

The online Prescriptive Index platform for the assessment of managerial competencies and coaching needs: development and initial validation of the experience sampling Mood Wheel and the Manager-Rational and Irrational Beliefs Scale

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The Prescriptive Index platform is dedicated to the appraisal and development of managerial competencies, and it is comprised of such measures as the multi-rater Freeman-Gavita Prescriptive Executive Coaching (PEC) Assessment for assessing core managerial skills, and the multi-rater Managerial Coaching Assessment System (MCAS) for the evaluation of coaching competencies in managers. The aim of this research was to present the development and psychometric properties of new tools, part of the Prescriptive Index platform, for the assessment of managerial emotional competencies: the web and mobile based Mood Wheel measure using experience sampling procedures, for the assessment of current/previous distress and positive emotions; and the self-report Manager Rational and Irrational Beliefs Scale (M-RIBS) for the assessment of managerial attitudes involved in emotion-regulation processes. Results obtained show that both instruments integrated in the Prescriptive Index platform have adequate initial psychometric support and predictive validity. Practical implications of our findings are discussed in the light of the importance of enabling organizations to accurately identify managerial competencies and coaching needs.

Keywords: managerial competencies, emotional intelligence, managerial coaching skills

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Introduction

It is currently acknowledged that managers at all levels of an organization can have a crucial impact on organizations's performance (Bono & Judge, 2003). Leadership, emotional intelligence, coaching, organizing and influencing others are considered among the most important managerial competencies (Klein & Ziegert, 2004). Thus, most of the companies choose to invest in various components related to core managerial skills assessment and development.

Emotional competencies (i.e., emotional intelligence) are becoming more and more recognized as important managerial assets. The emotional intelligence term has

been lately connected with other emerging concepts in the organizational settings, like emotional labor and emotion-regulation strategies. Emotional labor refers to work that is relational and involves the manipulations and expression of emotions. The more general emotion-regulation strategies domain has also been linked with organizational strain and distress. Emotion-regulation is a process-oriented model, which theorizes (Gross, 2002; Gross & John, 2003) that emotions may be regulated by (a) altering the stimulus or perceptions of the stimulus (antecedent-focused regulation), or (b) altering the response to the stimulus (response focused regulation). In this model, managerial irrational and rational attitudes/beliefs can function as reappraisal cognitive structures, which are part of the

antecedent-focused regulation; they are used for reappraising or reinterpreting situations so as to modify their subjective meaning, thereby altering the emotional impact of the situation on the person (Rafferty & Bizer, 2009). Advances in the research of managerial emotion-regulation is slowed down however, and sometimes research is unconnected to the core fundamental research, due to the lack of adequate tools for the assessment of essential managerial skills, both for designing development plans and monitoring changes.

Prescriptive index aims to fill this important gap in the field, and represents a platform (<http://www.prescriptiveindex.ro>) dedicated to the appraisal and development of managerial skills. The platform allows appraisal of managerial competencies, like leadership, the level of managerial coaching competencies, subjective distress experienced by the employees/managers, emotional intelligence and emotion-regulation, adaptive and maladaptive attitudes in the workplace. A special emphasis is placed upon the appraisal of managerial coaching skills, based on self-reporting, subordinates' report, but also on observational grids. In order to evaluate the main managerial competencies, already tested instruments are used, like the Freeman-Gavita Prescriptive Executive Coaching (FG-PEC) Multi-Rater Assessment (Gavita, Freeman, & Sava, 2012) and the Managerial Coaching Assessment System (MCAS; David & Matu, 2013). The FG-PEC Assessment is a valid measure for managerial skills relevant for the managerial/executive coaching process, able to offer a valid prescriptive profile for coaching, with excellent predictive capabilities for managerial performance. The MCAS is a multi-rater (self-rating, other-rating and also observer-rating) measure for managerial coaching skills which has shown good psychometric properties and was used for measuring the effects of managerial coaching programs. The aim of this research was to supplement the Prescriptive Index with two additional measures for managerial emotional intelligence skills, based on modern techniques, like momentary experience sampling method. The concepts measured by the two additional measures, and their importance for the field is detailed below.

Objectives

The main objectives were to develop an integrated platform for assessing core managerial competencies and investigate psychometric properties of the instruments included. The hypotheses were that the new measures for managerial competencies will prove to have adequate psychometric properties. By addressing these aims, the present paper will contribute to the enrichment of the academic literature in this field by providing the adequate managerial (specific) instruments for assessing core managerial competencies, like leadership, managerial attitudes, emotion-regulation skills, stress resilience, subjective distress, and positive emotions.

