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Work Regulatory Focus Scale – Polish Adaptation

Abstract

The article introduces the Polish adaptation of the Work Regulatory Focus Scale. The authors tested its validity in three studies. Confirmatory factor analyses vindicated the two-factor solution with a low correlation between promotion and prevention scales and their relatively high reliability (Study 1). We observed the expected differences between dissimilar professions in the levels of regulatory foci (Study 2). Moreover, the tool allowed us to predict participants' results in a different criterion – creativity (Study 3), by demonstrating that promotion-oriented participants are more original, fluent and divergent in producing creative ideas than prevention-oriented participants. Implications for the results and the WRF Scale are discussed.

Keywords: regulatory focus, assessment, organizational psychology, creativity

Streszczenie

Celem artykułu jest prezentacja polskiej adaptacji Skali Ukierunkowania Regulacyjnego w Miejscu Pracy. Przeprowadzono trzy badania w celu walidacji przetłu-

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maczonego narzędzia. Konfirmacyjna analiza czynnikowa potwierdziła dwuczynnikową strukturę, z niską korelacją pomiędzy skalą promocji a skalą prewencji o wysokich wskaźnikach rzetelności (Badanie 1). Zaobserwowano zgodne z teorią różnice pomiędzy nauczycielami a przedstawicielami branż innowacyjnych pod względem promocyjnego i prewencyjnego ukierunkowania (Badanie 2). Co więcej, wyniki w kwestionariuszu pozwalają skutecznie przewidzieć rezultaty osób badanych w innym kryterium – pod względem kreatywności (Badanie 3). Wykazano, że osoby o nastawieniu promocyjnym generowały więcej pomysłów, cechowały się większą giętkością i oryginalnością myślenia niż osoby o nastawieniu prewencyjnym. W artykule omówiono możliwe zastosowania narzędzia.

Słowa kluczowe: ukierunkowanie regulacyjne, kwestionariusz, psychologia organizacji, kreatywność

Introduction

Keith Johnstone, the primary theoretician of the modern improvisational theatre, argues that “there are people who prefer to say *Yes*, and there are people who prefer to say *No*. Those who say *Yes* are rewarded by the adventures they have, and the people who say *No* are rewarded by the safety they attain” (Johnstone, 1979/1981, p. 92). This division encompasses key aspects of promotion and prevention regulatory foci, described by Higgins (1997) in his famous article “Beyond pleasure and pain”. Promotion-focused individuals concentrate on ideals and fulfilment; they are driven by growth; hence they tend to exhibit more “exploratory” or risky behaviours that can result in “adventures”. In turn, prevention-focused individuals are driven by security needs, and it makes them more prone to experience losses and withdraw from uncertain actions, which result in achieving safety. They concentrate on duties and obligations. These two orthogonal mind-sets have a dissimilar impact on behaviours, emotions and cognitions (e.g. Crowe & Higgins, 1997; Higgins, Shah, & Friedman, 1997; Higgins, Roney, Crowe, & Hymes, 1994; Kolańczyk, 2008; Roczniowska & Kolańczyk, 2012). Undoubtedly, the influence of a regulatory focus spreads upon different areas and aspects of one’s life, including the work environment (e.g. Brockner & Higgins, 2001; Johnson, Chang, & Yang, 2010; Wallace, Johnson, & Frazier, 2009). Although experimental studies supported the assumption that a regulatory focus can be temporarily induced in people and have an impact on their subsequent actions, emotions and cognitions in organizational settings, few studies looked into the way in which a chronic regulatory focus manifests itself in the workplace (e.g. Brockner & Higgins, 2001; Lee, Aaker, & Gardner, 2000; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). This might result from the scarcity of tools representing a regula-

tory focus in the context of organization. The aim of the article is to introduce and validate the Polish adaptation of the Work Regulatory Focus Scale (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008) which allows one to assess individual levels of both regulatory foci within a specific setting – the work environment.

Regulatory focus theory

Human motivation has long been present in the history of psychological thought and seems crucial to work and organizational psychology (e.g. Adams, 1965; Hackman & Oldham, 1976; Herzberg, 1968; McClelland, 1965; Vroom, 1964). Researchers usually distinguish between needs concerned with advancement (i.e., nourishment, growth, and development) and those concerned with security (i.e., shelter, safety, and protection). Stemming from this basic distinction, in regulatory focus theory Higgins (1997) proposes that motivations for advancement and security foster different modes of goal-pursuit.

