



Parents value competence more than warmth in competitive youth ice hockey coaches: Evidence based on the innuendo effect

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ABSTRACT

Objectives: The purpose of the current study was to examine whether descriptions using innuendo would affect parents' perceptions of a prospective, new coach.

Design: Using an experimental vignette method, 211 (male, $n = 91$; female, $n = 120$) youth ice hockey parents read a description of a prospective coach that either emphasized warmth, competence, or generally positive (control) characteristics.

Method: Participants read one of three experimental vignettes of a potential new coach, emphasizing either warmth ($n = 74$), competence ($n = 72$), or a control condition that included generally positive descriptors ($n = 65$). Participants then completed measures assessing their perceptions of the coach's competence, warmth, and coaching suitability.

Results: An ANOVA comparing the three conditions revealed a significant difference in perceptions of competence and perceived suitability to coach their child. In the warmth-only condition, parents rated the coach to be lower in competence and coaching suitability than the control condition. No effect emerged related to perceived warmth. Mediation analysis indicated that omitting competence descriptors by only emphasizing the warmth of a coach led to lower perceived coaching suitability through its negative effect on coach competence.

Conclusion: By providing parents with descriptions of a coach that conveyed positive information while omitting either warmth or competence (i.e., innuendo), the findings demonstrate that omitting competence is undoubtedly costly for coaches. In fact, competitive youth sport parents considered a coach lacking competence to be less suitable to coach their child's team.

As social animals, we carry mechanisms to distinguish favorable from unfavorable environments, such as the ability to quickly evaluate others to distinguish between enemy and ally (Martin & Levey, 1978). Thus even in fleeting social interactions, people are cognitively attuned to make rapid judgments of others (Fiske, Cuddy, & Glick, 2007). Personal characteristics, such as one's warmth or coldness, deliver information about one's helpfulness and intelligence (Asch, 1946). A consistent finding is that humans have a tendency to organize information along two dimensions: warmth and competence (e.g., Cuddy, Glick, & Beninger, 2011; Fiske, Cuddy, Glick, & Xu, 2002). In the current paper, we examine how these two dimensions of social perception are relevant to understanding how parents evaluate and form impressions of coaches in the context of youth sport.

1. Warmth and competence as fundamental dimensions of social perceptions

Although researchers use an array of similar terms in studies of person perception (e.g., morality vs. competence; other-profitable traits vs. self-profitable traits), the current research follows the stereotype content model and behavior from intergroup affect and stereotypes (BIAS) map by focusing on the dimensions of *warmth* and *competence* (Fiske et al., 2002). Warmth refers to whether someone is perceived to have positive social intentions and is oriented toward accommodating others' interests (Cuddy, Fiske, & Glick, 2008). Within the warmth dimension of social cognition, traits such as friendliness, helpfulness, sincerity, trustworthiness, and morality, all contribute to a target's perceived intentions (Fiske et al., 2007). Conversely, the competence dimension captures self-profitable traits that are related to a target's perceived ability to carry out such intentions (Fiske et al., 2007).

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Competence can be displayed through intelligence, skill, creativity, efficacy, and independence (Fiske et al., 2007; Gainforth, O'Malley, Mounenay, & Latimer-Cheung, 2012).

Both dimensions of social perception are relevant to how people perceive a target. However, judgments of warmth are generally prioritized ahead of competence judgments in initial impressions, which in turn, may elicit a greater effect on our attitudes toward the target (Cuddy et al., 2011). There are contexts, however, where competence may play a more prominent role in shaping our attitudes toward others. In fact, competence may be weighted heavier when rating the self or those with whom we already have a direct relationship (Cuddy et al., 2011) or in the presence of shared goals (Wojciszke & Abele, 2008). In studying coach-athlete relationships, research suggests that sport-specific expertise (i.e., high competence) is an important source of coach influence and is linked to athlete satisfaction (Turman, 2006). Expertise is associated with coaches' records of success, such as qualifications and winning records (Turman, 2006). Further, prior work found that athletes from team sports often seek coaches who demonstrate competence by displaying training and instruction behaviors and significantly less social support behavior (Terry, 1984). Thus, existing theory and empirical evidence indicate that competence perceptions may be more salient than warmth perceptions when assessing leaders in competitive or highly task-oriented contexts, such as competitive youth sport coaches. Considering these points together, ratings of warmth and competence carry significant implications regarding initial impressions of others, regardless of which dimension appears to be favored in any given context.

Accurately formed judgments of others typically require substantial information, followed by assessing that information appropriately. However, in many social contexts, the required information is either lacking or incomplete and thus people frequently make judgments of others with very limited information (Sanbonmatsu, Kardes, Posavac, & Houghton, 1997). Social psychologists have long been interested in how people make rapid judgments of others because of the potentially long-lasting effects of initial impressions (Human, Sandstrom, Biesanz, & Dunn, 2013).