Study 1

While maladaptive emotion-regulation strategies have been quite constantly linked to psychopathology (for a review see Aldao, Nolen-Hoeksema, & Schweizer, 2010; Diefendorf, Richard, & Yang, 2008), adaptive emotion-

regulation strategies have been linked to mental health, well-being, job satisfaction and to high performance (Van Rooy & Viswesvaran, 2004). Irrational thinking has been consistently associated with distress and low performance (Silverman & DiGiuseppe, 2001); in contrast, rational thinking is considered important for resiliency and is associated with adaptive behaviors (Harrington, 2005). However, recent findings on emotion-regulation processes have rarely been integrated in the work performance context specificity (i.e., emotional regulation to work performance; Aldao, Nolen-Hoeksema, & Schweizer, 2010; Daus, & Ashkanasy, 2005). One of the main causes is that managerial field lacks specific managerial scales focused on evaluative/appraisal processes involved in emotional reactions (i.e., rational and irrational beliefs), based on modern developments in cognitive science. The accurate assessment of specific managerial irrational beliefs (IBs) and rational beliefs (RBs) can have a major impact on both the practice and research of emotion-regulation processes relevant in the business field, by identifying important mechanisms for coaching programs (Gavita, Freeman, & Sava, 2012).

Although IBs and RBs were conceptualized as rather global evaluative cognitions, spilling over specific situations, it can be assumed that domain-specific instruments might be appropriate at least because of two particular reasons: (a) specific IBs and RBs related to the managerial area possess a higher ecological and face validity than global beliefs due to their item content closely connected to various managerial issues; (b) due to an expected incremental predictive validity based on their specificity matching (i.e., specific beliefs predict better specific domain emotions - in our case work distress). For instance, Stuijbergen and Becker (1994) found that a specific self-efficacy beliefs explained more (38% compared to 6%) of the health-promoting behavior than a general self-efficacy scale. Therefore, it is expected that using a domain-specific rather than a general instrument for evaluative cognitions in organizational setting is beneficial from an applied perspective.

Development of the M-RIBS

Manager Rational and Irrational Beliefs Scale (M-RIBS) was developed based on the view of IBs and RBs as non-polar opposites (DiGiuseppe, Leaf, Exner, & Robin, 1988). M-RIBS considers the recent priming methodologies (i.e., Articulated Thoughts in Simulated Situations; ATSS; Davidson, Robins, & Johnson, 1983; David, Montgomery, Macavei, & Bovjberg, 2004; David, Schnurr, & Belloiu, 2002). An equal number of statements reflecting rational and irrational processes were generated by applying the RIBS-GF (Rational and Irrational Beliefs Scale-General Format; see Montgomery, David, DiLorenzo, & Schnur, 2007) to the managerial domain. The original RIBS-GF is an 8-item scale based on Walen et al.'s (Walen, DiGiuseppe, & Dryden, 1992) discussion of Rational-Emotive Behavior Therapy (REBT). The scale was reviewed and a group of three experts trained in REBT approved the face validity of the items. The total score on the scale is obtained by summing the items, with rational items scored in a reversed way.

The statements of the M-RIBS were designed to reflect evaluative processes in the three content areas found relevant for managers, similar to the areas included in the

Employee-RIBS version of the scale (Gavita & Duta, 2013): (1) Appreciation and performance (Part 1 of the Scale); (2) Control (Part 2 of the Scale); and (3) Comfort (Part 3 of the Scale; see Table 1). Special attention was devoted to wording of the items in order to avoid their contamination by emotions. Three pools (of 10 items each) were generated, one for each content domain, each pool having 5 IBs items, and 5 RBs items. Each of the items was assembled in a 4-point Likert format, ranging from strongly disagree (1) to strongly agree (4). Based on the rational and irrational phrasing, four principal processes were designed for each of them as follows: Demandingness vs. Preference (DEM/PRE), Low Frustration Tolerance vs. Frustration Tolerance (LFT/FT), Awfulizing vs. Badness (AWF/BAD), and Global Evaluation vs. Unconditional Acceptance (GE/UA). GE and its rational counterparts (UA) had two items, one referring to employees (other) and one referring to the manager evaluation/acceptance (self).

