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## Team boosting behaviours: Development and validation of a new concept and scale

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### ABSTRACT

In teams, some people are truly noticed when present, and sorely missed when absent. Often they are described as the “life of the party”, but in a formal team context, we refer to their behaviors as “team boosting behavior”. These behaviors have the potential to affect the team’s processes. In three consecutive studies, we conceptualized these behaviors and developed and validated a questionnaire to measure them. In Study 1, we defined team boosting behaviors as the extent to which team members exhibit mood-enhancing, energizing, and uniting behaviors, directed towards team members. In Study 2, we developed and validated an instrument to measure team boosting behaviors using a sample of team members in work and sports teams ( $N = 385$ ). Results supported a three-factor structure and indicated positive relationships with conceptually similar constructs. In Study 3, we cross-validated the three-factor structure among the members of 120 work teams and offer evidence for convergent and criterion validity of the Team Boosting behavior scale. The behaviors related positively to a positive team climate, team work engagement, and leader-rated team performance. The scale provides a useful tool for future empirical research to study the role of individual team boosting behaviors in shaping team processes and outcomes.

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In today’s dynamic society, teams need to be proactive and engaged to be able to innovate, compete, and keep up with the rapidly changing environment (Bakker & Schaufeli, 2008). Based on the general notion that a team is greater than the sum of its parts, team research tends to emphasize group-level processes and outcomes (Kozlowski & Klein, 2000; Li et al., 2015). However, successful teamwork still strongly relies on the individual contributions of those parts (i.e., team members). In essence, individual qualities and behaviors are the building blocks of teamwork (Mathieu et al., 2014). These individual contributions are not necessarily equally distributed across all team members. Certain individuals can have a unique impact: They can singlehandedly make or break a team. As was recently noted in a review of team composition and compilation research (Carter et al., 2019), research exploring such individual bottom-up influences on the team as a whole has remained underdeveloped.

A notable exception is the “bad apple” phenomenon, a potent example of individuals who can break their team by their “behavioral expression of negativity that upsets others and blocks key group processes” (Felps et al., 2006, p. 179), dysfunctional behaviors with detrimental implications for the team’s affective tone and joint performance (Cole et al., 2008). But what about behaviors that can “make” the team? Is there a positive counterpart to the “bad apple” with the potential to lift the team to a higher level? Especially in times when positive energy is crucial for team success, it is important to identify the behavioral expressions that can boost the spirit of the team and its members. As such, we sought to identify a positive

counterpart to the “bad apple” phenomenon as introduced by Felps et al. In line with their approach, we start with a highly recognizable everyday phenomenon, based on the idiom “the life of the party”.<sup>1</sup> Formal definitions describe “the life of the party” in terms of liveliness, fun, and social influence (see Appendix A for a definitional overview). Such individuals can light up the room when they enter and bring liveliness in social settings. Their unique influence on their social context is embedded in the definition, making them potential key players in teams. Moreover, “lively” and “amusing” link being the life of the party to energetic, positive social behaviors that may promote positive affective reactions, spark energy, and create a positive and motivational atmosphere. Until now, however, this phenomenon has escaped scientific scrutiny, and the specific behaviors it involves as well as their impact on team functioning and effectiveness have yet to be uncovered.

As such, adopting an inductive approach, we set out to develop a formal definition of the popular concept of the life of the party, identify the associated behavioral dimensions, and develop and validate a measurement tool to enable scientific exploration of the impact these behaviors have in and on team settings. Before moving on to our first study aimed at developing a formal concept definition, we will position “the life of the party” and the associated behaviors in the broader literature. To move away from the “party” association and generalize the concept to a broader range of social settings, we will use the label “team boosting behavior”. “Boosting” is defined as “stirring up enthusiasm for” or “promoting vigorously” (American Heritage Dictionary of the English Language, 2020), adequately

reflecting the energy and positivity associated with behaviors exhibited by the life of the party. The addition of “team” reflects the interpersonal focus of the behaviors and our focus on team contexts.

### ***Team boosting behaviors in the broader literature***

Team boosting behaviors can be embedded in the broader literature based on several key attributes. First, they reflect individual interpersonal behaviors in teams, characterized by dominance and energy, positive expressivity, and a social focus. Second, they have the potential to exert bottom-up effects on the team as a whole. Third, we propose that the behaviors can be displayed by all team members to varying degrees and can turn into an exemplar of “the typical team booster” when displayed with high intensity over longer periods of time.

### ***Team boosting behaviors & dimensions of interpersonal behavior***

Team boosting behaviors reflect individual behaviors that can be linked to early research on the dimensions of individual behavior in social interaction (e.g., Bales, 1970; Carter, 1954; Foa, 1961). Although the literature offers a vast variety of social behaviors, research suggests these can be summarized in just a few dimensions. Three dimensions emerge in most classifications, albeit with slight variations in terminology: Dominance (or individual prominence) versus submissiveness, sociability versus hostility, and task orientedness versus expressivity (Bales, 1970; Driskell et al., 2017; Solomon, 1981). Dominant behaviors radiate assertiveness and energy. Sociability refers to cordial interpersonal behaviors aimed at connecting (to) others. Expressivity, finally, captures behaviors that are spontaneous, playful, and team-oriented, rather than focused on efficient task accomplishment. Based on these universal dimensions of interpersonal behavior, team boosting behavior can be characterized as dominant, sociable, and positively expressive.

### ***Team boosting behaviors & bottom-up effects***

Next, we posited that individual team boosting behaviors can affect team functioning and effectiveness from the bottom up. Based on this aspect, team boosting behaviors can be grounded in team composition and compilation theories, describing how individual properties coalesce to shape team-level states, processes, and outcomes (Fulmer & Ostroff, 2016; Kozlowski & Klein, 2000). Although research on such bottom-up influences in teams is relatively limited, especially compared to research focused on team-level phenomena and top-down effects (cf., Carter et al., 2019; Kozlowski & Klein, 2000), several lines of research implicitly or explicitly focus on individual behavior in team contexts.

The dominance and social influence that characterize team boosting behaviors suggest a link to leadership. Leadership in general refers to “interpersonal influence, exercised in situations and directed, through the communication process, toward the attainment of a specified goal or goals” (Tannenbaum et al., 2013, p. 24). Leadership and team boosting behaviors are distinct, however, in their position on the sociability and expressivity dimensions. First and foremost,

leadership behaviors are directed at goal achievement (Tannenbaum et al., 2013; Winston & Patterson, 2006), qualifying them as high on the task orientedness dimension. Team boosting behaviors, in contrast, are spontaneous behaviors aimed at influencing the ambient conditions in which the team operates. They are not strategic in nature and not necessarily related to the team’s tasks or goals. Moreover, unlike team boosting behaviors, leadership behaviors are not necessarily high on sociability. Although maintaining cordial relationships with followers can be part of leadership perspectives, this is not a goal in itself but rather a means that may contribute to effective goal attainment. Nevertheless, team leaders – as well as team members – can display team boosting behaviors, either spontaneously or in order to pursue strategic goals.

The concept of team boosting behaviors also evokes associations with the team role literature. A role reflects a set of individual behaviors characteristic for a person in a specific setting, and emerges based on repetitive activities or behaviors that are interrelated with the repetitive activities of others (Driskell et al., 2017; Stewart et al., 2005). Team roles and team boosting behaviors both reflect sets of individual behavior in a specific interpersonal setting (i.e., the team). However, even when team boosting behaviors are highly salient, we do not envisage “a team booster” as a team role that should be positioned within existing team role taxonomies or linked to a specific role in these taxonomies. Our perspective is distinctly behavioral, such that team boosting is a set of behaviors that can be deployed by team members and leaders in various positions and roles within the team. For example, team leaders as well as “team builders” and “social connectors” (Mathieu et al., 2015) can use team boosting behaviors to build the team or to lift the atmosphere. Team boosting behaviors can be displayed in any role, originating from different goals and motives, including task as well as social and personal considerations.

Finally, team boosting behaviors have conceptual linkages with a range of individual team member traits, behaviors and roles, including, for example, humour, extraversion, relational energy, extra milers, and bad apples. Although an extensive discussion of these concepts and linkages is beyond our current scope, we will highlight a few of them. Most closely related to our initial conception of team boosting behaviors is the concept of the “extra miler”. This concept was introduced by Li et al. (2015) to describe the behaviors displayed by team members that are willing to “go the extra mile”, defined by helping and voice. They demonstrated that average helping and voice were both positively related to team-level monitoring and backing up behaviors and team performance, and that the team member with the highest helping or voice (the “extra miler”) had a unique additional beneficial impact. Like team boosting behaviors, “extra miler” behaviors can be qualified as relatively dominant and sociable. Extra miler behaviors, however, mainly revolve around supporting the teamwork, while team boosting behaviors focus on the social aspects of teamwork. In addition, the specific elements of helping and voice are no inherent part of the team boosting concept, and do not imply the intensity, energy, and amusement level associated with team boosting behaviors.

Li et al.'s (2015) work on extra-milers is one of the few studies that highlights the relative contribution perspective (Mathieu et al., 2014), which emphasizes that team members' individual contributions to the team can vary both in terms of nature and intensity. Other examples of such studies are the work on "star performers" by Park and Shin (2015) and the abovementioned "bad apple" by Felps et al. (2006). These studies show that individual behavior has the potential to influence the team from the bottom up. Their small number also indicates that additional research is needed to identify a broader range of individual behaviors and behavioral phenomena in the team context and their implications for the functioning of the team as a whole.

This relative contribution approach is complementary to more general individual behavior perspectives, focused on average effects of individual behaviors in teams. Podsakoff et al. (1997), for example, showed that average individual organizational citizenship behaviors improved teams' work performance. Similarly, both Li et al. (2015) and Felps et al. (2006) defined extra milers and bad apples, respectively, in general behavioural terms, identifying behaviors that all team members can display with varying intensities and frequencies and that result in joint aggregate effects on the team as a whole, as well as unique disproportional effects of the highest scoring members.

