

## INDIVIDUAL DIFFERENCES IN PREFERENCE FOR THOUGHT SUPPRESSION: COMPONENTS AND CORRELATES OF THE WHITE BEAR SUPPRESSION INVENTORY

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This study examines the psychometric properties of the White Bear Suppression Inventory (WBSI, Wegner & Zanakos, 1994) in a sample of Italian undergraduate students. The WBSI was designed as a self-report measure of people's chronic tendency to suppress thoughts. Consistent with Blumberg's (2000) analysis, in the present sample factor analysis of the scale revealed three correlated factors: unwanted intrusive thoughts, thought suppression, and self-distraction (to avoid thoughts). Individual differences needed for cognitive closure (NfCC) and regulatory mode orientations (locomotion and assessment) were found to be diversely correlated with the three factors of the WBSI scale. Specifically, NfCC was positively correlated with thought suppression, assessment was positively correlated with unwanted intrusive thoughts, and locomotion was positively correlated with self-distraction as a cognitive avoidance strategy. The theoretical meaning of these findings is considered.

Key words: Thought suppression; Need for closure; Locomotion; Assessment; Thought intrusion.

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Everyone sometimes experiences unwanted intrusive thoughts, which have the potential to interfere with — and to undermine — goal-directed thinking and behavior. In coping with these unwanted thoughts, people usually try not to think about them, defining a process that has been called *thought suppression* (Wegner, 1994). Although thought suppression can be considered a form of thought control, it is not always and not equally effective for all people. In fact, a considerable body of evidence suggests that attempts to suppress unwanted thoughts may be counterproductive and paradoxically increase the unpleasant intrusion of these thoughts (for reviews, see Najmi & Wegner, 2008; Rassin, 2005). Furthermore, some people are more capable than others of blocking these unwanted thoughts while other people are more likely to suffer thoughts intrusion (Wegner & Zanakos, 1994). On the basis of this stream of research, Wegner and Zanakos introduced a self-report measure, designed to assess individual differences in thought suppression (White Bear Suppression Inventory, WBSI). Researchers examining the WBSI have found support for a unidimensional construct (Muris, Merckelbach, & Horselenberg, 1996; Wegner & Zanakos, 1994), and, consistent with the idea that suppression leads to intrusion (for reviews, see Najmi & Wegner, 2008; Rassin, 2005), reported positive correlations between the WBSI and

measures of psychopathology (e.g., obsessional thinking, depression, and anxiety). Subsequent studies (Höping & de Jong-Meyer, 2003; Luciano et al., 2006; Rassin, 2003; Schmidt et al., 2009), however, moved by a semantic analysis of the WBSI items, have suggested and found support for a two-factor solution of the scale, sustaining that the WBSI does not solely address thought suppression, as originally postulated by Wegner and Zanakos, but also indicates the experience of intrusions (capturing the dimension of “unwanted thought intrusion”). Consistent with this reasoning, the established correlations between measures of psychopathology and the WBSI were found to be essentially driven by items assessing the intrusion of unwanted thoughts (Höping & de Jong-Meyer, 2003; Rassin, 2003).

Recently, Blumberg (2000) has proposed and found support for a three-factor solution of the WBSI (“thought suppression,” “unwanted thought intrusion,” and “self-distraction to avoid thoughts”). Theoretically, Blumberg’s idea was that unwanted thought intrusion results from failures of thought control, and that thought avoidance, on the other hand, can be accomplished by using two strategies: (a) a thought suppression strategy, that is, avoiding thinking about unwanted thoughts by putting them out of mind, or (b) a self-distracting strategy, that is, distracting oneself from unwanted thoughts by thinking about something else. Although this three-factor solution was supported by confirmatory factor analysis, Blumberg did not assess external correlates of the three WBSI dimensions; his solution, therefore, lacks external validity.