Promotion-focused individuals are concerned with gains – they strive to achieve positive outcomes and avoid their absence. In turn, preventive individuals focus on losses – they strive toward the absence of negative outcomes and try to avoid their presence. Should employees set their sights on having colleagues at work, this goal would be represented and pursued in a different manner by promotive and preventive individuals. Namely, employees with a promotion-focus toward improving their interactions with colleagues would act towards strengthening social networks and avoiding missed social opportunities. At the same time, employees with a prevention-focus toward protecting their relations at work would represent it as elimination of anything that might threaten social connections and avoiding social exclusion (see: Molden, Lee, & Higgins, 2008).

Since promotion is associated with nurturance needs, it fosters focus on ideals and aspirations, gained through advancement and accomplishment (Higgins, 1997; Lanaj, Chang, & Johnson, 2012). Hence, this mind-set elicits behaviours intended to move people closer to the desired end-states. For a promotive employee it is important to be able to develop and gain new experiences at work, have a chance to express creativity and choose strategy for obtaining desired outcomes freely. Studies show they prefer setting up their own businesses to working in an organization (Oren, 2006). On the other hand, a prevention-focused individual is driven by security, hence pays attention to rules, obligations and responsibilities (Higgins, 1997). Prevention-oriented employees focus on completing their duties correctly and exhibit a need to follow instructions and scripts of actions. This motivation prompts them to avoid conditions that pull them away from the desired end-states (Higgins, 1997; Lanaj, Chang, & Johnson, 2012). Consequently, empiri-

cal findings indicate that promotion and prevention foci are uniquely associated with work behaviours such as productivity, innovation, and obedience to safety regulations (e.g., De Cremer, Mayer, van Dijke, Schouten, & Bardes, 2009; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008; Wallace et al., 2009).

According to Higgins (1997), a regulatory focus can be both a chronic disposition and a temporarily evoked psychological state (e.g., Friedman & Förster, 2001; Liberman, Idson, Camacho, & Higgins, 1999). Several studies investigated the antecedents of a regulatory focus in organizational settings (e.g., Johnson, Chang, & Rosen, 2010; Kark & Van Dijk, 2007; Neubert et al., 2008). For example, Wallace and Chen (2006) demonstrated that safety climate is related to a prevention focus, whereas Kark and Van Dijk (2007) found that transformational leaders are likely to induce a promotion focus in their followers. This is consistent with Higgins's view of a regulatory fit (Freitas, & Higgins, 2002) in which he points to the fact that people can adapt to meet the regulatory demands of the environment. These studies underline the necessity to discriminate between general chronic personality focus and the one that is expressed within a specific setting, as the one at a workplace. As a chronic tendency, a regulatory focus can be assessed via psychometric tools.

Existing tools

The Regulatory Focus Questionnaire (RFQ) was developed as an events reaction questionnaire to “assess an individual's subjective histories of success or failure in promotion and prevention of self-regulation” (Higgins et al., 2001, p. 7). The statements in the questionnaire describe strategies associated with either promotion (e.g. “*How often have you accomplished things that got you ‘psyched’ to work even harder?*”), or prevention focus (“*How often did you obey rules and regulations that were established by your parents?*”). RFQ consists of 11 items that form two factors – promotion and prevention regulatory foci. There is a low significant correlation between the factors ($r = .21$), and the test was originally quite reliable (*Cronbach's alpha* for promotion: .73; prevention: .80). The questionnaire was translated into Polish (Doliński & Drogosz, 2007), but it has not been fully adapted yet. Both exploratory and confirmatory factor analyses supported a two-factor solution, but the best fit was achieved when each factor was loaded with only four items (Bąk & Łaguna, 2009). Moreover, the reliability was lower both in Doliński and Drogosz's (promotion: .53; prevention: .72) and Bąk and Łaguna's studies (promotion: .60; prevention: .79) than in the original version.

The Regulatory Focus Scale (RFS) was developed by Fellner, Holler, Kirchner and Schabmann (2007) and is an instrument comprising 10 items to record promotion orientation and prevention orientation. Promotion orientation consists

of two factors named *Openness to New Things* and *Autonomy*, whereas the two prevention orientation factors are termed *Orientation to the Expectations of Others* and *Sense of Obligation*. The questionnaire was translated into Polish by two independent translators (Bąk & Łaguna, 2007); however, to our knowledge it has not been fully adapted yet. Both exploratory and confirmatory factor analyses supported a two-factor solution, but the best fit was achieved when each focus was loaded with only three items (Bąk & Łaguna, 2009). Moreover, the reliability was .55 for promotion, and .62 for prevention (Bąk and Łaguna, 2009).

