

Examining Individual Differences in the Internalization of Political Values: Validation of the Self-Determination Scale of Political Motivation

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Three studies were conducted to further examine the psychometric credentials of the Self-Determination Scale of Political Motivation (SDSPM). This scale is based on Self-Determination Theory (SDT; Deci & Ryan, 1985, 1991, 2000) and measures intrinsic, identified, introjected, and amotivated reasons for following politics. In Study 1, results from Confirmatory Factor Analysis (CFA) supported the four-factor structure of the scale. In Study 2, test–retest results indicated that the four subscales show moderately high temporal reliability. The results from Study 3 provided further evidence for the predictive validity of the SDSPM as well as preliminary support

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for its discriminant validity. Parenting factors were also distinctively associated with the regulatory styles of the instrument. In the three studies, Cronbach's alphas indicated high internal consistency for each of the SDSPM's subscales. Overall, the results suggest that this scale can be used successfully to examine individual differences in the regulation of active involvement in political decision making. © 2001

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Throughout their lives, people's development and adjustment are tied to how well they respond to various social demands. However, the particular regulations and values that individuals are called upon to internalize vary across development. For example, children are required to internalize relatively concrete regulations regarding conscientious and agreeable behavior (e.g., "Do your homework" and "say 'Thank You' to your uncle"), whereas teenagers are called on to internalize more abstract concerns such as the importance of developing a coherent and personally meaningful set of religious and political beliefs (Marcia, 1980).

However, people vary greatly in terms of how they respond to social demands. In the political domain, for instance, social structures based on the democratic ideology require an active participation from its members in order to function effectively. Yet, North Americans vary widely in the extent to which they participate in political decision making. In the United States, less than half of eligible voters usually vote in major elections (Seppa, 1996). In Canada, although voting turnout is somewhat higher, it also varies greatly from one election to another. For example, in the fall of 1995, voting turnout in the New Brunswick provincial election was 76% (Godin, 1995), while voting turnout in the Quebec referendum was 94% (Lessard, 1995).

In the face of relatively concrete and straightforward social demands, such as voting in elections, why do people show so much variability in their attitudes and behaviors? This is a challenging question for contemporary motivation research, which has mostly been concerned with the extent to which people are motivated vs amotivated, and thus has not fully addressed the issue of *why* individuals appear to demonstrate qualitatively different levels of behavioral regulation. Self-Determination Theory (SDT; Deci & Ryan, 1985, 1991, 2000), however, seeks to expand the contemporary view of human motivation in order to explain greater variability in people's vitality, development, and psychological adaptation. This theory posits two innate growth tendencies, namely intrinsic motivation and internalization, and the emergence of different regulatory styles. *Intrinsic motivation* refers to the innate energy that people demonstrate when they pursue a goal or an activity because it is interesting or fun. Intrinsic motivation is manifest as curiosity, pursuit of challenge, and competence development. Internalization refers to the natural tendency to strive to integrate (or take into one's self) socially

valued regulations that are initially perceived as being external to the person. Successful internalization fosters responsible, conscientious behavior that allows people to function effectively within their social groups.

According to SDT, people are inherently motivated to internalize the regulation of important activities, even those that are initially perceived as uninteresting (Deci, Eghrari, Patrick, & Leone, 1994). Thus, the theory suggests that even teenagers who do not find politics intrinsically interesting will still be motivated to internalize the cultural value placed on political participation because of their desire to relate effectively to their social groups (Deci & Ryan, 2000). The success of this internalization process can vary, however, thus leading to the emergence of different regulatory styles. *Identification* describes the process wherein a regulation is fully assimilated within a person's core sense of self. *Introjection* refers to partial internalization in which a value or regulatory process is taken in but not accepted as one's own. Identification results in a sense of personal endorsement of one's actions, whereas introjection yields a controlled form of behavior regulation that is laced with feelings of pressure or compulsion (Deci & Ryan, 1985, 2000). The internalization process thus results in regulatory styles that reflect varying degrees of self-determination depending on the successful or unsuccessful resolution of this social-learning process.