The first aim of this study was to contribute to this debate by examining the factorial structure and the psychometric properties of the Italian version of the WBSI (Wegner & Zanakos, 1994) and to assess external correlates of this measure. Consistent with Blumberg’s (2000) analysis, we expected the WBSI to capture three dimensions: thought suppression, unwanted thoughts intrusion, and self-distraction (to avoid thoughts). Furthermore, we expected these three dimensions to be differently correlated with individual differences in need for cognitive closure (NfCC; Kruglanski & Webster, 1996) and with the regulatory mode orientations of locomotion and assessment (Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000). In the following paragraphs we first describe the concepts of NfCC, locomotion, and assessment, and then we introduce in more detail our hypotheses.

### The Need for Cognitive Closure

The *need for cognitive closure* (NfCC) was defined as a “desire for a firm answer to a question, any firm answer as compared to confusion and/or ambiguity” (Kruglanski, 2004, p. 6). There is evidence that the need for closure can be induced situationally (e.g., by time pressure, noise, fatigue; see, Kruglanski, Webster, & Klem, 1993; Webster, Richter, & Kruglanski, 1996) and that it also represents a dimension of individual differences (Webster & Kruglanski, 1994).

Individuals with a strong NfCC, because of their desire to have closure *urgently* and to maintain it *permanently*, tend to “seize” upon information permitting a judgment on a topic of interest, and to “freeze” upon it, becoming relatively “closed minded,” and impervious to further relevant information (Kruglanski, 1989; Kruglanski & Webster, 1996). Closure affords order and predictability and it may arise where these characteristics seem needed (e.g., where aversive confusion, uncertainty, ambiguity are potentially present). Indeed, individuals with a strong NfCC experience discomfort under confusion and uncertainty, intolerance for ambiguity, and desire to reach clear decisions (Kruglanski, 1989). Furthermore, NfCC has been shown to correlate posi-

tively to dogmatism (i.e., the extent to which one's belief system is open or closed to varied and conflicting information); to need for structure (i.e., one's desire to structure and organize the environment); and negatively to need for cognition (Cacioppo & Petty, 1982) and to cognitive complexity because a simple cognitive system for interpreting the environment provides secure and stable closure (Webster & Kruglanski, 1994). More recently, NfCC has been found to affect the degree to which individuals tend to handle irrelevant information efficiently through cognitive inhibition (Kossowska, 2007), and to affect goal shielding (i.e., protecting the focal goal with the inhibition of alternative goals; Shah, Friedman, & Kruglanski, 2002). Consistent with these findings, recent research on the retrieval-induced forgetting effect have demonstrated that NfCC augments the inhibition of unwanted materials that can create interference, confusion and can undermine selective retrieval (Pica, Pierro, Bélanger, & Kruglanski, 2013, 2014).

It seems plausible therefore that a heightened need for closure would foster the suppression of unwanted intrusive thoughts that could undermine goal-directed thinking and behavior.

### Regulatory Mode Orientations

Regulatory mode theory (Higgins et al., 2003; Kruglanski et al., 2000) proposes two independent functions of self-regulation: locomotion and assessment. *Locomotion* “constitutes the aspect of self-regulation concerned with movement from state to state and with committing the psychological resources that will initiate and maintain goal-related movement in a straightforward and direct manner, without undue distractions or delays” (Kruglanski et al., 2000, p. 794). Individuals with strong locomotion concerns want to move on, to do something (“just do it”), anything, as long as it allows movement from the current state. *Assessment*, in contrast, “constitutes the comparative aspect of self-regulation concerned with critically evaluating entities or states, such as goals or means, in relation to alternatives in order to judge relative quality” (Kruglanski et al., 2000, p. 794). Individuals with strong assessment concerns want to compare and critically evaluate all options and search for new possibilities (“doing the right thing”) before making a decision. Locomotion and assessment can operate as individual difference variable (Higgins et al., 2003) and can also be induced by situational factors (Avnet & Higgins, 2003; Higgins et al., 2003).

Empirical evidence supports the notion that locomotion and assessment are orthogonal dimensions (Kruglanski et al., 2000). Though in some domains of phenomena, assessment and locomotion may work in concert (Pierro, Pica, Mauro, Higgins, & Kruglanski, 2012), just like in the traditional models of self-regulation, in other domains they may work in opposition (Amato, Pierro, Chirumbolo, & Pica, 2014), and in yet other domains, only one of the orientations may be relevant and not the other (Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2013).