Lockwood, Jordan, and Kunda (2002) introduced the General Regulatory Focus Measure, which determines the degree to which the process of goal pursuit relates to either promotion or prevention focus. Promotion-focus relates to hopes and aspirations (e.g., “*I frequently imagine how I will achieve my hopes and aspirations*”), whereas prevention focus reflects the influence of duties and responsibilities onto goal-directed activities (e.g., “*In general, I am focused on preventing negative events in my life*”). Both scales comprise eight items, and Cronbach’s alpha approximated .81 for promotion focus and .75 for prevention focus (Lockwood, Jordan, & Kunda, 2002). To our knowledge, the measure has not received a Polish adaptation.

Work Regulatory Focus Scale

The Work Regulatory Focus Scale (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008) was developed as a measure of promotion and prevention from the perspective of an individual at work. The authors’ aim was to improve on the drawbacks of the existing tools. Firstly, they underlined the need to fully represent the numerous characteristics of each dimension’s regulatory focus theory. Hence, promotion-focus includes aspects related to achievement, ideals, and gains, while prevention-focus comprises security, oughts, and losses. Moreover, the purpose in creating the WRF Scale was to design a tool “more contextual in nature, as it was developed to capture the degree of regulatory focus that is evoked in a work setting” (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008, p. 1223). Consequently, all the items relate to work situations.

Both exploratory and confirmatory factor analyses resulted in a two-factor solution, comprising nine items each; reliability was relatively high: the Cronbach alpha for promotion was .91, and the Cronbach alpha for prevention was .92. The WRF Scale was proven reliable and accurate in subsequent studies related to leadership style, helping behaviour, deviant behaviour and creativity (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). Namely, a prevention focus mediated the relationship between initiating structure (leadership style) and deviant behaviour. In contrast, a promotion focus mediated the association between servant leadership and creative behaviour.

Interestingly, although the WRF was developed upon the same theory as the RFQ (Higgins et al., 2001), the goals of the scales differ and studies showed that the former explains additional variance over and above that explained by the RFQ (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). Furthermore, there is a low or insignificant correlation between relevant scales from the two methods, which leads to the conclusion that organizational settings affect the ability to exhibit regulatory focus behaviours to a great extent and one has to take into a consideration an impact of contextual factors on personality expression.

All considered, existing methods differ with respect to the degree they encompass theoretical background provided by the theory (for further review see: Summerville and Roese, 2008). Existing methods adapted to the Polish RFQ and RFS do not sustain original reliability, and analyses of their incremental validity do not confirm a good fit to the two-factor solution. Moreover, results from Neubert and colleagues' studies underline the need for more context-dependent measures (2008).

Adaptation and Validation of The Work Regulatory Focus Scale (WRF)

Since the Work Regulatory Focus Scale meets the requirements in capturing the full content of the two dimensions of the Regulatory Focus Theory (internal validity) and in describing work environment behaviours, we decided to provide a Polish adaptation of this scale. Initially, the scale was translated into Polish by a graduate of a bilingual higher school (Polish-English).

Study 1

The first study's aim was to test the assumption that the items form a two-factor model. We hypothesised that the nine translated items for prevention form the prevention dimension, whereas the nine items for promotion – the promotion dimension. Moreover, since they are orthogonal in theory, but significantly correlated in practice (for the original questionnaire: $r = .52$), we expected a low to medium correlation between the two factors. Finally, we aimed to test the reliability of the two subscales.

Method

Participants

A total of 155 employees of different professions from diverse companies took part in the study.

Materials

The translated Work Regulatory Focus (WRF) Scale consists of 18 items. Responders are asked to provide their agreement with each item on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Procedure

All the participants filled in the WRF Scale in their workplace without time limits. The person conducting the study presented it as a measure of attitude towards job-relevant tasks.

