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# Team Work Engagement: Considering Team Dynamics for Engagement

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#### Abstract

Although teams are an important structure of organizations, most studies on work engagement focus almost exclusively the individual-level. The main goals of this paper are to argue that the construct of work engagement can be conceptualized at the team level and to discuss theoretically some of its possible emergence processes. A conceptual model that explains under which conditions team work engagement is more likely to emerge is developed. This model is developed based on the literature on work engagement, social identity theory, emotional contagion, and group theories and we developed propositions for future research. We propose that team work engagement is rooted on team members' shared perception of their team's level of engagement and that it emerges within a team through member's emotional interactions. Understanding the underlying mechanisms of work engagement in teams allows managers to actively promote high levels of engagement, therefore enhancing teams' performance levels. Studying a higher level construct is not just a methodological or data analysis question, but is essentially a theoretical one. Collective constructs that are driven from individual-level ones often lack a solid theoretical base that supports their existence. This paper fills that gap, introducing a clear definition of team work engagement, reflecting on the differences between levels and suggesting concrete factors for its emergence.

*Key words:* work engagement; collective constructs; work teams

#### **Conceptualizing Work Engagement at the Team Level**

The concept of work engagement has been flourishing within the literature on organizational behavior throughout the past decade. The interest in studying work engagement is partially due to its relevance for individual performance and well-being (Halbesleben, 2010). Nevertheless, although teams are important organizational performance units (Kozlowsky and Bell, 2003), most studies on work engagement have, until now, focused almost exclusively on the individual-level. Not following this trend, some authors have suggested that work engagement can be studied at the team level (e.g., Bakker, Emmerik and Euwema, 2006, Salanova, Llorens, Cifre, Martinez and Schaufeli, 2003; Torrente, Salanova, Llorens and Schaufeli, in press). Bakker, Albrecht and Leiter (2011) propose that collective engagement refers to the engagement of the team/group (team vigor, team dedication, and team absorption), as perceived by individual employees and that it might exist due to the existence of emotional contagion (Hatfield, Cacioppo, and Rapson, 1994) among team members.

The conceptualization at a higher level of a construct that has extensively been studied at the individual level calls for a previous and careful reflection on the conceptual issues underlying different levels of analysis. Indeed, an explicit theoretical analysis of team work engagement (or collective work engagement) is missing from the few empirical studies that have already analysed the construct. Another relevant gap concerns the debate about, and the understanding of, the mechanisms responsible for the existence of work engagement at the team level. In fact, assuming that it exists, team work engagement (TWE) is still a "black box" within organizational psychology.

Specifically, building on Salanova *et al.* (2003), on Bakker *et al.*'s (2006), and on Torrente et al's. (in press) initial approaches to a collective work engagement, this paper intends to reflect on two important research questions that have been overlooked. Firstly, one must be able to determine that work engagement exists at the proposed level (i.e. at the team level). Secondly, it is necessary to understand the dynamic mechanisms responsible for the emergence of TWE within a team: to which team processes it is related, what the role of the team leader in promoting team work engagement is, and under which conditions it will, most likely, develop. This conceptual reflection has not only implications for the construction of a theory but it also fulfils the need for clarification of the rationale behind the work on collective constructs which is lacking from many published works.

#### Work engagement as a multilevel construct

Since work engagement is an affective-motivational state (Schaufeli and Bakker, 2010), it is likely that people experiencing the same events have similar affective experiences (Weiss and Coprazano, 1996). There are some arguments that justify this rationale: team members usually share the same resources, the same team leader, the same customers, the same events, the same co-workers, and even the same work space. Moreover, teams are composed of individuals that are interdependent and, thus, have to interact. Interaction is the basis for the emergence of collective constructs: it allows for the explicit joint construction of meaning and for explicit and implicit affective communication about events and affective experiences of the interaction *per se*. Some evidence has been reported on mood convergence between people who work together: group affective tone (George, 1996), mood linkage (Totterdel, Kellet and Briner, 1998), or emotional contagion (Hartfield, *et al.*, 1994). Lastly, norms of emotional expression (Sutton, 1991) in groups can be either facilitate ("everyone should be cheerful and energetic") or inhibit ("we do not talk about our feelings, good or bad") the emergence of a collective level of work engagement.

