**MINDFUL AND POSITIVE LEADERSHIP INTERVENTIONS: IMPACTS ON POSITIVE EXPERIENCES, TRAITS, AND BEHAVIORS**

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**Abstract:**
The present paper investigates the effects of a positive and mindful leadership intervention on the positive experiences, traits, and behaviors of managers and their employees.

Research design is a quasi-experimentation with randomized pre-tests and post-tests, notably performed on a control group. In a French pharmaceutical company, a group of 36 managers followed a 10-day Positive Psychology Intervention focusing on positive and mindful Leadership. Data collected before (T1) and after (T2) the intervention shows that positive experiences and behaviors were increased while positive traits were developed by the participants and not by the control group. Those observations were cross-checked with data collected at the employee level.

More precisely, results indicate that after the intervention (T2), managers felt more empathy, mindfulness, and consonance while at the same time perceiving less stress. Similarly, at T2, employees confirm that their trained managers are more mindful and even add that their managers also show more collective meaning. Eventually, at T2, employees with PLX managers perceive better procedural justice and display more organizational civic virtues. Theoretical, empirical, and managerial contributions of the study are discussed.

**Keywords:** Positive Psychology Intervention; leadership; mindfulness; managers.

**Data availability statement:**
The data that support the findings of this study are available from Sanofi. Restrictions apply to the availability of these data, which were used under license for this study. Data are available from the authors with the permission of Sanofi.
INTRODUCTION

Positive psychology is defined as the “science of positive subjective experience, positive individual traits, and positive institutions” (Seligman & Csikszentmihalyi, 2000, p. 5). The reduction of unpleasant feelings and the enhancement of positive experiences, traits, and behaviors promote mental health and well-being (Donaldson et al., 2015; Rashid, 2015) translating into better performance (Cameron et al., 2011; B. Cooper et al., 2019; Montano et al., 2017).

In that sense, Positive Leadership consists of leadership traits and behaviors that are beneficial to the leader, his/her employees, and the organization as a whole (Malinga et al., 2019). In fact, while the managers are in charge of their human resources for day-to-day activities (Dany et al., 2008), the process through which managers influence the work context yet remains understudied (Fischer et al., 2017).

To date, PPIs have been shown to only have “small to moderate effects across desirable and undesirable work outcomes” (Donaldson et al., 2019, p. 128). Identifying the impacts of Positive Psychology Interventions (PPIs) and “clarifying [their] underlying processes” (Antoine et al., 2018, p. 141) are a priority for positive psychology (Kobau et al., 2011). In that perspective, more empirical data seems to be needed (van Woerkom et al., 2019). To fill such a gap, diversity in the PPI content seems to be a relevant path as it is usually associated with more positive benefits (Parks, 2015; Parks et al., 2012; Thompson et al., 2015).

Therefore, it would be interesting to analyze how a PPI particularly focusing on mindful leadership would affect positive experiences, traits, and behaviors. Indeed, mindfulness, the state of “being attentive to and aware of what is taking place in the present” (K. W. Brown & Ryan, 2003, p. 822) would support positive psychology in promoting mental health and well-being for the leaders. Despite their effectiveness, Mindfulness-Based Interventions (MBIs) remain seldom used in organizations (Bulzacka et al., 2018).

Eventually, Reb et al. (2020, p. 5) recall “the need for more work on mindfulness training that is tailored to workplace settings”. The present paper hence investigates the effects of a leadership-focused Positive Intervention, particularly oriented towards Mindfulness. We propose to analyze the expected effects of such a combination on positive experiences, traits, and behaviors as perceived by managers and their employees.

The literature review will first present the main concepts that we mobilize. Then, the methodology of our empirical and longitudinal study is detailed. Eventually, we present and discuss our results.

1. LITERATURE REVIEW

1.1. Positive psychology

Gable and Haidt (2005) define positive psychology as “the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions” and has the objective to give the individual capability to overview the big picture giving the right weight to the positive and the negative interactions avoiding the centralization on the “bad things” (Lopez et al., 2018). This field of study has known a rapid development, notably regarding the study of PPIs (Hendriks et al., 2019). It has now reached a level at which it affords
to host a critical stream which, for instance, discusses the underpinnings of PPIs (Wong & Roy, 2018).

Positive psychology is interested in the positive aspects of human beings. It posits that there can be goodness in every human being. Positive psychology has humanist philosophical origins. Humanist psychology, has highlighted many of the same fundamentals as positive psychology: responsibility, hope, positive emotions, good mental health, the ability to maintain good-quality relationships, self-acceptance, etc. The humanist psychology stream of research, represented among others by Maslow (1972), demonstrated that a human being is also an individual who wants to achieve fulfillment through personal happiness and relationships with others, by satisfying different levels of needs, starting on the basic needs such as physiological and safety growing to complex needs such as love, esteem and belonging (Maslow & Frager, 1987). If the impact of that school has gradually faded, positive psychology found a new lease of life following the article by Seligman and Csikszentmihalyi (2000).

The positive psychology stream considers that alongside the many individuals and collective problems encountered, a life develops that is full of meaning and potential (Lecomte, 2014). Positive psychology thus complements clinical psychology and psychopathology. Achor (2011) talks about the happiness advantage, a reference to the economic benefits for a firm that knows how to offer fulfilling working conditions: a positive and committed brain would represent a significant competitive advantage.

