### **CONTACT**

If you have questions at any time about the study or the procedures (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Alex Benson, Department of Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, ext. 3691 or via bens9230@mylaurier.ca. You may also contact Mark Eys, Ph.D., Departments of Kinesiology/Physical Education and Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, extension 4157 or via meys@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board (tracking number #3878). If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 4994 or rbasso@wlu.ca.

### **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time. You have the right to omit any question(s) you choose. If you withdraw from the study, your data up to that point cannot be removed because there is no way to link it to you.

### **COMPENSATION**

No compensation is being offered for participation in the present study.

### **FEEDBACK AND PUBLICATION**

It is anticipated that the results of this study will be communicated at academic conferences, within written journal articles, and Alex Benson's dissertation. The results will also be communicated to Sport Canada via a short written report. A summary of the study results will be sent to all individuals who indicate interest and provide their e-mail address in the demographic section. This executive summary will be provided by January 31<sup>st</sup>, 2016, following the completion of data analysis.

### **CONSENT**

I have read and understand the above information, and: (check box that applies)

I do not agree to participate in this study

I agree to participate in this study

## **Letter of Informed Consent for Pilot Testing the Questionnaire**

You are invited to participate in a research study. The purpose of the present study is to develop a questionnaire to assess the types of socialization tactics used in a sport team setting, and in turn, provide a basis for our future work that will aim to delineate the effectiveness of different socialization strategies as it pertains to newcomer adjustment and team performance. This research study is being conducted by Alex Benson (PhD student, Department of Psychology) and Mark Eys (Ph.D., Departments of Kinesiology/Physical Education and Psychology).

### **INFORMATION**

The full extent of your participation involves reading and signing the informed consent form, completing a short demographic questionnaire (e.g., age, sex), and filling out a single questionnaire concerning the strategies used to help integrate newcomers into the team. The entire process will take approximately 15 minutes and will be completed in person using a pencil and paper format (individually, but in a group setting) and the researcher will enter these de-identified data into an electronic file. We are recruiting approximately 500-600 intercollegiate and interuniversity athletes from Canadian institutions to complete this questionnaire, with an expected age range of 18-24. You must be at least 18 years of age to participate. This preliminary version of the questionnaire was developed on the basis of feedback garnered from a panel of experts in sport and organizational behaviour as well as interuniversity and intercollegiate athletes at Canadian institutions.

### **RISKS**

There are minimal psychological or emotional risks associated with this study including boredom, disruption of work/family time/school, and revelation of personal information on the questionnaires. These feelings are normal and should be temporary. As a part of the study you will be asked to provide personal responses regarding perceptions of your athlete experience. In order to ensure anonymity, only group responses will be revealed in the communication of results. Please know that you are free to skip any question or procedure and/or withdraw from the study at any time.

### **BENEFITS**

The present study is intended to further the development of a psychometrically sound questionnaire that will assess the processes through which athletes are socialized into existing team sport settings. The benefits of this study are largely theoretical, but the findings will also provide a foundation for future research focused on establishing guidelines pertaining to beneficial socialization strategies that can be implemented in competitive sport teams. Lastly, if you wish to obtain a summary of the final results, you may provide your contact information (see below for details).

### **CONFIDENTIALITY**

Complete anonymity cannot be guaranteed. Although you will be completing the questionnaire individually, the questionnaires will be administered in a group setting. However, several measures will be taken to ensure confidentiality of all your responses

and your informed consent. Only Alex Benson and Mark Eys will have access to the responses provided and the participant responses. All hardcopy data (questionnaire, informed consent forms) will be locked in a filing cabinet in a secure card access only office in the Group Dynamics and Physical Activity Laboratory (NC120) at Wilfrid Laurier University and will be shredded and destroyed as of January 31, 2016 by Alex Benson. All de-identified electronic data (questionnaire responses will be transferred to an electronic file) will be stored on a password protected external hard drive and will be destroyed by Mark Eys as of January 31, 2022.

