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Why Do Sport Coaches Adopt a Controlling Coaching Style? The Role of an Evaluative Context and Psychological Need Frustration

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In this study, involving 585 youth sport coaches (M_{age} = 35.76), the authors investigated whether coaches who perceive their environment to be highly evaluative would report acting in a more controlling or pressuring way. In a subsample (n = 211, M_{age} = 38.14), they examined the explanatory role of coaches' experiences of psychological need frustration in this relation. They also considered whether years of coaching experience would serve as a buffer against the adverse effects of an evaluative context. In line with the tenets of self-determination theory, results of structural equation modeling indicated that an evaluative context was related to the use of a more controlling coaching style, with experiences of need frustration accounting for this relation. Coaching experience did not play any moderating role, suggesting that even more experienced coaches are vulnerable to the harmful correlates of an evaluative sport context.

Keywords: basic psychological needs, coach evaluation, interpersonal behavior, self-determination theory, sport-club climate

Although the club board emphasizes that winning is not the most important thing, I still feel judged and evaluated if my players do not perform well. If I enter the cafeteria after a game, the youth coordinator always first asks about the outcome of the game and he is far less interested in whether my players played well or whether I noticed some progress. —Richard, 32 years old, a youth football coach

This quote comes from a coach who participated in an intervention on motivating coaching (Reynders et al., 2019) and illustrates that contextual pressures on coaches can be conveyed in subtle ways. Simply asking for the outcome of a game may suffice for some sport coaches to feel evaluated and pressured. In an evaluative sport context, not only coaches' own coaching performance but also the performance of their athletes may form the basis for evaluating coaches (e.g., Cunningham & Dixon, 2003). Hence, it is not surprising that an evaluative sport context is a prominent source of pressure among coaches (e.g., Olusoga, Butt, Hays, & Maynard, 2009). Such a pressure-exerting context not only relates to negative outcomes such as burnout (e.g., Lundkvist, Gustafsson, Hjälm, & Hassmén, 2012) but also may predict how coaches interact with their athletes. That is, when facing an evaluative context, coaches may transmit the pressure exerted on them to their athletes, thereby using a more controlling style (Rocchi & Pelletier, 2017; Stebbings, Taylor, Spray, & Ntoumanis, 2012). Grounded in self-determination theory (SDT; Ryan & Deci, 2017), the present study sought to investigate whether an evaluative context is related to sport coaches' use of a controlling or pressuring coaching style and whether this association can be explained by the frustration of coaches' psychological needs for autonomy, relatedness, and competence. Moreover, we explored whether more experienced coaches are more capable of dealing with the pressures encountered in their sports. Specifically, we examined whether, in the event of an evaluative climate, years of coaching experience might buffer against experiences of need frustration and the adoption of controlling behaviors toward athletes.

Controlling Coaching Style

According to SDT, when coaches adopt a controlling approach, they pressure athletes to act, think, or feel in specific and prescribed ways (Mageau & Vallerand, 2003). Previous studies reported convincing evidence of the negative effects of a controlling coaching style. For instance, at the cross-sectional level, athletes who perceived their coach as more controlling reported more competitive anxiety (Ramis, Torregrosa, Viladrich, & Cruz, 2017), poor motivation (Haerens et al., 2018), and symptoms of burnout (Barcza-Renner, Eklund, Morin, & Habeeb, 2016). The degree of a controlling style is also characterized by rises and falls across a series of training sessions or games, with these fluctuations being related to parallel fluctuations in athletes' negative affect during training (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011) and antisocial behavior during games (Delrue et al., 2017).

While most past studies have made use of composite scores of controlling coaching (e.g., Ramis et al., 2017), others have adopted a differentiated approach (e.g., Barcza-Renner et al., 2016). In a differentiated approach, the predictive role of four sets of pressure-exerting practices is investigated (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2010): humiliating and belittling athletes (i.e., intimidation); pushing athletes to engage, persevere, and perform well via material rewards (i.e., controlling use of rewards); interfering in areas of athletes' lives that are not directly associated with sports (i.e., excessive personal control); and withholding

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attention and appreciation if athletes fail to meet expectations (i.e., negative conditional regard). Studies using a differentiated approach have shown that intimidation and the controlling use of rewards tend to yield less pronounced relations with external outcomes such as athletes' quality of motivation and athlete burnout than do excessive personal control and negative conditional regard (Barcza-Renner et al., 2016; Cheval, Chalabaev, Quested, Courvoisier, & Sarrazin, 2017). Given these differential associations with athlete outcomes, it is worth exploring whether the different facets of controlling coaching have different antecedents, as well.

Evaluative Sport Context

Because of the well-documented costs associated with a controlling coaching style, a new range of studies has begun to identify the sources underlying this style (see Matosic, Ntoumanis, & Quested, 2016 for a review). Three classes of risk factors for the adoption of a controlling style have been proposed (Mageau & Vallerand, 2003; Matosic et al., 2016). That is, the pressure on coaches can arise from below, within, or above. Pressures from below refer to athlete characteristics such as their disengagement or lack of motivation, pressures from within refer to personal characteristics of the coach, and pressures from above include contextual characteristics such as socioenvironmental (e.g., work–life conflict) and external pressures (e.g., time constraints). These contextual pressures are very relevant to focus on because they are most susceptible for change and, hence, carry direct practical implications compared with factors from within or below.