1.2. Positive Leadership

Positive leadership corresponds to the sum of virtuous ethics and inclusivity (Cissna & Schockman, 2020). More precisely, and according to Malinga et al. (2019, p. 223), “positive leadership consists of leadership traits (optimism and a ‘can-do’ mindset, altruism, and ethical orientation, and motivational characteristics) that a positive leader should possess, as well as specific leadership behaviors (creating a positive working environment, developing positive relationships, focusing on results, and engaging in positive communication with employees); and that these behaviors will, in turn, enhance certain leadership outcomes (such as enhanced overall productivity and performance levels, improved organizational citizenship behavior, and enhanced employee well-being) that are beneficial to the leader, his/her employees and the organization as a whole”.

If line managers are in charge of operationally managing the employees (Dany et al., 2008), they are the first to influence social climate through potential positive and well-being-oriented practices (Veld & Alfes, 2017). Indeed, “well-being-oriented HRM practices increase […] employee performance at the workplace, namely through influencing group feelings of social climate” (B. Cooper et al., 2019, p. 85). Positive leadership is indeed shown to decrease discrimination while increasing well-being (B. G. Adams et al., 2020) or safe working behaviors (Cheng et al., 2020).

If positive leadership has been conceptualized in various ways, there are common traits associated with the Positive Leader (Malinga et al., 2019). In an attempt to synthesize previous works, Frimousse et al. (2017) identified six main categories of traits and behaviors belonging characterizing Positive Leadership (see Appendix 1). Those are (1) Generosity: corresponds to the ability to serve and help others. In his book Give and Take, Grant (2013) shows that goodness and generosity because they contribute to the well-being and positive emotions, are good predictors of collective efficiency, employee commitment, and performance. (2)
Empathy: relates to the capacity to perceive, recognize, and sympathize with the suffering, pain, and emotions of others. A Positive Leader is indeed an empathetic manager. Empathy has indeed been associated with “stronger prosocial behavior and effectiveness in the workplace” (Clark et al., 2019, p. 166).

3. Mindfulness: means the strength to be fully and non-judgmentally attentive in the present moment to oneself, others, and the environment. A leader mindful of what he is and of what is going on around him will have a better understanding of events and be more competent to lead his team” (Autissier et al., 2015, p. 216).

4. Inspiration: concerns the ability to persuade, motivate, and positively inspire others (Fiset & Boies, 2019).

5. Collective meaning: covers the power to propose to others a plan and a contribution to positive social and moral interactions, and to operate in a collective, mutual assistance mode (Guillard et al., 2017);

6. Consonance: indicates the possibility of acting authentically in accordance with one’s strengths and values (Dietl & Reb, 2021).

1.3. Mindfulness

Mindfulness belongs to the field of acceptance and commitment therapies, which help individuals by strengthening and increasing psychological, emotional, and behavioral flexibility (Desmarais, 2017; Hayes et al., 2006) increasing and putting in the spotlight the importance of the mental health (Stephenson, 2017). While Purser and Milillo (2015) suggest that conceptualizations of mindfulness used in management have sometimes differed considerably from the Buddhist approach, Brown and Ryan (2003, p. 822) define mindfulness as “being attentive to and aware of what is taking place in the present”. This mindfulness capacity to pay attention to the “here and now” requires a focus on our internal experiences (thoughts, emotions, physical sensations) and seems to also depend on the context (Reina & Kudesia, 2020).

Mindfulness can enable the individual to refocus (Slutsky et al., 2019), when taking a break (Chong et al., 2020), trying to disconnect from work (Toniolo-Barrios & Pitt, 2020) or overcoming Covid aftermaths (Birk, 2021; Jena & Pattnaik, 2020). Such attentional abilities make it easier to handle all the tasks and urgent matters that have to be addressed (Shapiro et al., 2006) and also increase their collaboration and the agility in the decision-making process (Reitz et al., 2020), notably through constructive conflict management (Kay & Skarlicki, 2020).

Although mindfulness would probably support positive psychology in promoting a positive and collective response (Kudesia, 2019) and even though raining to mindfulness can sometimes be included in PPIs (Smirnova & Parks, 2017), MBIs remain seldom used in organizations (Bulzacka et al., 2018). The present study therefore aims at bringing its contribution by uncovering the impacts of positive and mindful leadership interventions on positive experiences, traits, and behaviors for managers and their employees. Only a modestly sized literature has actually accumulated empirical knowledge on the specific impacts of PPIs (van Woerkom et al., 2019).