Method

Participants

Participants in this study were 109 middle-managers from an Italian multinational banking group based in Romania. Managers were aged between 27 and 54 years, $M = 38.79$ ($SD = 5.92$), with a length of employment between 1 and 14 years (mean employment length = 5.11, $SD = 3.90$). 24.8% of the managers were working in the head quarter of the bank, while 75.2% of the managers were units (branch/agencies) managers.

Measures

The newly developed *Manager Rational and Irrational Beliefs Scale (M-RIBS)* was applied together with the *General Attitudes and Beliefs Scale–Short Form (GABS-SF; Lindner, Kirkby, Wertheim, & Birch, 1999)*.

The GABS is a 26-item self-report measure for irrational cognitive processes (e.g., DEM, AWF, GE and LFT). Items refer to both irrational and rational beliefs, with three scores being computed: (1) an irrational beliefs score, (2) a rational beliefs score, (3) and a total irrational beliefs score (composed of irrational beliefs score plus the reversed rational beliefs score). High scores indicate high levels of rational or irrational cognitions. Adequate psychometric properties have been reported in the literature (Lindner, Kirkby, Wertheim, & Birch, 1999; David, 2007; Cronbach's alpha, $\alpha = .81$).

Procedure

Questionnaires presented above were administered to managers based on a strict protocol regarding the ethical handling of the data and were completed by the managers independently.

Results

Internal consistencies were examined for the P-RIBS total score. The Cronbach's alpha obtained for the P-RIBS Total is $\alpha = .76$, with the inter-item correlations falling within the moderate range. Results show a mean score for the M-RIBS of 68.27 ($SD = 8.81$), for the IBs subscale $M = 22.87$ ($SD = 4.34$) and for the RBs subscale $M = 41.30$ ($SD = 5.86$).

In terms of concurrent validity, the M-RIBS obtained significant correlations with the general irrational cognitions measured with GABS, IBs subscale ($r(107) = .46$, $p = .001$), RBs subscale ($r(107) = -.22$, $p = .021$), GE subscale ($r(107) = .44$, $p = .001$), Achievement DEM ($r(107) = .33$, $p = .001$), Approval DEM ($r(107) = .22$, $p = .01$), Comfort DEM ($r(107) = .36$, $p = .001$), and Fairness DEM ($r(107) = .39$, $p = .001$).

Discussion

The P-RIBS was found to have adequate psychometrical properties. Although our analyses were based on a relative small sample, acceptable internal consistencies and concurrent validity were found for the M-RIBS, showing that it can be further used in investigating managerial attitudes. As hypothesized, the M-RIBS scores were significantly correlated with scores of general rational and irrational cognitions (GABS), showing the measure has adequate construct validity. However, the moderate correlation levels show that although both M-RIBS and the GABS measure rational and irrational processes, they measure different areas of rational and irrational cognitions – general vs. specific managerial. Similar moderate associations were found in Stuijbergen and Becker (1994) when correlating specific and general self-efficacy beliefs.

A limitation of this study is that, given the small sample size, it was not possible to perform more sophisticated factorial analyses in order to investigate the structure of the M-RIBS. Future studies will need to overcome this and to test also the predictive validity of this promising scale. Conclusion of this study is that based on the results obtained, the M-RIBS can be further used in investigating managerial attitudes as appraisals involved in their emotion-regulation processes.

Study 2

The nature of emotions and their measurement was always a top research target, but recently has become a popular research interest also in the workplace field. This is related to the research showing (Hrabluika, Lathamb, & McCarthy, 2012) the negative consequences of the workplace stress on productivity and employees' performance. The aim of this study was to develop and validate a new tool for the assessment of negative and positive emotions in the workplace, the Mood Wheel.

There is little agreement however referring to what emotions are, and consequently emotions were approached in time using different models (e.g., dimensional models, discrete emotions models, componential models). Different theories agree that the concept of emotion refers to a process of changes in different components (subjective experience, physiological arousal, motor expression/behaviors, regulation/cognition), rather than to a homogeneous state (Scherer, 2001). While physiological arousal was considered by some theories to vary only quantitatively (Ellis & DiGiuseppe, 1993), the other dimensions mentioned are susceptible to both quantitative and qualitative variations.

Depending on the component of interest concerning an emotion, different tools were developed, among which the best known and most recent are: the standardized apparatus

for measuring the physiological arousal; the Emotion Facial Action Coding System – EMFACS (Ekman & Friesen, 1978), or Recognizing Emotion in Speech (Dellaert, Polzin & Waibel, 1996) for measuring motor expression, the Self-Assessment Manikin – SAM (Lang, 1985), Geneva Emotions Wheel (GEW; Scherer, 2005) or the Product Emotion Measuring Instrument v7.0 - PrEmo (Desmet, 2003) for measuring the subjective mood.