Following Morgeson and Hofmann (1999), when developing a construct at the collective level, we can distinguish between its structure and its function. The structure of a collective construct has to do with *how* the construct emerges within a group of people, the

individual actions and cycles of interaction responsible for creating a shared pattern of behaviour. On the other hand, the function of a construct is about its outcome, or the causal effects of the construct that are thought to remain the same across levels. This means that, in multilevel research, one construct at different levels of analysis, even though it may have a different structure, has the same outcome. That is why we argue that individual and team work engagement have similar functions, (mediating the relationship between job resources and performance) (Bakker and Leiter, 2010) but a different structure. They are, therefore, functionally equivalent but not structurally equivalent.

## Team work engagement - Construct definition

Building on previous work (Schaufeli *et al.* 2001; Schaufeli and Bakker, 2010), we define team work engagement as a shared, positive, fulfilling, affective-motivational emergent state of work related well-being. This definition is different from the one proposed by Bakker *et al.* (2006) and from the one proposed by Salanova *et al.* (2003) and Torrente *et al.* (in press) in some relevant points that will be discussed below. Just like individual-level work engagement, team-level work engagement is proposed as a multidimensional construct characterized by vigour, dedication and absorption. This definition (1) keeps functional equivalence with the work engagement definition proposed by Schaufeli *et al.* (2001) in the sense that the outcome is an affective-motivational state that mediates resources and effectiveness (team effectiveness has been defined as productivity and the desire to stay in the team) (Hackman, 1987; Gladstein, 1984) and (2) that allows for the conceptualization of a different structure, based on the interaction patterns among the team members.

The three components of team-level work engagement are conceptualized as the following:

- Team vigour: shared high levels of energy and an expression of willingness to invest effort in work and persistence in the face of difficulties (e.g., conflict, bad performance feedback); for example, team members enthusiastically encourage demoralized colleagues, and explicitly express their desire to continue working.

- Team dedication: shared strong involvement in work and an expression of a sense of significance, enthusiasm, inspiration, pride and challenge while doing so; for example, team members talk to each other and to others (external to the team) about the importance of their work and about the thrill they feel concerning their work.

- Team absorption: shared focused attention on work, whereby team members experience and express difficulties detaching themselves from work; such as, team members talking about their work during breaks, commenting on time passing quickly and not engaging in non-work related interactions when working.

Based on this rationale, we put forward the following proposition:

*Proposition 1a.* Team Work Engagement (TWE) is a shared emergent state, qualitatively different from individual Work Engagement

Proposition 1b. Team Work Engagement should be measured as a team property

Two main differences are proposed in an attempt to consider the collective construct's different structure and its relevant differences from the individual context.

#### Emergent State

In our definition, team work engagement is an *emergent state* (Marks, Mathiew and Zaccaro, 2001). Emergent states are properties of the team that are dynamic in nature and vary as a function of: team context, inputs, processes and outcomes. They describe cognitive, motivational and affective states of teams. This emphasis on the emergent-state quality of team work engagement is in line with the recent comment made by some authors (Sonnentag, Dormann and Demerouti, 2010) on the importance of studying state work engagement, defined as a transient, work related experience that varies within individuals over a brief

period of time. This notion allows researchers to pay attention to the dynamic and configural aspects of work engagement and for an understanding of its more proximal predictors. The construct validity of state work engagement has been studied with promising results, as well as its predictors and outcomes (for a review, see Sonnentag *et al.*, 2010). Therefore, team-level work engagement is an emergent state whose collective structure is shaped by the nature of their members' interactions during team processes and dynamics.

#### Shared state

The second main difference relates to the assumption of sharedness. Kozlowski and Klein (2000) distinguish between three types of collective constructs with different implications in measurement. Global constructs originate at a higher level of analysis and have no analogue at a lower level. As a single-level, objective and descriptive phenomenon, they do not depend on members' individual perceptions or attributes and are independent of individual behaviour or interactions between members (e.g., the number of group members). Shared constructs, arise from the lower level and are manifested at the higher-level. They only exist when the individuals of the collective share similar perceptions and describe characteristics common to the members of the collective. They emerge through composition because the values within the individual-level construct are similar for all unit members [e.g. collective efficacy (Bandura, 1997), organizational climate (James and Jones, 1974)]. Configural constructs also arise from the lower-level attributes, but are not defined by the homogeneity of perceptions; they capture the pattern of individual-level values on the construct of interest within the collective. Just like football players having different roles within a team and contributing differently to the end result, individual actions/perceptions combine in a complex and nonlinear way to form the aggregate property (Hofmann, 2002) (e.g. diversity research, measured by within-unit variability).