### **CONTACT**

If you have questions at any time about the study or the procedures (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Alex Benson, Department of Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, ext. 3691 or via bens9230@mylaurier.ca. You may also contact Mark Eys, Ph.D., Departments of Kinesiology/Physical Education and Psychology, Wilfrid Laurier University, Waterloo, ON, N2L 3C5, via (519) 884-0710, extension 4157 or via meys@wlu.ca. This project has been reviewed and approved by the University Research Ethics Board (tracking number # 3878). If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 4994 or rbasso@wlu.ca.

### **PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time. You have the right to omit any question(s) you choose. If you withdraw from the study, every attempt will be made to remove your data from the study, and have it destroyed. Your data cannot be removed after data collection is complete because they are stored without identifiers.

### **COMPENSATION**

No compensation is being offered for participation in the present study.

### **FEEDBACK AND PUBLICATION**

It is anticipated that the results of this study will be communicated at academic conferences, within written journal articles, and Alex Benson's dissertation. The results will also be communicated to Sport Canada via a short written report. A summary of the study results will be sent to all individuals who indicate interest below and provide their e-mail address. This executive summary will be provided by January 31<sup>st</sup>, 2016, following the completion of data analysis.

### **CONSENT**

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study."

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

**If you would like to receive the results of the study upon completion, please provide your email address below:**

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## Appendix G: Expert Panel Review Questionnaire

Listed below are the proposed dimensions of the questionnaire and a brief description of each. Please familiarize yourself with the following dimensions as you will be instructed to provide feedback on the content of the items as they relate to the dimensions. Please note that in the organizational domain, each dimension represents two sets of opposing tactics that fall along a single continuum (Jones, 1986).

### **Investiture (vs. Divestiture) Tactics**

*Investiture* tactics refer to a process whereby a new athlete's self-identity is reaffirmed upon entry into the group. *Divestiture* tactics refer to a process whereby his/her self-identity is disconfirmed upon entry, and the newcomer is made to feel he/she has to conform to the group's way of doing things.

### **Serial (vs. Disjunctive) Tactics**

*Serial* tactics encourage veteran members to pass down information to newcomers and help orient them to the team, while *disjunctive* tactics do not encourage or utilize this information sharing between veteran members and newcomers.

### **Formal Communication (vs. Informal) Tactics**

*Formal* tactics are characterized by the provision of formally communicated role expectations, group policies, and training sessions; whereas with *informal* tactics, athletes are expected to learn through trial and error, characterized as learning by 'doing'.

### **Collective (vs. Individual) Tactics**

*Collective* tactics ensure that newcomers undergo shared training experiences when entering the group. *Individual* tactics, however, put newcomers through individualized training and instruction experiences that occur in isolation from others in the group.

### **Social Inclusionary Tactics**

This standalone tactic refers to the degree that a team uses structured social events to welcome newcomers to the group.

### **Sequential (vs. Random) Tactics**

*Sequential* tactics are characterized by ensuring one's progression within the group follows a well-defined series of stages. In contrast, with *random* tactics, there is no predictable pathway of how one will progress in the role responsibilities he/she is given within the group.

### **Fixed (vs. Variable) Tactics**

*Fixed* tactics are when one's progression follows a reasonably well defined timeline. In contrast, variable tactics are when one's progression is not subjected to a predetermined timeline.



**Instructions:** After familiarizing yourself with the dimensions listed on the previous page, examine the following list of potential questionnaire items. After carefully reviewing each item, please rate the degree to which the content of the each items matches the content of the listed dimensions. Using the following scale:

Poor Match	Fair Match	Good Match	Very Good Match	Excellent Match
1	2	3	4	5

**When new athletes join this team...**

They are accepted for who they are as a person.