Russel (1979) developed the circumplex model of emotions, proposing that emotions are disposed in a two-dimensional circular space, based on the control and valence dimensions. This model was quickly adopted in the workplace field, being suited due to its intuitive display, and inclusion of the positive emotions. The Geneva Emotions Wheel (Scherer, 2005) is a newer measure derived from this model, including the discrete emotions format, which maps on a circle the quality of emotions, based on a two-dimensional appraisal space of control and valence (goal conduciveness or obstructiveness), and differentiating between high vs. low arousal emotions; 20 emotion families are displayed and feeling intensity is graphically represented as a set of circles, based on a 0 to 5 Likert scale symbolized as distance from origin. Respondents are required to answer to the question “How do you feel right now?”, by marking the intensity of the emotion terms; each two emotions based on the low and high arousal dimension are clustered and rated together, 10 with positive valence and 10 with negative valence. Research showed (Tran, 2004) that GEW is a valid measure in the case of managers especially under time pressure and in repeated evaluation conditions.

Recent data shows however that subjective distress can be better conceptualized using a binary model (David, Schnur & Belloiu, 2002; David, Montgomery, Macavei, & Bovjberg, 2004; Ellis, 1994), considering their qualitative variations. The unitary model of distress claims that distress levels are falling along a continuum, with high distress referring to high levels of negative affect (e.g., high sadness) while low distress meaning a low level of negative affect (i.e., low sadness). Empirical investigation of the binary model of distress (David, Schnur & Belloiu, 2002; David, Montgomery, Macavei, & Bovjberg, 2004) has found that distress is referring to qualitatively different functional (e.g., worry) and dysfunctional (e.g., anxious) negative feelings. Based on this framework, in negative situations, functional negative feelings mean a negative subjective experience, rational beliefs, moderate arousal, and adaptive behavioral consequences, while dysfunctional negative feelings mean a negative subjective experience, irrational beliefs, and maladaptive behavioral consequences. In other words, the coping potential (adaptive or functional emotion) can be judged only situational, based on these criteria. In other words, based on this qualitative differentiation, a dysfunctional emotion is (Tiba & Szentagotai, 2005) constantly associated with irrational thinking, and maladaptive behavioral patterns, sabotaging thus the person from reaching his/her goals.

Based on the binary model, much less attention has been given however to the qualitative distinction in terms of positive emotions. Tiba and Szentagotai (2005) have investigated how dysfunctional positive emotions relate to evaluative cognitions and arousal, taking into consideration a model of two types of dysfunctional positive emotions, depending on the context when they are experienced: (1)

the pre-goal attainment dysfunctional positive emotions (approach related positive emotion), which refer to high levels of post-goal attainment type of positive emotions when anticipating and moving toward goal attainment, and (2) the post-goal attainment dysfunctional positive emotions (consummatory positive emotions), which refer to high levels of pre-goal attainment type of positive emotions after achieving personal goals. These positive emotions are considered dysfunctional due to the fact that they are associated with behavioral tendencies inappropriate for reaching the goals. For example, pre-goal attainment dysfunctional positive emotions reduce exploratory behavior and increase reward consuming behavior. Furthermore, when they meet their goals, subjects high on irrational beliefs report higher levels of pre-goal attainment positive emotions (Tiba & Szentagotai, 2005). Arousal seem to play an important role also for positive emotions, since they found that when individuals meet their goals, arousal is mediating the relations between demandiness as irrational cognition and pre-goal positive emotions.

Both functional and dysfunctional feelings can be of low, medium, or high intensities. Thus, the distinction between them can be made in terms of both quality (people have qualitatively different feelings; e.g., sad versus depressed) and intensity (each of them can be more or less intense; e.g., slightly sad, very sad; slightly depressed, very depressed etc). The Profile of Emotional Distress (PED; Opris & Macavei, 2005) is the first instrument developed based on the binary model of distress and the positive activation – negative activation (PANA) model. The PED has adequate psychometric properties and was successfully used in clinical research (Opris & Macavei, 2005).

Based on these considerations, the aim of this research was to conciliate the binary with the dimensional models of emotions, considering that they offer great potential for measuring affect in the workplace field. The Mood Wheel was thus developed based on the dimensional circumplex model, but integrating (1) recent derivative measures (GEW), (2) qualitative distinctions of the binary model of emotions, by considering functional and dysfunctional items separately, and (3) modern experience sampling method (ESM; Larson & Csikszentmihalyi, 1983) based on the event–mood–behavior relations, derived from Affective Events Theory (Weiss & Cropanzano, 1996; Miner, Glomb, & Hulin, 2005).