According to the stereotype content model (SCM), stereotypes are generalized into two primary dimensions, warmth and competence (Fiske et al., 2002). Whereas competitors are generally viewed to lack warmth, individuals of high social status tend to be perceived to be higher in competence. Thus, successful ingroups and favored allies are perceived to be high in warmth and competence. As noted by Fiske et al. (2002), however, stereotypes often produce combinations of high warmth and low competence (i.e., elderly) or high competence and low warmth (e.g., rich people). Fortunately, recent work points to the ways in which these stereotypes can be mitigated. For example, individuals with a disability are typically stereotyped as being high in warmth and low in competence, but displaying exercise behavior and independence alleviated this negative stereotype (Gainforth, O'Malley, Mounenay, & Latimer-Cheung, 2012). In another study, watching individuals with a disability participate in sport actually led participants to rate them higher in competence and lower in warmth – effectively reversing the stereotype (Kittson, Gainforth, Edwards, Bolkow, & Latimer-Cheung, 2013). This suggests that, in some cases, there is a compensatory relationship between warmth and competence.

Consistent with the SCM, recent work shows how emphasizing only warmth (or competence) can lead others to make negative inferences about the omitted dimension of social perception—known as the *innuendo effect* (Kervyn, Yzerbyt, & Judd, 2011). The innuendo effect suggests that individuals make negative assumptions about a social target (i.e., individual being judged) based on only positive descriptions about either warmth or competence, which can ultimately influence whether or not an individual is suitable for a group (Kervyn, Bergsieker, & Fiske, 2012). In fact, omitting information regarding warmth or competence may cause individuals to make negative inferences when forming an initial impression of someone. Importantly, the consequence

of delivering warmth or competence information depends on whether that dimension of social perception is relevant to the context in which the description is housed. Notably, Kervyn et al. (2012) tested the innuendo effect in two different contexts - social (i.e., travel group) or work (i.e., academic group). When warmth characteristics were emphasized in the description of a target person in an academic context, participants found the individual to be less competent, and ultimately less suitable for their group compared with the control condition. In addition, when competence characteristics were emphasized in the description of an individual in a social context, this led to lower ratings of warmth and undermined perceptions of suitability, relative to the control condition (Kervyn et al., 2012). Thus, there is rationale that an individual's degree of suitability to a group is contingent on whether their characteristics align with the appropriate context.

2. Applying the innuendo effect to parents' impressions of youth coaches

We propose that theory underlying the innuendo effect offers an avenue for understanding the information parents attend to when forming impressions of youth sport coaches in zero-acquaintance situations (i.e., a coach whom they have never met). Parents provide significant fiduciary (e.g., transportation), monetary (e.g., sport equipment), and emotional investment in youth sport activities (Dorsch, Smith, & McDonough, 2009). As parents' roles in youth sport have been categorized as the supporter, provider, coach, and administrator (Knight, Dorsch, Osai, Haderlie, & Sellars, 2016), their impressions of youth coaches has potentially broad implications for their child's sport experiences. In extreme cases, parents have been charged with involuntary manslaughter, threats with a deadly weapon, and second-degree reckless endangerment when acting out against coaches with whom they did not agree (Smoll, Cumming, & Smith, 2011). Despite growing interest in the relationships between parents and coaches in youth sport (Smoll et al., 2011), there is scarce evidence pertaining to how parents weigh warmth and competence traits when forming impressions of youth sport coaches.

Although coaches can certainly exhibit both competence and warmth (i.e., these are not mutually exclusive characteristics), it would be informative to understand which characteristics play a more salient role in parents' evaluations of competitive youth sport coaches. Jowett and Timson-Katchis (2005) found that parents spoke to the limited and problematic process of changing coaches once the team is formed due to bureaucratic reasons, thus increasing the importance of finding a suitable coach that both the parent and athlete are satisfied with. Parents were also found to have a key role in mitigating disputes between coaches and athletes. Given previous work showing that negative inferences about competence in an achievement context (or warmth in a social context) reduces people's willingness to include new members into their group (Kervyn et al., 2012), uncovering which coaching characteristics are considered salient would better our understanding of parents' perceptions of coaching suitability.

In discussing the salience of the two fundamental dimensions of social perception in a youth sport coaching context, there is evidence for the importance of warmth in youth sport coaches. Through qualitative interviews with youth athletes, a welcoming and open personality was identified as a dimension within the "best coach" (Whitley, Bean, & Gould, 2011). Within that dimension, four themes emerged when describing the best coach: talking and outgoing, generous, relatable, and fun. Youth sport coaches can serve as a caretaker figure for young athletes and promote communal qualities, such as warmth and friendliness. Fry and Gano-Overway (2010) found that youth athletes appreciate a coach that is caring and warm. However, much of the research to date has focused on coach-athlete relationships (Hampson & Jowett, 2014) and coach effectiveness more generally (Côté & Gilbert, 2009), rather than parents' initial judgments of youth sport coaches. Given that coaches play a role in providing young athletes with a happy

and safe environment (Jowett & Clark-Carter, 2006), parents likely value warmth characteristics in youth sport coaches.