In relation to the pressure exerted by the context, which is central in the current study, prior studies (Rocchi & Pelletier, 2017; Stebbings et al., 2012) have found that sport coaches who encounter more demanding job characteristics (e.g., higher work–life conflict, more time constraints) report engaging in more controlling coaching. However, no studies to date have focused on the pressuring role of the broader club climate in relation to coaches' reliance on a controlling style. In an evaluative club climate, coaches' own performance, as well as the performance of their athletes, is continuously monitored, evaluated, and judged by their colleagues and the club board. Because prior work indicated that teachers (Pelletier, Séguin-Lévesque, & Legault, 2002; Soenens, Sierens, Vansteenkiste, Dochy, & Goossens, 2012) or parents (Wuyts, Vansteenkiste, Mabbe, & Soenens, 2017) who feel or are experimentally made accountable for their children's performance use more controlling strategies, it can be expected that an evaluative climate may also relate to a more controlling coaching style in sports.

Basic Psychological Need Frustration as an Explanatory Mechanism

According to the basic psychological needs theory (Ryan & Deci, 2017; Vansteenkiste, Ryan, & Soenens, 2020), a subtheory of SDT, when coaches are facing an evaluative context, their psychological needs may be frustrated. That is, if coaches feel judged and are made accountable for their players' performances, they may feel pressured to deliver training sessions in certain ways (autonomy frustration), they may question their skills as a coach (competence frustration), and they may feel poorly understood by or even alienated from board members and other coaches (relatedness frustration; Vansteenkiste & Ryan, 2013). In the context of sport, coaches' need frustration has been found to relate to their experience of negative affect and emotional and physical exhaustion (e.g., Stebbings et al., 2012). In addition to these disadvantages for coaches' personal functioning, experiences of need frustration may also affect how they interact with others, for instance, by eliciting a more prejudicial way of interacting (e.g., Costa, Ntoumanis, & Bartholomew, 2015). In fact, coaches' need frustration has been identified as an important predictor of a controlling coaching style (e.g., Delrue et al., 2019; Silva et al., 2017). As such, experiences of need frustration may serve as an explanatory mechanism (i.e., mediator), thereby accounting for the transmission of the pressure coaches experience from the club board to the pressure they impose on their athletes (e.g., Rocchi & Pelletier, 2017; Stebbings et al., 2012). At the same time, coaches may directly imitate the contextual pressures placed on them in their interaction with their athletes. That is, the dynamics between board members and coaches would serve as a model and script for the interaction between coaches and athletes (i.e., a modeling process).

The Role of Coach Experience

While a pressure-exerting context may on average relate to higher need frustration and more controlling coaching (Rocchi & Pelletier, 2017; Stebbings et al., 2012), not all coaches may be equally vulnerable to this dynamic. SDT recognizes that personal characteristics may determine individuals' sensitivity to a pressuring context, with some factors buffering and others amplifying the effects of contextual pressure (Ryan & Deci, 2017). Because anecdotal evidence and laymen beliefs suggest that coaches' experience may alter the correlates associated with contextual pressures, this issue was considered herein. Specifically, we reasoned that more experienced coaches might have codetermined the performance targets or developed a better understanding of their board members' reasons to impose (high) performance targets such that they experience an evaluative context as less pressuring (i.e., less autonomy frustration) and socially alienating (i.e., less relatedness frustration). Also, more experienced coaches might have learned from experience that successes, but also failures, are transitory and fragile, so they are less likely to hinge their feelings of competence on others' performances (i.e., less competence frustration). Indeed, previous research has shown that coaching experience is a source of coaching efficacy, suggesting that experienced coaches have more confidence in their coaching skills (Feltz, Hepler, Roman, & Paiement, 2009). Nonetheless, whether coaching experience is negatively related to need frustration and the use of a controlling style or whether it moderates the effects of a pressure-exerting context on coaches' experienced need frustration and their controlling coaching style has not received any attention so far.

The Present Study

The present study aimed to investigate the role of a pressure-exerting sport context in the prediction of a controlling coaching style. We extended the extant literature by considering performance-based evaluations as a sport-specific manifestation of a pressure-exerting context, by examining its role in the prediction of both a composite score of controlling coaching and its various constituting facets (i.e., intimidation, controlling use of rewards, excessive personal control, and negative conditional reward; see, e.g., Barcza-Renner et al., 2016; Cheval et al., 2017) and by treating psychological need frustration as an explanatory underlying mechanism and coaching experience as a potential buffer in this relationship. We pursued three hypotheses. First, we hypothesized

that a perceived evaluative sport context would be linked to sport coaches' use of a controlling coaching style (Hypothesis 1). Second, we investigated whether an evaluative context would have an indirect effect on a controlling style through the frustration of basic psychological needs (Rocchi & Pelletier, 2017; Stebbings et al., 2012). We also expected the direct effect to remain significant, as a controlling coaching style not only might be rooted in the encountered need frustration but also might directly come from the exposure to an evaluative context (Hypothesis 2). Finally, we sought to explore whether the relationship between an evaluative context and a controlling style would be moderated by coaching experience (Hypothesis 3). That is, among more experienced coaches the encounter of an evaluative context might be less likely to give rise to experiences of need frustration and the use of a controlling style.