Development of the Mood Wheel

Mood Wheel was developed using the circular arrangement of discrete emotion terms (Scherer, 2005) based on three dimensions: valence, control and functionality. In light of the findings from the binary model of emotions, showing that both negative and positive emotions can have adaptive consequences (David, Montgomery, Macavei, & Bovjberg, 2004), the functionality dimension can be considered relevant. Functionality was judged as adaptiveness of the actions or context appropriateness of behavioral tendencies associated with the emotions; for example, in the organizational field, reaching performance related goals can be an important criteria to judge the functionality of both negative and positive emotions, together with their underlying cognitions and subjective experiences.

Based on the factor analysis structure of the PED (Opris & Macavei, 2005), the empirical data on the binary model of emotions (David, Montgomery, Macavei, & Bovjberg, 2004; Tiba & Szentagotai, 2005) and the circumplex model (Russel, 1983), 16 negative emotions and 16 positive emotions items were included in the Mood Wheel, on a valence x control x functionality space. Half of the items were functional and half of them dysfunctional, half positive and half negative, while half were high control and half low control. The same range of Likert scale 1-5 with the PED was used, where 1=very little, 2=a little, 3=moderately, 4=quite a bit, and 5=extremely. The 0 level was excluded from the Likert range in order to be able to leave the option of not rating emotions when not felt. The option of not rating all emotions is left open when using the measure for experience sampling method, the instruction being in this case "You can find below a list of words describing feelings that people can experience. Please read each word carefully and then indicate to what extent you are feeling each of those feelings right now". When one is interested in measuring mood as trait (in general) or over a certain period of time (a week, or a couple of weeks), Mood Wheel can be also used with forced rating of all items, and then the 1 level becomes *not at all or very little*. In this case, the instruction is modified to "You can find below a list of words describing feelings that people can experience. Please read each word carefully and then indicate to what extent you have felt each of those feelings in general/during the past few weeks/during this week."

Two versions of display have been developed: a web based version for the Prescriptive Index platform, and a mobile IOS version – the Mood Wheel app (Appendix 1), in English and Romanian. Thus, the variance over time in events, mood, and behavior in work settings can be easily registered based on the experience sampling method (Larson & Csikszentmihalyi, 1983). A total distress score and a total positive feelings score can be obtained, but also scores on subscales on functional negative emotions, and dysfunctional negative emotions, by adding the responses on items and squaring the sum on the number of items added.

Method

Participants

82 employees filled the Mood Wheel part of another study investigating the effects of emotion-regulation strategies. They were aged between 15 and 71 years old ($M_{age}=38.42$, $SD=14.10$), with 79.9% being White Caucasian, 3.8% African American, 2.6% Hispanic/Latino, and 2.6% Asian. 65.4% were males, and 46.2% of the participants were married. In terms of their education levels, 7.7% had high school, 17.9% were licensed, 33.3% had a master degree, 10.3% a doctorate and 16.7% post-doctoral studies. Most of the participants were psychologists (22%), followed by psychotherapist (6.4%), economists and professors (each 3.8%), medical doctor, coach, social worker and manager (each 2.6%), engineer, human resources specialist, researcher, and aviator (each 1.3%).

Measures

Participants accessed the mobile version (app) of the Mood Wheel. They filled in the demographics, the Mood Wheel, and chose their type of main irrational thinking at that moment from a list (domain, process, and area, based on Wallen, DiGiuseppe, & Dryden, 1992). The Mood Wheel instruction was "You can find below a list of words describing feelings that people can experience. Please read each word carefully and then indicate to what extent you have felt each of those feelings in during the past few weeks."

Procedure

Participants were asked to rate their mood once per week when accessing the app. The study was approved by the University Institutional Review Board, and participants signed electronically informed consent forms.

Results

Results show a Cronbach's alpha for the Mood Wheel total distress score of $\alpha = .90$, for the Dysfunctional negative emotions subscale $\alpha = .84$, for the Functional negative emotions subscale, $\alpha = .85$, for the Positive emotions score $\alpha = .92$, the Dysfunctional positive emotions score $\alpha = .89$, and the Functional positive emotions score, $\alpha = .84$.

Correlations between the subscales are presented in Table 1.