### **Team boosting behaviors & generic and prototypical effects**

This brings us to the final aspect of this initial conceptualization of team boosting behaviors. We consider them general individual behaviors that all team members engage in to varying degrees. Depending on one's position in the team and in interaction with the behavioural displays of the other team members, the behaviors can turn into an exemplar of "the prototypical team booster" when displayed with high intensity over longer periods of time. Felps et al. (2006) make this same distinction, referring to episodic versus chronic behavior. Given that "chronic" has a somewhat negative connotation, we use the terms generic and prototypical to reflect the two perspectives. While the perspectives rely on the same underlying behavioral dimensions and both reflect *individual* behaviors within the context of the team, the distinction is in the focus on either one particular team member or the concerted individual behaviors of all team members.

From a prototypical perspective, we envision "team boosters" as individual team members who frequently express the associated behaviors within the context of their team. In this perspective, team boosters stand out of their team by showing team boosting behaviors regularly, and are mostly identified as the highest scoring team member (cf. Li et al., 2015; Taggar et al., 1999). From a generic perspective, we propose that team boosting behaviors can be dispersed across the team and displayed by various team members depending on the situation and the tasks at hand. In this perspective, team boosting behaviors displayed by all team members may affect team processes and outcomes through concerted bottom-up processes.

We propose that both prototypical and generic team boosting behaviors relate to team functioning and outcomes in

predominantly beneficial ways, through the interplay of different mechanisms. The social assertiveness, combined with high sociability and positive expressivity, whether expressed by a single individual or jointly by all team members, can trigger affective sharing (cf. Walter & Bruch, 2008) and social contagion and crossover (Van Mierlo & Bakker, 2018), thereby increasing team members' energy levels and positivity and promoting close interpersonal relationships. This positive affect spiral may produce a positive affective tone, which is convincingly linked to a range of positive outcomes, including enhanced coordination and cooperation, reduced relational conflict, higher team performance, improved individual well-being, and reduced absenteeism and turnover (Collins et al., 2013; Walter & Bruch, 2008).

In all, based on this first exploration, team boosting behaviors a dominant, affiliative, and positively expressive behaviors with strong potential for boosting team functioning from the bottom up. In what follows, we present three studies, in which we develop a formal construct definition and identify critical team boosting behaviors (Study 1), and design and validate a questionnaire to measure team boosting behaviors (Study 2 and 3).

### **Study 1: defining team boosting behavior**

In Study 1, we develop a formal definition of "team boosting behaviors" and identify the specific underlying behaviors using a qualitative, inductive approach. To this end, Podsakoff et al. (2016) proposed a four stage approach, offering specific techniques for achieving high-quality definitions. The first stage ("identifying potential attributes by collecting a representative set of definitions") aims to cast a wide net in search of possible features of the focal concept. Following the recommendations, we combined semantic research and interviews focused on specific actions to achieve a comprehensive concept description.

We started by examining dictionaries to explore the semantics and develop a formal definition of "team boosting behaviors", based on the idiom "life of the party". Appendix A contains a table with five dictionary definitions of this idiom and its key attributes. Together, these definitions depict prototypical team boosters as individuals who are energetic or lively, as well as amusing or funny – all within a social context. Following this semantic analysis, we conducted a qualitative interview study to gain insight into the behavioral attributes associated with team boosters, with the objective to develop a comprehensive classification and description of the relevant behaviors.

## **Method**

### **Participants and procedure**

To explore the full breadth of the concept of "team boosting behaviors", we aimed for a diverse sample. We used the purposeful sampling technique, which entails selecting participants based on their differing knowledge and experiences with the topic of interest (Morse, 1991). The sample included six males and five females. Three participants had a reputation as "team booster", three others were team members with no specific role or reputation, and five participants were team leaders. The

participants were operating in various domains (e.g., work, sports, and leisure contexts) and their age ranged from 21 to 58 years ( $M = 32$ ,  $SD = 12.26$ ).

We conducted individual semi-structured interviews with each participant, based on the critical incidents technique (CIT; Flanagan, 1954). This methodology aims to identify observable human behaviors by asking subject matter experts to describe incidents in which they displayed or observed the target behavior as well as situation details, underlying intentions, and outcomes. As such, the CIT provides a deep and rich understanding of phenomena of which little is known (De Ruyter et al., 1995), combining different perspectives from those in the best position to observe the specific behavior (Flanagan, 1954). To capture the team boosting phenomenon in breadth and depth, we included the perspectives on team boosting behaviors of prototypical team boosters, team members, and team leaders.

Interviews took approximately 60 minutes and were audio-taped after participants had given their consent for the use of the data for research purposes. Each interview included four parts: Team characteristics and activities, characteristics and behaviors of team boosters, critical incidents, and team member roles. The interviews started with general questions about the team (e.g., "Can you briefly describe what your team does?"), and general questions about team boosters and their behaviors. These general questions are commonly included in CIT studies to gain in-depth information about the context and the persons and behaviors involved. This information is then used to solicit more specific, detailed descriptions of the critical incidents. Also, in the data analysis stage, it aids understanding and contextualization of the behavior descriptions offered by the interviewees (cf. Flanagan, 1954). Next, interviewees were asked to recall and describe specific incidents in which they observed a team booster in their team ("Can you describe a specific situation in which the team booster had a positive impact?"). To obtain a detailed account of the incident, we asked the interviewee to specify the behaviors of team boosters as well as the reactions of other team members to this particular behavior.

Interviews were transcribed and coded using qualitative data analysis software (NVivo 10; QSR International, 2010). First, all team boosting related concepts participants had described were coded into general categories: traits, behaviors, reactions, and outcomes. We based these categories on the interview structure, in which we first asked for a description of a team booster in terms of traits, followed by questions about their behaviors, and concluded with the effects of these behaviors. We only selected and categorized behavioral incidents when they were a) performed by the team booster, and b) expressed within a social context, such as a group or a team. As we aimed to uncover team boosting behaviors, all behaviors were classified into narrow categories, which were then clustered into broader yet coherent categories. For each new behavior, a category was created until no new categories emerged (cf. Brod et al., 2009). The classification was reviewed and discussed by a panel of three organizational psychologists. Finally, to check whether we established comprehensive coverage of team boosting behaviors, i.e., saturation, we conducted two additional interviews. Saturation contributes to the content

validity of a new construct and is reached when the data covers the full range of properties, dimensions, and variations of the new construct (Brod et al., 2009). An independent coder, specialized in occupational psychology, coded the critical incidents from these interviews.

## Results and discussion

In a CIT-study, sample size is determined by the number of incidents, rather than by the number of respondents (Flanagan, 1954). Together, the eleven interviews yielded 271 behaviors that could be clustered into 23 relatively narrowly defined categories. An example of a behavior description was "I always try to break the ice by making a funny joke, so that everybody starts to laugh". This behavior was then coded as "making jokes". The additional interviews provided 70 behavioral incidents and revealed no additional categories, suggesting saturation was reached. This is in line with previous CIT-research, showing that 300 to 500 incidents suffice to establish comprehensive coverage of the intended behaviors (e.g., Butterfield & Borgen, 2005). The 23 categories were jointly discussed by the authors, and clustered into three coherent overarching behavioral categories, labelled as: "mood-enhancing", "energizing", and "uniting" behaviors. Agreement was reached and disagreement was resolved by in-depth discussions. Specifically, the discussions were guided by objective information about how many participants had mentioned each particular behavior and the number of behaviors assigned to each category. This method provides insight into the hierarchy of the behavioural categories and separates core categories from subcategories (Boeije, 2010). Categories including many behaviors that were mentioned by multiple participants received more weight. For example, the category "making jokes" was mentioned 42 times by nine different participants, while "risk taking" was only mentioned once by one participant. Appendix B contains a table that illustrates which types of behavior descriptions (i.e., critical incidents) were coded into each of the three final dimensions.

### Defining team boosting behavior

Study 1 produced three behavioral dimensions that, together, define team boosting behaviors as the extent to which team members exhibit mood-enhancing, energizing, and uniting behaviors, directed towards other team members. First, interviewees described team boosting behaviors as positive mood-enhancing behaviors, such as the use of humour and taking on a positive perspective on team functioning. Members engaging in mood-enhancing behaviors joke around, tell funny stories, and put negative team events into perspective or even flip these events into something positive. The associated behavior descriptions emphasized the spontaneous, somewhat impulsive character of mood-enhancing behaviors, focused on the social dynamics rather than the task at hand. In terms of the above-mentioned interpersonal behavior dimensions, this qualifies mood-enhancing behaviors as positively expressive rather than task-oriented. Second, interviewees described energetic team boosting behaviors, such as proposing ideas for the team and taking initiative in organizing and participating in team activities, sometimes up to the point that such members get ahead of

themselves. Team members that express energizing behaviors, for example, come up with games or start up a friendly competition during tedious moments and are agents of change or innovation, placing them high on dominance/assertiveness. Finally, the interviewees depicted team boosting behaviors as social, focused on connecting and building relationships between team members. Members engaging in uniting behaviors involve all team members in joint activities and have informal conversations with everyone on the team, asking about interests, work, and family life. These characteristics indicate high sociability.

Together, these findings corroborate our initial conceptualization of team boosting behaviors as dominant, sociable, and positively expressive interpersonal behaviors. This conceptualization accommodates the generic perspective (i.e., every team member can display team boosting behaviors to at least some extent), as well as the prototypical perspective. The extent to which a team member represents a prototypical team booster is determined by the relative intensity and frequency of these behaviors (cf. Li et al., 2015). Within this behavioral perspective, we view team boosting behaviors as dynamic and malleable, such that members can use team boosting behaviors to a greater or lesser extent depending on the situation. In terms of level of theory and measurement (cf. Klein & Kozlowski, 2000), team boosting behaviors are individual-level behaviors. Such behaviors may become shared among team members to some extent, due to contagion of individual emotions and behaviors (Barsade, 2002), or attraction-selection-attrition processes (Schneider, 1987). Even then, however, team boosting behaviors are individual behaviors that should be conceptualized, operationalized, and validated at the individual level, controlling for potential within-team similarities. In the next step, we set out to develop a questionnaire that can be used to explore the nature and outcomes of the three-dimensional conceptualization of team boosting behaviors that resulted from the first study.