Method

Sample

Participants were recruited in two waves, in seasons 2015–16 ($n = 374$) and 2016–17 ($n = 211$). The total sample comprised 585 sport coaches (30.6% female, $M_{age} = 35.76$, $SD = 12.94$, range = 13–74 years) who had, on average, 9.05 ($SD = 8.45$) years of experience and spent 5.76 hr/week ($SD = 5.03$) coaching. All coaches were affiliated with an official sport club. They were coaching teams competing at various levels of performance (35.9% no competition or recreational, 34.4% provincial or nationwide, and 29.7% national or international), and 77.1% of them had a coaching diploma. Participants coached different age categories (46.5% coached athletes less than 12 years old, 36.3% coached athletes 12–18 years old, and 17.2% coached athletes older than 18 years of age) and both team (58.9%) and individual sports (41.1%).

Procedure

Participants were recruited through a government-funded project on motivating coaching called "Coach With the M-Factor," with "M" referring to motivation. This project aims to ameliorate coaches' motivating style by offering three skill-oriented workshops to increase the long-term motivation of Flemish youth for organized sport participation. All coaches who were interested in the workshops were asked to complete an online questionnaire at home before participating in the workshop trajectory. Completing the questionnaire took less than half an hour. The 585 participating coaches completed self-report questionnaires regarding the perceived evaluative context and their own use of controlling behaviors. In the subsample of coaches recruited in the second wave ($n = 211$, 26.1% female, mean age = 38.14, mean experience = 8.77), experiences of need frustration were additionally measured. The research was conducted according to the ethical rules presented in the general ethical protocol of the Faculty of Psychology and Educational Sciences of Ghent University. All participants actively agreed that they were informed about the purpose of the research and gave permission to the researchers to use their answers for research purposes.

Measures

Perceived Evaluative Context. Coaches' perceived degree of being judged and evaluated by their sport club based on their athletes' performances was assessed by a sport-specific adaptation of the Constraints at Work Scale (Pelletier et al., 2002), which has already been successfully used in the sport context (Rocchi, Pelletier, & Couture, 2013). Four items (e.g., "My club will judge me negatively if my athletes do not perform well") were rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alpha ($\alpha = .73$) was acceptable. We allowed the residuals of two items that are conceptually most closely related (i.e., "I am held responsible for the performance of my athletes" and "My club will judge me negatively if my athletes do not perform well") to covary. Although the other two items (i.e., "I feel that I have to perform better than my fellow coaches to prove myself to my club" and "If my athletes perform poorly this is bad for my image") still contain characteristics of an evaluative context, they emphasize less explicitly the pressure from the club board in relation to athletes' performances. The model fit of this four-item model, $\chi^2(1) = .08$, $p = .78$, root-mean-square error of approximation (RMSEA) = .00, comparative fit index (CFI) = 1.00, standardized root-mean-square residual (SRMR) = .002, was acceptable, with all indicator loadings being above .46, $p < .001$.

Psychological Need Frustration. Coaches' psychological need frustration was measured with the Basic Psychological Need Satisfaction Need Frustration Scale (Chen et al., 2015). The items were adapted by making them applicable for sport coaches, and the scale was shortened to six items, which has proven valid in previous studies in sport contexts (e.g., Delrue et al., 2019). The scale measures the frustration of the needs for autonomy (two items, e.g., "The fact that I cannot choose my own way of coaching athletes frustrates me"), relatedness (two items, e.g., "Coaching athletes creates tension with people who are important to me"), and competence (2 items, e.g., "Sometimes I feel like I will never succeed in coaching"). Because the frustration of each need was assessed with a limited number of items, we created a composite score of need frustration. Responses were reported on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Reliability analysis revealed a Cronbach's alpha of .67. We allowed the residuals of two autonomy and relatedness frustration items to covary, since in the literature the support and thwarting of the needs for relatedness and autonomy are often strongly related (e.g., Niemiec et al., 2006). As such, the model fit was acceptable, $\chi^2(7) = 12.82$, $p = .08$, RMSEA = .06, CFI = .91, SRMR = .05. All indicator loadings were above .31, $p < .01$.

Controlling Coaching. Coaches completed the Controlling Coach Behaviors Scale (Bartholomew et al., 2010), which consists of four subscales: intimidation (four items, e.g., "I shout at my athletes in front of others to make them do certain things"), controlling use of rewards (four items, e.g., "I only use rewards/praise so that my athletes complete all the tasks I set in training"), excessive personal control (three items, e.g., "I expect my athletes' whole life to center on their sport participation"), and negative conditional regard (four items, e.g., "I am less friendly with my athletes if they don't make the effort to see things my way"). Responses were reported on a 7-point scale ranging from 1 (*does not describe me at all*) to 7 (*describes me completely*). The total set of 15 items yielded an acceptable Cronbach's alpha of .79, with internal consistencies for the subscales varying between .61 (i.e., excessive personal control) and .79 (i.e., negative conditional regard). To examine the internal structure of this questionnaire, a higher-order confirmatory factor analysis was conducted, thereby modeling the items as indicators of the four first-order factors that in turn served as indicators for one higher-order factor of controlling coaching. This higher-order model fitted the data well,

$\chi^2(86) = 165.30$, $p < .001$, RMSEA = .04, CFI = .94, SRMR = .05. All indicator loadings were above .31, $p < .001$.