Although parents may value warmth characteristics in an individual coaching young athletes, several lines of inquiry highlight that competence characteristics may even loom larger in competitive sporting contexts. Competitive youth sports are often costly and time-intensive—requiring a significant commitment from parents. Parents may thus expect a great deal from youth sport coaches – ideally wanting the most qualified coach to optimize their child’s development. The degree of suitability to a specific context can be defined as an in-depth understanding of relevant skills, values, and performance of appropriate behaviors (Lyons, 1999). Competence also signals to parents that a coach is able to deliver clear and helpful instructions in order to improve their child’s specific sport-related motor skills and serve as a source of motivation (Myers, Feltz, Maier, Wolfe, & Reckase, 2006). Aside from the potential developmental advantages a competent coach may foster, parents may seek a competent coach for individual benefits of self-concept. The *reflected glory effect* suggests that individuals want to associate themselves with successful individuals or social groups to enhance their self-concept (Cialdini et al., 1976). Parents may rationalize the need for a competent coach due to their desire to see their child as well as their child’s team succeed. In addition, if competence is the salient dimension in a competitive youth sport context, it follows then that parents would associate positive evaluations of competence with perceived coaching suitability (Kervyn et al., 2012). Considering these points together, parents may be particularly sensitive to the absence of competence related information when forming their impressions of a youth sport coach.

Given that competence characteristics are theoretically supported as salient within a competitive context, parents’ self-concepts may also weigh on their judgments of coaches. Parents are active participants in their child’s sport participation, as they experience behavioral and cognitive outcomes as a result of parent sport socialization (Dorsch, Smith, Wilson, & McDonough, 2015). As such, parents may develop a social identity that is tied to their child’s team membership. Social identity can be defined as “that part of an individual’s self-concept which derives from his/her knowledge of his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p.255). Social identity represents an emerging concept in sport psychology that has been recently examined with youth athletes in relation to team and athlete outcomes (e.g., Bruner, Boardley, & Côté, 2014). Of particular importance to the current project is how social identity may influence parents’ judgments of coaches. Specific to the innuendo effect, parents who strongly identify with their child’s team may judge a coach more harshly when they are only described with warmth characteristics (i.e., competence is omitted).

3. The current study

The purpose of the current study was to examine whether descriptions using innuendo would affect parents’ perceptions of a prospective, new coach. Given that individuals evaluate others in absolute terms (i.e., judgments with no reference to others) and relative terms (i.e., judgments based on comparisons with a referent group) (Goffin & Olson, 2011), we assessed competence and warmth judgments using both absolute ratings and relative ratings. Consistent with the innuendo effect (Kervyn et al., 2012), we hypothesized that competitive youth ice hockey parents provided with positive information about a coach’s competence will perceive the coach to be lower in absolute levels of warmth (H1a) and relative (i.e., in comparison to other coaches) levels of warmth (H1b) than those provided with generally positive information about a coach or specific information about a coach’s warmth. Additionally, we hypothesized that parents provided with positive warmth information will perceive the coach to be lower in absolute levels of competence (H2a) and relative levels of competence

(H2b) than those provided with generally positive information about a coach or positive information about a coach’s competence. We also examined whether parents are particularly sensitive to the absence of competence information when forming impressions of a competitive youth ice hockey coach. We hypothesized that when coaches are described with warmth characteristics (i.e., competence information is omitted), parents will rate the prospective coach to be less competent, which in turn, will translate into lower levels of perceived suitability (H3). Lastly, we hypothesized that parents’ identification with their child’s team – their social identities – would moderate the relations between parental perceptions of coach competence and coaching suitability (H4).

4. Methods

All data collection plans (power analysis, recruitment strategy), hypotheses, and analyses were preregistered on the Open Science Framework, which are publicly available at: https://osf.io/9r546/?view_only=87ea0f78262f429ea1755ce6a9b8c2d7. We report how we determined our sample size, all data exclusions and all manipulations, and all measures in the study. Any deviations from the pre-registration are explicitly noted within this manuscript.

4.1. Participants

We sought to recruit 318 participants based on an assumed effect size in the small-to-medium range for our focal tests related to the innuendo effect, desired power of 0.80, at an alpha of 0.05. After excluding participants based on the attention check, which is further described below, the final sample included 211 participants (120 females, 91 males; $M_{age} = 42.57$ years, $SD = 5.89$). Participants’ children represented four levels of competitive ice hockey: novice (7–8 years of age, $n = 8$), atom (9–10 years of age, $n = 11$), peewee (11–12 years of age, $n = 127$), and bantam (13–14 years of age, $n = 65$) and had been enrolled in hockey for an average of 6.95 years ($SD = 1.82$). For descriptive purposes, we collected information on whether parents played hockey in their youth (36% responded yes) as well as their perceptions of the competitiveness of their child’s team ($M = 4.99$, $SD = 1.01$) and their child ($M = 5.35$, $SD = 1.14$), on a scale ranging from 1 (*recreational*) to 7 (*extremely competitive*). We also asked parents to report how important coaching is to their child’s development as a hockey player ($M = 6.27$, $SD = 0.86$) and as a person ($M = 6.13$, $SD = 1.10$), ranging from 1 (*not important*) to 7 (*extremely important*). Participants were generally satisfied with their current coach ($M = 5.67$, $SD = 1.36$) ranging from 1 (*very dissatisfied*) to 7 (*very satisfied*). Parents who agreed to participate in the study were offered a two-dollar gift certificate as compensation.