1.3.1. Positive Psychology and Mindfulness Interventions

Desmarais (2017) demonstrates that a PPI changed the perception of managers about their role and their relationship to work. Along with these changes, new emotional and cognitive skills were developed, like engaging with better communication skills (Mayfield et al., 2021) a better attention to detail, and improving the decision-making process (Parsons et al., 2020). Similarly, Antoine et al. (2018) show that positive psychology interventions increased the levels of mindfulness and positive reappraisal. Such PPIs’ aftermaths usually translate into better organizational effectiveness (Cameron et al., 2011).
PPIs can sometimes include mindfulness training (Smirnova & Parks, 2017). Byrne & Thatchenkery (2019, p. 16) recall that “mindfulness training develops a person’s cognitive ability to focus more of their thoughts on the here and now, and to notice the nuances of what is happening in the present moment, vs being caught in ruminations about the past or what might happen in the future”. The main objective of mindfulness-based interventions is to teach the trainee to “acknowledge discursive thoughts and cultivate the state of awareness without an immediate reaction” (Bulzacka et al., 2018, p. 75). It usually helps with creativity (Byrne & Thatchenkery, 2019) through creative process engagement (Cheung et al., 2020), communication (Mayfield et al., 2021), mastering of stress, flexibility as well as the ability to sustain attention (Bulzacka et al., 2018). It usually helps with creativity (Byrne & Thatchenkery, 2019) through creative process engagement (Cheung et al., 2020), communication (Mayfield et al., 2021), mastering of stress, flexibility as well as the ability to sustain attention (Bulzacka et al., 2018). Similarly, mindfulness helps the manager in feeling more consonance and authenticity (Dietl & Reb, 2021) as well as more inspiring (Gonzalez, 2012). As a result, mindfulness interventions have a positive effect on the mental health of the employees and their managers (Parsons et al., 2020), regardless of their demographic characteristics such as age, gender, ethnicity, or educational level (Ashoori, 2020).

As of now, meta-analyses suggest that PPIs have only had “small to moderate effects across desirable and undesirable work outcomes” (Donaldson et al., 2019, p. 128). Since diversity in the PPI content is related to stronger positive benefits (Parks, 2015; Parks et al., 2012; Thompson et al., 2015), a mix between a PPI and a focus on a mindful and positive Leadership (Malinga et al., 2019) is likely to yield even stronger effects on positive traits, experiences, and behaviors. Indeed, mindfulness has been shown to cause positive aftermaths in individual functional domains (i.e. attention, cognition, emotion, behavior and physiology) and workplace outcomes related to performance, relationships and well-being (Good et al., 2016).

We, therefore, investigate the impacts of a PPI in line with the following hypotheses.

**Hypothesis 1: A leadership- and mindful-focused PPI on managers increases their Positive Leadership.**

### 1.3.2. Mastering of job stress

The natural response of the organism that receives a demand is named « stress », regardless of the nature of the demand (Cannon, 1915; Selye, 1974). For this kind of demand, the organism’s reaction is always similar, may it be apparent or not: the heart rate, breathing, and perspiration rise for example. Of course, this stress may rapidly recede. If not, it becomes part of a process requiring a more particular attention to Selye’s (1974) general adaptation syndrome. This syndrome is divided into three phases: *alarm*, *resistance*, and *exhaustion*. In the end, the ultimate point of this phase is the “total ruin of the organism in front of the stressing agent” (Morin & Aubé, 2007, p. 148).

Job stress is a first-level outcome of the organization and job (Parker & De Cotiis, 1983). It is related to “a person who is required to deviate from normal or self-desired functioning in the workplace as the result of opportunities, constraints, or demands relating to potentially important work-related outcomes” (Gaylin, 1979, p. 1). It differs from a motivational arousal as it is undesirable, as it does not relate to a challenging and attainable objective and as it leads to individual dysfunctions (Parker & De Cotiis, 1983). At the same time, daily stresses are part of work-life and are not necessarily negative phenomena. Avoiding a demand that does not dissipate, or fighting a persisting stress, may both lead to more defensive or apathetic coping mechanisms.

We posit that this eudaimonic approach fostering personal happiness (Ryff & Singer, 2013; Vittersø, 2016) should trigger and feed a virtuous circle. The literature indeed suggests that
positive psychology (Donaldson et al., 2019) and mindfulness (Bulzacka et al., 2018) interventions affect stress levels. For instance, a mindful individual appears to better handle ambiguities (Chesley & Wylson, 2016) and stress (Haun et al., 2018). The literature indeed highlights that stress response is improved by mindfulness (Good et al., 2016). Increased self-regulation brought by mindfulness training has for instance been shown to decrease mental fatigue (Kudesia et al., in press) and to buffer emotional exhaustion (Thoroughgood et al., 2020).

**Hypothesis 2:** A leadership- and mindful-focused PPI on managers decreases their perception of stress.

### 1.3.3. Perception of organizational justice

Organizational justice appears to be a key factor in performance at work (Colquitt et al., 2012) and thus a requirement for organizations to function well (Greenberg & Colquitt, 2013). As a positive experience, the perception of fairness is essential to foster employee commitment and other positive work behaviors (Greenberg, 1990). Adams (1963) argues that distributive justice expresses the perceived equity in distribution and rewards inside an organization, according to the contributions made by employees. Thibaut and Walker (1975) observe that procedural justice, i.e. the perceived equity of the processes that lead to decision outcomes, is also an important dimension in maintaining the perception of fairness. Leventhal (1980) lists six rules for managers to respect: consistency, bias-suppression, accuracy, correctability, representativeness, and ethicality.

Interactional justice concerns the quality of the treatment of employees during the implementation of the above processes (Steiner & Rolland, 2006). This type of justice consists of informational justice, which is the fact of giving individuals relevant information – “an explanation for the decision” in the words of Bies and Moag (1986) and interpersonal justice which stresses the importance of treating employees with due respect when procedures are implemented or showing “social sensitivity” as Bies and Moag (1986) say. For a leader, then, encouraging a perception of fairness consists in establishing a context that can favorably respond to these forms of feelings of fairness (Cropanzano et al., 2011).