Research has evinced that assessment positively correlates with fear of invalidity, discomfort with ambiguity, neuroticism, low self-esteem, depression and rumination on failures and mistakes (Kruglanski et al., 2000), anxiety and obsessive-compulsive symptoms (Shalev & Sulkowski, 2009). Assessors' tendency toward critical evaluations and comparisons with high standards not only defines a proclivity to critically evaluate their negative past experiences (e.g., counterfactual thinking after failure and experiencing regret about their choice; Pierro et al., 2008), but also to compare the past with the present and as a consequence be more inclined to nostalgic experience (Pierro, Pica, Klein, Kruglanski, & Higgins, 2013). These findings suggest a general tendency of assessors — as compared to locomotors — to suffer more negative feelings due to their main

concern of critically evaluating their own condition and comparing it with others and personal standards. It seems plausible therefore that the above described assessors' tendencies may lead to a proclivity to suffer unwanted thoughts intrusion.

On the other hand, research has demonstrated that *locomotion* positively correlates with psychological vitality, self-esteem, optimism, and negatively correlates with social anxiety and depression (Kruglanski et al., 2000). Individuals with a strong locomotion orientation desire to quickly and instantly initiate action without delays and procrastinations (see Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2011), and then maintain it without disruption and without dwelling on the past (see Higgins et al., 2003; Kruglanski et al., 2000). Furthermore, their desire to be always on the move influences locomotors' preference for simultaneously pursuing several tasks (multitasking or polychronicity) over sequentially pursuing tasks one at a time (Pierro, Giacomantonio, et al., 2013). These findings suggest a general tendency of locomotors to cope well with negative feelings due to their main concern of moving forward and leaving the past behind them. It seems plausible therefore that the use of self-distractive strategies (to avoid unwanted thoughts) may fit well with locomotors' tendencies.

#### THE PRESENT RESEARCH

As we addressed earlier, the aim of this study was to examine, in an Italian sample, the three-factor structure of the WBSI (Wegner & Zanakos, 1994) and to correlate it to individual differences in NfCC (Kruglanski & Webster, 1996) and regulatory mode orientations of locomotion and assessment (Higgins et al., 2003; Kruglanski et al., 2000).

Because previous findings have suggested that NfCC reflects a tendency toward focusing on what is desired (achieving selective retrieval) by inhibiting all the unwanted materials that can create interference and confusion (Pica et al., 2013, 2014), we expected high NfCC to be linked to thought suppression. Furthermore, because locomotors' main concern is movement at large without obstacles and interferences, a tendency that has been demonstrated to reduce negative outcomes (e.g., depression, negative feelings, etc.; Kruglanski et al., 2000), we hypothesized that one way for locomotors to effectively achieve and protect their main goal (i.e., movement toward goal pursuit) is to use self-distractive strategies as a means to avoid intrusive distractive thoughts and keep moving.

Last, because assessors' main concern is to make comparisons and critical evaluations, a tendency that has been demonstrated to be linked to rumination, negative emotions, nostalgia, regret, and counterfactual thinking (Kruglanski et al., 2000; Pierro et al., 2008; Pierro, Pica, et al., 2013), we hypothesized that assessors are more likely to suffer unwanted thoughts intrusion. We test these possibilities in the following study.

#### METHODS

##### Participants

A total of 331 (230 female and 101 male;  $M_{age} = 24.57$ ;  $SD = 4.67$ ) Italian undergraduate students filled out the WBSI, NfCC, and regulatory mode orientation scales in class on a voluntary basis.

## Measures

*White Bear Suppression Inventory* (WBSI). To assess the chronic tendency toward thought suppression, participants responded to a 15-item self-report questionnaire (Wegner & Zanakos, 1994). Participants' responses were recorded on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). High scores in this scale reflect chronic thought suppression. The mean WBSI score was 51.52 ( $SD = 10.29$ ), which closely approximates the mean scores reported by Wegner and Zanakos for a multi-university sample of American college students. The internal consistency of the total WBSI was good, Cronbach's  $\alpha = .89$ . The WBSI was translated into Italian and then back-translated by a specialist to confirm the accuracy of the initial translation. In Table 1 are reported the original 15-item scale, the Italian translation of the items, and studies proposing modifications to the original structure of the White Bear Suppression Inventory (Blumberg, 2000; Höping & de Jong-Meyer, 2003).