4.2. Procedure

After obtaining institutional ethical approval, we sought permission from the chairman of two weekend tournaments to set-up a research booth and invite parents who were at the ice hockey arena to participate in a pen and paper study. All participants completed the study at the arena. After the two tournaments, 231 completed questionnaires were obtained. In an effort to recruit additional participants, the lead researcher attended four regular season games and invited parents at the arena to participate. An additional 36 completed questionnaires were obtained.

All participants provided consent and completed a brief demographic questionnaire that included questions pertaining to the outcome of their child’s last competitive game. Participants answers were coded as $-1 = \text{loss}$ ($n = 69$), $0 = \text{tie}$ ($n = 6$), and $1 = \text{win}$ ($n = 129$). This information was collected due to the possibility that parents may feel more positively toward their respective team if their child had won the previous game.

4.3. Experimental vignettes manipulation

Participants were asked to read one of three experimental vignettes, either the warmth-only condition ($n = 74$), competence-only ($n = 72$), or control ($n = 65$). The questionnaires were interleaved prior to attending the arena to achieve close to equal participants in each condition. In constructing the written vignettes, we used the same format as Kervyn et al. (2012), but adapted the scenario to the context under investigation. Participants read a hypothetical situation that placed the reader in a carpool to the first ice hockey try-out of the year. During the car ride, the reader is informed by another parent that a new coach, whom they have never met, may be coaching their child's team this year. As parents were asked to envision this person as someone who would be coaching their child's competitive ice hockey team, we framed the coach as a volunteer in a highly competitive youth sport environment. In response to a request for a brief description of the coach, the other parent offers a short description of the potential new coach. In the control condition, the other parent says, "Well, the coach made a very positive overall impression," without specifically referencing warmth or competence. In the warmth-only condition, the other parent says, "Well, the coach seems like a very nice, sociable, and outgoing person." In the competence-only condition, the other parent says, "Well, the coach seems like a very smart, hard-working, and competent person". Parents then completed several measures to assess their perceptions of the target coach. The full vignettes are included in the supplementary materials file.

4.4. Measures

Competence and warmth. Participants were asked to respond to questions with the following phrasing: "How [adjective inserted here] do you believe this coach to be". Six items assessed absolute competence (e.g., *conscientious*, *efficient*, $\alpha = 0.85$) and five items assessed absolute warmth (e.g., *warm*, *friendly*, $\alpha = 0.82$) using scales ranging from 1 (*not at all*) to 7 (*extremely*), with negative traits for competence (*lazy*, *disorganized*) and warmth (*cold*, *irritable*) reverse scored. Of these eleven items, four competence items and four warmth items were drawn directly from Kervyn et al. (2012). Additionally, two competence items (e.g., *competent*; *capable*), and one warmth item (e.g., *likeable*) were added in the measure. One item assessed relative competence (e.g., *How capable do you believe this coach to be compared to other coaches*) and one item assessed relative warmth (e.g., *How likeable do you believe this coach to be compared to other coaches*) on a scale from 1 (*definitely less*) to 7 (*definitely more*). These items are similar to those used by Kervyn et al. (2012).

Perceived coaching suitability. Participants then rated how interested they would be to have this new individual coach their child's team based on a single item (e.g., *How much would you be interested in having this individual coach your child's team*) on a scale from 1 (*not interested at all*) to 7 (*very interested*). Participants also answered an exploratory open-ended question assessing why or why not they would include the prospective new coach to their child's team.

Social identity. Parental social identity was assessed using a sport-adapted version of Cameron's (2004) 12-item measure of social identity ($\alpha = 0.90$) that has been previously used in a sport setting (Bruner et al., 2014). The sport version of the measure was modified to reflect parents' perceptions of social identity. For example, item 1 was adapted to "I have a lot in common with other parents on my child's team". Each item was scored of 1 (*strongly disagree*) to 7 (*strongly agree*). Social identity was scored based on a mean of the 12 items.

Deception and attention check. Lastly, participants were asked to identify which condition of the new coach they read from a list of four options: 1) *nice, sociable, and outgoing*; 2) *smart, hard-working, and competent*; 3) *positive overall impression*; or 4) *I don't know*. Initially, our sample included 267 (149 females, 118 males) parents of competitive youth ice hockey players ($M_{age} = 42.56$ years, $SD = 6.44$). However, 56

parents were excluded from subsequent analysis based on not completing the attention check ($n = 15$) or responding incorrectly ($n = 41$). Of the 56 excluded participants, 24 were in the control condition, 19 parents read a competence-only description, and 13 read a warmth-only description. The control condition may have elicited more incorrect responses due to its generality compared to the other two conditions. The final sample included 211 parents. Failure of the attention check may have been due to the environment in which the research was conducted (i.e., arena). Participants were also provided the opportunity to answer what they thought the study was about in the form of an open-ended question. We also asked participants if they perceived the coach to be male, female, male or female, or another category.¹

4.5. Data analysis

After checking assumptions of normality, we examined whether key demographic variables were significantly associated with the conditions to which participants were assigned. Using analysis of variance (ANOVA), we also conducted preliminary analysis to examine whether either the level of ice hockey played by participants' children, their children's recent team performance (i.e. win/loss), and perceiver sex were associated with the outcome measures. ANOVA was also used to determine whether there were significant differences in the dependent measures as a function of condition (warmth-only description vs. competence-only description vs. control). Differences in degrees of freedom are due to one missing case for relative competence, relative warmth, and perceived suitability. Planned pairwise comparisons were used to test Hypotheses 1a, 1b, 2a, and 2b.