In their founding work, Crozier and Friedberg (1977) insist on the manager’s role as intermediary. The authors (1977, p. 86) observe that a manager has the power of the “marginal secant”, i.e. an actor who is a stakeholder in several interconnected action systems and can thus play an “indispensable role as intermediary and interpreter between different and even contradictory logics of action”. We, therefore, hypothesize that this managerial role as an “intermediary and interpreter” affects employees’ feelings of organizational justice. A compassionate, empathetic leader should increase employees’ perception that they are being treated fairly in relationships with the procedures (Cropanzano, 2001).

Moreover, we think that a manager’s capacity to feel compassion and empathy should make employees aware that they are being paid special attention. Being paid special attention and seeing that any difficulties at work are taken into consideration is likely to generate a feeling of recognition. Above all, a Positive Leader who is mindful and attentive to the point of being empathetic should not make any missteps in the practice of leadership (Stavros & Galloway Seiling, 2010), since showing compassion and empathy should ensure that there is no room for perceptions of favoritism (Fiester et al., 2010) and avoid clashes with employees (Maertz & Kmitta, 2012). Perceptions of organizational justice should then be granted.
Hypothesis 3: A leadership- and mindful-focused PPI on managers increases the perception of organizational justice by their employees.

1.3.4. Organizational Citizenship Behavior

Organizational Citizenship Behavior is often associated with better individual performance (Walz & Niehoff, 1996) through the presence of psychological safety (Frazier et al., 2017). Moreover, “OCB has become an important measure of a leader’s effectiveness” (Podsakoff et al., 2018, p. 2). In that sense and as Good et al. (2016) recall, a mindful and positive manager is likely to trigger OCBs.

Mindfulness indeed makes people more other-oriented and helpful, even in the workplace (Hafenbrack et al., 2020). Managerial empathy should provide better support for managing employees’ emotions (Audenaert et al., 2016; Knights, 2017) and in some cases helping to build and maintain the level of happiness (Ulluwishewa et al., 2020). Therefore, employees should be encouraged to go the extra mile in return and adopt OCBs (Malinga et al., 2019). Mindfulness has indeed been shown to be negatively correlated to unethical behaviors and should therefore lay the ground for more positive behaviors (Wan et al., 2020).

Hypothesis 4: A leadership- and mindful-focused PPI on managers increases their employees’ OCBs.

Figure 1: Theoretical model.

The hypotheses that we previously listed are synthesized in the Figure 1 and will be empirically tested. Showing the expected relationships between the positive psychology interventions focused on mindfulness and positive leadership with the positive leadership characteristics and
perceived stress at a managerial level and with the organizational citizenship behaviors and the perception of organizational justice at an employee level.

2. EMPIRICAL STUDY

2.1. A PPI focused on mindful- and positive- Leadership

The empirical study aims at following the impact of a PPI focusing on mindful and positive leadership. It is called “PLX”, standing for Positive Leadership experience. This PLX intervention was conducted at Sanofi Pasteur, the Global Business Unit for Vaccines of the pharmaceutical giant Sanofi. We opted for a research design called randomized pre-test/post-test with a control group where there was a “random assignment to either experimental group receiving training or control group(s) not receiving training [where] control group(s) may receive no training or receive comparison training” (Eby et al., 2019, p. 159). In the present case, the control group did not receive any training.

The PPI under study is a corporate leadership training program, based on the main positive psychology tools and meditation-based mindfulness training (Eby et al., 2019). It consists of 10 sessions lasting one hour and a half to practice the following tools: gratitude, character strengths, positive emotions, best self, empathy, and coping with emotions. The sessions also include a peer-sharing experience and a training course supervised by an expert trained in positive psychology. In a nutshell, this training program supports participants in (1) developing self-awareness and awareness of others, (2) (learning to increase constructive and empathetic interactions, as well as in (3) reinforcing attentional stability and emotional flexibility.

2.2. Sample

The data were collected in 2017 from a total of 243 (T1) and 208 (T2) Sanofi managers and employees belonging to the Research and Development department and other strategic functions located on two Sanofi Pasteur sites of the Lyon (France) area. We would like to express our gratitude to the top management and all the volunteers who made this study possible. Table 1 and Table 2 give details of the studied sample. It was constructed jointly with the firm to ensure its representativity of the studied site. The intervention consists of training sessions of 1h30 per week during four months for managers and employees. Data were collected just before (T1) and after (T2) the PPI.

Table 1: Managerial sample (mean scores with standard deviation indicated in parentheses).

<table>
<thead>
<tr>
<th></th>
<th>PLX Group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of managers</td>
<td>38 in T1, 36 in T2</td>
<td>26 in T1, 25 in T2</td>
</tr>
<tr>
<td>Age (years)</td>
<td>46 (6)</td>
<td>49 (8)</td>
</tr>
<tr>
<td>Women</td>
<td>72%</td>
<td>60%</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>15 (7)</td>
<td>16 (9)</td>
</tr>
<tr>
<td>Position tenure</td>
<td>5 (4)</td>
<td>4 (3)</td>
</tr>
</tbody>
</table>
Table 2: Employee sample (mean scores with standard deviation indicated in parentheses).