Team work engagement is defined as a shared property of the team. Therefore, to state the existence of team level work engagement, team members must have similar perceptions of this state. If team members have high variability in their perceptions of the level of engagement of their team, then we cannot talk about the existence of a team-level work engagement – we can only talk about a team member's individual perceptions of his/her team's level of engagement. We argue that there may indeed be different outcomes when assessing the impact of team-level work engagement on several criterion variables, due to differences in work engagement's (a) *valence* (high or low level of engagement), and (b) *strength*, defined as the degree of within-unit agreement among members' team work engagement perceptions (high or low strength). Nonetheless, we posit that one cannot speak of this team-level construct unless there is a minimum degree of consensus to justify aggregation, as defined by the consensus measures, such as the Intraclass Correlation (ICC), the  $r_{wg}$  (James, Demaree and Wolf, 1984) or Dispersion indexes (ADI). The degree of consensus works as a threshold for the emergence of team work engagement (Figure 1).

#### **INSERT FIGURE 1 APPROXIMATELY HERE**

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# Differences in the degree of consensus and valence.

We posit that these differences in strength and valence have an impact on the magnitude of the relationships of the construct with its nomological network. The implications of the differences in strength and valence on the outcomes such as performance and satisfaction are not a specific feature of TWE. Indeed, the same reasoning can be found in other constructs (for example, climate strength – González-Romá, Fortes-Ferreira and Peiró, 2010). Nonetheless, we believe it is relevant to give a brief rationale to illustrate how it works. In what valence is concerned, if every team member agrees that their team level of work engagement is low (thus, the team work engagement's strength is high and its valence is low), there is probably some robust evidence to believe that it is so (for example, team members talk to each other about how they feel de-motivated, take every chance they have for a coffee break, etc.). As a consequence of this low energy, dedication, and absorption, both satisfaction and performance will be lower. On the contrary, a shared perception of a high level of team work engagement (team work engagement's strength is still high but its valence is now high) probably comes from qualitatively different experiences with team members (e.g., team members stay in late, talk about how exited they feel about a new project, etc.) that will result in a stronger investment in work and in increased performance and satisfaction. In both situations, the team work engagement's strength is high and the difference is on the valence of the team work engagement.

Considering strength, when members have different perspectives on their team's level of engagement (strength is low), each one will probably react in line with his or her own perception. Since each member is reacting in a different way, or pulling the team's behaviour in distinct directions, the magnitude of the relationship between their pattern of team work engagement perceptions and performance or satisfaction outputs will be weaker.

*Proposition 2a.* The relationship between team work engagement and relevant outcomes such as performance and satisfaction will be stronger when the construct's strength is high (i.e. when the degree of within-unit agreement is higher)

*Proposition 2b* .Teams with a high valence of TWE will show more positive affective responses concerning working in the team and also more positive performance outcomes.

Finally, we argue that both valence and strength interact to define the magnitude of the relationship between team work engagement and performance and satisfaction outputs. Indeed, in teams where members agree that their level of engagement is high, the behaviour of each member is likely to convey positive affect and motivation. This would, in turn, trigger and reinforce the same kind of attitudes and behaviour (investing effort in one's work and positive work-related displays of affect) from other members in a positive spiral of engagement. The more team members invest effort in their work and display positive emotions, the more likely it would be to expect higher performance and satisfaction outcomes. In a similar way, in teams where team members agree their level of engagement is low, the members' behaviour is likely to be similar in what affect and motivation are concerned: displaying low levels of effort and satisfaction while working. Again, these behaviours will impact each member's attitude and behaviours accordingly, decreasing their investment (both affective and task-related) in work. This will, then, result in lower levels of performance and satisfaction. When the perception of TWE is not shared among team members (low strength), the behaviour of team members is likely to be less aligned and, thus, team members may send different or even contradictory messages about their levels of affect and motivation. In this case, their average perception of their team's level of TWE may not be an accurate picture of the reality. Therefore, the relationships between TWE and the outcomes are likely to be weaker. This means that the role of team work engagement as a mediator between job resources and outcomes will be higher, especially when the team work engagement's valence is high and team members agree on that fact (when strength is also high). In these situations, we would see energetic and motivated individuals all acting accordingly and pushing their team's work in the same direction.