We hypothesized that competence would be the more salient dimension of social perception relevant to coaching youth ice hockey, and ultimately more relevant to perceptions of coach suitability (Hypothesis 3). A parallel mediation model was constructed in PROCESS to examine whether only emphasizing warmth in a description of a coach reduces the perceived suitability of the coach, through its negative effect on perceived coach competence (Hayes, 2015). A *competence innuendo variable* was created to represent the key predictor variable, where the condition in which the coach was described as warm was coded as 1, and the control condition was coded as 0. The remaining condition was excluded (i.e., competence-only description). Following Kervyn et al. (2012), all four rating measures related to the coach were included as parallel mediators: absolute competence, relative capability, absolute warmth, and relative warmth. Perceived coaching suitability was included as the outcome in the parallel mediation model. For Hypothesis 4, we additionally examined if the proposed mediation pathway (i.e., warmth description dampens coach suitability through its negative effect on competence) was conditional upon levels of social identity. As an index of moderated mediation, the regression coefficients for the statistical model were estimated 5000 times to generate a bootstrap confidence interval (Hayes, 2015). Moderated mediation is inferred when the confidence interval does not include zero.

¹ Informed by the stereotype content model (Fiske et al., 2002), we pre-registered an auxiliary hypothesis that participants would more frequently envision the described coach as (a) female compared to other choices within the warmth condition, and (b) as being male compared to the other choices within the competence condition. Within the warmth condition, parents envisioned the coach as male ($n = 64$) times, female ($n = 0$) times, male and female ($n = 8$) times, and other ($n = 2$) times. Within the competence condition, parents envisioned the coach as male ($n = 61$) times, female ($n = 1$) time, male and female ($n = 7$) times, and other ($n = 2$) times. Due to the overwhelming frequency with which the target coach was identified as male, we did not conduct follow-up analyses related to this research question.

Table 1
Descriptive statistics for dependent variables across conditions.

	Experimental condition		
	Warmth-only, <i>M</i> (<i>SD</i>)	Competence-only, <i>M</i> (<i>SD</i>)	Control, <i>M</i> (<i>SD</i>)
Absolute warmth	5.20 (0.87)	5.07 (0.91)	5.21 (0.93)
Absolute competence	4.80 (0.96)	5.54 (0.85)	5.23 (0.80)
Suitability	4.56 (1.14)	5.24 (1.07)	5.16 (1.04)

5. Results

5.1. Preliminary exploratory findings

Descriptive statistics of the variables across conditions are presented in Table 1. Participants who reported experiencing a win during their child’s last competition perceived the coach to be higher in absolute competence ($p = .035$, $\eta^2 = 0.023$), but there was no effect on perceived absolute warmth ($p = .335$). However, game outcome did not significantly interact with the condition in predicting absolute competence ($p = .763$) or warmth ($p = .275$). Game outcome was not significantly associated with relative competence or warmth ($ps > .309$), nor did it interact with condition for either variable ($ps > .410$). Game outcome had no effect on coaching suitability ($p = .278$) and did not interact with condition in predicting coaching suitability ($p = .520$). The level of ice hockey reported by participants had no significant effect on ratings of absolute competence ($p = .280$), warmth ($p = .640$), relative competence ($p = .240$), relative warmth ($p = .928$), or perceptions of suitability ($p = .428$). Although there was a significant effect of perceiver sex, where females rated coaches to be higher in absolute competence, $p = .046$, $\eta^2 = 0.088$, perceiver sex did not interact with condition in predicting absolute competence ($p = .444$). Perceiver sex had no significant effect on perceived warmth, ($p = .089$), nor did it interact with the condition in predicting absolute warmth ($p = .423$). Similarly, there was no significant effect of perceiver sex on relative competence ($p = .557$), relative warmth ($p = .488$), or coaching suitability ($p = .468$).

5.2. Hypotheses 1a and 1b: absolute warmth and relative warmth

We hypothesized that parents provided with positive information about a coach’s competence will perceive the coach to be lower in absolute levels of warmth (H1a), and lower in relative levels of warmth (H1b). We did not find support for H1a. There were no significant differences across the three conditions when rating perceived warmth, $F(2, 208) = 0.54$, $p = 0.58$; $\eta^2 = 0.01$. Similarly, we did not find support for H2b. Ratings of coaching warmth relative to other potential coaches did not differ significantly across conditions, $F(2, 207) = 0.41$, $p = .662$; $\eta^2 = 0.00$.