TABLE 1  
The original 15-item WBSI, the Italian translation of the items (in brackets)  
and studies proposing modifications to the original structure of the scale

Items	Blumberg (2000) English	Höping and de Jong-Meyer (2003) German
1. There are things I prefer not to think about [Ci sono delle cose alle quali preferisco non pensare]	S	S
2. Sometimes I wonder why I have the thoughts I do [Qualche volta mi stupisco dei pensieri che faccio]	I	I
3. I have thoughts that I cannot stop [Ho dei pensieri che non posso fermare]	I	I
4. There are images that come to mind that I cannot erase [Ci sono delle immagini che mi riaffiorano in mente e che non riesco a cancellare]	I	I
5. My thoughts frequently return to one idea [I miei pensieri girano frequentemente intorno ad una cosa]	I	I
6. I wish I could stop thinking of certain things [Vorrei riuscire a non pensare ad alcune cose]	I	I
7. Sometimes my mind races so fast I wish I could stop it [Qualche volta la mia mente corre talmente veloce che vorrei poterla fermare]	I	I
8. I always try to put problems out of mind [Cerco sempre di non pensare ai problemi]	S <sup>L</sup>	S
9. There are thoughts that keep jumping into my head [Ci sono dei pensieri che mi tornano in mente]	I	I
10. Sometimes I stay busy just to keep thoughts from intruding on my mind [Qualche volta mi tengo impegnato per evitare che alcuni pensieri mi giungano in mente]	D	S <sup>C</sup>
11. There are things that I try not to think about [Ci sono delle cose alle quali cerco di non pensare]	S	S
12. Sometimes I really wish I could stop thinking [Qualche volta vorrei davvero poter fermare i miei pensieri]	D <sup>L</sup>	I <sup>C</sup>
13. I often do things to distract myself from my thoughts [Spesso faccio delle cose per distrarmi dai miei pensieri]	D	S <sup>C</sup>

(table 1 continues)

Table 1 (continued)

Items	Blumberg (2000) English	Höping and de Jong-Meyer (2003) German
14. I often have thoughts that I try to avoid [Ho spesso dei pensieri che cerco di evitare]	S	S
15. There are many thoughts that I have that I don't tell anyone [Ci sono alcuni pensieri dei quali non parlo con nessuno]	I	I <sup>L</sup>

Note. S = Suppression; I = Intrusion; D = Self-distraction; L = low factor loading ( $\leq .35$ ); C = cross loading ( $\geq .35$  on another factor). Items are presented in order found in Wegner and Zanakos (1994).

*Need for Cognitive Closure* (NfCC). To assess the NfCC, participants responded to the Italian version of the Revised NfCS (Pierro & Kruglanski, 2005). The Revised NfCS is a 14-item self-report scale that measures stable individual differences in the NfCC. It requires respondents to rate the extent to which they agree with each statements (e.g., “Any solution to a problem is better than remaining in a state of uncertainty”). Participants responses are recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite need for closure score was computed by summing across responses to each item.

*Locomotion and assessment orientations*. The Italian versions of the locomotion and assessment scales (Kruglanski et al., 2000) are composed of two separate 12-item self-report measures designed to tap individual differences in these tendencies. Specifically, respondents rated the extent to which they agreed with self-descriptive statements reflecting locomotion (e.g., “By the time I accomplish a task, I already have the next one in mind”) and assessment (e.g., “I spend a great deal of time taking inventory of my positive and negative characteristics”). Ratings were made on a 6-point Likert type scale with the response alternatives anchored at the ends with 1 (*strongly disagree*) to 6 (*strongly agree*). We computed two composite scores (one for Locomotion and one for Assessment) by summing across responses to each item. In this sample, the two scales were not correlated ( $r = .02, ns$ ), consistent with previous studies (Kruglanski et al., 2000).