Plan of Analysis

To address the three hypotheses, we used the statistical program Mplus Version 8 (Muthén, Muthén, & Asparouhov, 2017). In a first model, we examined the role of an evaluative context in the prediction of both a composite score of controlling coaching (Model 1a) and its four constituting facets (Model 1b) through structural equation modeling, making use of the robust MLR estimator. Several indices were employed to evaluate the model fit, namely the chi-squared (χ^2) test, the CFI, the SRMR, and the RMSEA. An acceptable fit was indicated by a χ^2:df ratio of 2 or below, CFI values of .90 or above, and SRMR and RMSEA values of .08 or below (Hu & Bentler, 1999). Second, we investigated the mediating role of need frustration in relation to both the composite score (Model 2a) and the four facets of controlling coaching (Model 2b) through Bayesian structural equation modeling. Model fit of the Bayesian structural equation modeling was assessed using the posterior predictive p value, which permits a direct measure of the discrepancy between the obtained sample and general population. A model with an excellent fit is expected to have a posterior predictive p value around .5 (Muthén & Asparouhov, 2012). Furthermore, model convergence was assessed with the potential scale-reduction factor. Potential scale-reduction factors equal to or less than 1.1 are considered evidence of convergence (Gelman, Carlin, Stern, & Rubin, 2004). In our third model, we explored the moderating role of coaching experience in the relationship between an evaluative context and experiences of need frustration (Model 3a), overall controlling coaching (Model 3b), and its four facets (Model 3c). To conduct these moderation analyses, the Bayes estimator and the same fit indices as in Model 2 were used. Likewise, we tested an integrated model (combining Models 2 and 3) through moderated mediation analyses.

Throughout the analyses, we made use of the maximal amount of data. Specifically, since coaches' experiences of need frustration were only assessed in the second wave, the analyses in which need frustration is included (Models 2a, 2b, 3a, integrated model) were only performed on this subsample ($n = 211$). However, analyses in which need frustration was not included (Models 1a, 1b, 3b, 3c) were performed on the full sample ($n = 585$). Although Models 1 and 3 consisted of latent constructs, Model 2 and the integrated model, given that they were based on the limited subsample, made use of manifest constructs.

Results

Preliminary Analyses

Table 1 presents the descriptive results and correlations between measured variables. In a set of preliminary analyses, a MANOVA including the perceptions of an evaluative context, the use of a controlling style, and its four indicators as dependent variables revealed that the multivariate effects of athletes' age group, Wilks's $\lambda = .92$, $F(10, 1100) = 4.83$, $p < .001$, $\eta_p^2 = .04$; level of performances, Wilks's $\lambda = .88$, $F(10, 1100) = 7.47$, $p < .001$, $\eta_p^2 = .06$; type of sport, Wilks's $\lambda = .97$, $F(5, 550) = 2.96$, $p \leq .01$, $\eta_p^2 = .03$; and coach gender, Wilks's $\lambda = .96$, $F(5, 550) = 4.47$, $p < .001$, $\eta_p^2 = .04$, were significant. A test of between-subjects effects showed that coaches of the youngest age group of athletes (<12 years) experienced less contextual pressure than coaches of older athletes did, $F(2,554) = 8.05$, $p < .001$. Furthermore, coaches of the middle age group (12–18 years old) scored highest on (indicators of) a controlling style, $F(2, 554) = 8.30$, $p < .001$ (see Appendix). Coaches training athletes at an (inter)national level reported the least intimidation, $F(2, 554) = 3.33$, $p < .05$, and controlling use of rewards, $F(2, 554) = 8.57$, $p < .001$, but the most excessive personal control, $F(2, 554) = 16.04$, $p < .001$ (see Appendix). Team-sport coaches reported more intimidation than coaches of individual sports, $F(1, 554) = 8.66$, $p < .01$. Male coaches reported more intimidation, $F(1,554) = 4.77$, $p < .05$; controlling use of rewards, $F(1, 554) = 7.12$, $p \leq .01$; excessive personal control, $F(1, 554) = 6.23$, $p \leq .01$; and use of a controlling style overall, $F(1, 554) = 8.79$, $p < .01$. Analysis of variance on the subsample in which need frustration was measured revealed that qualified coaches experienced less need frustration than unqualified coaches, $F(1, 202) = 5.01$, $p < .05$.

Primary Analyses

In all models, all (non-)significant findings remained identical after taking into account relevant covariates (i.e., coach diploma, gender, level of performances, age group, experience, hours of contact, and type of sport). As such, results of analyses without covariates are reported.