5.3. Hypotheses 2a and 2b: absolute competence and relative competence

We hypothesized that parents provided with positive warmth information will perceive the coach to be lower in absolute levels of competence (H2a), and lower in relative levels of competence (H2b). There was a significant difference across the three conditions regarding perceived absolute competence, $F(2, 208) = 13.11$, $p < .001$, $\eta^2 = 0.11$. In support of H2a, planned comparisons showed that parents rated the coach to be lower in absolute competence in the warmth condition compared to both the control condition ($M_{\text{difference}} = 0.43$, $p = .004$) and the competence-only condition ($M_{\text{difference}} = 0.74$, $p < .001$). In addition, a significant difference emerged across the three conditions when rating competence relative to other potential new coaches, $F(2, 207) = 8.10$, $p < .001$; $\eta^2 = 0.07$. Consistent with H2a, planned comparisons showed that parents rated the coach to be lower in relative competence in the warmth-only condition ($M = 4.27$) compared to both the control condition ($M_{\text{difference}} = 0.46$, $p = .013$) and the competence-only condition ($M_{\text{difference}} = 0.72$, $p < .001$).

5.4. Hypothesis 3: coaching suitability

Hypothesis 3 centered on whether a warmth-only description (i.e., lack of competence information) predicted lower ratings of competence, which, in turn, resulted in lower perceptions of coach suitability. Providing support to the hypothesis that innuendo may lead to differences in perceptions of coach suitability, there was a significant difference across the three conditions in ratings of coaching suitability, $F(2, 207) = 7.99$, $p < .001$; $\eta^2 = 0.07$. As predicted, parents rated the potential new coach to be lower in suitability in the warmth-only condition relative to both the control condition ($M_{\text{difference}} = 0.66$, $p = .002$) and the competence-only condition ($M_{\text{difference}} = 0.74$, $p < .001$). No significant difference emerged between the competence-only and control condition regarding coaching suitability. We next tested the hypothesized mediation model.

Mediation analysis. The total negative effect of innuendo on perceived coaching suitability was significant ($b = -0.68$, $SE = 0.21$, $p = .001$, 95% CI [-1.09, -0.27]). As depicted in Fig. 1, competence innuendo was negatively associated with absolute as well as relative ratings of perceived competence. In contrast, competence innuendo was not significantly associated with ratings of absolute or relative warmth. For the second linkage in the mediation model, ratings of absolute as well as relative competence were positively associated with perceived suitability of the coach. Neither ratings of absolute warmth nor relative warmth were associated with perceived coaching suitability. As it pertains to indirect effects, competence innuendo negatively predicted perceived coaching suitability through absolute ratings of competence ($b = -0.22$, $SE = 0.09$, 95% CI [-0.44, -0.08]) and relative ratings of competence ($b = -0.26$, $SE = 0.11$, 95% CI [-0.52, -0.07]). There were no significant indirect effects of competence innuendo through ratings of absolute warmth ($b = -0.01$, $SE = 0.02$, 95% CI [-0.07,

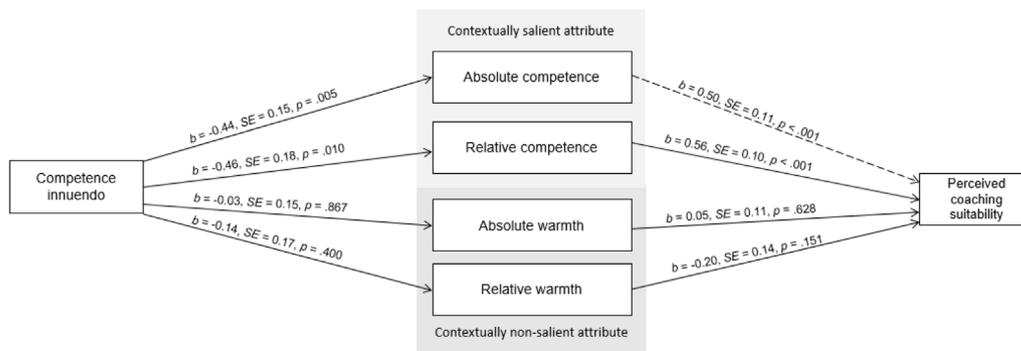


Fig. 1. Mediation model of the negative indirect effect of competence innuendo on perceived coaching suitability.

0.03]) or relative warmth ($b = 0.00$, $SE = 0.03$, 95% CI [-0.04, 0.06]). Although the direct pathway between innuendo and perceived suitability was non-significant ($b = -0.20$, $SE = 0.14$, $p = .151$), the total negative indirect effect of competence innuendo on desire to join was significant ($b = -0.48$, $SE = 0.17$, 95% CI [-0.82, -0.17]). We also tested alternative models where absolute competence and absolute warmth were specified as the only mediating variables, and where relative competence and relative warmth were specified as the only mediating variables. The total negative indirect effect of competence innuendo on desire to join was significant when examining either absolute ratings of social perception ($b = -0.39$, $SE = 0.15$, 95% CI [-0.71, -0.11]) or relative ratings of social perception ($b = -0.39$, $SE = 0.16$, 95% CI [-0.70, -0.09]).