## RESULTS

### Exploratory Factor Analysis

To observe the factor structure of the WBSI, following Blumberg's (2000) procedure, we first performed an exploratory factor analysis, with PROMAX oblique rotation (using SPSS). Consistent with Blumberg's findings, factor analysis revealed three dimensions with eigenvalues greater than 1. Table 2 presents the factor loadings for each WBSI item on each of the three factors. Items 2, 3, 4, 5, 6, 7, 9, and 15 made up the first factor, which can therefore be identified as “unwanted intrusive thoughts.” The factor loadings for this first factor ranged from .46 to .80. Items 1, 8, 11, and 14 made up the second factor, which can be identified as “thought suppression.” The factor loadings for this second factor ranged from .57 to .85. Items 10, 12, and 13 made up the third factor (with factor loadings ranging from .40 to .85), which can be identified as “self-distraction.” Table 2 also presents the correlations among the three factors, ranging between .42 and .50, consistent with Blumberg's results.

TABLE 2  
Results of exploratory factor analysis with PROMAX rotation.  
Factor loadings for the three-factor solution and interfactor correlations

White Bear Suppression Inventory items	Factor 1	Factor 2	Factor 3
Factor 1: "Unwanted thoughts intrusion"			
Item 2	.61	.21	-.13
Item 3	.80	-.15	.09
Item 4	.72	-.10	.16
Item 5	.60	-.27	.28
Item 6	.46	.31	.20
Item 7	.55	-.08	.30
Item 9	.63	.07	.10
Item 15	.71	.18	-.44
Factor 2: "Thought suppression"			
Item 1	.05	.85	-.12
Item 8	-.45	.60	.29
Item 11	.14	.74	.07
Item 14	.20	.57	.21
Factor 3: "Self-distraction (to avoid thoughts)"			
Item 10	.38	.12	.40
Item 12	-.05	.10	.85
Item 13	.06	.07	.76
Interfactor correlations			
Correlation with factor 1	–	.45	.50
Correlation with factor 2	–	–	.42

Note. The number close to each item indicates the item as reported in Table 1.

### Confirmatory Factor Analysis

The factor structure of WBSI was further explored (using LISREL) with maximum-likelihood confirmatory factor analyses (CFA) comparing a three-factor model (intrusion, suppression, self-distraction; Blumberg, 2000) with a one-factor model (Wegner & Zanakos, 1994) and a two-factor model (intrusion, suppression; Höping & de Jong-Meyer, 2003). The covariance matrix was used as input.

CFA results show that the data were consistent with a measurement model with three underlying latent factors (see Table 3). The goodness-of-fit values indicate, in general, the superiority of the three-factor model compared with both the one-factor model and the two-factor model, thus supporting Blumberg's (2000) three subdimensions of the WBSI.

The factor loadings of the three-factor model were all significant and above .30 (see Table 4). There is a relatively high correlation between the three latent factors (.71 to .74, see Table 4). Note, however, that (a) the correlations between latent factors are correlations corrected for attenuation and are expected to be higher than raw coefficients and (b) the test of discriminant validity via the CFA approach using variables that share one common method factor is a relatively stringent one, because any common method variance will tend to inflate all the correlations (Bagozzi, 1994).

TABLE 3  
 Results of ML confirmatory factor analysis

Models/Samples	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	RMSEA	SRMR	AIC
Model 1: One-factor model	490.39	90	5.45	.92	.11	.07	4299.44
Model 2: Two-correlated factors model	375.79	89	4.22	.94	.10	.06	4186.84
Model 3: Three-correlated factors model	303.74	87	3.49	.96	.08	.06	4118.79

TABLE 4  
 CFA results: Factor loadings ( $\Lambda_X$  matrix) and covariance between latent factors ( $\Phi$  matrix)

White Bear Suppression Inventory items	Factor loadings
Factor 1: "Unwanted thoughts intrusion"	
Item 2	.56
Item 3	.79
Item 4	.84
Item 5	.66
Item 6	.86
Item 7	.72
Item 9	.57
Item 15	.55
Factor 2: "Thought suppression"	
Item 1	.71
Item 8	.31
Item 11	.80
Item 14	.88
Factor 3: "Self-distraction (to avoid thoughts)"	
Item 10	.73
Item 12	.88
Item 13	.93
Covariance between factors	
$\Phi_{12}$	.71**
$\Phi_{13}$	.74**
$\Phi_{23}$	.72**

Note. The number close to each item indicates the item as reported in Table 1.  
 \*\* $p < .01$ .