## Study 2: development and nomological network of the team boosting behavior scale

The purpose of the second study was to develop a self-report instrument for measuring team boosting behaviors and to explore its factorial validity (Phase 1). In addition, we examined the conceptual linkages between team boosting behaviors and related constructs (Phase 2).

### Phase 1: scale construction and explorative test

#### Method

##### Scale construction

We generated items based on four considerations: First, items should adequately cover the construct definitions. Second, items should reflect behavior and be scored on a frequency-based scale. Third, we wanted items to refer explicitly to the social context (“our team”; “fellow team members”) to ensure respondents include themselves in the team and distinguish the concept from leadership behaviors. For the same reason, we avoided the use of words like “my team” and “my team members”, as this might suggest hierarchical distance between

respondent and the team, which was not our intention. Finally, items were formulated to accommodate self-ratings. We opted for self-ratings, as the scale should capture team boosting behaviors as displayed by all team members in varying degrees, over longer periods of time and across settings, tasks, and activities. As interaction frequency can vary strongly within the team and over time, self-ratings may overcome assessments based on incidental experiences (e.g., a recent meeting, a live social team event).

As we explore a new phenomenon with few theoretical sources, we adopted an inductive approach (cf. Hinkin et al., 1997), whereby items are generated based on qualitative input, such as interviews. Furthermore, based on their guidelines, items should only address one single issue, be consistent in terms of their perspective, and be short and easy to understand. This inductive approach led to a first set of twelve items per dimension, generated by the first author. Next, based on broad definitions of the three dimensions, seven organizational psychologists each selected seven items from each category that they felt best reflected the dimension. To increase item variety, they were asked to add three new items for each category. Content and clarity of the resulting items were discussed by four organizational psychologists. The items that were selected most by the seven psychologists had more weight in the discussion, although all items were discussed thoroughly. Items were only included when the panel reached complete agreement. Overlapping items were evaluated on their wording, and unclear items were discussed and adapted or removed from the list – resulting in an initial selection of 39 items. We then subjected this set of items to validation study aimed at verifying the factor structure and evaluating item quality to arrive at a definite version of the Team Boosting behavior scale.

### Participants and procedure

We collected data among team members from work and sports organizations in the Netherlands. Because the scale and its validation centres around individual behaviors within the context of the team, we collected individual rather than team data. We contacted participants via email and professional networking sites. We acquired potential participants’ email addresses via contacts in our network. The acquisition letter included general information about the study, a link to the online questionnaire, and a confidentiality clause for the use of the data. Participation took approximately 15 minutes and was voluntary; no compensation was provided. The final sample included 384 respondents (51.5% males), with an average age of 31 years ( $SD = 13.65$ ). Most participants were members of sports teams (74.7%), followed by work teams (17%), and music groups (5.1%). On average, respondents indicated that their teams consisted of 14 members ( $SD = 7.62$ ); and that they spent 9 hours per week with the team ( $SD = 7.10$ ).

### Measures

#### Team boosting behaviors

We measured individual team boosting behaviors with the 39 initial items of the Team Boosting behavior scale (see Table 1).

**Table 1.** Initial items of team boosting behaviors.

In our team, I set the example by doing.*(E)
I am the first to take action in our team.*(E)
I take initial action to set our team in motion.*(E)
I propose new ideas for our team.*(E)
I convince my fellow team members to join the action.*(E)
I stimulate our team.*(E)
I encourage our team.(E)
I activate my fellow team members.(E)
I take along my fellow team members.(E)
I give energy to our team.(E)
I pep up my fellow team members.(E)
I think of things to do together with our team.(E)
In our team, I make jokes.*(M)
I break a negative atmosphere in our team with a joke.*(M)
I try to entertain my fellow team members.*(M)
I tell stories when we meet.*(M)
I make sure that there is laughter in our team.*(M)
I add a cheerful touch to our team.*(M)
When things go wrong, I try to keep the spirits up.(M)
I cheer up my fellow team members.(M)
I put negative team events into a positive perspective in our team.(M)
In our team, I express my enthusiasm about good group results.(M)
I put disappointing team results into a positive perspective.(M)
I try to make working on our task fun.(M)
I influence the mood of our team.(M)
I approach my fellow team members in a personal way.*(U)
I strengthen the ties with my fellow team members.*(U)
I involve all my fellow team members in what we do.*(U)
I respond to my fellow team members' needs.*(U)
I strengthen the ties between my fellow team members.*(U)
I assess the atmosphere in our team.*(U)
I know how to commit my fellow team members to me.(U)
I give attention to my fellow team members.(U)
I respond to my fellow team members' feelings.(U)
I try to endear myself to my fellow team members.(U)
I involve all my fellow team members in our team.(U)
I connect my fellow team members with each other.(U)
I try to find out what our team needs.(U)
I make sure that no one is excluded from our team.(U)

\*items that were included in the final 18-item version of the Team Boosting behavior scale. (E) = Energizing items; (M) = Mood-enhancing items; (U) = Uniting items.

The items were scored on a seven-point frequency scale: 0 = (almost) never, 6 = (almost) always.

## Results phase 1

### Exploratory factor analysis and item reduction

We used a stepwise factor-analytic approach to explore and improve the structure of the Team Boosting behavior scale. Adopting an iterative process, we deleted items to obtain a parsimonious final scale. We first conducted an exploratory factor analysis (EFA; maximum likelihood) with oblique rotation (Costello & Osborne, 2005; Fabrigar et al., 1999). We retained factors with an eigenvalue > 1 when a scree test justified retention. Based on the eigenvalues, six factors were identified. The scree test, however, did not show clear results. This led us to critically re-examine the wording of the items. In hindsight, eight items were worded sub-optimally. They were ambiguous or included a reference to possible dependent variables. "I cheer up my team members", for example, could refer to making a team member feel better (i.e., mood-enhancing) and to encouraging a team member (i.e., energizing). We excluded these items and conducted a second EFA on the remaining 31 items. This analysis produced five factors that we tested against

the criteria proposed by Tabachnick et al. (2001). We used .32 as a cut-off point for the factor loadings, which signifies a 10% overlap with the other items in the particular factor. Items with factor loadings equal to or above .32 were retained, while items were dropped if they had (a) factor loadings below .32, (b) cross-loadings higher than .32, or (c) factor loadings higher than .32 on unintended factors (Tabachnick et al., 2001). In addition, one-item factors were excluded from the analyses (Costello & Osborne, 2005). Based on these criteria, we applied an iterative item-deletion process, resulting in the elimination of eight items. Finally, as a parsimonious set of items has advantages for the reliability and validity of self-report scales (Stanton et al., 2002), we distilled 18 items from the remaining 23 items, omitting five items based on overlapping content.

The final result reflected a three-factor structure that explained 54.52% of the variance. The eigenvalue of each factor was greater than 1 and the scree plot showed a clear inflexion after the third component, justifying three factors. Content-wise, the factors were consistent with the three dimensions. The first factor reflected mood-enhancing behaviors (6 items; Eigenvalue = 7.90) and explained 41.40% of the variance. The second factor reflected energizing behaviors (6 items; Eigenvalue = 1.96) and explained 8.54% of the variance. The third factor reflected uniting behaviors (6 items; Eigenvalue = 1.28) and explained 4.58% of the variance. Cronbach's alpha was .89 for mood-enhancing, .88 for energizing, and .83 for uniting. The dimensions showed moderate to strong positive correlations, mood-enhancing – uniting:  $r = .60$ ; mood-enhancing – energizing:  $r = .51$ , energizing – uniting:  $r = .65$ . Table 2 lists the items, item descriptives, and factor loadings. Post-hoc analyses showed no substantial differences in the correlations and factor structure between work and sports settings (results available upon request).

### Phase 2: examining the conceptual network of team boosting behavior

Next, we aim to establish the construct validity of the Team Boosting behavior scale by exploring its individual-level nomological network based on the three basic dimensions of interpersonal behavior (Bales, 1970; Driskell et al., 2017; Solomon, 1981). To examine the distinctiveness of team boosting behavior, we linked the mood-enhancing, energizing, and uniting dimension of team boosting behavior to individual traits and behaviors high or low on positive expressivity, dominance, and sociability, respectively.