Table 1 Means, Standard Deviations, and Intercorrelations for Study Variables

	M	*SD*	1	2	3	4	5	6	7	8	9	10
1. Years of coaching experience	9.05	8.45	—									
2. Age of the coach	35.76	12.94	.59**	—								
3. Number of athletes	14.74	11.01	.07	.08	—							
4. Number of contact hours	5.76	5.03	.13**	.09*	.27**	—						
5. Evaluative context	2.09	0.71	−.07	−.16**	−.05	.18**	—					
6. Need frustration	1.91	0.54	−.10	−.07	−.10	.01	.38**	—				
7. Controlling coaching	2.35	0.57	−.14**	−.11**	−.00	.11*	.40**	.41**	—			
8. Intimidation	2.09	0.74	−.15**	−.14**	.05	.00	.24**	.39**	.72**	—		
9. Controlling use of rewards	2.76	0.87	−.10*	−.01	.00	−.03	.18**	.08	.65**	.28**	—	
10. Excessive personal control	2.17	0.83	.03	−.03	−.01	.30**	.32**	.11	.63**	.25**	.23**	—
11. Negative conditional regard	2.37	0.88	−.16**	−.14**	−.04	.02	.35**	.58**	.76**	.54**	.27**	.27**

*$p < .05$, **$p < .01$ (two-tailed).

Hypothesis 1. When treating controlling coaching as a second-order composite score in Model 1a, the fit was acceptable, $\chi^2(146) = 269.28$, $p < .001$, χ^2:df ratio = 1.84, RMSEA = .04, CFI = .93, SRMR = .05 (Hu & Bentler, 1999), with standardized factor loadings of all items ranging from $\beta = .31$, $p < .001$, to $\beta = .86$, $p < .001$, on their proposed latent constructs. Similarly, when considering the separate indicators of controlling coaching in Model 1b, the fit was acceptable, $\chi^2(141) = 257.58$, $p < .001$, χ^2:df ratio = 1.83, RMSEA = .04, CFI = .93, SRMR = .05 (Hu & Bentler, 1999), with standardized factor loadings ranging from $\beta = .32$, $p < .001$, to $\beta = .80$, $p < .001$. Results of Model 1a showed that an evaluative context related positively to coaches' self-reported use of a controlling coaching style ($\beta = .57$, $p < .001$), a relation that emerged for all four facets in Model 1b, as a unique relation was found with intimidation ($\beta = .40$, $p < .001$), controlling use of rewards ($\beta = .22$, $p \leq .001$), excessive personal control ($\beta = .38$, $p < .001$), and negative conditional regard ($\beta = .51$, $p < .001$).

Hypothesis 2. Building on the described models, we investigated the explanatory role of psychological need frustration (Figure 1 and Table 2). Results of Model 2a revealed a significant indirect effect of an evaluative context on the self-reported use of a controlling coaching style through the frustration of basic psychological needs. In the case of the differentiated Model 2b, there was similar evidence for need frustration as an explanatory mechanism in the case of intimidation and negative conditional regard, but not in the case of excessive personal control and the controlling use of rewards.

Hypothesis 3. Next, we explored the moderating role of coaching experience. For this type of analysis, the posterior predictive p value is not provided by Mplus. However, the range of the potential scale-reduction factor was acceptable, ranging from 1.03 to 1.08. The results of these three models revealed that number of years of coaching experience did not play a moderating role in the relation between an evaluative context and the experiences of need frustration (Model 3a; interaction term $\beta = -.06$, 95% CI [−.23, .13]), either in the relation between an evaluative context and a controlling style (Model 3b; interaction term $\beta = -.02$, 95% CI [−.12, .09]) or any of its four indicators (Model 3c). The absence of interaction effects indicates that more experienced coaches are not resilient to an evaluative context. In terms of main effects, we found that more experienced coaches made less use of a controlling style ($\beta = -.16$, 95% CI [−.25, −.06]), with specifically less intimidation ($\beta = -.15$, 95% CI [−.25, −.05]) and negative conditional regard ($\beta = -.15$, 95% CI [−.23, −.06]). However, experience was unrelated to experiences of need frustration ($\beta = -.08$, 95% CI [−.24, .06]), the controlling use of rewards ($\beta = -.04$, 95% CI [−.15, .05]), and excessive personal control ($\beta = .03$, 95% CI [−.05, .12]).

Finally, we tested an integrated model through moderated mediation analyses. The results of this integrated model are the same as those of Models 2 and 3 considered separately, with an indirect significant effect for controlling coaching, intimidation, and negative conditional regard and no significant interaction effect for coaching experience (see Table 3).