### The Relationships among the Three Dimensions of the WBSI and NfCC, Locomotion, and Assessment

A summary of descriptive statistics and zero-order correlations among the variables are reported in Table 5.

To further examine the relationships among the three dimensions of the WBSI and NfCC, locomotion and assessment, we performed three multiple regression analyses: one for each WBSI dimension (i.e., intrusion, suppression, and self-distraction). In these analyses, we examined the

TABLE 5  
Means, standard deviations, skeweness, kurtosis, and correlations among the variables

	<i>M</i>	<i>SD</i>	Skeweness	Kurtosis	1	2	3	4	5	6
1. NfCC	45.04	8.29	.16	.18	(.76)					
2. Locomotion	53.10	6.56	-.34	-.22	.06	(.72)				
3. Assessment	43.61	7.88	.11	.06	.09	.02	(.70)			
4. Intrusion	28.72	6.08	-.54	.01	.11*	.03	.34***	(.84)		
5. Suppression	12.78	3.14	-.20	-.28	.27***	-.01	.13*	.51***	(.74)	
6. Self-distraction	10.02	2.81	-.37	-.59	.17**	.14*	.20***	.63***	.56***	(.78)

Note. Cronbach's alpha (in parentheses) are given on the diagonal. For the correlations  $N=331$ .  
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

relation of NfCC, locomotion and assessment to each type of thought suppression strategy underlying the three WBSI dimensions (i.e., intrusion, suppression, and self-distraction), statistically controlling for the alternative type of suppression strategies. Specifically, we first regressed the suppression score on the NfCC, locomotion and assessment, controlling for the intrusion and self-distraction dimensions of the WBSI. As predicted, this analysis revealed that the suppression dimension of the WBSI, controlling for the other two WBSI dimensions, was significantly and positively related only to NfCC, all other  $p$ , being nonsignificant (see Table 6). Second, we regressed the intrusion score on the NfCC, locomotion and assessment, controlling for the suppression and self-distraction dimensions of the WBSI. As predicted, this analysis revealed that the intrusion dimension of the WBSI, controlling for the other two WBSI dimensions, was significantly and positively related only to the assessment regulatory mode orientation (see Table 6). Finally, we regressed the self-distraction score on the NfCC, locomotion and assessment, controlling for the suppression and intrusion dimensions of the WBSI. As predicted, this analysis revealed that the self-distraction dimension of the WBSI, controlling for the other two WBSI dimensions, was significantly and positively related only to the locomotion regulatory mode orientation (see Table 6).

TABLE 6  
Intrusion, suppression, self-distraction (to avoid thoughts) as functions  
of Need for Cognitive Closure (NfCC), locomotion and assessment regulatory mode orientations:  
A summary of multiple regression analyses

	Intrusion	Suppression	Self-Distraction
	$\beta$	$\beta$	$\beta$
NfCC	-.05	.19***	.02
Locomotion	-.04	-.08	.12**
Assessment	.22***	-.06	-.01
Control Variables			
Intrusion	-	.27***	.46***
Suppression	.23***	-	.32***
Self-Distraction	.47***	.38***	-

\*\* $p < .01$ . \*\*\* $p < .001$ .

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## DISCUSSION

The results of the present study are consistent with the findings of Blumberg (2000) and confirmed that the WBSI (Wegner & Zanakos, 1994) captures three correlated dimensions: the tendency to rely on thought suppression; the frequency of experiencing intrusive thoughts; and the tendency to use self-distractive strategies (to avoid thoughts).