<table>
<thead>
<tr>
<th></th>
<th>Employees whose managers belong to PLX Group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>92 in T1, 76 in T2</td>
<td>87 in T1, 71 in T2</td>
</tr>
<tr>
<td>Age (years)</td>
<td>45 (7)</td>
<td>44 (7)</td>
</tr>
<tr>
<td>Women</td>
<td>80.3%</td>
<td>74.6%</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>16 (8)</td>
<td>15 (8)</td>
</tr>
<tr>
<td>Position tenure</td>
<td>7 (6)</td>
<td>5 (5)</td>
</tr>
<tr>
<td>Directly managing staff</td>
<td>94.4%</td>
<td>84.0%</td>
</tr>
</tbody>
</table>

2.3. Measurement scales and data analysis

T-tests, Principal Component Analyses, and tests of Cronbach’s Alphas were performed on the SPSS 26 software. The comparison was made between the means of two groups, whether it was PLX managers versus ordinary managers or employees with PLX managers versus employees with ordinary managers. Details of the analyses appear in the next section.

Table 3: Measurement scales and summarized factor analysis.

<table>
<thead>
<tr>
<th>Variable measured</th>
<th>Number of items</th>
<th>Validity confirmed</th>
<th>Reliability Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Leader (Frimousse et al., 2017)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generosity</td>
<td>4</td>
<td>Yes</td>
<td>0.88</td>
</tr>
<tr>
<td>Empathy</td>
<td>5</td>
<td>Yes</td>
<td>0.91</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>5</td>
<td>Yes</td>
<td>0.93</td>
</tr>
<tr>
<td>Inspiration</td>
<td>5</td>
<td>Yes</td>
<td>0.89</td>
</tr>
<tr>
<td>Collective meaning</td>
<td>5</td>
<td>Yes</td>
<td>0.87</td>
</tr>
<tr>
<td>Consonance</td>
<td>4</td>
<td>Yes</td>
<td>0.85</td>
</tr>
<tr>
<td>Organizational justice (Colquitt, 2001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributive justice</td>
<td>4</td>
<td>Yes</td>
<td>0.96</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>7</td>
<td>Yes</td>
<td>0.86</td>
</tr>
<tr>
<td>Interactional justice</td>
<td>4</td>
<td>Yes</td>
<td>0.88</td>
</tr>
<tr>
<td>Interpersonal justice</td>
<td>5</td>
<td>Yes</td>
<td>0.88</td>
</tr>
<tr>
<td>Organizational Citizenship Behaviors (Paillé, 2006)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Altruism</td>
<td>2</td>
<td>Yes</td>
<td>0.75</td>
</tr>
<tr>
<td>Mutual assistance</td>
<td>4</td>
<td>Yes</td>
<td>0.72</td>
</tr>
<tr>
<td>Organizational civic virtues</td>
<td>4</td>
<td>Yes</td>
<td>0.75</td>
</tr>
<tr>
<td>Team spirit</td>
<td>3</td>
<td>Yes</td>
<td>0.70</td>
</tr>
<tr>
<td>Perceived Stress Scale (Cohen et al., 1983)</td>
<td>10</td>
<td>Yes</td>
<td>0.88</td>
</tr>
</tbody>
</table>
Six-point Likert (1932) scales were used for the respondents’ answers. The items for the Positive Leader scale were built and presented in the book chapter by Frimousse et al. (2017) (see Appendix 1). In the meantime, this measurement scale was already confirmed to be valid and reliable in other contexts (Frimousse et al., in press; Giraud et al., 2018). The perception of organizational justice was measured with the scale of Colquitt (2001). The perception of stress was measured through the Perceived Stress Scale (Cohen et al., 1983). Eventually, the Organizational Citizenship Behaviors were measured with the scale developed by Paillé (2006). The Table 3 summarizes the psychometric features of the measurement scales after each scale was subjected to a Principal Components Analysis and reliability tests (Cronbach’s α).

3. RESULTS

3.1. PLX Managers

In the Table 4, we present the significant changes in attitude between before (T1) and after (T2) the PLX program, according to T-tests. It should be noted that all potential evolutions were tested: only significant changes for the PLX managers or employees with PLX managers are reported in the present article.

Table 4: Significant changes in mean scores for managers (standard deviation). T-tests compared to the previous time period (* = p<0.05; ** = p<0.01; *** = p<0.001).

<table>
<thead>
<tr>
<th></th>
<th>PLX managers (38 in T1, 36 in T2)</th>
<th>Control group (26 in T1, 25 in T2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
</tr>
<tr>
<td>Empathy</td>
<td>4.37  (0.44)</td>
<td>4.62 (0.48)***</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>4.35  (0.60)</td>
<td>4.59 (0.48)*</td>
</tr>
<tr>
<td>Consonance</td>
<td>4.23  (0.51)</td>
<td>4.65 (0.49)***</td>
</tr>
<tr>
<td>Perceived Stress</td>
<td>3.33  (0.65)</td>
<td>2.76 (0.62)***</td>
</tr>
</tbody>
</table>

The impact of the PLX program seems particularly powerful for managers, the group in which we observe the largest number of changes, some of them displaying the highest statistical significance in the whole study (** = p<0.01).

First, three dimensions of the Leader+ scale show the significant change between T1 and T2 (Empathy, Mindfulness, and Consonance).

Second, on the PSS scale, only the PLX managers’ score displays a significant decrease in perceived stress (** = p<0.001).
In addition, the data also showed that the standard deviation was minor comparing T1 and T2, meaning that the answers provided by the managers are more consistent with their opinions and that the activity gave the managers a similar impact.

3.2. Employees with PLX managers

We present the significant changes between T1 and T2 for employees with PLX managers. No significant changes were found with employees under regular managers (Control group).

Table 5: Significant changes in mean scores for employees (standard deviation indicated in parentheses). T-tests compared to the previous wave (* = p<0.05; ** = p<0.01).