5.5. Hypothesis 4: social identity as a moderator of the link between competence and coaching suitability

Moderated mediation analysis. To examine whether the innuendo effect is potentiated among those who strongly identified with their child's team, we tested a moderated mediation model with social identity as a moderator of the link between social perceptions ratings and perceived suitability to coach. Using the index of moderated mediation, the indirect effect did not significantly differ as a function of social identity strength (index for absolute ratings of competence = -0.09, $SE = 0.05$, 95% CI [-0.24, 0.00]; index for relative ratings of competence = 0.03, $SE = 0.04$, 95% CI [-0.04, 0.13]; index for absolute warmth = 0.00, $SE = 0.02$, 95% CI [-0.03, 0.06]; index for relative warmth = 0.01, $SE = 0.02$, 95% CI [-0.02, 0.09]). Thus, the negative indirect effect of innuendo on the perceived suitability of the coach did not vary as a function of how strongly parents identified with their child's team.

6. Discussion

The factors that contribute to first impressions of a social actor in sport is a relatively unexplored topic in the field of sport psychology. The current research examined the phenomenon known as the innuendo effect in relation to parents' perceptions of a prospective new coach in competitive ice hockey. Drawing from literature on social judgments and stereotype content models, we hypothesized that omitting warmth (or competence) during a brief communication exchange would lead the interpreter (parent) to infer the target (coach) lacked competence (or warmth). Hypotheses 1a and 1b were not supported, such that parents did not rate the prospective coach significantly lower in perceived warmth when provided with competence-only information compared to a generally positive description. Consistent with Hypotheses 2a and 2b, when parents were provided with warmth-only information about a prospective coach, parents perceived the coach to be less competent compared to a generally positive description. Consistent with previous research that suggests competence as the more desirable characteristic in a formal work context (Kervyn et al., 2012), we hypothesized parents would consider a competent individual to be more suitable for coaching a competitive team. Supporting Hypothesis 3, parents judged the coach to be less suitable for their child's team when described with warmth characteristics compared to the control condition and the competence condition. These findings show how less favorable messages can be communicated based solely on positive information, and that parents are more sensitive to the absence of competence-related information than the absence of warmth-related information when evaluating competitive youth sport coaches.

As this is the first time the innuendo effect has been tested in sport, the results highlight and extend previous literature considering warmth and competence as two of the fundamental dimensions of social perception when forming first impressions of others (Fiske et al., 2007). We documented systematic differences in how parents judged a coach based on a brief positive description. Although parents did not rate

coaches as incompetent when provided with only warmth information (i.e., lower than the midpoint of the scale), parents nonetheless rated the coach to be less competent compared to the control condition. This supports previous research suggesting that people have a tendency to make rapid evaluations of others when information on the target is lacking (Sanbonmatsu et al., 1997). However, the current research does not enable conclusions about the permanence of these initial evaluations. Provided the competitive context in which parents judged the coach, this aligns with previous work suggesting competence as the more salient dimension in a formal working environment (Kervyn et al., 2012).

Omitting competence traits was impactful for proximal judgments of competence as well as more distal judgments of coaching suitability. In addition to establishing support for the innuendo effect in sport, parents appear to be more sensitive to the absence of competence related information when evaluating the prospective coaches' suitability in the context of competitive youth sport. Mediation analysis revealed that a warmth-only description led to lower ratings of competence, and that ratings of competence explained the relation between innuendo and suitability for inclusion. That is, parents found the coach to be less suitable when they perceived the coach to lack competence, whereas a perceived lack of warmth did not have similar effects. Parents may have been acutely sensitive to the omission of agentic attributes in the potential coach because these attributes may further their child's goals related to competitive ice hockey. The strong connection between ratings of agentic qualities (i.e., competence) and positive evaluations of those in positions of authority has similarly been observed from subordinates' ratings of their managers in competitive organizational contexts (Wojciszke & Abele, 2008). This aligns with the theoretical perspective that agentic attributes are likely to take on heightened importance when a rater shares goal interdependence with the target person—which in this case, is the child's sport experiences (Wojciszke & Abele, 2008).

Two unexpected findings are worth noting. First, we did not find evidence for the basic innuendo effect in relation to emphasizing competence-only characteristics. Given that interpersonal skills are emblematic of coaching competence (Jowett & Cockerill, 2003), parents may have assumed that a coach described as competent possesses sufficient amounts of sociability and warmth. This would explain why emphasizing competence only was not viewed as problematic as it pertains to evaluations of coach warmth. Second, parental social identity did not moderate the relations between parents' perceptions of the coach competence and coach suitability. We hypothesized that highly invested parents would value coach competence given the competitive sport context and thus consider the competent coach more suitable. However, social identity did not amplify the effect of innuendo on perceptions of coaching suitability. One potential explanation is the strong association between ratings of coach competence and coaching suitability ($r = 0.80$), which leaves little room for social identity to further amplify the relation between coach competence and coach suitability. A secondary explanation is that parents may feel personally invested in their child's sport participation, even though they do not specifically identify with the team. Researchers could directly assess whether the extent to which a parent feels invested in their child's sport participation moderates the relation between coaching competence and suitability.