We qualified mood-enhancing behaviors as positively expressive, suggesting conceptual linkages to individual characteristics and behaviors that express positivity that is not specifically task-oriented. We therefore expect mood-enhancing behaviors to positively relate to optimism, humour, and positive emotions, and negatively to negative emotions (Hypothesis 1). Optimistic people believe that good things will happen to them, which guides their daily actions (Carver et al., 2010) and is likely reflected in an intuitively positive outlook on the general team context and expressivity towards other team members. Regarding humour, being funny and amusing is modelled as high on social expressivity in Bales' space, a three-dimensional framework of individual properties and behaviors

**Table 2.** Summary of the factor analyses results for the 18-item team boosting behavior scale.

Item	<i>M</i>	<i>SD</i>	Study 2 – EFA <sup>a</sup>			<i>M</i>	<i>SD</i>	Study 3 – CFA <sup>b</sup>		
			1	2	3			1	2	3
<i>Mood-enhancing behaviors</i>										
1	I make sure that there is laughter in our team	4.68	1.25	.81		4.55	1.39	.90		
2	In my team, I make jokes	4.53	1.23	.80		4.70	1.43	.83		
3	I try to entertain my team mates	4.14	1.36	.77		4.17	1.49	.86		
4	I add a cheerful touch to our team	4.42	1.21	.73		4.61	1.28	.86		
5	I break a negative atmosphere in our team with a joke	3.85	1.42	.66		4.18	1.55	.81		
6	I tell stories when we meet	4.03	1.38	.53		4.47	1.41	.68		
<i>Energizing behaviors</i>										
7	I take initial action to set our team in motion	4.27	1.27		.82	4.10	1.31		.84	
8	I am the first to take action in our team	3.90	1.32		.80	4.08	1.24		.76	
9	In our team, I set the example by doing	4.51	1.31		.64	4.54	1.33		.71	
10	I propose new ideas for our team	3.97	1.32		.57	4.21	1.29		.78	
11	I stimulate our team	4.13	1.20		.55	4.05	1.23		.81	
12	I convince my team mates to join the action	4.10	1.19		.51	4.19	1.26		.81	
<i>Uniting behaviors</i>										
13	I strengthen the ties between my team mates	3.97	1.18			4.17	1.25			.80
14	I strengthen the ties with my team mates	4.40	1.09			4.76	1.20			.80
15	I respond to my fellow team members' need	3.85	1.21			4.44	1.21			.76
16	I approach my team mates in a personal way	5.17	1.21			5.15	1.25			.63
17	I assess the atmosphere in our team	4.53	1.25			4.55	1.29			.68
18	I involve all my team mates in what we do	4.49	1.27			4.42	1.33			.77
Eigenvalues				7.90	1.96	1.28		8.65	2.08	1.62
% of variance				41.40	8.54	4.58		48.07	11.56	8.99
$\alpha$				.89	.88	.83		.92	.91	.88

Factor loadings >.32 are shown. Items were translated from Dutch to English. <sup>a</sup>*N* = 384. <sup>b</sup>*N* = 598.

as defined by the three interpersonal behavior dimensions (Bales, 1970). Moreover, Martin (1998) describes how humorous people are often regarded as the “life and soul of the party, telling funny stories and amusing people” (p. 17). Finally, positive emotions and mood-enhancing behaviors share an emphasis on positive expressivity, with negative emotions being situated at the opposite side of this same continuum.

For the energizing dimension of team boosting behaviors, we selected characteristics and behaviors qualified as high on social dominance, reflecting high confidence, activeness, and assertiveness (Bales, 1970; Carter, 1954; Driskell et al., 2017). Based on this commonality, the energizing dimension of team boosting behaviors should be positively related to generalized self-efficacy, personal initiative, the activity dimension of temperament, and the Behavioral Activation System (Hypothesis 2). Generalized self-efficacy reflects the general belief in one’s ability to exercise control over (life) events (Judge et al., 1997) and is closely related to the concept of personal confidence that is placed high on the dominance dimension in interpersonal behavior frameworks (e.g., Bales, 1970; Carter, 1954). Personal initiative reflects self-initiated behavior focused on actively accomplishing work-related goals (Frese et al., 1996). Energizing behaviors relate to the self-initiated and active components of personal initiative but differ in the sense that they are oriented towards the team rather than specifically directed at personal goals. Furthermore, we expect that energizing behaviors originate in part from stable individual characteristics such as the personality traits “activity” (Buss & Plomin, 1984) and the motivational “behavioral activation system” (BAS; Gray, 1982). Underlying dispositions elicit a

nd drive the expression of equivalent behaviors (Allport, 1963), such that energetic dispositions – such as trait “activity” and “BAS” – can initiate equivalent energetic behaviors.

Next, uniting behaviors are conceptually linked to individual properties and behaviors based on the sociability dimension.

Sociable (as opposed to individualistic or antisocial) behaviors are characterized by warmth, friendliness, and interpersonal interest and support (Bales, 1970; Carter, 1954; Driskell et al., 2017). As such, the uniting dimension of team boosting behaviors should be positively related to agreeableness and other-focused emotional intelligence, and negatively to antisocial concepts like Machiavellianism and interpersonal deviance (Hypothesis 3). Agreeableness reflects “individual differences in being likeable, pleasant, and harmonious in relations with others” (Graziano & Tobin, 2009, p. 46), while other-focused emotional intelligence refers to “the ability to perceive and understand the emotions of those people around them” (Wong & Law, 2002, p. 246). Like uniting behaviors, agreeableness and other-focused emotional intelligence suggest a good grasp of social dynamics and a focus on positive interpersonal connections, leading us to expect a positive relationship between uniting and agreeableness as well as other-focused emotional intelligence. Machiavellianism is a dark personality trait, reflected in manipulating others for personal gain that undermines others’ interests (Wilson et al., 1996). Similarly, interpersonal deviance reflects harmful behaviors towards others, such as gossip or violence (Berry et al., 2007). Previous research indicates negative links between interpersonal deviance and other social constructs, such as agreeableness and organizational citizenship behavior (Bennett & Robinson, 2000). We therefore predict negative associations between uniting and Machiavellianism as well as interpersonal deviance.

In addition to the separate dimensions, we expect overall team boosting behaviors (i.e., the mean of the three dimensions) to relate positively to individual characteristics and behaviors that are aligned on multiple interpersonal behavior dimensions. We focus on extraversion, work engagement, and emergent leadership. Extraversion reflects a dispositional “preference for social interaction and lively activity” (McCrae & Costa, 2003, p. 46), and can be qualified as high on sociability



as well as expressivity. Work engagement refers to the state of feeling full of energy, dedication, and absorption (Schaufeli et al., 2006). These are salient, positive features (cf. Van Mierlo & Bakker, 2018) that can be positioned relatively high on both dominance and positive expressivity. Finally, emergent leadership reflects the type of leadership in which team members exerts substantial influence on their team without being assigned formal authority or a leadership position (Schneier & Goktepe, 1983), and can be associated not only with social dominance but also with sociability as leader emergence requires some degree of trust and connectedness to other team members. As such, altogether, we hypothesize that overall team boosting behaviors are positively related to extraversion, work engagement, and emergent leadership (Hypothesis 4).

Finally, given that the concept of team boosting behaviors is based on the general phenomenon of “being the life of the party”, we propose that respondents’ team boosting behavior will be positively related to their own general assessment of the extent to which they are perceived as being the life of the party within their team.

## Method

### Participants and procedure

We used the same sample as in Phase 1, with identical participants and procedure.

### Measures

*Team boosting behaviors* were measured with the 18-item Team Boosting Behavior-scale that resulted from Phase 1 (see Table 1).

To assess *positive and negative emotions*, we used the 12-item Dutch version of the Job Affective Well-Being Scale (Van Katwyk et al., 2000), translated and validated by Schaufeli and van Rhenen (2006). Respondents reported how often they felt specific emotions in their team in the previous 30 days (1 = never, 5 = very often), for example, “In my team, the previous 30 days I felt at ease”, Cronbach’s alpha was .84 for positive and .75 for negative emotions. To assess *humour*, we used the “humor production” subscale of the validated Multidimensional Sense of Humour Scale (Thorson & Powell, 1993). We selected four items (e.g., “I can say things in such a way as to make people laugh”; 1 = totally disagree, 5 = totally agree;  $\alpha = .89$ ) based on item content and factor loadings reported by the authors. We measured *optimism* with the 3-item optimism subscale of the Life Orientation Test-Revised (Scheier et al., 1994). An example item is “I’m always optimistic about my future” (1 = totally disagree, 5 = totally agree;  $\alpha = .80$ ).

Next, *self-efficacy* was assessed with four items from the Dutch adaptation of the general Self-Efficacy Scale (Teeuw et al., 1994). Items (e.g., “I am confident that I could deal efficiently with unexpected events”; 1 = not at all true, 4 = exactly true;  $\alpha = .83$ ) were selected based on content and the factor loadings reported by Teeuw et al. *Personal initiative* was measured with six items from the personal initiative scale

(Frese et al., 1996; e.g., “I actively attack problems; 1 = totally disagree, 5 = totally agree;  $\alpha = .80$ ). *Activity* was measured with the 4-item activity subscale of the Emotionality, Activity, and Sociability (EAS) temperament scale (Buss & Plomin, 1984; e.g., “My life is fast-paced”, 1 = totally disagree, 5 = totally agree;  $\alpha = .64$ ). To assess *responsiveness to rewards*, we used the 5-item subscale of the BIS/BAS (Carver & White, 1994; e.g., “It would excite me to win a contest”; 1 = totally disagree, 5 = totally agree;  $\alpha = .77$ ).

We measured *agreeableness* with the 9-item Dutch Big Five Inventory (Denissen et al., 2008). Respondents indicated to what extent the statements applied to them (e.g., “helpful and unselfish with others”; 1 = not applicable, 5 = applicable;  $\alpha = .73$ ). To assess *emotional intelligence regarding others*, we used the 4-item subscale EI-other of the Wong and Law (2002) emotional intelligence scale (e.g., “I am a good observer of others’ emotions”; 1 = totally disagree, 5 = totally agree;  $\alpha = .79$ ). We measured *Machiavellianism* with the 4-item subscale of the Dark Triad (Jonason & Webster, 2010; e.g., “I use flattery to get my way”; 1 = totally disagree, 9 = totally agree;  $\alpha = .83$ ), and *Interpersonal deviance* was assessed with Bennett and Robinson (2000) 7-item Interpersonal Deviance scale. Respondents were asked to reflect on the past half year. Items were adjusted to the team context (e.g., “I made fun of a team member”; 0 = never, 6 = daily;  $\alpha = .88$ ).

*Extraversion* was measured with the 8-item Extraversion subscale of the Dutch Big Five Inventory (Denissen et al., 2008). An example item is “full of energy”; 1 = not applicable, 5 = applicable;  $\alpha = .83$ . *Work engagement* was measured with the Utrecht Work Engagement scale (Schaufeli et al., 2006). We altered the nine items to refer to the team context, such that they would fit the work and sports domain, for example, “I feel happy when I am working intensely in this team” (0 = never, 6 = always;  $\alpha = .91$ ). *Emergent leadership* was measured with the 8-item Leadership Competence subscale of the Sociopolitical Control Scale (Zimmerman & Zahniser, 1991; e.g., “I am often a leader in groups”; 1 = totally disagree, 5 = totally agree;  $\alpha = .82$ ).