*Proposition 2c*. The relationship between team work engagement and relevant outcomes such as performance and satisfaction will be stronger when the construct is strong (vs. weak) and with a high (vs. low) valence (interaction effect).

# From individual perceptions to a shared vision

The threshold for the existence of team work engagement is objectively a statistical question. If, within the unit, agreement is over .70 [measured by James, Demaree and Wolf's

(1984)  $r_{wg}$ ] then aggregation to the higher level is justified. Some authors (Dunlap, Burke and Smith-Crowe, 2003), using the AD index, propose a more flexible approach, depending on group size and the number of categories. Nonetheless, explaining why some teams do reach that threshold and others do not is, primarily, a theoretical activity.

In 1973, within a situationist framework, Mischel theorized about the characteristics of a situation that would most likely lead to consistent behaviours within and among individuals. He labelled the situations that: induce uniform expectancies about the appropriate response pattern, that promote the necessary skills for that response to happen and that incentivize that precise response pattern, as "strong situations". These kinds of situations lead everyone to perceive particular events in the same way. In the human resources management (HRM) literature, Bowen and Ostroff (2004) hypothesise that HRM systems can also be more or less strong. In strong HRM systems, conformity is induced and individuals share a common interpretation of the behaviours that are expected and rewarded, which results in a strong organizational climate.

Some authors (Bakker *et al.*, 2011) recently proposed a "climate for engagement", measured through the six areas of worklife originally proposed by Leiter and Maslach (1999): workload, control, reward, community, fairness and values. The climate for engagement (the shared perceptions of the work environment that indicate whether the environment is resourceful) would facilitate the engagement at the group and individual levels. We add that there might be team-specific variables responsible for the emergence of team work engagement.

## A model for the emergence of team work engagement

Emergent states derive from various team experiences, namely from team processes, defined as "members' interdependent acts that convert inputs to outcomes through cognitive, verbal and behavioural activities" (Marks *et al.*, 2001). Some process mechanisms, relevant

for the appropriateness of team members' interactions and task work flow have already been put forward (e.g. Kozlowski and Bell, 2003): cognitive mechanisms such as team mental models or team learning and affective and motivational constructs and mechanisms, such as cohesion, collective efficacy or collective mood or group emotion. This last group of process mechanisms is most relevant for the present reflection. We propose, therefore, four major groups of broad variables that may contribute to the emergence of team work engagement (Figure 2), as well as some examples of more specific variables for each one. Please note that those examples are not meant to be exhaustive nor presented in any order of importance.

Indeed, we acknowledge that other variables might be relevant for the emergence of TWE. However, considering the previous definition of TWE as an affective-motivational emergent state of work related well-being and due to parsimony concerns, we opted to focus on those four groups. Moreover, the literature on those variables converges in relating them to emotional and motivational outcomes, as it is be explored below.

#### **INSERT FIGURE 2 APPROXIMATELY HERE**

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#### Degree of interaction

Interaction is taken as a central characteristic of groups (Campion, Medsker and Higgs, 1993; Shea and Guzzo, 1987). Hence, a team can be defined as: a "distinguishable set of two or more people who *interact, dynamically, interdependently*, and adaptively toward a common and valued goal /objective /mission, who have been assigned specific roles or functions to perform, and who have a limited life-span of membership" (Salas, Dickinson, Converse, and Tannenbaum, 1992, p. 504, emphasis added).

The degree of interaction between team members has been related to the affective responses of team members. For example, Van der Vegt, Emans and van der Vilert (2000) showed that individual-level task interdependency and job complexity were related to individual job satisfaction, team satisfaction and to job and team commitment in a sample of technical consultants. These relationships were moderated by the degree of outcome interdependence of the work group, with high outcome interdependent groups showing a higher positive relationship between the variables.

Additionally, interaction has also been proposed as a touchstone of the development of shared states in a team (Marks *et al.* 2001). According to Bartel and Saavedra (2000), the emotional convergence of people in a group is facilitated when there is a higher tenure and familiarity between its members. These people would have the tendency to: interact more with each other, to share a higher degree of intimacy and to better understand the affective expression of others. Indeed, Anderson, Keltner and John (2003) studied emotional convergence in couples and roommates and concluded that their responses on emotional content scales became more similar within a year.