<table>
<thead>
<tr>
<th></th>
<th>Employees with PLX managers (54 in T1, 49 in T2)</th>
<th>Control group (55 in T1, 46 in T2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>3.89 (0.94)</td>
<td>4.37 (1.06)**</td>
</tr>
<tr>
<td>Collective meaning</td>
<td>4.30 (1.03)</td>
<td>4.68 (0.80)*</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>3.31 (0.73)</td>
<td>3.68 (0.68)**</td>
</tr>
<tr>
<td>Organizational civic virtues</td>
<td>3.37 (0.75)</td>
<td>3.71 (0.65)**</td>
</tr>
</tbody>
</table>

For employees with PLX managers, there were favorable movements in two other dimensions of stress when compared to the PLX managers (procedural justice and organizational civic virtues). In T2, PLX employees with PLX managers feel more confident about handling their personal problems, and say they are more able to control their temper.

Employees who have a PLX manager, on the contrary to the control group, perceive greater Mindfulness and Collective meaning in their manager after the PLX program. This confirms managers’ feelings on the same dimensions, which have improved (although the perception of better Empathy only changes for managers).

In addition, we observe that employees with a PLX manager perceive greater procedural justice and display more organizational civic virtues, with this it is possible to infer that managers and employees were involved in a more fair and less stressful environment. Additionally, our data show that employees observe changes in their manager’s behavior, control their stress better and develop organizational citizenship behavior.

Just like the case of the manager, the employees with PLX managers reduced their standard deviation on the 4 key items in T2, meaning that the answers provided to the questionnaire after the activities were more consistent among them.

3.3. Lasting effects of positive psychology and mindfulness exercises

Data measured at T2 suggest that the feedback from managers who have followed the PLX program is encouraging. We can observe that most of them seem to have adopted positive leadership practices.
3.3.1. Degree of participation in the PLX program

As the descriptive measures suggest below, managers seem to be engaged with the PLX program:

- Across the whole 10-session program, 80.7% of managers practiced the mindfulness exercises at least 3 days a week on average. The most representative group practiced them three days a week (34.6%).
- 92.3% of managers practiced the mindfulness meditation exercises for more than five minutes a day on average. The most representative group (30.8%) practiced them for a duration of five to ten minutes.
- We observe that the PLX program has a long-lasting impact: once it was over, 61.4% of managers practiced the mindfulness exercises at least three days a week on average. The most representative group practiced them three to five days a week (57.6%).

3.3.2. Managers’ favorite practices

Below, the Table 6 is listed the most effective practices to apply for well-being, according to the 36 PLX managers at T2.

Table 6: The most effective practices to apply for well-being, according to the 36 PLX managers at T2 (number of occurrences in answers to a multiple-choice question).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Occurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking a break before or after a meeting</td>
<td>20</td>
<td>17%</td>
</tr>
<tr>
<td>Focusing on the positive</td>
<td>19</td>
<td>17%</td>
</tr>
<tr>
<td>Mindfulness breathing exercises (3 min)</td>
<td>18</td>
<td>16%</td>
</tr>
<tr>
<td>Being aware of my responses in stressful situations with the employees I manage</td>
<td>12</td>
<td>10%</td>
</tr>
<tr>
<td>Emotional/sensorial scan</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>Spreading kindness</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>Mindfulness breathing exercises (10 min)</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>Encouraging mutual help and support</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>Encouraging positive speaking</td>
<td>8</td>
<td>7%</td>
</tr>
</tbody>
</table>

The above results show that there is a mix of internal and external focus on the practices of the managers exposed to the PLX program, having a 77% of the occurrences in the internal stadium for example taking a break before or after a meeting or having mindful breathing exercises. On the other hand, we find that 33% of the occurrences are related to the external stadium as an example spreading kindness or encouraging positive speaking and mutual support.

Additionally, Table 7 lists the most effective practices to improve relationships with teams according to the 36 PLX managers at T2.
Table 7: The most effective practices to improve relationships with teams, according to the 36 PLX managers at T2 (number of occurrences in answers to a multiple-choice question).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Occurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraging positive speaking</td>
<td>17</td>
<td>15%</td>
</tr>
<tr>
<td>Encouraging mutual help and support</td>
<td>17</td>
<td>15%</td>
</tr>
<tr>
<td>Thank-you visits to team members</td>
<td>16</td>
<td>14%</td>
</tr>
<tr>
<td>Focusing on the positive</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>Being aware of my responses in stressful situations with the employees I manage</td>
<td>12</td>
<td>11%</td>
</tr>
<tr>
<td>Spreading kindness</td>
<td>12</td>
<td>11%</td>
</tr>
<tr>
<td>Mindfulness breathing exercises (3 min)</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Writing down 3 positive experiences a day</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Keeping a gratitude journal</td>
<td>8</td>
<td>7%</td>
</tr>
</tbody>
</table>

The above results show that the managers after PLX are aware of the importance of an assertive communication since 37% of the occurrences had a link with the importance of communication (encouraging positive speaking, being aware of my responses in stressful situations with the employees I manage, spreading kindness).

4. DISCUSSION

Overall, our research reveals that the leadership- and mindfulness-focused PPI under study impacted positive experiences, traits, and behaviors with long-lasting aftereffects both for managers and employees.