The current findings raise several practical implications relevant to coaches and parents in sport. To be clear, although parents are sensitive to the absence of competence-related information, our findings do not speak to whether competence and warmth characteristics can be simultaneously held, nor was this the purpose of the current study. Given that warmth promotes approachability and serves as the foundation of a positive coach-athlete relationship (Jowett & Cockerill, 2003), it would be unwise to suggest that warmth characteristics are not relevant to coaches in a youth sport context. In an interview study, coaches uniformly noted that they are cognizant of the role they play in facilitating

positive youth development through promoting happiness, enjoyment, fun, and achievement (Vella, Oades, & Crowe, 2011). Thus, coaches understand their role goes far beyond technical competence and elite status, and may have specific strategies to introduce both competence and warmth for technical and developmental purposes. As such, parents should be encouraged to reserve judgment until coaches have had sufficient opportunities to display both instructional and interpersonal behaviors. To alleviate any misperceptions, coaches and parents may consider holding a meeting early in the season to improve parents' understanding of youth sports and team philosophies, and establish cooperation and support (Smoll et al., 2011). Nonetheless, consistent with previous research on how individuals make rapid judgments of others with limited information (Fiske et al., 2007), omitting competence-related information demonstrated a weaker correlation than omitting warmth-related information regarding the coach's perceived suitability. Coaching courses and interventions may consider implementing coaching strategies that portray competence when meeting parents for the first time, although it is important to acknowledge that qualifications and coaching accreditation courses may signal coach competence (Turman, 2006). Further, the findings from the current study may provide a new perspective for youth sport organizations when selecting coaches for their competitive programs. Given that unacceptable parent behavior has become an increasingly relevant topic in youth sport (Tamminen, Poucher, & Povilaitis, 2017), parents may be more inclined to respect a coach's authority and better understand their role if they are satisfied with the coach's competencies.

6.1. Limitations and future directions

As with any study, there are both limitations and potential future research directions. One point to consider is that the current research focused on competitive youth ice hockey parents. The type of information that parents value (i.e., warmth, competence) may differ depending on the nature of the sport. In a more recreational context or in a younger age group, parents may be more sensitive to warmth-related information. Using innuendo to compare perceptions of coaches in recreational and competitive sport could be a good extension of Kervyn and colleagues' (2012) findings examining social and work contexts. A second point to consider is that the current research examined perceptions of one social actor (i.e., sport parents). Although our results provide insight into how parents utilize warmth- and competence-related information when forming judgments of competitive youth ice hockey coaches, investigating athletes' perceptions of a potential new coach may be of equal importance. The initial impressions formed by athletes of their new coach may carry downstream consequences related to their motivation and willingness to play for that individual. Furthermore, another limitation is the findings being representative of parents from an older sample (i.e., peewee and bantam) of competitive youth ice hockey players, with only 19 participants (9%) representing parents of novice and atom aged athletes. The study is not adequately powered to evaluate whether the innuendo effect differs as a function of the child's age group. Moving forward, we recommend evaluating the innuendo effect with parents of younger athletes. Another limitation is the number of participants who failed at least one of the attention checks, potentially reflecting the social environment where the study took place (i.e., foyer of ice hockey arena) or simply non-diligent participants. Lastly, future research could examine the effect of athlete gender on parents' perceptions of coaches, as parents may have different preferences for the characteristics coaches of male and female teams. Relatedly, incorporating gender stereotypes may also be a potential research avenue regarding innuendo and perceptions of new coaches. Although females, on average, tend to score higher on communal qualities than men (Eagly & Johannesen-Schmidt, 2001), female coaches described as only warm may be unfortunately judged more harshly due to their underrepresentation in competitive coaching relative to males (Rudman, Greenwald, & McGhee, & 2001). Future

research could specify a gender pronoun when describing a prospective new coach to parents or athletes to explore such target-gender effects.

Although the vignettes used in this study were grounded in previous research (Kervyn et al., 2012), it is important to consider the contextual differences between our work and that of Kervyn et al. (2012). First, ecological validity should be further tested in future vignette research in sport. Second, our absolute and relative measure of warmth—as used by Kervyn et al. (2012)—may not have fully captured the aspects of warmth that are salient to parents when considering the suitability of someone to coach their child. This is perhaps reflected by the magnitude of the correlation between competence and perceived coaching suitability ($r = 0.68$) being twice that of the correlation between warmth and perceived coaching suitability ($r = 0.38$). It is thus important to consider whether emphasizing different dimensions of warmth in the description of the coach (i.e., using modified language), or measuring other aspects of coach warmth, would produce a different pattern of results. Notably, research suggests that people highly value trustworthiness, a dimension of warmth, in socially interdependent contexts (Cottrell, Neuberg, & Li, 2007). Although we can only speculate, omitting competence information may not be costly when trustworthiness is emphasized as a key characteristic.

Drawing from social cognition research and theory related to the innuendo effect, the present study examined how parents evaluate coaches based on warmth- and competence-related information. By providing parents with descriptions of a coach that conveyed positive information while omitting either warmth or competence (i.e., innuendo), the findings support the notion that omitting a contextually salient dimension of social perception carries potentially negative social outcomes—even when only positive information was provided. Altogether, coaches must be conscientious of the social characteristics they portray around parents if they wish to be considered suitable. Thus, future research in youth sport parent socialization processes will broaden our understanding of desired coaching characteristics in youth sport.

Declarations of interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.psychsport.2019.01.005>.

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