Empirical work on the concept of shared mental models (defined as a common understanding about expected collective behaviour patterns during team action by Cannon-Bowers, Salas and Converse (1990) also highlight tenure and experience as important antecedent variables of the shared construct. For example, in a study on navy personnel, Smith-Jentsch, Baker, Salas and Cannon-Bowers (2001) showed that people with a higher rank and a longer time in the service had more similar teamwork mental models. Although the construct of shared mental models is cognitive, whereas work engagement is an affectivemotivational one, the existence of a common understanding about what is expected by team members is likely to facilitate the anticipation of co-workers' actions and the communication required during team performance, resulting in positive work-related feelings. Concerning TWE, it is proposed that it is a shared state with an emotional component. People are expected to show a similar perception of their team's engagement and also some degree of emotional convergence. Therefore, fewer opportunities to interact means that there are also fewer opportunities to evaluate, experience and perceive other member's levels of energy, and identification with work.

#### Degree of groupness

The rational for this set of variables comes essentially from the literature on social psychology. Bar-Tal (1990) argues that group members share common beliefs and convictions, which they are aware they share and that are considered as defining their groupness. One of these group beliefs, called the fundamental group belief is the belief that "we are a group". The existence of such group beliefs provides the cognitive basis for members to conceive the group as one entity and, consequently, for group identification, cohesion and boundary establishment.

Social identity theory (Tajfel and Turner, 1979), a pivotal theory in the field of social psychology, reinforces this idea. Social identity theory states that a part of an individual's self-concept is deeply related to "belonging" to the group. Amongst the numerous classic and recent findings on social identity, it is well acknowledged that people with high social identity tend to perceive themselves as: being more similar to other group members (e.g. Mackie, 1986), conforming both in behavior and attitudes between team members (e.g. Wilder and Shapiro, 1984), and feeling a stronger need to agree with the group's opinion (e.g. Deutsch and Gerard, 1955; Mackie, Gastardo-Conaco and Skelly, 1992). Hence, a feeling of belonging to a group is expected to facilitate the embracing of a common perspective, namely in the degree of work engagement of team members as a collective and to pave the way for individuals to assume the identity of the group. If team members have a high social identity,

their emotional and motivational state is more likely to converge concerning the emotional and motivational state of other group members.

# External cues

Teams have a set of implicit and/or explicit norms about which emotions should be displayed in the context of work and about how those norms should be displayed (Rafaeli and Sutton, 1987). The existence of these norms in the work context is justified by its impact on client satisfaction (when, for instance, a nurse expresses concern and empathy towards a patient) and, on the other hand, because they are supposed to facilitate the coordination of social activities. For example, Sutton (1991) found that bill collectors were selected, socialized and rewarded for following the norm of conveying high arousal and slight irritation to customers (a sense of urgency). Moreover, if display rules focus on the expression of positive emotions at work, it may have a positive effect on the workers' wellbeing. Indeed, the reproduction of a given emotion, using skeletal muscles and intonation seems to affect the subjective experience of a given emotion. Strack, Martin and Stepper (1988) asked two groups of participants to perform one simple task: holding a pen between their teeth to originate a smile, or between their upper lip and nose, originating a frown, or in their hand and afterwards asked them to evaluate the funniness of a cartoon. Participants who had been "obliged" to smile evaluated the picture as funnier than the others.

Another cue that members may receive from their external environment is the behavior and functions of the team leader. Some leadership processes such as providing feedback or coordinating performance strategies have been proposed as antecedents of team motivation (team task cohesion and collective efficacy) by Zaccaro, Rittman and Marks (2001). Other leadership processes such as feedback and control or utilizing and monitoring personnel resources are proposed by the same authors as relating to team affective processes.

Both, team motivational and affective processes, are assumed to be related to team effectiveness, just as TWE is.

Focusing on the construct of TWE, if team members tend to express their emotions in a very explicit way, it facilitates their perception by others. Specifically, if display rules focus on the expression of enthusiasm and energy, the emergence of TWE may be facilitated. Also, since TWE is an affective-motivational state, we suggest that the behavior of the leader will have an impact on the team level of engagement, either facilitating or inhibiting its emergence. In a recent review, Gooty, Connelly, Griffith and Gupta (2010) concluded that affect is deeply connected to the process of leading as well as to leaders' and followers' outcomes. Indeed, some evidence points to the influence of the overall affective state of group members by the leader (Totterdell, 2000; Totterdell, Kellett and Briner 1998). Other studies (Sy, Côté and Saavedra, 2005) suggest that groups with leaders in a positive mood exhibit more coordination. Finally, a high-quality relationship between team members and the team leader can create and communicate a shared identity or values through the ongoing interactions (Tse, Dasborough and Ashkanasy, 2008).