Results

Confirmatory Factor Analysis

The Confirmatory Factor Analysis (CFA) was conducted to test the two-factor structure of the method using the Lisrel 8.80 program (Joreskog&Sorbom, 1995). In the first analysis the 18-item version was tested. The models were tested with the correlated latent variables. The results were almost acceptable. However, the magnitudes of the lambda-x indices for one item suggested that a reduced model might improve the fit of the postulated factor model. In the repeated confirmation analysis (item number 14 was eliminated) the index χ^2 was significantly lower for the postulated two-factor ($\Delta\chi^2=269.33$; $\Delta df=1$; $p<.001$) than for the competitive one-factor model (Table 1). The RMSEA index (*Root Mean Square Error of Approximation*), GFI (*Goodness of Fit*), AGFI (*Adjusted*

Table 1. Fit indices for two tested models

Model	χ^2 (df)	RMSEA	GFI	AGFI	CFI
The 2-factor (18 items): Prevention/promotion	281.83 (134)	.803	.838	.794	.909
The 1-factor (17 items): Prevention/promotion	498.68 (119)	.175	.658	.560	.560
The 2-factor (17 items): Prevention Promotion	229.35 (118)	.073	.859	.817	.922

The comparison of two-factor models: $\Delta\chi^2=281.83-229.35=52.48$; $\Delta df=134-118=16$; $p<0.001$

The comparison with one-factor model: $\Delta\chi^2=498.68-229.35=269.33$; $\Delta df=119-118=1$; $p<0.001$

Goodness of Fit) and CFI (*Comparative Fit Index*) turned out to be acceptable (Cudeck& Browne, 1993). Therefore, confirmatory factor analysis of the data provided general support for the hypothesized two-factor model.

The basic psychometric attributes of the scale

According to the data included in Table 2, the factor loadings for the individual items are satisfactory. All the lambda-x indices (*Completely Standardized Solution*) are significant ($p<.001$).

Table 2. Standardized factor loadings(completely standardized lambda – X) of individual scale items

Prevention		Promotion	
Item	Λ	Item	Λ
1	.62	10	.67
2	.71	11	.46
3	.80	12	.50
4	.71	13	.46
5	.52	15	.77
6	.60	16	.67
7	.53	17	.72
8	.61	18	.45
9	.35		

Other basic data concerning the characteristics of the two subscales are included in Table 3. Cronbach’s α coefficients are relatively high (exceed 0.80). Analysis reveals weak positive correlations between two dimensions ($r=0.17^*$).

Table 3. Descriptive statistics and intercorrelation values between two subscales in the WRF Scale.

Scale dimensions	M	SD	Cronbach’s α
Prevention	4.05	0.61	.84
Promotion	3.74	0.64	.81

Discussion

Confirmatory factor analyses vindicated the two factors, though one item from the original scale had to be eliminated. A closer look at its content (*“If my job did*

not allow for advancement, I would likely find a new one”) suggests that given the current job-market situation, the answer may be unrelated to one’s regulatory focus, but to career possibilities. The indices for the 17-item measure were more satisfactory; therefore we decided to adapt the tool in this form (see: Appendix 1).

Cronbach’s alpha coefficients of internal consistency for both scales are relatively high, which vindicates the reliability of the tool. Consistent with previous findings on the WRF Scale (Neubert et al., 2008), we obtained a significant, yet low correlation between the two subscales. This result justifies orthogonality of the factors and is also consistent with findings on the RFQ (Higgins et al., 2001) and Regulatory Focus Theory in general.

Study 2

The aim of the second study was to verify the theoretical validity of the WRF Scale. Theoretical validity refers to expected differences in the tested feature between different groups of people as predicted by the theory and previous research (Hornowska, 2005).

We administered the questionnaire among teachers and employees hired in Innovative Businesses. For the latter, it is highly recommended to exhibit high levels of creativity, as innovation is inscribed in their job roles. Therefore, since creativity is related to promotion (e.g. Friedman & Förster, 2001) we can expect employees hired in Innovative Businesses to be more promotive than teachers.

On the other hand, responsibilities and obligations are very important to teachers. At work, they need to set examples as role models, remind students about their duties and set rules they have to obey. Hence, we may expect them to exhibit higher levels of prevention than employees hired in Innovative Businesses.

In study 1, the difference between the average results obtained in each foci was statistically significant ($p < .001$), indicating preponderance of prevention over promotion focus. Therefore, we expect this pattern to repeat in the following study.

Hypothesis 1: Employees hired in Innovative Businesses have a higher level of promotion than teachers.

Hypothesis 2: Teachers are more preventive than employees hired in Innovative Businesses.

Hypothesis 3: Generally, the level of prevention is higher than the level of promotion (replication of Study 1 results).

Method

Participants and design

Ninety-two teachers and a hundred employees hired in Innovative Businesses from the same administrative region took part in this study. Table 4 provides their demographic characteristics. There were no significant differences between male and female participants in any result reported below.