However, sometimes people simply seem indifferent to social demands. That is, they do not find them appealing or intrinsically interesting, nor do they see an instrumental (or learned) reason to act upon such demands. *Amotivation* is the term used to reflect this state of disinterest and noncontingent behavioral regulation (Deci & Ryan, 1985, 1991). An individual is amotivated toward voting in elections (or toward other social demands) when he or she feels disinterested or helpless to perform the activity or task. That person does not see the point of voting, and it is unlikely that he or she will begin the process of internalizing the value placed on this activity by socializing agents. Amotivation in other domains has been associated with passivity, distress, and poor adaptation (Vallerand & O'Connor, 1989; Vallerand et al., 1993).

The present investigation sought to better understand individual differences in people's participation in the democratic process by examining why they follow politics. In particular, we examined the psychometric properties of the Self-Determination Scale of Political Motivation (SDSPM). This scale was successfully used in recent studies (i.e., Koestner, Losier, Vallerand, & Carducci, 1996; Losier & Koestner, 1999) to examine the distinct affective, cognitive, and behavioral outcomes associated with different regulatory styles. Below we describe the SDSPM and summarize previous findings with this scale. We then present the results from three studies that provide further support for the psychometric credentials of the SDSPM.

Self-Determination Scale of Political Motivation (SDSPM)

The SDSPM examines four types of reasons for following politics: intrinsic motivation (“For the pleasure of doing it”), identification (“I choose to do it for my own good”), introjection (“Because I am supposed to do it”), and amotivation (“I don’t know, I don’t see what it does for me”). Participants are asked to answer three or four questions (e.g., “Why is it important to weigh all the issues in the upcoming vote?”) by indicating the extent to which they endorse each of these reasons for following politics. The SDSPM items are scored on a Likert-type scale ranging from 1 (*does not correspond at all to me*) to 7 (*corresponds exactly to me*) with a midpoint at 4 (*corresponds moderately to me*). Summary scores for each of the motivation subscales are created by calculating the mean of the three or four responses.

The subscales used to measure intrinsic motivation, identification, introjection, and amotivation toward politics were adapted from scales developed and validated in English (Vallerand, O’Connor, & Hamel, 1995) and in French (Vallerand & O’Connor, 1989) to measure motivational orientations across six separate domains, including interpersonal relations and current events. The scales developed by Vallerand and his colleagues are based on SDT (Deci & Ryan, 1985, 1991) and were modeled after the Attributional Style Questionnaire (Seligman, Abramson, Semmel, & von Bayer, 1979). Three questions are presented for each of the six domains (e.g., “Why do you follow current events?”), and respondents are required to indicate their level of agreement with each of four responses. The responses are fixed and were selected to reflect intrinsic motivation, identification, introjection, and amotivation. These scales were found to be reliable and valid with both French- and English-Canadian samples (O’Connor & Vallerand, 1994; Vallerand & O’Connor, 1989; Vallerand et al., 1995). This methodology was successfully adapted by Koestner and his colleagues (1996) to consider reasons for following political events. The stems (or fixed reasons) developed and validated by Vallerand and colleagues were used, and questions relevant to the political context were developed. The four subscales of the SDSPM in English and in French were shown to be highly reliable (α 's > .80) among undergraduates students (Koestner et al., 1996: Study 1) and yielded interesting findings in terms of their associations to distinctive political outcomes.

Summary of Previous Findings with the SDSPM

Five separate short-term longitudinal studies were conducted to examine individual differences in how people prepared to vote (see Koestner et al., 1996; Losier & Koestner, 1999 for the details). A few weeks prior to an election or referendum, participants’ reasons for following politics were assessed using the SDSPM, along with measures of information seeking, knowledge of events, and emotional experiences. Immediately after the elec-

tion or referendum, participants were followed to determine whether they had voted and how they felt about the outcome. The goal was to determine whether the regulatory styles led individuals to (a) adopt different strategies in forming their opinions, (b) form different knowledge and attitude structures regarding political events, (c) experience different patterns of emotions regarding the anticipated and actual outcomes of the election or referendum, or (d) vary in their tendency to actually cast their vote. In line with SDT, the guiding hypothesis was that both identification and intrinsic motivation would be associated with more active, differentiated, committed, and effective political participation than introjection and amotivation.