Table 1. Correlations between the Mood Wheel subscales and total scores

Mood Wheel subscales	FNE	DNE	FPE	DPE	NETS	PETS
FNE	1	.66**	.42**	.38**	.91**	.41**
DNE	.66**	1	.17	.20	.90**	.19
FPE	.42**	.17	1	.91**	.33**	.97**
DPE	.38**	.20	.91**	1	.32**	.97**
NETS	.41**	.19	.97**	.97**	.33**	1
PETS	.91**	.90**	.33**	.32**	1	.33**

Note: * $p < .01$; ** $p < .05$. FNE=Functional negative emotions; DNE=Dysfunctional negative emotions; FPE=Functional positive emotions; DPE=Dysfunctional positive emotions; NETS=Negative emotions total score; PETS=Positive emotions total score.

For estimating test-retest reliability, 13 of the participants reassessed their mood using the Mood Wheel after 1 week time. The test-retest correlations obtained are presented in the Table 2.

Table 2. Test-retest correlations for Mood Wheel subscales and total scores

Subscales	FNE	DNE	FPE	DPE	NETS	PETS
FNE	.65					
DNE		.72*				
FPE			.45			
DPE				.80		
NETS					.66	
PETS						.67

Note: * $p < .01$; ** $p < .05$. FNE=Functional negative emotions; DNE=Dysfunctional negative emotions; FPE=Functional positive emotions; DPE=Dysfunctional positive emotions; NETS=Negative emotions total score; PETS=Positive emotions total score.

Descriptive statistics for the Mood Wheel scores are presented in Table 3.

Table 3. Descriptive statistics for the Mood Wheel scores.

<i>Scores for Mood Wheel</i>	<i>Min.</i>	<i>Max.</i>	<i>M</i>	<i>S.D.</i>
Functional negative emotions	1.00	4.13	2.09	.80
Dysfunctional negative emotions	1.00	4.50	1.81	.75
Functional positive emotions	1.00	4.00	2.12	.83
Dysfunctional positive emotions	1.00	4.13	2.26	.84
Negative emotions total score	1.00	4.31	1.95	.70
Positive emotions total score	1.00	4.06	2.19	.82

For testing concurrent validity, the types of irrational cognitions selected by participants were used. Since demandingness (DEM) is the principal irrational process, it was expected to be correlated with dysfunctional negative emotions and total distress. Significant differences in terms of higher levels of dysfunctional negative emotions were found for the participants holding DEM processes of irrational thinking compared to the ones reporting low frustration tolerance (LFT; $F(4,82)=2.37$, $p=.048$; LSD $MD=4.70$, $p=.03$), and tendencies in the same line for global evaluation (GE, other-downing and life-downing). Again, only for dysfunctional negative emotions, higher levels of irrational cognitions in the achievement area were registered compared to all the other contents, $F(3,82)=2.93$, $p=.04$, comfort ($MD=3.80$, $p=.05$), approval ($MD=4.77$, $p=.021$), and fairness ($MD=6.14$, $p=.025$).

Discussion

In this study, the aim was to describe the development of a new measure integrated in the Prescriptive Index platform for managerial competencies assessment, the Mood Wheel. The Mood Wheel is derived from the dimensional models and binary model of emotions, using the valence, control and functionality dimensions. The Mood Wheel measures emotions offering a variety of options: in general or at work, as momentary experience sampling mood or over a longer period of time (weekly, in general).

The Mood Wheel was found to show adequate reliability for its total scores based on valence and functionality, in the case of the negative valence emotions. This was expected since the binary model was initially proposed for distress and received support in this context (David, Schnurr, Belloiu, 2002). The binary model was strongly supported for the negative dysfunctional subscale by its associations with reports of demandingness, as proposed by the theory. The relevance of the binary model of distress for the managerial field was supported by the finding that higher levels of dysfunctional negative emotions were associated with demandiness processes and achievement content of irrational cognitions.

Results obtained for the positive emotions show very high correlations between their dysfunctional and functional forms, suggesting a great overlapping among them. Furthermore, we did not find associations for the positive emotions with irrational cognitions. Our results should however be interpreted carefully due to the low statistical power. There is data (Tiba & Szentagotai, 2005) supporting the assertion that binary model applies to positive emotions, showing the importance of the context (pre-goal attainment/post-goal attainment) when judging

the functionality of positive emotions. Future studies should further investigate the functionality dimension of positive emotions taking into account more details related to the goal attainment context and thus such information will be integrated in the new versions of the Mood Wheel.