Table 4. Demographic characteristics of participants in Study 2.

	Teachers ($N = 92$)	Innovators ($N = 100$)
Men	30	50
Women	62	50
Age (M, SD)	43.34 (9.11)	26.33 (4.05)

Materials

To measure individual levels of promotion and prevention regulatory foci, we used the WRF Scale, described previously.

Procedure

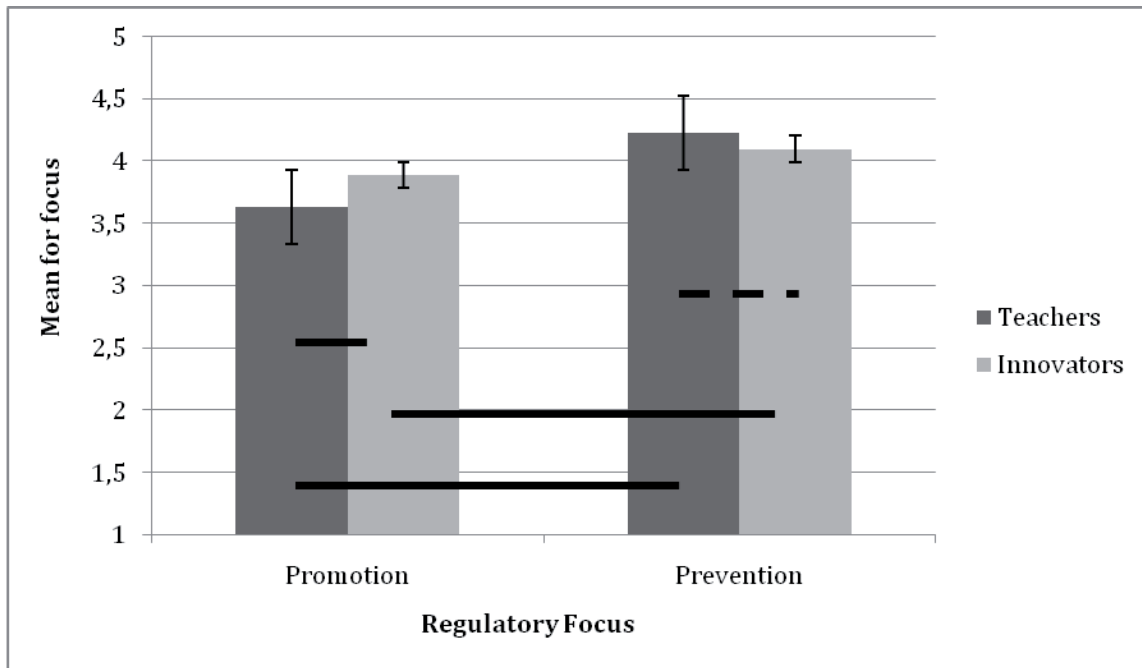
All participants filled in the WRF Scale in their workplace without time limit. The person conducting the study presented it as a measure of attitude towards job-relevant tasks.

Results

We conducted a 2 x 2 analysis of variance (ANOVA): (profession [teacher vs. innovator] x regulatory focus[promotion vs. prevention]), with the latter as a within-subject variable. The main effect of the regulatory focus was observed, indicating that there is generally a higher level of prevention ($M = 4.16, SD = 0.52$) than promotion ($M = 3.77, SD = 0.60$) in the sample, $F(1,190) = 100.05; p < .001; \eta^2 = 0.35$. We also obtained a significant interaction between the two factors, $F(1,190) = 24.07; p < .001; \eta^2 = 0.11$.

The analysis of simple main effects indicates that teachers declared a higher level of prevention ($M = 4.23, SD = 0.44$) than employees hired in innovative businesses ($M = 4.10, SD = 0.58$), $t(190) = 1.75; p < .05$ (one-tailed), Cohen's $d = 0.25$. Moreover, employees hired in Innovative Businesses had a higher level of promo-

Figure 1. Interaction between the profession and regulatory focus.



Note: Lines mark the significant differences, $p < .001$ for black and $p < .05$ for dash lines.

tion ($M = 3.89$, $SD = 0.59$) than teachers ($M = 3.63$, $SD = 0.57$), $t(190) = 3.11$; $p < .001$ (one-tailed), Cohen's $d = 0.45$. For both teachers and innovators, the level of prevention was higher than the level of promotion ($p < .001$), which confirms the main effect of the regulatory focus. The results are depicted in Figure 1.