4.1. The Positive Psychology Intervention under study

We first confirm that the leadership- and mindfulness-focused PPI developed the positive traits of the managers (Hypothesis 1 confirmed). Indeed, our results suggest that, according to the managers, the PPI increased (1) their empathy and consonance, (2) their collective meaning, and (3) their mindfulness (this very result is also backed by data collected at the employee level).

A Positive Leader will thus contribute to improving employees’ health and effectiveness by listening to them and paying more attention to their feelings. This type of spiritual leader makes people feel more valuable by listening to them and putting their needs before his own, and also constructs a community by facilitating teams, constructing a relational universe that brings people closer rather than separating them (Beazley, 2002). This mechanism ultimately has a positive impact on the firm (Guest, 2017). In that sense, PPIs then appear to contribute to organizational development (Cheung-Judge & Holbeche, 2011) where leaders do influence the work context (Fischer et al., 2017) to grant positive experiences, like psychological safety for instance (Frazier et al., 2017).

Moreover, our study identifies the positive psychology and mindful operational exercises that managers seem to particularly appreciate whether it is for their own well-being (i.e., taking a break before or after a meeting, focusing on the positive and mindfulness breathing exercises) or for a better team functioning (i.e., encouraging positive speaking, encouraging mutual help).
and support and thank-you visits to team members). The sustainable use of those positive psychology and mindfulness exercises confirms that they are synonymous with positive experiences (Chong et al., 2020).

4.2. Mastering of job stress

Our study also suggests that PPIs increase the positive experiences like a better mastering of stress. Indeed, managers who were subject to the PLX intervention did master their stress better afterward, confirming our Hypothesis 2. This result contributes to the evolution of the stress literature which is now more oriented towards work tensions and burnout (Bliese et al., 2017). We confirm that the PPI is a useful and a possible sustainable tool to improve mental health and well-being (Donaldson et al., 2015; Rashid, 2015), especially when combined with a mindfulness approach and regarding the management of stress (Eby et al., 2019). This managerial tool seems to bring a more stable and agreeable workplace.

4.3. Employees’ positive experiences and behaviors

Moreover, our work shows that the development of positive traits of the manager is associated with more positive experiences and behaviors from the employees’ side. Our results show that employees’ perception of procedural justice increases with a PLX manager, confirming our Hypothesis 3, parallelly to a similar increase in the display of civic virtues a dimension of OCB, confirming Hypothesis 4. Therefore, we suggest that mindfulness provides managers with a better grasp of their feelings and those of the people working with them, and this serves to improve the perception of procedural justice for instance. The associated increase in both perception of procedural justice and the display of civic virtues would corroborate Colquitt et al. (2012)’s idea that justice is a key factor in organizational performance. Indeed, OCB can be considered as a key performance indicator. Most importantly, as an individual’s perception of justice can change (Jones & Skarlicki, 2013) and as HR tasks are increasingly delegated to operational managers (Dany et al., 2008), we confirm that it is the role of managers to protect perceptions of justice.

Like proponents of mindfulness, through our results testifying to the effects of PPIs, we confirm that being positive and mindful is vital for a good manager. Indeed, as Autissier et al. (2015, p. 216) recall, “a leader mindful of what he is and of what is going on around him will have a better understanding of events and be more competent to lead his team”. Stavros and Galloway Seiling (2010, p. 136) consider that one of the priorities for a leader is “to do no harm” in practicing leadership. We thus confirm that the characteristics and development of a good leader like positive psychology and mindfulness concern more than the sole work environment (Hammond et al., 2016).

Additionally, as employees initiate further OCBs, confirming Hypothesis 4, our results suggest that positive attitudes at work can be mutually nourishing: they initiate a virtuous circle that is conducive to better individual and collective performance (Cameron et al., 2011). This observation lends support to promoters of the eudemonic approaches that put the accent on personal happiness and fulfillment (Ryff & Singer, 2013; Vittersø, 2016), and also admirers of spiritual leadership who believe that “transformational leadership is placed in a virtuous framework” (Voynet Fourboul, 2016, p. 123).

Eventually, descriptive results show an increase in the managers favorite practices in terms of complementary dimensions (Anālayo, 2020): whether it is internal (taking a break before or
after a meeting, focusing on the positive, mindfulness breathing exercises) or external (spreading kindness, Encouraging mutual help and support and positive speaking). This can unveil a possible link between the search of equilibrium between the internal and the external dimensions of mindfulness. Our data may actually highlight the sought for a balance between personal values (internal locus) and the leadership style (external locus) (Bruno & Lay, 2008).

CONCLUSION

Empirical contributions

Our article first provides an empirical contribution by successfully testing the validity and the reliability of the Positive Leader measurement scale (Frimousse et al., 2017) on a sample of managers and employees. The data we collected additionally validated the meaningfulness of this scale for both managers and their employees.

Second, we provide the literature with longitudinal data to assess the positive traits and behaviors of managers, before and after the PPI, both from employees’ and managers’ perspectives.

Third, we actually add data from a quasi-experimentation to the existing field of knowledge regarding the PPIs, which has so far remained marginal (Grant & Wall, 2009).

Finally, we bring data from the French territory which was somehow missing in the field of positive psychology even though it is expanding globally (Hendriks et al., 2019, p. 3).