Last, we included one item asking respondents “to what extent do your team members see you as a team booster?” (0 = not at all, 6 = completely) to assess to which extent respondents believed other team members considered them a team booster.

### Check for interdependence

The 384 respondents in the sample represent 298 teams, of which 39 teams provided two or more team members. To check for interdependence in the data, we calculated the design effect for all constructs in the nomological network using the formula of Snijders and Bosker (1999). The design effect indicates the extent to which dependency of observations may have affected our conclusions (i.e., overestimation). Design effects below 2 suggest there are no problems with such dependencies (cf. Peugh, 2010). All constructs yielded a design effect below 2, with an average of 1.03 (SD = .041). Based on these findings, it is highly unlikely that the results have been affected by the partially nested data structure.

## Results phase 2

Table 3 presents the correlations among all constructs. First, we hypothesized positive relationships between mood-enhancing behaviors and optimism, humour, and positive emotions (Hypothesis 1). Results show that all three constructs indeed related positively and significantly to mood-enhancing behaviors,  $r$ 's ranged from .19 to .53, all  $p$ 's < .001, but the negative link between mood-enhancing behaviors and negative emotions was not supported,  $r = -.02$ ,  $p = .72$ .

In Hypothesis 2, we predicted positive relationships between energizing behaviors and self-efficacy, personal initiative, trait activity, and BAS. In support of the hypothesis, the correlations were all positive and significant. Energizing behaviors correlated most strongly with personal initiative,  $r = .52$ ,  $p < .001$ , followed by self-efficacy,  $r = .35$ ,  $p < .001$ , activity as a trait,  $r = .24$ ,  $p < .001$ , and BAS,  $r = .21$ ,  $p < .001$ .

Next, we hypothesized a positive relationship of uniting behaviors with agreeableness and other-focused emotional intelligence, and a negative relationship with Machiavellianism and interpersonal deviance (Hypothesis 3). Uniting behaviors related positively to agreeableness,  $r = .31$ ,  $p < .001$ , and other-focused emotional intelligence,  $r = .35$ ,  $p < .001$ , but were not significantly related to Machiavellianism or interpersonal deviance,  $r = .07$ ,  $p = .15$ , and  $r = -.01$ ,  $p = .80$ , respectively, providing partial support for Hypothesis 3.

In Hypothesis 4, we predicted positive relationships between overall team boosting behavior and extraversion, work engagement, and emergent leadership. All three constructs were indeed positively and significantly related to average team boosting behaviors: extraversion,  $r = .51$ ,  $p < .001$ , work engagement,  $r = .31$ ,  $p < .001$ , and emergent leadership,  $r = .39$ ,  $p < .001$ , supporting the fourth hypothesis.

In addition, we explored the correlations between respondents' self-reflection on the extent to which others see them as a team booster, overall team boosting behavior, and the separate dimensions (Table 3). All relationships were positive and significant, the correlation between the respondents' self-reflection and overall team boosting behavior was .59, for mood-enhancing behaviors it was .57, for energizing behaviors it was .50, and for uniting behaviors it was .40, all  $p$ 's < .001. This finding seems to indicate that individuals who display high levels of team boosting behaviors assess their own role within the team correspondingly.

Finally, to determine whether the conceptually related constructs are sufficiently distinct from team boosting behaviors, we examined the strength of the correlations. We interpreted correlations below .50 to indicate distinctive character, and correlations between .50 and .70 to be large, but still sufficiently distinctive. Values ranging between .70 and .85 imply considerable overlap, while correlations of .85 or higher indicate a devoid of distinctive character (cf., Cohen, 1988; Van Mierlo et al., 2009). In support of the distinctive character of team boosting behavior, all correlations with the constructs from the nomological network were below .53, indicating an overlap in explained variance of 28% at most. As such, team boosting behaviors were positively related to, but clearly distinct from other positive active individual characteristics.

## Conclusion and discussion

Study 2 provided an 18-item Team Boosting behavior scale with adequate psychometric properties and basic support for the proposed nomological network. A confirmatory replication study regarding the factorial validity is warranted to verify and extend these findings (Floyd & Widaman, 1995). Our exploration of conceptual linkages suggests that team boosting behaviors are consistently related to a range of individual characteristics and behaviors that can be qualified along the same dimensions of interpersonal behavior. These relationships were stronger for constructs that reflected behaviors (e.g., personal initiative), which are most proximal to team boosting behaviors, compared to more distal, trait-like constructs (e.g., trait activity). We found no support for the proposed negative relationships with negative affect, interpersonal deviance, and Machiavellianism. Note that each of these constructs has a negative valence, while we consider team boosting behaviors as beneficial. These non-significant relationships seem consistent with the notion that the presence of positive organizational phenomena cannot be equated with the absence of negative ones (cf. Bakker & Schaufeli, 2008; Fredrickson, 1998).

After examining team boosting behaviors and their nomological net at the individual level, we introduce a third study among intact work teams to verify the factorial validity and investigate the criterion validity of the Team Boosting behavior scale at the team level, differentiating between a prototypical and a generic perspective on team boosting behavior.

### Study 3: validating the team boosting behavior scale in intact work teams

For the development and validation of the Team Boosting behavior scale it is crucial to also examine the scale among intact teams. Although team boosting behaviors are individual behaviors, we do expect them to relate to team processes and outcomes from the bottom up. This bottom-up process comprises both the concerted effect of the *individual* team boosting behaviors of all team members (generic perspective) and the unique contribution of a single team member qualified as "the team booster" (prototypical perspective). The aim of the third study is to cross-validate the factorial structure of the Team Boosting behavior scale, and to establish its criterion validity by scrutinizing links between the individual team boosting behaviors and team-level outcomes. Moreover, including all team members of intact work teams allows us to differentiate between the prototypical and generic behavioral perspective on team boosting behavior in examining the criterion validity with regard to team-level processes and outcomes. Based on Steiner's (1972) team task taxonomy, we used two distinct statistical operationalizations to capture these two perspectives. Prototypical team boosting behaviors reflect the potential influence of specific team members (cf. Li et al., 2015; Mathieu et al., 2014), represented by the team member with the highest team boosting behavior score in her or his team (i.e., maximum score). In the generic perspective, team boosting behaviors are distributed across team members, represented by the average of the individual team boosting scores of all team members (i.e., mean score). Both perspectives reflect

Table 3. Descriptive statistics and correlations for all study 2 variables.

	M	SD	1	2	3	4	5	6	7	8	9	10
1 Team boosting behavior	4.27	0.83	-									
2 Mood-enhancing behaviors	4.28	1.05	.84***	-								
3 Optimism	3.67	0.72	.26***	.19***	-							
4 Humor	3.42	0.75	.42***	.53***	.17***	-						
5 Positive affect	3.86	0.64	.26***	.20***	.30***	.03	-					
6 Negative affect	1.84	0.62	.03	-.02	-.14**	.04	-.44**	-				
7 Energizing behaviors	4.15	1.00	.84***	.51***	.22***	.27***	.18**	.10*	-			
8 Self-efficacy	3.64	0.64	.33***	.21***	.44***	.26***	.21***	-.07	.35***	-		
9 Personal initiative	3.23	0.71	.22***	.13**	.14**	.21***	.17**	.09†	.52***	.18***	-	
10 Activity	4.08	0.57	.27***	.22***	.13*	.20***	.23***	.05	.21***	.18***	.31***	-
11 BAS <sup>a</sup>	4.40	0.88	.87***	.60***	.25***	.24***	.29***	-.02	.65***	.28***	.40***	.19***
12 Agreeableness	3.85	0.52	.16**	.09†	.32***	-.08	.37***	-.28**	.03	.14**	.11*	.01
13 EI-other <sup>b</sup>	3.80	0.69	.28***	.21***	.15**	.20***	.08	.07	.17**	.20***	.24***	.13*
14 Machiavellianism	3.74	1.77	.17**	.17**	.04	.25***	-.08	.15**	.18***	.14**	.08	.16**
15 Interpersonal deviance	2.15	1.11	.13**	.20***	-.02	.18***	-.11*	.30***	.13*	-.01	-.05	.10*
16 Extraversion	3.72	0.64	.51***	.49***	.34***	.32***	.27***	-.05	.42***	.37***	.43***	.28***
17 Engagement	5.16	0.90	.31***	.18***	.29***	.10†	.52***	-.25**	.27***	.24***	.35***	.27***
18 Emergent leadership	3.41	0.67	.39***	.27***	.21***	.31***	.05	.06	.45***	.44***	.50***	.22***
19 Team Boosting-Other <sup>c</sup>	4.44	1.36	.59***	.57***	.26***	.45***	.20***	-.05	.50***	.25***	.30***	.18***
20	11											
1 Team boosting behavior		.27***	-									
2		.01	.31***	-								
3		.28***	.35***	.28***	-							
4		.17**	.07	-.33**	-.02	-						
5		.10*	-.01	-.42**	-.09	.43***	-					
6		.22***	.39***	.19***	.13*	.12*	.12*	-				
7		.44***	.34***	.25***	.13**	-.06	-.04	.33***	-			
8		.16**	.27***	-.04	.03	.27***	.20***	.56***	.17**	-		
9		.12*	.40***	.16**	.13*	.12*	.14**	.53***	.23***	.23***	-	
10												
11												
12												
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17												
18												
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20												

Note. N = 384. <sup>a</sup> = Behavioural Activation System; <sup>b</sup> = Emotional intelligence regarding others; <sup>c</sup> = Extent to which the respondent believes that other team members consider him/her a team booster

† p < .10; \* p < .05; \*\* p < .01; \*\*\* p < .001.

individual behaviors within the team context, but while the prototypical perspective singles out a specific member, the generic perspective is focused on the additive contribution of all team members. We examined the nomological network of (a) the separate team boosting behavior dimensions and (b) team boosting behaviors as a whole, based on earlier research on the dimensionality of interpersonal behavior.