Discussion

Results from Study 2 confirmed our three hypotheses. Firstly, we replicated the pattern of results from Study 1 indicating the general preponderance of prevention over promotion. This study showed the effect occurs regardless of profession. We believe it may result from high uncertainty avoidance (UA), defined as the extent to which “a society, organization, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events” (House, Javidan, Hanges, & Dorfman, 2002). According to cultural dimensions research (Hofstede, Hofstede, & Minkov, 2010), Poland scores very high on UA (93 out of 100 points)—other dimensions are lower for Polish society. Looking closely at Uncertainty Avoidance, one may notice its resemblance to prevention – security as the ultimate driver of behaviour, which results in a need for rules and strengthens oughts and obligations. Therefore, we find our results consistent with theory on both Regulatory Focus (Higgins, 1997) and Hofstede's cultural dimensions theory (1980).

Secondly, the study revealed differences between employees performing different roles – as teachers and as innovators. Since creativity is related to promotion, we expected participants employed in Innovative Businesses to exhibit a higher level of promotion regulatory foci than teachers. On the other hand, attention to duties and oughts displayed by teachers in their in-role performance predetermines them to a higher level of prevention. Both assumptions were confirmed in the study described, which settles the theoretical validity of the WRF Scale.

Study 3

We conducted a third study to test the validity of the tool. Originally, the WRF Scale was validated using self-assessed creativity, showing that promotion is related to higher results in an innovation questionnaire (e.g. “*I search out new technologies, processes, techniques, and/or product ideas*” [Scott & Bruce, 1994]). We decided to adopt a more practical (non-declarative) approach by using a task from the Torrance Test of Creative Thinking (Torrance, 1990) and observing participants’ actual performances. We expected promotion-oriented participants to exhibit greater creativity than prevention-focused individuals, as it was demonstrated earlier in numerous studies (e.g. Friedman & Forster, 2001; Neubert, Kacmar, Carlson, & Roberts, 2008).

Hypothesis 4: Promotion-oriented individuals obtain higher scores in creativity tasks than prevention-oriented individuals.

Method

Participants and Design

Ninety-nine primary and high school teachers (29 men, 70 women) from schools in Ostróda ($N = 49$) and Gdańsk ($N = 50$) took part in this study. Their age ranged from 25 to 75 ($M = 42.99$, $SD = 9.36$). Participants were approached in their work place and took part in the study voluntarily. The study was held in a one-factor scheme and we tested how personality type (promotion vs. prevention) affects creativity.

Materials

TTCT. To test creativity we chose Activity 7 from the Battery of Torrance Tests of Creative Thinking (TTCT) (Torrance, 1990). This test, called ‘Just Suppose’, provides an improbable situation which participants must assume happened. Sub-

jects are supposed to imagine that a great fog had fallen over the earth and all they could see were people's feet. They are expected to describe what the implications and consequences for life would be under such conditions. The test is scored for quantity (ideational fluency), quality (originality), and diversity of production (flexibility; e.g., Plucker&Renzulli, 1999), all of which are the most widely used creativity measures derived from Guilford's approach to divergent thinking (1950).

WRF. Subjects filled in the Work Regulatory Focus (WRF) Scale, consisting of 17 items.

Procedure

The study was conducted in teachers' staffrooms during the main 20-minute pause and after teacher-student consultations. Subjects were examined during their work time both separately and in groups. Firstly, subjects were given Activity 7 from the Battery of Torrance Tests of Creative Thinking (TTCT) (Torrance, 1990). Participants were informed of the time limit (ten minutes). Directly after completing the creative thinking task, subjects filled in the WRF Scale without a time limit. We excluded participants who failed to provide any answers to the WRF Scale or did not solve the TTCT task ($N = 7$).

Results

Promotion and Prevention

To assign subjects to promotion- or prevention-oriented group, we calculated mean prevention and promotion scores for each participant and subtracted the prevention score from the promotion score, obtaining *personality* variable ($M = -0.59$, $SD = 0.60$). We conducted a median-split division ($Me = -0,60$) and consequently values above the median suggested promotion focus, whereas values below the median were indicative of prevention focus.

Creativity

Creativity was operationalized as a score obtained in three measures: quantity (ideational fluency), quality (originality), and flexibility (production diversity) of ideas.