Discussion

Although perceived controlling or pressuring coaching has been found to relate positively to athletes' competitive anxiety (Ramis et al., 2017), antisocial behavior (Delrue et al., 2017), and poor motivation (Haerens et al., 2018), fewer studies have shed light on the factors that explain coaches' use of a controlling motivating style. The present study aimed to fill this void by investigating the role of an evaluative context as a risk factor, with experiences of need frustration accounting for this association. In line with our hypotheses and prior research in other life domains (Pelletier et al., 2002; Wuyts et al., 2017), we found that sport coaches' perception of an evaluative sport context related to a controlling coaching style (Hypothesis 1). When deconstructing the composite score of controlling coaching into its facets (i.e., intimidation, controlling use of rewards, excessive personal control, negative conditional regard; Bartholomew et al., 2010), an evaluative sport context was found to relate to the use of each of the four facets, suggesting that coaches turn to a variety of pressuring strategies in response to

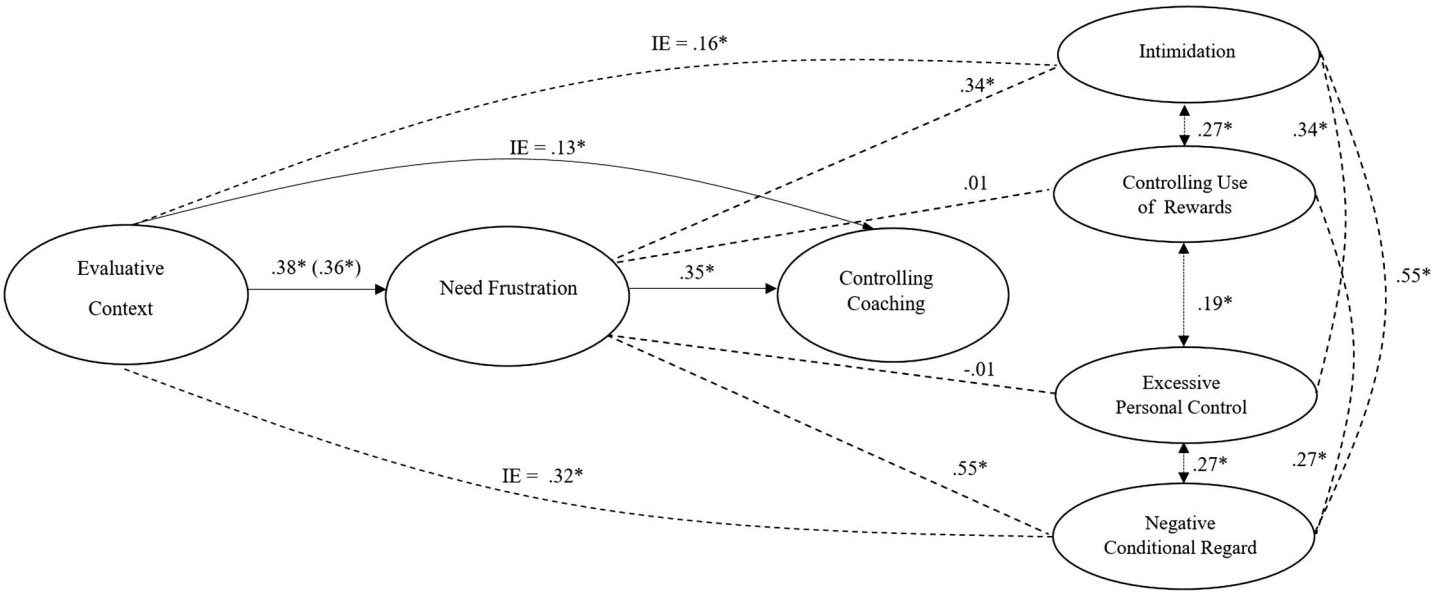

Figure 1 — Results of the mediation analyses. IE = indirect effect. The straight lines represent relations of Model 2a, while the dotted lines and number between brackets represent relations of Model 2b. For clarity reasons, nonsignificant indirect effects are omitted. *95% CI does not include zero.

Table 2 Results of the Mediation Analyses

	a path, β (*SD*)	b path, β (*SD*)	c path, β (*SD*)	c′ path, β (*SD*)	Indirect path, *B* (*SD*)	PPP	PSRF
Model 2a						.25	1.00
Evaluative Context → Need Frustration → Controlling Coaching	.38 (.06)*	.35 (.07)*	.34 (.06)*	.21 (.06)*	.13 (.04)*		
Model 2b						.25	1.05
Evaluative Context → Need Frustration							
→ Intimidation	.36 (.05)*	.34 (.07)*	.28 (.06)*	.14 (.06)	.16 (.04)*		
→ Controlling Use Rewards	.36 (.05)*	.01 (.07)	.18 (.06)*	.18 (.07)*	.00 (.04)		
→ Excessive Personal Control	.36 (.05)*	−.01 (.07)	.27 (.06)*	.26 (.06)*	−.01 (.04)		
→ Negative Conditional Regard	.36 (.05)*	.55 (.05)*	.26 (.07)*	.05 (.06)	.32 (.06)*		

Note. PPP = posterior predictive *p* value; PSRF = potential scale-reduction factor.
*95% CI does not include zero.