### **The nomological network of team boosting behaviors at the team level**

First, we examine the links between the three team boosting behavior dimensions and team-level processes and emergent states. Similar to the individual nomological network, we use the interpersonal behavior dimensions of dominance, sociability, and expressivity to link team boosting behaviors at the team level to a selection of relevant team concepts. First, regarding mood-enhancing behaviors, we propose a positive relationship with positive team mood. Mood-enhancing behaviors reflect positively expressive behaviors towards other team members. This positive expressivity can pass from one person to another, spreading through the team via emotional contagion – “the transfer of moods among people in a group” (Barsade, 2002, p. 644), and eventually converge into a positive team mood (González-Romá & Gamero, 2012; Totterdell, 2000). Vice versa, group affect influences the behavior of individual team members by shaping their emotional response and setting group norms for behavioral (e.g., prosocial behaviour) and emotional expressions (Barsade & Gibson, 2012; Collins et al., 2013).

Next, we propose a positive relationship between the team boosting dimension of energizing behaviors and team proactivity. Proactive teams “take an active, self-starting, and persistent approach toward work at a collective level” (Wu & Wang, 2015, p. 137), reflecting an assertive and activated collective state that closely connects team proactivity to the social dominance that is central to the energizing dimension of team boosting behaviors. Via crossover mechanisms, such as role-modelling (Buunk & Schaufeli, 1993), the individual energetic behaviors can be transferred among team members (Bakker & Xanthopoulou, 2009), causing the team to develop a collective energetic state of proactivity. Vice versa, a collective proactive team environment may encourage individual energetic behaviors, as team members mimic the collective behavior of the group (Bakker et al., 2006).

Finally, we expect a positive link between uniting behaviors and group cohesion, both high on the sociability dimension. Uniting behaviors reflect affiliative interpersonal behaviors that individual team members engage in to reinforce their connections with other team members. We expect these behaviors to strengthen the ties among team members, promoting group cohesion (i.e., “the degree of member integration or ‘bonding’ in which members share a strong commitment to one another and/or to the purpose of the team”, Mathieu, Kuenenberger, et al., 2015, p. 714). Again, vice versa, strong team cohesion implies high levels of interpersonal attraction and shared task commitment among the members (Mathieu et al., 2015), which will further reinforce individual displays of uniting behaviors. Consequently, we hypothesize positive relationships between mood-enhancing behaviors and positive team mood (H5),

energizing behaviors and team-level proactivity (H6), and uniting behaviors and group cohesion (H7).

Next to the separate dimensions, we examine the links between overall team boosting behaviors (collapsing the three dimensions) and team-level phenomena. Specifically, we expect that team boosting behaviors relate to shared positive, energetic team states and outcomes. Ultimately, we expect team boosting behaviors to contribute to team effectiveness. Team effectiveness is often subdivided into two broad categories; team member affective reactions and team performance (J. Mathieu et al., 2008). To cover both components of team effectiveness, we investigate the relationship between team boosting behaviors and a positive team climate, team work engagement, and team performance. A positive team climate reflects the positive “interaction pattern among members and the atmosphere that characterizes interactions within the group” (Choi et al., 2003, p. 24) and can be positioned high on the sociability and expressivity dimensions. Team work engagement reflects a “shared, positive and fulfilling, motivational emergent state of work-related well-being” (Costa et al., 2014a, p. 418), reflecting high positive expressivity and dominance (i.e., high energy). By means of affective sharing (Walter & Bruch, 2008) and shaping shared experiences (Marks et al., 2001), we argue that team boosting behaviors positively link to the two affective components of team effectiveness. These social mechanisms enable team members to transfer their energy, positivity, and interpersonal connectedness to each other and to the team as a whole, contributing to a collective positive and energetic affective team state. Vice versa, such team states influence individual behavior by setting behavioral and emotional standards that members will tend to conform to (Barsade & Gibson, 2012; Collins et al., 2013). Finally, the team performance aspect of team effectiveness represents a team’s current performance (i.e., outcome quantity and quality), often assessed by the team’s supervisor (J. Mathieu et al., 2008). Kozlowski and Klein (2000) argued that “team performance emerges from the behaviors of individual members” (p. 18), together with social interaction processes that merge these behaviors into a collective outcome. Ultimately, we expect the positive expressivity, assertiveness, and sociable nature of team boosting behaviors to add up to a team dynamic in which team members unite forces to strive for optimal team performance. Vice versa, high performance can reinforce individual team boosting behaviors, for example, by triggering positive affective responses and enhancing individual motivation, confidence, and commitment to the team and to each other. In all, we hypothesize that both the maximum and average score of overall team boosting behavior is positively related to a positive team climate (Hypothesis 8), team work engagement (Hypothesis 9), and team performance (Hypothesis 10).

We anticipate similar relationships for the two operationalizations, as we expect that team boosting behaviors expressed by either one prototypical team booster or jointly by all members will be beneficial for the team. Together, the hypothesized associations constitute a nomological network of team boosting behaviors and selected team-level processes, emergent states, and team effectiveness criteria, thus representing a test of the criterion validity of our focal construct.

## Method

### Participants and procedure

We invited work teams and their external leaders in several Dutch and international organizations to participate in this study by filling out a questionnaire (online or paper-and-pencil). The team members and team leaders of each team were sent questionnaires with an unique underlying code. Based on this code, we matched the teams' member and leader responses. The international teams filled out the questionnaire in English. Participation took approximately five minutes and was on a voluntary basis; no compensation was provided. All participants received information about the study, including a confidentiality clause.

Of the 192 invited work teams, 135 teams participated in the study, yielding a team-level response rate of 70.31%. To enhance the likelihood that results would reflect an accurate representation of the team-level constructs, we only included teams with complete responses of the external team leader as well as at least 50% of the team members. This is especially important in light of our focus on singling out the highest scoring team members. This resulted in a final sample of 120 teams ( $N_{\text{members}} = 612$ ;  $N_{\text{leaders}} = 120$ ), including 115 Dutch teams and five international teams. The average team size reported by the leader was 6.79 ( $SD = 3.51$ ). The average response rate per team was 65.26% ( $SD = 15.44$ ), with an average of 4.37 responses per team ( $SD = 2.64$ ). Team members and team leaders completed different questionnaires. Team members' mean age was 34.60 ( $SD = 13.62$ ) and 63.6% was female. On average, team members had worked 5.63 years ( $SD = 7.35$ ) in their current team; their mean number of working hours per week was 28.06 ( $SD = 13.70$ ). The mean age of the team leaders was 40.19 ( $SD = 13.36$ ) and 56.8% was male. On average, team leaders had worked 7.40 years ( $SD = 8.59$ ) in their current team; their mean number of working hours per week was 35.74 ( $SD = 13.98$ ). Most teams worked in retail (27.6%), education (15.5%), or financial or business administration (14.7%).

## Measures

### Team member measures

*Team boosting behaviors* were measured with the 18-item Team Boosting behavior Scale presented in Study 2. Cronbach's  $\alpha$  was .92 for mood-enhancing behaviors, .91 for energizing behaviors, and .88 for uniting behaviors. *Team work engagement* was measured with three items from the 9-item Team Work Engagement Scale (TWES-9; Costa et al., 2014b). Each item represented one of the three dimensions of work engagement: vigour, dedication, and absorption (e.g., vigour: "at our work, we feel bursting with energy"; 0 = almost never, 6 = almost always;  $\alpha = .86$ ). *Positive team climate* was measured with nine items adapted from the Group Atmosphere Scale of Fiedler (1967). Team members assessed the atmosphere in their team by scoring the bipolar items on an 8-point Semantic Differential rating scale (Osgood et al., 1957), for example, 1 = unpleasant, 8 = pleasant; and 1 = cold, 8 = warm. Items were coded such that higher scores represented a more positive team climate. Cronbach's  $\alpha$  was .82.

### Team leader measures

To prevent common-source bias, team leaders assessed team proactivity, positive team mood, group cohesion, and team performance. All items were answered on a 7-point response scale (0 = totally disagree, 6 = totally agree). We measured *team proactivity* with three items adapted from the team member proactivity subscale of the Griffin et al. (2007) performance scale. We adapted the scale to the team-level, so that the team leaders scored their team as a whole (e.g., "this team suggested ways to make the team more effective";  $\alpha = .91$ ). We measured *Positive team mood* with the three positively worded items of the 6-item affective well-being scale (González-Romá & Gamero, 2012). Team leaders indicated to what extent their team was 1) cheerful, 2) enthusiastic, and 3) optimistic ( $\alpha = .92$ ). We measured *group cohesion* with the 3-item cohesion subscale of the substitutes-for-leadership scale (Podsakoff et al., 1993; e.g., "the members of this work group are cooperative with each other";  $\alpha = .89$ ). We measured *team performance* with four items of the team performance scale of Van Mierlo et al. (2014). Team leaders indicated to what extent they agreed with each item, for example, "this team performs well", "this team is well on track to achieve their goals" ( $\alpha = .88$ ).

### Justification for aggregation

Individual scores for team work engagement and positive team climate were aggregated to the team level to obtain a single team score. Conceptually, team work engagement and positive team climate reflect shared team-level constructs. To verify that individual responses can indeed be combined to represent team-level phenomena, we estimated the ICC(1) – the proportion of the variance in team members' responses that is explained by group membership (Bliese, 2000; LeBreton & Senter, 2008), and the  $r_{\text{wg}(U)}$  – a measure of absolute consensus among team members (James et al., 1984). To interpret ICC(1), we used the interpretation conventions of Murphy and Myors (1998), in which effect sizes of .01 are considered small, .10 medium, and .25 strong. As a rule of thumb, we interpreted values of .70 to represent adequate agreement regarding the average  $r_{\text{wg}(J)}$  among our teams (Klein & Kozlowski, 2000; LeBreton & Senter, 2008). The ICC (1) value for positive team climate was .19,  $F(119,401) = 2.02$ ,  $p < .001$ , and for team work engagement .33,  $F(110,379) = 2.38$ ,  $p < .001$ . These results indicate small to medium effect sizes, which correspond with the magnitude of ICC's commonly found in applied field studies (Bliese, 2000). The average  $r_{\text{wg}(J)}$  value for positive team climate was .92, and for team work engagement .88, substantially exceeding the minimum level of adequate agreement (>.70). Together, these results justify aggregation to the team level. The other measures were collected directly at the team level as they reflected team leaders' perceptions of the team as a whole.