Non-redundant ideas constituted *ideational fluency*. *Flexibility* is reflected in the different semantic categories from which ideas are derived. The more categories participants use, the higher their cognitive flexibility is. To determine this indicator one has to calculate the number of "changes of directions" in thinking.

A point is given every time the participant changes category of answers in a subsequent idea. For example, if one states that “People won’t have to buy clothes” and next they write, “People won’t have to wear clothes”, the category does not change; therefore no point is scored. However, if the next answer is “People will recognise others by looking at their feet”, a point will be given. The sum of points forms a *flexibility* index.

Originality is defined as the ability to produce new, unique ideas (Guilford, 1950). *Originality* was calculated as an adverted frequency of each idea in the sample (to represent the concept of *uniqueness* or *atypicality*). Namely, the less typical the idea was in the sample, the more points the participant gained. We calculated *originality* in each answer based on the equation $1/n$, where n indicates the total number of such a response in the sample. Consequently, the more typical the answer (e.g. $n = 20$) the smaller the fraction (0.05) and hence –fewer points obtained by the participant.

Before calculating the final results we excluded those participants who achieved scores three standard deviations above or below the mean in these three indicators ($N = 6$).

Ideational fluency. As expected, promotion-oriented participants generated more ideas ($M = 6.38$; $SD = 3.59$) compared with prevention-oriented individuals ($M = 5.32$; $SD = 2.68$), $t(80.96) = 1.56$; $p = .06$ (one-tailed), Cohen’s $d = 0.35$.

Flexibility. Promotion-oriented participants exhibited greater diversity of production ($M = 3.60$; $SD = 2.71$) than prevention-oriented individuals ($M = 2.53$; $SD = 1.55$), $t(71.22) = 2.26$; $p < .05$ (one-tailed), Cohen’s $d = 0.54$.

Originality. As the theory predicted, promotion-oriented individuals generated more original ideas ($M = 3.31$; $SD = 2.42$) compared with prevention-oriented subjects ($M = 2.16$; $SD = 1.59$), $t(76.68) = 2.62$; $p < .01$ (one-tailed), Cohen’s $d = 0.60$.

Discussion

The results obtained in Study 3 are in line with the hypotheses. Since promotion-focused individuals are attentive to gains and fulfillment (Higgins, 1997), tend to exhibit “exploratory” behaviours (Förster, Friedman, & Liberman, 2004), and perform better in tasks involving creativity (Förster & Friedman, 2001), we expected them to produce ideas of higher quantity, quality and diversity. This hypothesis was confirmed in the study described. Participants with promotion focus generated more solutions to a given problem and their ideas were derived from more categories. Finally, their answers were less typical and, hence, more original than the ones provided by prevention-oriented individuals. All the obtained results

are in line with the Regulatory Focus (RF) theory and previous empirical findings on the relationship between RF and creativity (e.g. Förster & Friedman, 2001; Freitas and Higgins, 2002), which settles the questionnaire's criterion validity.

General discussion

The aim of the article was to introduce a new tool designed to measure individual regulatory foci levels in organizational settings. Studies 1 to 3 provide evidence that the WRF Scale can be deemed accurate and reliable.

The Polish adapted WRF Scale sustained its original properties. Confirmatory factor analyses vindicated the two-factor solution with a low correlation between the scales. Moreover, content validity analysis indicates that the given tool represents the theory well: promotion-focus comprises achievement, ideals, and gains, while prevention-focus relates to security, oughts, and losses. The two scales were proven reliable and only modestly correlated (Study 1). The next step involved testing their accuracy. We demonstrated expected differences between dissimilar professions in the levels of regulatory foci (Study 2). Moreover, the tool allowed us to predict participants' results in a different criterion – creativity (Study 3), by demonstrating that promotion-oriented participants are more original, fluent and divergent in producing creative ideas than prevention-oriented participants.

Placing the statements in an organizational context affects the face validity of the tool, which is to determine if a measure appears (on the face of it) to measure what it is supposed to measure. Statements from the Regulatory Focus Questionnaire by Higgins and colleagues (2001) refer to strategies that succeeded throughout childhood and adolescence (e.g. *Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?*), hence might seem unrelated to one's strategies pursued in a workplace. Changing the statements into work-related ones can affect employees' motivation to engage in filling in the questionnaire. It also allows capturing specific behaviours evoked in the work environment. This was demonstrated when the WRF Scale explained additional variance over and above that explained by the Regulatory Focus Questionnaire (Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008).