Table 3 Results of the Moderated Mediation Analyses

	Need frustration, β (*SD*)	Controlling coaching, β (*SD*)	Intimidation, β (*SD*)	Controlling use of rewards, β (*SD*)	Excessive personal control, β (*SD*)	Negative conditional regard, β (*SD*)
Evaluative Context × Experience	−.16 (.29)	−.15 (.25)	−.00 (.26)	−.11 (.28)	−.06 (.28)	−.25 (.23)
Indirect effect						
low experience		.13 (.05)*	.17 (.06)*	−.00 (.05)	−.01 (.05)	.37 (.11)*
moderate experience		.12 (.04)*	.16 (.05)*	−.00 (.05)	−.01 (.04)	.35 (.09)*
high experience		.11 (.04)*	.14 (.05)*	−.00 (.04)	−.01 (.04)	.30 (.09)*
Posterior predictive *p* value		.50	.50	.50	.50	.50
Potential scale-reduction factor		1.00	1.00	1.00	1.00	1.00

*95% CI does not include zero.

pressures they encounter themselves. The relationship between the evaluative context and controlling use of tangible rewards was slightly less pronounced than the relation with the three other indicators. Whereas the three other practices (intimidation, excessive personal control, and negative conditional regard) represent more domineering controlling strategies, thereby targeting the athlete as a person, the use of rewards is somewhat less controlling, as the focus is on athletes' behavior (Delrue et al., 2019). Possibly, an evaluative climate predicts especially more intrusive practices.

As expected, we found that a controlling coaching style is rooted in experiences of need frustration but also directly arises from exposure to an evaluative context (Hypothesis 2). Hereby, we suspect that coaches may adopt the interaction style between club board members and themselves as a script for their way of approaching their athletes. Looking at the separate subscales of controlling coaching, the current study suggests that need frustration is especially important as an underlying explanatory mechanism for intimidation and negative conditional regard. In contrast, need frustration did not play an explanatory role in the case of excessive personal control. In spite of the negative consequences of this controlling strategy, these behaviors may also be well intended by highly committed coaches who want to bring discipline to their players. As such, the exertion of excessive control is not necessarily grounded in coaches' experiences of need frustration. Another possible explanation is that these behaviors, compared with the other controlling strategies, are most similar to the evaluative pressures that coaches encounter. Therefore, through a process of modeling, coaches immediately mirror and project these controlling behaviors of the context onto their athletes, such that the role of their own psychological needs gets minimized. However, these explanations cannot be inferred with certainty from the present findings and are therefore rather speculative.

Since SDT recognizes that personal characteristics may play a distinctive role and even serve as a buffer against contextual pressures (Ryan & Deci, 2017), we explored whether more experienced coaches display a more adaptive pattern of functioning. Results revealed that more experienced coaches engage in less controlling behaviors in general and less intimidation and negative conditional regard in particular. It may be that experienced coaches have found out that such controlling behaviors do not have a sustainable positive impact on athletes (e.g., González, García-Merita, Castillo, & Balaguer, 2016), leading them to withdraw from such pressuring practices. While evidence was found for a main effect of years of coaching experience, it did not function as a buffer against an evaluative context (Hypothesis 3). That is,

coaches, whether experienced or new to the role, experienced similar degrees of need frustration and engaged in a similar dose of controlling coaching behaviors in response to a pressure-exerting context.

In a set of preliminary analyses, we also examined whether the variation in coaches' perceived evaluative context differed as a function of different sport-specific characteristics. Regarding type of sport (individual vs. team), no differences in the perception of an evaluative context were found. It could be that coaches of team sports experience more pressure, as they have the task of supporting the performance of each individual in the team, taking into account everyone's personal preferences and expectations (Karabatsos, Malousaris, & Apostolidis, 2006). However, these pressures that are perhaps typical for team sports were not captured by our measures and are perhaps more closely related to the pressure from below (e.g., number of athletes), rather than the experienced pressure from above (e.g., evaluative club climate; Mageau & Vallerand, 2003). On the other hand, in a team situation the pressure could get divided across team members, whereas the coach and athlete are the only ones involved in an individual sport, with the pressure thus being higher as oriented to only one person. At any rate, these hypothetical explanations require more research.

Next, we did not find any difference in terms of the level at which athletes are performing. However, coaches of older athletes (>12 years of age) perceived the club climate as more evaluative than did coaches of athletes younger than 12 years. Presumably, as athletes get older, the expectations in terms of discipline, diligence, and performance held by club boards may increase, which explains the elevated pressure reported by these coaches.

Limitations and Future Directions

First, no conclusion can be drawn about the direction of relationships given the cross-sectional nature of the study. A longitudinal design is recommended to examine whether changes in an evaluative climate precede changes in coaches' controlling coaching style. Furthermore, experimental research could expose coaches to real pressures to examine how they subsequently interact with their athletes. These more advanced methods are less liable to social desirability and can confirm the cross-sectional relationships observed herein.

Second, only self-report measures were used. Although Harman's single-factor test offered some counterevidence for common method variance, such shared variance might have artificially boosted some of the observed relations. By asking club board members to report on the club climate and rate coaches' controlling behaviors, one could examine whether the obtained pattern of findings would hold across informants. In addition, future research may validate the current findings against objective observation, which have been found to be fairly discrepant from what socializing agents indicate themselves (Aelterman, Vansteenkiste, Van den Berghe, De Meyer, & Haerens, 2014).