Present study brings important contributions by proposing a new measure, based on relevant empirical tested models of emotions, especially suited for the workplace settings. The Mood Wheel allows registering the momentary mood when used on tablets and smartphones, but can be also used web-based. Future studies should include a larger sample and perform factor analyses to test the factorial structure of the measure. Also, future studies should include standardized measure of the criteria for deciding the functionality of emotions, like goals attainment, performance and cognitions.

General discussion

From the cognition-based models of managerial behavior, managerial attitudes and emotions are considered important predictors of behavioral output at work. The aim of this research was to describe the development and validation of two new measures for emotion intelligence integrated in the Prescriptive Index platform for managerial competencies assessment. Two studies were conducted in order to develop and investigate the psychometric properties of the new measures of momentary and general emotions, and managerial evaluative cognitions.

The new measures developed offer innovative tools responding to the needs of the field. The M-RIBS is the first self-report scale measuring rational and irrational beliefs of the managers, based on the cognitive-behavior theories and emotion-regulation field. The Mood Wheel is the first measure conciliating the new empirical findings in the dimensional models (Scherer, 2005) and those in the binary models of distress. Additionally, the Mood Wheel offers the possibility to be used in the experience sampling method (Larson & Csikszentmihalyi, 1983), considered essential for the study of dynamic workplace variables (Miner, Glomb, & Hulin, 2005). Results showed that the two measures have adequate initial psychometric properties and provide support of the use of their use for measuring emotions and cognitions in the workplace.

The validation of the Mood Wheel and M-RIBS has a number of implications to the organizational emotion-regulation field research and interventions. Specifically, they have the potential to bring further understanding of managers' cognitive processes, distress, positive mood, and performance. The measures can be used as valid instruments to rate changes after managerial development processes, and moreover cognitive and behavioral interventions. However, further research is needed in order to investigate their factorial design and psychometric properties.

The Prescriptive Index platform for the evidence-based assessment and development of managerial skills was complimented with two new measures based on the recent findings on the top-down emotion-regulation strategies. The Mood Wheel and M-RIBS instruments will allow accurate assessment of specific managerial emotion-regulation constructs.

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Appendix 1

Mood Wheel

You can find below a list of words describing feelings that people can experience. Please read each word carefully and then indicate to what extent you are feeling each of those feelings right now.

- 1=very little,
- 2=a little,
- 3=moderately,
- 4=quite a bit, and
- 5=extremely

a. Web-based display



b. Items

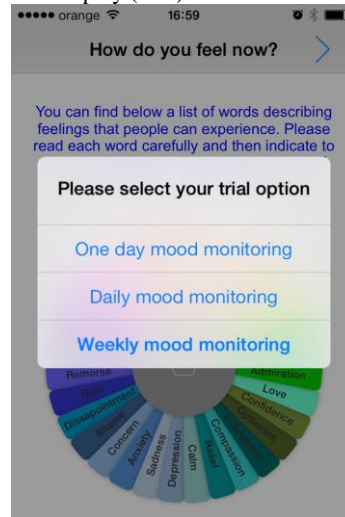
Involvement
Interest
Laughter
Amusement
Elations
Happiness
Pride
Satisfaction

Admiration
Love
Confidence
Optimism
Indulgence
Compassion
Relief
Calm

Depression
Sadness
Anxiety
Concern
Shame
Disappointment
Guilt
Remorse

Envy
Longing
Jealousy
Wary
Disgust
Aversion
Anger
Annoyance

c. Mobile/tablet display (IOS)



Appendix 2

Manager-Rational and Irrational Beliefs Scale

When faced with adverse situations, some managers tend to think that situation absolutely must be the way they want (in terms of absolute must). In the same situation, other people think in preferential terms and accept the situation, even if they want very much that those situations do not happen. In light of these possibilities, please estimate how much the statements below represent the thoughts that you have in such situations.

Using the following scale, indicate in the space provided how true each of these statements is for you.