# **Emotional Events**

One of the most influential theories of affect at work is Weiss and Coprazano's (1996) Affective Events Theory. The authors propose that affect mediates the effect of organizational variables on affective and behavioural outcomes. Indeed, people experience affective events in their work life, events that lead to moods and emotions. According to the theory, these moods and emotions may accumulate overtime and, in the long term, lead to more stable work attitudes (e.g. job satisfaction) that, in turn, will result in work-related cognitively driven behaviours (e.g. work productivity or the decision to quit). Work by Suh, Diener and Fujita (1996) found that recent events, positive or negative, were related to the individual's perception of subjective well-being. Mignhonac and Herrbach (2004) also conducted a study in the work context, with French managers and found that positive and negative events at work were related to affective reactions which influenced work attitudes. More recent empirical work is starting to explore the relationship between work engagement (at the individual level) and job-related affect. Indeed, personal affective states such as positive emotions, self-efficacy, or self-esteem have been reported to impact at the individual level on work engagement (Shirom, 2007; Sonnentag *et al.* 2010). Bledow, Schmitt, Frese and Kühnel (2011) proposed and tested the affective shift model of work engagement, suggesting that work engagement occurs when people move from experiencing negative affect to a situation of high positive affect. Also Balducci, Schaufeli and Fraccaroli (2011) found a mediating effect of job-related positive affect between job-resources and work engagement.

Based on these findings, we propose that, at the team level, positive emotional events shared by team members at work may facilitate the emergence of team work engagement by their experience of enthusiasm and dedication towards work. In a similar way, sharing positive events may lead to more positive interactions within a team, in a dynamic pattern of events and interaction.

*Proposition 5.* Team work engagement emerges within the team as a result of: the team members' degree of interaction, members' beliefs about their belonging to the team, the perception of emotional interactions with others and emotional events at work.

#### Dynamic nature of the model

The literature on work teams has evolved to more complex perspectives. From the inputprocess-output (I-P-O) models, important theoretical work has proposed a more dynamic view of work teams, in which temporal intervals play a central role. Therefore, Marks *et al.*  (2001) propose that team inputs, processes and outputs should be conceptualized within a multiphase episodic framework. They argue that team performance episodes (periods of time over which a team works and gets feedback on the work done) ought to be conceptualized as a series of input-process-output cycles that occur both simultaneously (when a team has a set of different tasks at hand, starting at different times) and sequentially (in the same task, the outputs of one performance episode are the inputs of the next one). Broadly, Marks et al. (2001) argue for two different kinds of phases that imply that teams are engaged in different types of task work while they strive to accomplish a goal: action phases and transition phases, both with their own I-P-O cycles. The presentation of these phases in detail is beyond the scope of this paper. The main idea is that these phases and the I-P-O cycles are recursive and occur in a circular way throughout the life of work teams. This means that the output of one performance episode (e.g. a bad performance evaluation) can be considered as the input for another performance episode (e.g. because the team previously had a bad performance evaluation, they start by acquiring more resources/ training some of the members). Based on this idea, we propose that, in the model presented, the variables act and interact with each other in a dynamic and recursive way as well. Therefore, depending on the performance episode, some variables might be more or less salient than others at that specific time. Moreover, the emergence of TWE can itself act as a moderator of the impact of those process variables on future outcomes and performance or satisfaction, which can work both as outputs and inputs.

#### Some Considerations on Measuring the Construct

According to Hofmann and Jones (2004), determining the level of the entities from which data are derived depends on the answer to the question "is the researcher interested in describing a collection of individuals or in describing a collective phenomenon?" (p. 308). The answer depends upon the research question and is not either right or wrong on its own.

We add that it is also a consequence of the theory level and of the construct definition made, namely about the predicted homogeneity or heterogeneity of the collective construct (Klein, Dansereau and Hall, 1994). Since our theoretical conceptualization of team-level work engagement is homogeneous (i.e. group members have a shared perception of their team's level of work engagement), the focus should be placed on the variation between groups. Moreover, it refers to an emergent state of a team, which is different than an individual workrelated state of well-being: what is central to the construct is not how one individual feels about his or her work in terms of energy, affect and motivation but how individuals perceive their team's level of TWE as a whole entity. Therefore, data should be collected from numerous groups, obtaining a single score representing the group as a whole and maximizing between-group variability.