### Check for interdependence

As team boosting behaviors are individual-level behaviors, we have no assumption of a meaningful psychometric structure at the team level. To check the data for dependencies due to the nested structure, we calculated the design effect (Snijders &

Bosker, 1999) for mood-enhancing, energizing, and uniting behaviors. All three behaviors yield a design effect below 2, indicating that the interdependencies in our data are limited and supporting the appropriateness of the individual-level CFA (cf. Peugh, 2010). Specifically, mood-enhancing behavior has a design effect of 1.88, energizing behaviors of 1.56, and uniting behaviors of 1.61. Accompanying  $ICC(1)$  values were .26, .17, and .18, respectively, indicating that by far the largest part of the variance in the individual team boosting scores resided at the individual level.

## Results

### Confirmatory factor analysis

To test whether the three-factor solution from Study 2 fits this new sample, we conducted individual-level confirmatory factor analyses (CFA) using the AMOS software package (Arbuckle, 2005). We used five indices to assess the model fit: The Root Mean Square Error of Approximation (RMSEA), the Standardized Root Mean Residual (SRMR), the Incremental Fit Index (IFI), the Comparative Fit Index (CFI), and the Bayes Information Criterion (BIC).

RMSEA values up to and including .08 indicate acceptable fit, whereas values below .06 indicate good fit (Browne & Cudek, 1993; Hu & Bentler, 1999). SRMR can range from zero to one; values below .08 signify a good-fitting model (Hu & Bentler, 1999). IFI and CFI should be above .90 for a satisfactory fit (Byrne, 2001). In our current study, all indices indicated acceptable to good fit to the data for the three-factor solution: RMSEA = 0.08, SRMR = 0.04, IFI = 0.93, CFI = 0.93, BIC = 937.96. The factor loadings ranged from .58 to .88 (see Table 2).

In addition, we compared the three-factor solution to a one-factor and three two-factor models by means of the BIC difference. A 10-point BIC difference indicates strong evidence in favour of the model with the lowest value (Kass & Raftery, 1995). The three-factor model fit the data considerably better compared to the one-factor model (all items loading on one general factor),  $\Delta BIC = 1977.41$ , and the three two-factor models (energizing + mood-enhancing combined into one factor:  $\Delta BIC = 1336.74$ ; mood-enhancing and uniting combined:  $\Delta BIC = 908.97$ ; energizing and uniting combined:  $\Delta BIC = 730.85$ ).<sup>2</sup>

### Criterion validity

Table 4 displays the correlations among all study variables.

### Prototypical operationalization

First, we hypothesized a positive relationship between mood-enhancing behaviors and positive team mood (Hypothesis 5). Although the correlation between prototypical mood-enhancing behaviors (i.e., maximum score) and positive team mood was in the hypothesized direction, based on the conventional  $p = .05$  standard, the relationship was not significant,  $r_{\max} = .16, p = .09$ . Therefore, Hypothesis 5 is not supported for the prototypical operationalization.

Hypothesis 6 suggested a positive relationship between energizing behaviors and team proactivity. In support of this

hypothesis, the relationship between prototypical energizing behaviors and team proactivity was positive and significant,  $r_{\max} = .27, p = .003$ .

In Hypothesis 7, we predicted a positive relationship between uniting behaviors and group cohesion. The results showed a positive and significant relationship between prototypical uniting behavior and group cohesion,  $r_{\max} = .22, p = .02$ . Therefore, Hypothesis 7 is supported for the prototypical operationalization.

In support of Hypotheses 8, 9, and 10, prototypical team boosting behavior was significantly and positively related to positive team climate,  $r_{\max} = .31, p = .001$ , team work engagement,  $r_{\max} = .32, p = .001$ , and team performance,  $r_{\max} = .37, p < .001$ .

### Generic operationalization

Similar to the prototypical operationalization, we hypothesized a positive relationship between generic mood-enhancing behaviors (i.e., average score) and positive team mood (Hypothesis 5). The results showed that generic mood-enhancing behaviors was indeed positively related to positive team mood,  $r_{\text{mean}} = .19, p = .04$ . Therefore, Hypothesis 5 is supported for the generic operationalization.

In Hypothesis 6, we predicted a positive relationship between energizing behaviors and team proactivity. Although the correlation was in the proposed direction, it was not significant,  $r_{\text{mean}} = .16, p = .08$ . Thus, Hypothesis 6 is not supported for the generic operationalization.

Hypothesis 7 suggested a positive relationship between uniting behavior and group cohesion. The results showed a non-significant positive relationship for the generic operationalization,  $r_{\text{mean}} = .15, p = .09$ . These findings do not provide support for Hypothesis 7.

In support of Hypotheses 8, 9, and 10, generic team boosting behavior was significantly and positively related to positive team climate,  $r_{\text{mean}} = .30, p = .001$ , team work engagement,  $r_{\text{mean}} = .38, p < .001$ , and team performance,  $r_{\text{mean}} = .38, p < .001$ . The three team boosting dimensions were related to all three team effectiveness outcomes. The single exception was a non-significant relationship between the generic operationalization of energizing behaviors and positive team climate ( $r_{\text{mean}} = .16, p = .09$ ).

### Additional analyses<sup>3</sup>

We conducted additional analyses to test whether prototypical team boosting behavior explained significant additional variance in the dependent team variables over and above the team's average. To this end, we conducted six hierarchical regression analyses, in which we excluded the maximum scoring member from the average team score. We entered the average team score in the first step and the maximum score in the second step. The results showed that the prototypical team member explained significant additional variance in team performance (4%,  $p = .022$ ). In team performance, the prototypical team booster seems to add something extra on top of the team's average team boosting behavior. For positive team mood, team proactivity, and group cohesion, only the prototypical operationalization explained variance in positive team mood (8.4%,  $p = .006$ ), team proactivity (12%,  $p = .001$ ), and

**Table 4.** Descriptive statistics and correlations for all study 3 variables ( $N = 120$ ).

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13 <sup>a</sup>
1 Team boosting (max)	5.17	0.73	-												
2 Mood-enhancing (max)	5.49	0.91	.78***	-											
3 Energizing (max)	5.12	0.85	.81***	.43***	-										
4 Uniting (max)	5.50	0.84	.81***	.57***	.65***	-									
5 Team boosting (mean)	4.45	0.64	.84***	.67***	.71***	.70***	-								
6 Mood-enhancing (mean)	4.52	0.81	.74***	.78***	.47***	.54***	.89***	-							
7 Energizing (mean)	4.22	0.69	.75***	.44***	.81***	.57***	.87***	.62***	-						
8 Uniting (mean)	4.61	0.68	.75***	.54***	.62***	.78***	.91***	.71***	.72***	-					
9 Positive team mood	5.43	1.04	.25**	.16 <sup>†</sup>	.12	.28***	.18*	.19*	.02	.28**	-				
10 Team proactivity	5.15	1.09	.34***	.22*	.27**	.38***	.25***	.22**	.16 <sup>†</sup>	.29**	.69***	-			
11 Group cohesion	5.81	0.96	.20*	.12	.08	.22*	.13	.16 <sup>†</sup>	.01	.15 <sup>†</sup>	.71***	.62***	-		
12 Positive team climate	6.61	0.61	.31**	.22*	.16 <sup>†</sup>	.30**	.30**	.32***	.13	.33***	.35***	.20*	.34***	-	
13 Team work engagement <sup>a</sup>	4.63	0.81	.32**	.22*	.28***	.30**	.38***	.30**	.26**	.48***	.49***	.41***	.36***	.50***	-
14 Team performance	5.92	0.79	.37***	.24**	.31**	.36***	.38***	.30**	.29**	.43***	.59***	.59***	.54***	.19*	.31**

<sup>a</sup> $N = 111$ . <sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

group cohesion (6.9%,  $p = .018$ ). For positive team climate and team work engagement; only generic team boosting behavior explained variance in positive team climate (8.1%  $p = .002$ ) and team work engagement (10%,  $p = .001$ ).

## Discussion

In Study 3, we aimed to cross-validate the factorial structure of the Team Boosting behavior scale and examine its team-level criterion validity. CFA-results supported the three-factor structure. We examined the criterion validity based on the correlations of team boosting behaviors with conceptually-related team variables, distinguishing between a prototypical and a generic behavioral perspective.

Regarding the team boosting dimensions, we found significant positive relationships with the leader-rated team processes and emergent states for at least one of the operationalizations (i.e., energizing<sub>max</sub> – team proactivity; uniting<sub>max</sub> – group cohesion; mood-enhancing<sub>mean</sub> – positive team mood). These results suggest that team proactivity and group cohesion may be best enhanced by a prototypical “team booster”, while the teams’ positive mood may benefit especially from joint team boosting behaviors.

Regarding overall team boosting behavior, the relationships with positive team climate, team work engagement, and leader-rated team performance were positive and significant, and were similar in terms of valence (i.e., positive) and magnitude (i.e., medium) in both operationalizations. Altogether, our findings connect team boosting behaviors to relevant team processes, states, and outcomes, offering support for the criterion validity of the Team Boosting behavior scale at the team level.