1. Strongly Agree

2. Somewhat Agree

3. Somewhat Disagree

4. Strongly Disagree

1. Appreciation and performance RIBS

Please think about a situation at work when your performance was not as high as expected/ usually or your work was not appreciated. Try and recall the thoughts you have had in such situations and rate how much the items below represent the thoughts that you have in such situations.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1. I absolutely must get a high performance at work and be adequately appreciated or rewarded for my work and I cannot conceive otherwise.	1	2	3	4
2. I really want to get a high performance at work and be adequately appreciated or rewarded, but I realize and accept that things do not have to always be the way I want them to be.	1	2	3	4
3. It would be awful if I do not get a high performance at work or I am not adequately appreciated or rewarded.	1	2	3	4
4. When I do not get a high performance at work or I am not adequately appreciated or rewarded, I think that I am incompetent or worthless.	1	2	3	4
5. It is unbearable and I cannot stand when I do not get high performance at work or I am not adequately appreciated or rewarded.	1	2	3	4
6. I can stand when I do not get a high performance at work or I am not adequately appreciated or rewarded, although it is difficult for me to tolerate it.	1	2	3	4
7. When I do not get a high performance at work or I am not adequately appreciated or rewarded, I think this shows that I am working with incompetent and worthless people.	1	2	3	4
8. It is unpleasant and unfortunate not to get high performance rating or not be adequately appreciated or rewarded, but it is not terrible.	1	2	3	4
9. When I do not get a high performance at work or and I am not adequately appreciated or rewarded, I accept myself as being worthwhile despite my performance.	1	2	3	4
10. When I do not get a high performance at my job or I am not adequately appreciated or rewarded, I understand that this does not impact the worth of my co-workers.	1	2	3	4

2. Control RIBS

Please think about a situation at work when you lost control, or when people in your team acted less competently. Try and recall the thoughts you have had in such situations and rate how much do the items below represent the thoughts that you have in such situations.

11. I must be always in control for delegated tasks and work with competent people.	1	2	3	4
12. I want to be always in control over the tasks at work and work with the most competent people, but I realize and accept that things do not have to always be the way I want them to be.	1	2	3	4
13. It is awful when I am not in control for delegated tasks ,or work with less competent people.	1	2	3	4
14. When I am not in control for delegated tasks or work with less competent people, I think that I am worthless and incompetent.	1	2	3	4
15. It is unbearable and I cannot stand not to have total control over situations at work, or work with less competent people.	1	2	3	4
16. I can stand when I do not get control over the situations at work, or work with less competent people, although it is difficult for me to tolerate it.	1	2	3	4
17. If I am not in control for delegated tasks or work with less competent people, this shows that people are worthless.	1	2	3	4
18. It is unpleasant and unfortunate not to be in control for delegated tasks or work with less competent people, but it is not awful.	1	2	3	4
19. When I am not in control for delegated tasks or work with less competent people, I accept myself as being worthwhile despite this.	1	2	3	4
20. When I am not in control for delegated tasks or work with less competent people, I can accept my co-workers as being worthwhile.	1	2	3	4

3. Comfort RIBS

Cognitive-Behavioral Diagnosis and Coaching Needs Assessment

Please think about a situation at work when you worked in a negative environment, you felt distressed or under extreme pressure at work. Try and recall the thoughts you have had in such situations and rate how much do the items below represent the thoughts that you have in such situations.

- | | | | | |
|---|---|---|---|---|
| 21. I absolutely must work in a pleasant environment, to not feel distressed or under great pressure at work. | 1 | 2 | 3 | 4 |
| 22. I very much want to work in a positive environment, not get distressed or under great pressure at work, but I realize that things do not have to always be the way I want them to be. | 1 | 2 | 3 | 4 |
| 23. It is awful to work in a negative environment, to feel distressed or under great pressure at work. | 1 | 2 | 3 | 4 |
| 24. When I work in a negative environment, feel distressed or under great pressure at work, I think this shows that I am worthless. | 1 | 2 | 3 | 4 |
| 25. It is unbearable to work in a negative environment, to feel distressed or under great pressure at work. | 1 | 2 | 3 | 4 |
| 26. I can stand when it happens to work in a negative environment, feel distressed or under great pressure at work, although it is difficult for me to tolerate it. | 1 | 2 | 3 | 4 |
| 27. When I work in a negative environment feel distressed or under pressure at work, this shows that people in my team are bad and worthless | 1 | 2 | 3 | 4 |
| 28. It is unpleasant and unfortunate to work in a negative environment, to feel distressed or under great pressure at work but it is not awful. | 1 | 2 | 3 | 4 |
| 29. When I work in a hostile environment, to feel distressed or under great pressure at work, I can accept myself as being worthwhile despite my emotional discomfort. | 1 | 2 | 3 | 4 |
| 30. When I work in a negative environment, to feel distressed or under great pressure at work, I can accept my co-workers or superiors as being worthwhile despite my emotional discomfort. | 1 | 2 | 3 | 4 |