Numerous procedures and measures were developed to gauge the regulatory focus. Some evaluate the accessibility of hopes or obligations (e.g. reaction times to questions, see: Freitas, Liberman, Salovey, & Higgins, 2002). Others involve self-report (e.g. Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001; Lockwood, Jordan, & Kunda, 2002). The Work Regulatory Focus Scale is a procedure that puts emphasis on strategies of goal attainment and attention to duties or ideals, but inscribes them into specific environments – into organization and work-re-

lated activities. The limitations of the WRF Scale are similar to those of other self-report measurements. Firstly, they require conscious awareness of one's mind-set, which might not be accessible to every person. More importantly, employees may perceive some behaviours as more desirable by the employers, hence report them according to the expectations. A way to eliminate this involves asserting anonymity of individual results.

Regardless of the limitations described above, the tool's reliability and validity were confirmed, both by the authors and during its adaptation into Polish. Initially, Neubert and colleagues tested a relationship between promotion and self-rated innovation in the workplace (2008). During the adaptation process, we observed an actual creativity performance (Study 3). However, using a creativity task unrelated to one's job might not be considered as the best predictor of innovations in the workplace; so we encourage future researchers to collect data related to work behaviours from alternate sources. Moreover, regulatory foci have many other cognitive, emotional and behavioural consequences; hence, future research on validity of the tool should relate to additional areas like organizational citizenship behaviours, counterproductive work behaviours, obedience to safety regulations, leadership styles, and so on.

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Appendix 1.

Work Regulatory Focus Scale (Skala Ukierunkowania Regulacyjnego w Miejscu Pracy).

Poniższy kwestionariusz jest anonimowy i został stworzony na potrzeby naukowe. Zawiera 17 stwierdzeń, które opisują funkcjonowanie człowieka. Wskaż, na ile trafnie każde z nich opisuje Ciebie. Jeśli w pełni zgadzasz się ze stwierdzeniem zaznacz 5, jeśli całkowicie nie zgadzasz się z podanym zdaniem wybierz 1. Pamiętaj, nie ma złych ani dobrych odpowiedzi.

1 - zdecydowanie nie zgadzam się;

2 - raczej nie zgadzam się;

3 - trudno powiedzieć;

4 - raczej zgadzam się;

5 - zdecydowanie zgadzam się

1. Skupiam się na tym, by poprawnie wypełniać zadania zawodowe, aby zwiększyć pewność zatrudnienia.

1 2 3 4 5

2. W pracy motywują mnie moje nadzieje i aspiracje.

1 2 3 4 5

3. Spełnianie moich zawodowych obowiązków jest dla mnie bardzo ważne.

1 2 3 4 5

4. Możliwość rozwoju jest dla mnie istotnym czynnikiem, gdy poszukuję pracy.

1 2 3 4 5

5. W pracy staram się wypełniać powierzone mi przez innych zadania.

1 2 3 4 5

6. Robię wszystko co mogę, by uniknąć strat w pracy.

1 2 3 4 5

7. Bezpieczeństwo zatrudnienia jest dla mnie ważnym czynnikiem w czasie poszukiwania pracy.
- 1 2 3 4 5
8. Jestem ostrożny, aby nie narażać się na potencjalne straty w miejscu pracy.
- 1 2 3 4 5
9. W pracy skupiam swą uwagę na wypełnianiu wyznaczonych obowiązków.
- 1 2 3 4 5
10. Gdybym miał/a okazję wzięcia udziału w bardzo ryzykownym i nagradzającym projekcie, zdecydowanie bym się jej podjął/podjęła.
- 1 2 3 4 5
11. Skupiam się na wypełnianiu takich zadań zawodowych, które sprzyjają mojemu rozwojowi.
- 1 2 3 4 5
12. Spędzam sporo czasu wyobrażając sobie, w jaki sposób spełnić swoje aspiracje.
- 1 2 3 4 5
13. W pracy mam skłonność do podejmowania ryzyka w celu osiągnięcia sukcesu.
- 1 2 3 4 5
14. Skupiam się na tym, by w pracy unikać porażek.
- 1 2 3 4 5
15. W pracy podejmuję wyzwania, by zmaksymalizować mój cel rozwoju osobistego.
- 1 2 3 4 5
16. W pracy często skupiam się na wypełnianiu zadań, które zapewniają moją potrzebę bezpieczeństwa.
- 1 2 3 4 5
17. Moje cele zawodowe są podporządkowane klarownej wizji tego, do czego dążę.
- 1 2 3 4 5