Third, years of coaching experience had a very wide range (0–47 years) and showed a positive skewness. Although we used a Bayesian approach to address this limitation, future research should gather a more normally distributed sample to examine whether the current pattern is replicated. The same limitation applies for the examination of mean-level differences in the perception of an evaluative context as a function of sport-specific characteristics. Further research should gather a more balanced sample and possibly take other factors into account, such as the timing during a sport season, as the pressure exerted by the club board might vary depending on the period within a season. For example, club board members can start the season by communicating strict rules and sanctions to coaches but then interfere less as the season progresses. Alternatively, club board members can let coaches do their thing as the season begins but increase the pressure on them as the season progresses.

Furthermore, it would be useful to include several antecedents of a controlling coaching style simultaneously. By including factors at all three levels (i.e., below, within, and above), a more comprehensive picture could be obtained. That way, it becomes possible to investigate the unique and interactive contribution of the different pressures and to assess which category of pressures is the most decisive in predicting a controlling coaching style. Next, we recommend examining the basic psychological needs separately to gain more refined insight into the mechanism underlying the contribution of contextual antecedents in the prediction of a controlling coaching style. Although supplementary analyses showed that the results held for each of the three needs, this issue can be reexamined in future research, as we assessed need frustrations with a limited number of items per need. Finally, the fact that need frustration was only assessed in the second subsample (because of space limitations in the questionnaire package in the first subsample) limits the generalizability of the documented (moderated) mediational model to the entire sample.

Practical Implications

The present findings point to the importance of taking the club context into account when seeking to understand the variation in coaches' controlling coaching style, as coaches who experience a higher degree of an evaluative work context felt more pressured (i.e., autonomy frustration), questioned their capacities as a coach more (i.e., competence frustration), and experienced more relational tension (i.e., relatedness frustration), which in turn made them specifically apply behaviors that are perceived as avowedly controlling (i.e., intimidation and negative conditional regard). These results emphasize the harmful correlates of a need-thwarting coaching context and demonstrate that it is important to gain more insight into which contextual factors relate to the frustration of coaches' basic psychological needs.

As experienced coaches have not necessarily learned to deal more adaptively with a pressure-exerting context, future intervention work (e.g., Cheon, Reeve, Lee, & Lee, 2015; Malete & Feltz, 2000; Reynders et al., 2019) might include a section that raises coaches' awareness of the pressures exerted on them. Interventions could teach coaches the necessary skills to get their basic psychological needs met and to constructively handle the encountered pressures. Although such coach training might be useful, it might be more efficient to intervene at the club level, as creating a different club culture could activate a different motivational chain, to the benefit of both coaches and their athletes. In this way, sport clubs' board members can be taught how to avoid creating a need-thwarting environment for coaches so that coaches are not inclined to resort to demotivating coaching behaviors. Although competition and striving for excellence are almost inherent components of sport, the degree to which athletes and coaches are evaluated based on their successes varies widely across clubs. The present study suggests that the more evaluative and judgmental components of competition can be better minimized. This, however, does not mean that coaches and athletes cannot be provided with any targets, yet, by preference in need-supportive ways. For instance, club boards can ask for coaches' input when setting performance

standards (autonomy) that are challenging yet attainable (competence), and they may avoid ranking and directly comparing coaches to prevent tensions (relatedness). Although targets potentially have high informational value, thereby pointing toward coaches' strengths and points of progress, they may also be used in more evaluative ways such that coaches feel pressured, inferior, or incompetent (see Vansteenkiste, Mouratidis, & Lens, 2010), with the cascading negative effects for athletes shown in this study.

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Appendix: Mean Differences Across Two Sport-Specific Characteristics

	<12 years, *n* = 268		12–18 years, *n* = 209		>18 years, *n* = 99		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
Evaluative context	1.96[b]	0.62	2.16[a]	0.75	2.28[a]	0.76	8.05***
Controlling coaching	2.27[b]	0.52	2.48[a]	0.63	2.28[b]	0.58	8.30***
intimidation	2.10[a]	0.71	2.17[a]	0.79	1.88[b]	0.68	5.00**
controlling use of rewards	2.75	0.82	2.82	0.92	2.63	0.94	2.19
excessive personal control	1.96[b]	0.77	2.36[a]	0.84	2.30[a]	0.89	5.52**
negative conditional regard	2.25[b]	0.76	2.56[a]	0.99	2.29[b]	0.89	8.22***

Note. Means with different superscripts are significantly different from each other.
$^{**}p < .01$. $^{***}p < .001$.

	No competition/ recreational, *n* = 210		Provincial/ national, *n* = 201		National/ international, *n* = 174		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
Evaluative context	2.00	0.66	2.09	0.69	2.21	0.76	1.74
Controlling coaching	2.28	0.57	2.41	0.58	2.36	0.56	1.07
intimidation	2.07[a,b]	0.70	2.22[a]	0.77	1.97[b]	0.72	3.33*
controlling use of rewards	2.80[a]	0.80	2.88[a]	0.92	2.57[b]	0.88	8.57***
excessive personal control	1.90[c]	0.77	2.11[b]	0.74	2.55[a]	0.88	16.04***
negative conditional regard	2.34	0.88	2.43	0.95	2.35	0.80	0.75

Note. Means with different superscripts are significantly different from each other.
$^{*}p < .05$. $^{***}p < .001$.