The main decision in constructing a scale, or in adapting the individual-level one (Schaufeli et. al 2001) is, then, to select the subject of the sentence. There are three main hypotheses: (1) to use the first-person singular ("I"), where the subject is the respondent him or herself (e.g. "At [my] work, [<u>I think</u> that] <u>my</u> team is/we are bursting with energy"); (2) to use the first-person plural ("we"), where the subject is the collection of individuals composing the team, including the "I" ("At [our] work, <u>we</u> are bursting with energy"); (3) to use the third-person singular ("the team"), where the subject is the team as an entity ("At [our] work, <u>the team</u> is bursting with energy"). The first hypothesis is easily excluded, since we are not looking for an individual propositional attitude about the enunciation but for a collective one. Choosing between the other two hypotheses is less clear, though, since in both the reference is collective. Nonetheless, and reflecting the reference-shift composition model (Chan, 1988) and Bar-Tal's (1990) ideas on group beliefs, we chose the second hypothesis (first-person plural) and we justify it linguistically (Cintra and Cunha, 1984): It is assumed that when using the first-person plural ("we") the speaker includes him or herself in the group

that is being described more strongly than when using a more neutral formulation such as "the team". Hence, since the "groupness" of a group can be defined, among other conditions, by whether the people involved consider themselves as part of a group and whether they recognize one another and distinguish members from non-members (Arrow, McGrath and Berdhal, 2000), we believe that using the first-person plural best describes this reality.

*Proposition 6.* Team work engagement should be measured with team-referent items and not by the aggregation of individual work engagement levels since the individual work engagement scale reflect the individual level of work engagement and not the team as an entity one.

#### **Discussion and Future Research**

This paper conceptualizes the construct of work engagement at the team level. We believe that the study of TWE is most relevant concerning the role of teams in organizations and the centrality of the employee's energy and motivation for achieving organizational goals. The relevance of this paper is twofold, simultaneously theoretical and empirical.

From the theoretical standpoint, some authors have already opened the door for this fruitful field of research, considering TWE as an important variable (Bakker *et al.* 2006, Salanova *et al.*, 2003; Torrente *et al.*, in press). Acknowledging their contribution, we have gone beyond their work and went one step ahead. Indeed, an explicit theoretical conceptualization of the construct at the team level was still missing from the literature, without which the research on TWE would be incomplete and lack a solid theoretical background. This is a problem common to multilevel research: despite the fruitful debates within the literature (e.g. Rousseau, 2010; Molloy, Ployhart and Wright, 2011), consensual guidelines for researchers are still lacking. Specifically, there is no a clear rule for transposing individual constructs to higher levels, yet. While some studies suggest the aggregation of individual levels of work engagement as a reflection of a team level construct, an explicit

debate to clarify its meaning at a higher level is still missing from the literature. Aware of this absence and further, of its importance, we decided to initiate our reflection on TWE from scratch. We decided, then, to explore whether work engagement exists at the team level and the dynamic mechanisms responsible for it within a team: we have advanced some team processes and conditions that facilitate the development of TWE. Basing our thoughts both on the literature of multilevel theory and, more specifically, on what is already known about work engagement, we proposed a detailed definition of TWE and theoretically justified our choices. Moreover, we discussed a possible operationalization of the construct, based on the original work engagement scale that focused exactly on what has been missing from the work of many researchers: the unambiguous, theory-driven explanation of why certain choices were made. Finally, and in line with our definition of TWE as an emergent state, we presented a model for the emergence of TWE that focuses essentially on team processes. Contrary to team inputs and outputs, both emergent states and team processes are rarely studied within the literature on teams. However, they are the building blocks of team dynamics and their understanding is crucial for both researchers and managers. Their study implies a more complex view of teams and of teamwork, where more linear approaches are insufficient and that calls for dynamic approaches that take into account the importance of time.