On one hand, the tendency toward suppression and self-distraction (to avoid thoughts), are two different means to reach thought avoidance: suppression relies on the desire to directly remove unwanted thoughts from consciousness (see Wegner & Smart, 1997), while self-distraction relies on concentration on distractive thoughts. On the other hand, unwanted thoughts intrusion captures a dimension that has to do with failures of thought control, which may result in a rebound effect of memory.

Having established that the WBSI captures three correlated dimensions, it seems therefore plausible that the rebound effect (i.e., enhanced intrusion of unwanted thoughts after attempting suppression) found in previous research by people high in the WBSI (Muris et al., 1996; Wegner & Zanakos, 1994) was probably not due to a counterproductive effect of suppression, but a general inclination toward suffering thoughts intrusion. In fact, consistent with the idea that rebound following suppression is not inevitable (Wegner & Gold, 1995), some findings have shown that good suppressors (i.e., people high in the suppression dimension of the WBSI) were more successful in not thinking of target scenarios when instructed to suppress than poor suppressors (Nixon, Flood, & Jackson, 2007) and showed more forgetting (due to inhibition) following partial retrieval of information in a witness context (Pica, Pierro, & Giannini, 2015).

Further evidence of this reasoning comes from studies that have found that the underlying dimensions of the WBSI diversely correlate with the measures of psychopathology. For instance, the unwanted thoughts intrusion dimension has been found to positively correlate with measures of anxiety, depression, and obsession compulsion, whereas the thought suppression dimension was not substantially linked with these measures (see, Höping & de Jong-Meyer, 2003; Rassin, 2003; Schmidt et al., 2009).

Consistent with the idea that the factors of the WBSI capture correlated but different dimensions, in the present study we found thought suppression, unwanted thoughts intrusion, and self-distraction (to avoid thoughts) to be diversely related with need for cognitive closure, locomotion and assessment regulatory mode orientations. More specifically, we found that NfCC was linked with the thought suppression dimension, locomotion was linked with the self-distraction dimension, and assessment was linked with the thought intrusion dimension.

The relationship between NfCC and thought suppression is consistent with previous work showing that need for closure augments people's tendency to focus on what is desired and inhibit the unwanted items that can create interference, confusion, and uncertainty (Kossowska, 2007; Pica et al., 2013, 2014; Shah et al., 2002). Theoretically, it means that the NfCC seems to play a key role in suppressing undesired thoughts *because* these items interfere with reaching immediate closure and because they have the potential to undermine one's goal achievement creating uncertainty and confusion.

Furthermore, the relationship between locomotion and self-distraction as a strategy of thought avoidance and the relationship between assessment and unwanted intrusive thoughts are consistent with previous findings of the regulatory mode theory (Higgins et al., 2003; Kruglanski et al., 2000). In particular, as noted earlier, locomotors have been found to be intolerant to obsta-

cles and delays in goal pursuit (Kruglanski et al., 2000; Pierro et al., 2011), therefore using self-distractive strategies is the perfect way to stop unwanted distractions and keep moving.

Assessment, on the other hand, because of its tendency toward critical evaluations and comparisons, has been found to positively correlate with the thoughts intrusion factor of the WBSI. Individuals with a stronger assessment orientation have a stronger propensity to suffer intrusion *because* their concern with critical evaluation and their tendency to make comparisons cause rumination, negative emotions, depression (Kruglanski et al., 2000), anxiety, and obsessive-compulsive symptoms (Shalev & Sulkowski, 2009), all characteristics that in turn are related with the experience of thoughts intrusion.

A limitation of our study may lie in the homogeneity of the sample which is entirely formed by undergraduate students with a limited age range. Future research may further assess the factor structure of the Italian version of the WBSI in other and more heterogeneous samples, and investigate its correlations with measures of psychopathology.

In conclusion, the present study showed in a sample of 331 Italian students that the WBSI captures three correlated dimensions (thought suppression, unwanted thoughts intrusion, and self-distractive) and that each of these factors has specific relationships with epistemic motivations such as need for closure and self-regulatory modes of locomotion and assessment.

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