	Poor Match	Fair Match	Good Match	Very Good Match	Excellent Match
Investiture-Divestiture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serial-Disjunctive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal-Informal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collective-Individual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scheduled Social Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sequential-Random	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed-Variable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

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### When new athletes join this team...

7. Group social events are scheduled for all new members to participate in.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

8. The coaching staff communicates a general timeframe it will take to achieve more prominent task responsibilities in the group.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

9. More experienced team members go out of their way to make sure that newcomers understand their task responsibilities.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

10. The amount of time it will take to achieve more task responsibilities in the group is clearly communicated to them.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

11. They are invited to participate in team wide social events.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

12. Our coach outlines a timeline of when they will progress in their responsibilities.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

13. Acquiring new task responsibilities follows a distinct series of steps.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

*Coach-initiated role communication tactics:* 1, 4, 6, 8, 10, 12, 13; *Serial socialization tactics:* 2, 5, 9; *Social inclusionary tactics items:* 3, 7, 11.



9. I am clear about the different responsibilities that make up my role.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

10. I understand what adjustments to my behaviour need to be made to carry out my role responsibilities.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

11. The criteria by which my role is evaluated are clear to me.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

12. I understand the consequences of my failure to carry out my role responsibilities.

1	2	3	4	5	6	7	8	9
Strongly Disagree								Strongly Agree

*\*Scope of responsibilities: 1, 5, and 9. Role behaviour: 2, 6, and 10. Role evaluation: 3, 7, and 11. Role consequences: 4, 8, and 12.*

### Appendix J: Role Efficacy Questionnaire (Bray, 1998)

Each player on a sport team has a specific role to perform. Your **ROLE** involves your responsibilities on the team and each **ROLE** requires a specific set of skills. A **ROLE** can be associated with your position, and a player can occupy more than one role on a team. Some examples of **ROLES** are: (a) stay at home defensemen, (b) primary scorer, and (c) lock down defender. Many roles exist within a team.

Think about the team you are playing on and describe **three roles** you currently occupy. Use the same vocabulary as you would to other individuals on your team (e.g., Third line checking forward in hockey).

We are also interested in how CONFIDENT you are in your ability to successfully perform each role. Please indicate your confidence (%) in your ability to perform each function

Confidence in										
MY ABILITY to perform each function										
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
not at all									completely	

1) My role on the team

is: \_\_\_\_\_

*My confidence:* \_\_\_\_\_ (please indicate a number from 0% - 100%)

2) My role on the team

is: \_\_\_\_\_

*My confidence:* \_\_\_\_\_ (please indicate a number from 0% - 100%)

3) My role on the team is

: \_\_\_\_\_

*My confidence:* \_\_\_\_\_ (please indicate a number from 0% - 100%)

**Appendix K: KUT Commitment Measure (Klein, Cooper, Molloy, & Swanson, 2014)**

Please read the following questions and respond by circling the number that best corresponds to how you feel at the current moment.

1. How committed are you to your teammates?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

2. How dedicated are you to your teammates?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

3. To what extent have you chosen to be committed to your teammates?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

4. How committed are you to the coaching staff?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

5. How dedicated are you to the coaching staff?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

6. To what extent have you chosen to be committed to the coaching staff?

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree







### Appendix M: Background and Demographic Information

As mentioned, **anonymity** will be assured and all data will be treated confidentially. In order to still be able to match the various data, **I would like you to code this questionnaire according to the following scheme:**

Code = Day you were born – number of sisters you have – Initial of your middle name

**e.g., 7-0-J**

**Your code:**

Age (in years): \_\_\_\_\_ Male: \_\_\_ Female: \_\_\_\_\_

Sport: \_\_\_\_\_

Position: \_\_\_\_\_

Number of years on the current team, including this year:

\_\_\_\_\_

Number of years at this level, including this year (e.g., university):

\_\_\_\_\_

Starter                       Non-starter

Are you graduating this season?

Yes                       No

Will you be eligible to play at this level next year?

Yes                       No