We also contribute to point out some possible directions for future research on the area of Team Work Engagement, with the model and propositions presented acting as guidelines. Firstly, future work should aim at empirically validating this construct. We need research that operationalizes team work engagement, that accesses its convergent and discriminant validity and that explores its factor structure. It is also necessary to explore the best way to measure team work engagement as a collective construct, either through the aggregation of individual data on a collective measure or through a group discussion method,

as suggested by Goddard, Hoy and Hoy (2004). Secondly, the nomological network of the construct should be analysed. Therefore, we suggest that researchers validate the function of the construct at the team level, by showing significant relationships with variables such as self-efficacy (as predictor) or performance (as output). Thirdly, it urges us to reflect upon the structure of team work engagement. Specifically, it is most interesting to reflect on how team work engagement emerges in teams. To answer this question, researchers ought to turn their attention to the processes that underlie the emergence of a state within a group or a team. Some of the variables mentioned in this paper could shed some light on this, namely emotional events and emotional expressions of team members and/or team leaders. It has already been found that, at the individual level, transformational leadership impacts on the employee's daily level of engagement (Tims, Bakker and Xanthopoulou, 2011), a relationship moderated by follower characteristics (Zhu, Avolio and Walumbwa, 2009). Some new approaches to leadership, based on leadership functions (Morgeson, DeRue and Karam, 2009) and on dynamic team leadership (Kozlowski, Watola, Nowakowski, Kim and Botero., 2009) are probably interesting approaches to understanding the emergence of team work engagement. A fourth suggestion for further research is based on the work of Fredrickson (2001) on the broaden-and-build theory of positive emotions. The theory predicts that positive emotions might have a positive impact on the level of work engagement, since positive emotions are responsible for broadening the scope of attention and cognition. This would, in turn, foster the levels of energy and dedication to work, as well as the level of wellbeing, that can be thought of as work engagement or its proxies. For example, work on the facial expression of emotion (e.g. Eckman and Davidson, 1993) could also be an exciting avenue for research on the emergence of team work engagement: is the pattern of expressed emotions in a team related to the team's level of engagement? Finally, efforts should be directed at understanding how team work engagement develops and unfolds overtime. This

means that researchers should develop longitudinal designs that encompass the notion of cycles of interaction and performance in order to best describe the fluctuations of team work engagement and its relations with team-relevant events.

To sum up, we believe that this paper opens a motivating avenue for research. The model presented in this paper should be considered, then, not only as a theoretical output but also as an input for a fruitful research agenda on the promising concept of team work engagement.

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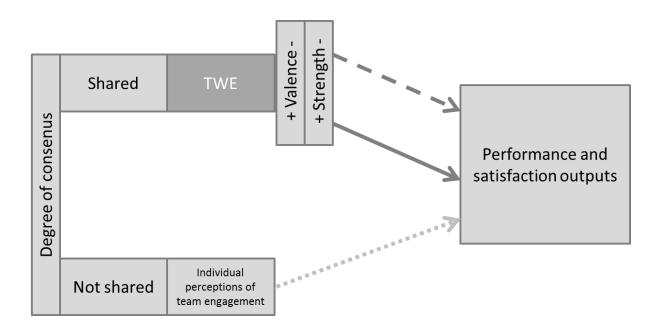
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# Figure Caption

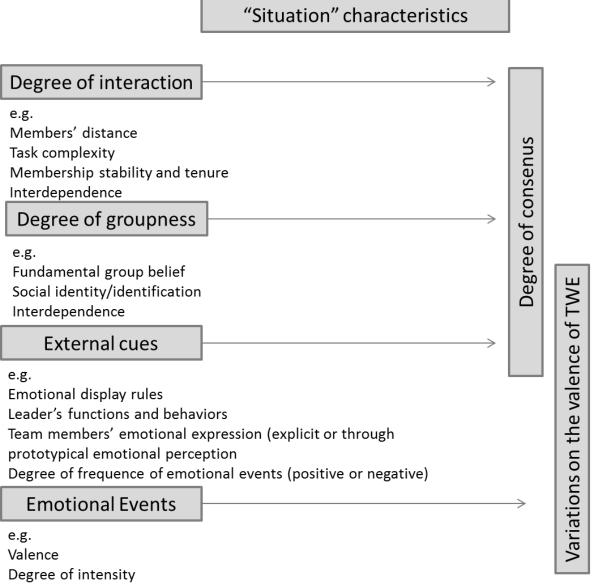
*Figure 1.* Shared and configural pathways for the emergence of team work engagement and of individual perceptions of team engagement, respectively, depending on the degree of consensus of team members and its relationship with performance and satisfaction outputs.

*Figure 2.* Proposed model for the emergence of team work engagement.





# Figure 2



Emotional meta-experience