Theoretical contributions

First, the present application of the Positive Leadership scale (Frimousse et al., 2017) illustrates the growing interest by academics and practitioners in a spiritual (Spector, 2014) and positive (Caza & Cameron, 2008) approach to leadership. It contributes to the Positive Organizational Scholarship (Caza & Cameron, 2008) by proposing a measurement scale for Positive Leadership. In the meantime, our study shows that the Positive Leader has a significant impact on employee attitudes in terms of the perception of justice and organizational civic virtues (Fischer et al., 2017).

Second, our research contributes to the theoretical models of positive organizational scholarship (Caza & Cameron, 2008) by suggesting that a leadership-focused PPI impacts both managers and employees. We parallelly contribute to the literature on empathy which still deserves further investigation (Clark et al., 2019), notably on the promising path of empathetic leadership (Jian, 2021)

Managerial contributions

Firstly, our results suggest that it would be in the firms’ interests to introduce interventions in positive and mindful leadership (Kets de Vries, 2014). More generally, our research encourages to re-think the initial training and continuing professional development of leaders through positive psychology and contemplative practices such as mindfulness meditation (Hafenbrack, 2017). Also, we would like with the results and the theoretical framework expressed in this project, to open the door to a more focused attention to the importance of not only hard skills but soft skills training, in this case, positive leadership, to the leaders inside the organizations and their impact on the development of the activities.
Secondly, our study details the positive psychology and mindful exercises that managers seem to appreciate the most whether it is for their own well-being or for a better team functioning. Other companies can therefore easily and practically be inspired to implement and introduce gradually similar positive interventions in order to improve performance (Cameron et al., 2011) and the well-being of their employees.

Limitations

The first limitation of the present study is the potential plethora of factors that could have affected the PPI like: the industry, the location, the scheduling, (Knight et al., 2017), the control group helped in the alleviation of this limit.

The second limitation of this study lies in the fact that except from the data on Positive Leadership, the primary data come from a single source: a questionnaire given to the respondents. This limitation corresponds to what is called the common method bias, which arises when the same questionnaire is used to measure both the dependent and independent variables of a model. Having a single source is a frequent limitation in studies and its impact can be mitigated by (1) collecting data from different sources for the dependent and independent variables respectively, (2) administering the same questionnaire several times, (3) guaranteeing anonymity for respondents so they feel comfortable with their answers, (4) using robust scales of measurement, and (5) ordering the items so that the dependent variables can be clearly distinguished from the independent variables (Podsakoff et al., 2003). Although it was not always possible to collect the data from several sources, we intend to do so for the next part of our action research. It would also have been difficult in our study to administer our questionnaire several times. However, the last three ways to reduce the common method bias were applied here: respondent anonymity was scrupulously respected, the scales of measurement were carefully selected from all available scales, and finally, the items were presented in order. The impact of the common method bias should thus remain limited.

Perspectives for future research

Our study first suggests that future inquiry by Positive Organization Scholarship (Caza & Cameron, 2008) should focus on Positive Leadership (Malinga et al., 2019) as a promising field of investigation. A test in other settings would here be welcome as organizational and national cultures may interfere with the PPIs and its conceptualization itself (Malinga et al., 2019). Future research on leadership-focused PPIs could also explore the possible individual differences in their effects (Antoine et al., 2018).

Second, it seems necessary to understand why only managers’ mindfulness was identified as improved by both the managers and their employees. On the opposite, evolutions in empathy, consonance, and collective meaning were spotted from only one of the two sides. Additional testing of the Positive Leadership scale (Frimousse et al., 2017) appears essential to confirm its relevant conceptualization.

Further assessment of the nature of the links between the traits and behaviors of the Positive Leader (Malinga et al., 2019) would also be interesting in order to better decipher the multiple impacts of leadership traits. Another suggestion would be to compare objective performance data (like sales revenues, productivity, staff turnover, absenteeism, commitment and satisfaction at work) with perceived behavioral changes in Positive Leadership traits and behaviors.
Finally, future research could explore the concept of collective positive leadership and its linkages with individual positive leadership, just like the literature conceptualized team mindfulness (Yu & Zellmer-Bruhn, 2018) and explored its relationships with individual mindfulness (Liu et al., 2020).

APPENDICES

Appendix 1: Measurement items for the Positive Leadership scale (Frimousse et al., 2017).

1/ Generosity
I consider the interests of the employees under my management before my own interests.
I do everything I can to help the employees under my management.
I put my own interests aside to meet their needs.
I go the extra mile to meet their demands.

2/ Empathy
I’d be the first person the employees under my management would go to if they were in great difficulty.
I help the employees under my management to deal with their emotions.
I’m good at helping the employees under my management understand their emotions.
I can help them get over difficult emotions.
I show them compassion.

3/ Mindfulness
I’m aware of what’s going on around me.
I clearly anticipate the consequences of my decisions.
I’m very attentive to what’s going on.
I’m in touch with what’s going on.
I know what is going to happen.

4/ Inspiration
I make strong arguments to get the employees under my management to do things.
I encourage them to aim big for our organization.
I’m good at persuading the employees under my management.
I’m very persuasive.
I have a good technique for getting the employees under my management to do things.

5/ Collective meaning
I consider that the organization should have a moral role in society.
I think our organization should function like a community.
I see our organization as able to make a positive contribution to society.
I encourage the employees under my management to show team spirit and solidarity at work.
I’m preparing the organization to have a positive impact in the future.

6/ Consonance
I act in accordance with my values, even at personal cost.
I’m aware of my own emotions and their effects.
I know my strengths and my limitations.
I’m well aware of my value and my abilities.
5. REFERENCES


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