## General discussion

Due to their energetic dominance, sociability, and positive expressivity, team boosting behaviors can boost the positive energy that teams need to thrive. Team boosting behaviors are specifically focused on individual behavior in a social context that can be displayed in greater or lesser extent by all team members. In addition, some members can stand out from the crowd, or in this case, from their team, by intense and frequent displays of these same behaviors. This approach distinguishes team boosting behaviors from other approaches, such as role

taxonomies, that link role-specific behavior to specific team members and thereby typify team members rather than behaviors. With a series of three studies, using qualitative and quantitative methods, we sought to develop this new concept, and create and validate a self-report measurement tool. Together, our findings supported the reliability and the factorial, convergent, and criterion validity of the Team Boosting behavior scale. Study 1 provided a formal concept definition that incorporates three dimensions: Mood-enhancing, energizing, and uniting behaviors. Study 2 produced an 18-item Team Boosting behavior scale and indicated convergent validity. Notably, team boosting behaviors were more strongly related to proximal concepts (e.g., behavioral constructs) than to more distal, trait-like constructs. Energizing behaviors, for example, were more strongly related to the behavioral construct of personal initiative than to both trait constructs (the “activity” component of temperament and the Behavioral Activation System). Finally, Study 3 confirmed the factorial structure of the Team Boosting behavior scale and supported the criterion validity at the team level. We found positive relationships between the team boosting behaviors and team processes and emergent states, such as team proactivity, team engagement and positive team mood, for both the separate team boosting dimensions and the overall construct, and for the prototypical (i.e., maximum score), the generic (i.e., average score), or both operationalizations. Together, our findings show that team boosting behaviors can be positioned within a nomological network of positive behaviors and other characteristics and are related to relevant individual and team-level characteristics. Our final aim was to assess the criterion validity of the Team Boosting behavior scale. Team boosting behaviors were positively related to affective as well as performance indicators of team effectiveness, indicating good criterion validity. Underlying social mechanisms like affective sharing (Walter & Bruch, 2008) and shaping shared experiences (Marks et al., 2001) may explain why the salient team boosting behaviors positively relate to team affective reactions and team performance. In addition, our findings show that in both the prototypical and the generic operationalization, team boosting behaviors are positively related to these team-level variables.

The additional analyses provided a first glimpse into the dynamics of prototypical and generic team boosting behaviors in teams. Prototypical team boosting behavior seems to play a role in specific team processes (positive team mood, team

proactivity, and cohesion) that are closely related to the three team boosting behavior dimensions. Teams that jointly engage in high levels of team boosting behaviors (i.e., generic perspective), however, seem to benefit in terms of broader team processes, such as the team's positive climate and work engagement. Ultimately, prototypical team boosting behavior may contribute to team performance above and beyond the role of average, joint team boosting behaviors, hinting at the potential boost that certain members might give their teams. With this approach, our study contributes to the literature by responding to Kozlowski's (2015) call for studies on emergent team-level phenomena based on the influence of individual team members, to complement the existing standard of research on team averages. Team members who frequently display team boosting behaviors may have a disproportional influence on their team, which corresponds to previous studies on, for example, "extra milers" (Li et al., 2015) and the "bad apple" (Felps et al., 2006). Future studies are needed to disentangle the mechanisms and effects of prototypical and generic team boosting behaviors.

### **What is next?**

Introducing a new construct invariably raises new questions and opportunities for new research. We discuss limitations and offer directions for future research that can help strengthen and expand our current findings, moving from methodological issues to theoretical perspectives.

Our main goal with the current research was to explore the nomological network of team boosting behaviors and establish criterion validity. To further strengthen the nomological network, future research should examine similarities and differences between team boosting behaviors and other perspectives on the role of individuals in teams, such as role taxonomies. Regarding criterion validity, a next step would be to examine causal patterns and include time into the research model (Roe et al., 2012). Team boosting behaviors might strengthen team cohesion over time, for example, but cohesion might also provide a safe environment that promotes individual displays of team boosting behaviors. Furthermore, modeling the time factor can shed light on the extent to which individual team boosting behaviors fluctuate over time and help identify potential antecedents and outcomes of such fluctuations.

In developing the Team Boosting behavior Scale, we used a self-report format, rather than relying on other-ratings or expert behavior observations. This choice was based on two considerations. First, our intent was to develop a scale that captures general team boosting behaviors in the team context as displayed by all team members in varying degrees, over longer periods of time and across settings, tasks, and activities. Interaction frequency can vary strongly within the team and over time, especially when remote working is alternated with working in the office. When asked to report on each other's team boosting behaviors, members might over-rely on specific behavior observations (e.g., a recent offline meeting, a social event, or a single particularly striking comment or behaviour), while missing other relevant behaviors. Second, the scale measures a range of specific underlying behaviors in

a level of detail that would be relatively hard to capture through observation, increasing the risk of halo effects and other observation biases (cf. Kenny, 1994). As such, the target individuals themselves seem to be the best informants about their own behaviors, especially at this early stage of conceptualizing team boosting behaviors. We do however recognize that self-reports are not without limitations, and emphasize that the use of other-raters or observations could offer a valuable addition to the self-report format. An observational approach could be especially suited to study team boosting behaviors displayed in a specific social setting, such as during a particular team meeting, where the relevant behaviors are directly observable

External ratings would be especially suitable for research aimed at studying the behaviors from a prototypical perspective, focused specifically on salient, frequent behavior displays that are more readily observable by others. In addition, observational approaches would be particularly interesting in the context of specific team events, such as a meeting or team training. Previous studies have demonstrated the value of observation-based interaction analysis in such settings (e.g., Kauffeld & Lehmann-Willenbrock, 2012; Lehmann-Willenbrock & Allen, 2014). This approach would require developing specific coding schemes for behavior observation, for which we laid the groundwork by providing a detailed concept definition and accompanying behavioral dimensions and their specific displays as captured in the survey items.

Our current findings suggest that "the team booster", defined as the highest scoring team member, may influence team affective processes and performance. Although this "maximum score" approach is common in relative contribution studies (cf. Li et al., 2015; Mathieu et al., 2014; Taggar et al., 1999), it has limitations. For one, not all teams necessarily include a prototypical team booster. Also, some teams may house more than one prototypical team booster and the pattern of team boosting behaviors in a team may shift over time and across situations. Future studies can use a social network approach to address the interplay between team members, their position within the team (e.g., centrality), and their relative position to their team members. Additionally, micro-macro multilevel approaches should be considered when studying bottom-up effects in teams, predicting team-level outcomes based on individual-level constructs (Croon & van Veldhoven, 2007; Preacher et al., 2010). This approach can be used, for example, to examine more advanced composition and compilation models, as well as the extent to which bottom-up effects of individual team boosting behaviors interact with other individual properties (e.g., likeability, network centrality), social network properties (e.g., network density, subgroup formation), and global team properties (e.g., team size, leadership structure).

Finally, we unexpectedly did not find negative relationships between team boosting behaviors and negatively-valenced constructs, such as negative affectivity and Machiavellianism. Elaborating on these findings, we tentatively propose that negative phenomena could sometimes represent driving forces behind team boosting behaviors (e.g., positive reframing of negative events), or can be "tools" team boosters use to achieve goals for the greater good (e.g., trying to get team members along by using



Machiavellianistic tactics). Moreover, we speculate that, in specific occasions, team boosting behaviors might be driven by less lofty principles. Team members could, for example, make fun of others to get laughs, or activate the team in a counterproductive direction.

### Practical implications and conclusion

First of all, our practical implications should be considered as tentative suggestions that need to be tested in future research. In our studies, team boosting behaviors related to positive individual and team-level phenomena, providing a hint of the possible positive implications these behaviors might have for team functioning. Our main idea is that team boosting behaviors are developable and trainable and can be promoted by managers or organizational practices.

In case future studies substantiate the positive effects of team boosting behaviors, this could inform HR practices, suggesting it may be worthwhile to consider team boosting behavior when selecting team members, or to focus on training team members on mood-enhancing, energizing, and uniting behaviors. As for the latter, we believe that a substantial strength of team boosting behaviors lays in its spontaneous and authentic character. Institutionalizing the use of team boosting behaviors might devalue its potential. In addition, we believe that strong team boosters may be deployed strategically in teams. Managers could, for example, position “team boosters” at the centre of a team to optimize their social and energizing influence. In organizational change research, for example, it has been shown that the informal position of “change agents” within organizational networks aids the initiation of and adaptation to the change among organizational members (Battilana & Casciaro, 2012). Furthermore, teams develop over time and shift their focus between social and task activities (Chang et al., 2003). Managers might, for example, benefit from encouraging team boosting behaviors especially in socially-oriented phases. When deployed at times when they fit best, team boosting behaviors may possibly reach their full potential.

Our current work on of team boosting behaviors was inspired by the common expression “the life of the party” (or, in Dutch the “gangmaker”). Across different contexts and occasions, we all recognize the kind of colleague, teammate, or friend that lights up the room when entering and that we wait for and rely on to “get the party started”. When presenting or discussing our work with others, they readily recognize the idea that such individuals and the associated behaviors will exert unique bottom-up influences on their surroundings. Our three-part study does indeed strengthen our notion that team boosting behaviors have positive links to team-level processes and effectiveness. The recognizability of the behaviors, together with the supportive findings from our first set of studies, indicates that team boosting behaviors capture a real and relevant concept with practical impact.

### Notes

1. The original inspiration for this research was the Dutch expression “Gangmaker”, which does not have a direct equivalent translation in

other languages. In English, “Life of the party” comes closest. Other languages refer to this phenomena as “el alma del equipo” (Spanish), “un boute-en-train” (French), “Stimmungskanone” (German), “Betriebsnudel” (Swiss German), “Η ψυχή της παρέας” (Greek), or “团队的灵魂人物, 中心人物” (Chinese).

2. Because we administered Dutch as well as English language versions of the Study-3 surveys, we checked for structural differences between the two versions. Results indicate no significant differences between the Dutch and English version of the scale regarding validity and factor structure. In the English = language sample ( $N = 24$ ), Cronbach’s alpha for the three dimensions of team boosting behaviors ranged between .87 and .91 and the 3-factor structure of the English version was equal to the Dutch version of the scale.
3. We thank the anonymous reviewer for suggesting the additional analyses.

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No potential conflict of interest was reported by the authors.

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