Previous results typically show that participants more strongly endorse identified regulation toward politics, followed by intrinsic and introjected reasons for following politics. Amotivation is the least strongly endorsed form of regulation toward politics.¹ Intrinsic motivation and identification generally show both overlap and distinctiveness toward different political outcomes. For instance, both intrinsic and identified regulations have been associated with actively pursuing information by reading newspapers, watching debates, and requesting information from political parties (Koestner et al., 1996). Interestingly, intrinsic motivation was associated with forming an accurate base of knowledge about the political parties and current issues, whereas identification was associated with developing highly differentiated opinions about which party to support on various issues (Koestner et al., 1996). That is, intrinsic motivation was positively associated with correctly answering questions such as “Which party or parties supports increased education funding?,” whereas identification was positively related to specifying which particular party they supported on the issue of education funding. More importantly, unlike identification, there was no evidence that intrinsic motivation was related to voting behavior (Koestner et al., 1996; Losier & Koestner, 1999). Thus, whether participants viewed following politics as personally important was a better predictor of voting than whether they found politics interesting. This would suggest that it is important for citizens to see not only that politics can be interesting, but that what happens is personally important to them.

Introjection was also unrelated to voting behavior in previous work by Koestner and his colleagues. Instead, it was associated with passively relying on authority figures such as parents when making voting decisions, vulnera-

¹ The Self-Determination Scale of Political Motivation (SDSPM), like other instruments based on Self-Determination Theory (SDT: Deci & Ryan, 1985, 1991, 2000), is intended to assess different types of reasons for doing an activity such as following politics rather than for not doing a particular activity. Thus, the questions are worded so as to pull for an expression of political interest rather than disinterest. This wording likely contributed to the low scores obtained on the amotivation subscale.

bility to persuasion, and experiencing conflicted emotions about political outcomes (Koestner et al., 1996; Losier & Koestner, 1999). For instance, in one study, highly introjected individuals who watched a televised debate immediately prior to a federal election were likely to later report significantly more positive views of the politicians involved (Koestner et al., 1996: Study 2). In another study, introjection was associated with experiencing a conflicted pattern of both pleasant and unpleasant emotions among voters who were on the victorious side of the 1993 Canadian referendum on constitutional reform (Koestner et al., 1996: Study 1). In some respects, the results obtained for amotivation paralleled those for introjection in that it was positively related to relying on important others in making decisions and unrelated to voting behavior (Koestner et al., 1996). However, unlike introjection, for which no relation emerged, amotivation was negatively associated with actively seeking information (Koestner et al., 1996) and the personal relevance of voting (Losier & Koestner, 1999).

Taken together, the findings from Koestner and his colleagues (1996; Losier & Koestner, 1999) suggest that the SDSPM can successfully predict variability in voting behaviors by identifying individual differences in why people follow politics. Although these findings support the predictive validity of the SDSPM, its temporal stability, structural, and discriminant validity have yet to be examined. The purpose of the present investigation was to further examine the psychometric credentials of this scale by conducting three studies. In Study 1, the SDSPM was subjected to confirmatory factor analysis (CFA) using the EQS statistical package (Bentler, 1993). The data for this study was collected a few days before the 1995 Quebec referendum vote. In Study 2, we examined the temporal stability of the SDSPM by having participants complete this scale on two separate occasions over a period of 5 weeks when no election or referendum campaign was being held. Study 3 focused on the discriminant and predictive validity of the SDSPM. This last study also looked at some parenting factors that may help us understand how individuals come to develop different regulatory styles toward politics. These studies are presented below, followed by a general discussion and conclusions.

STUDY 1

Method

Participants and Procedure

Participants were 436 French-speaking undergraduate students ($M = 23.3$ years of age) enrolled in education, business administration, and psychology courses at the Université du Québec à Montréal (UQAM) in Canada. They included 296 women, 128 men, and 12 participants who did not identify their gender. All participants were eligible voters who volunteered to take part in a study examining people's attitudes toward the 1995 provincial referendum on Quebec's status in the Canadian federation. Participation was anonymous and involved

completing a 12-item SDSPM in French while attending their respective classes a few days prior to the referendum.

Measures

Political motivation. In this first study, respondents were asked three questions regarding their reasons for following the 1995 Quebec referendum: (a) "Why is it important that you get information concerning the position of the different political parties in the upcoming referendum?", (b) "Why is it important to weigh all the issues in the upcoming referendum?", and (c) "Why is it important to vote in the upcoming referendum?". The four subscales from this 12-item SDSPM and the scoring procedure were described above.

Results

Confirmatory Factor Analysis (CFA)

The data were subjected to a CFA with the EQS statistical package (Bentler, 1993). This analysis evaluated if a four-factor model, corresponding to the four subscales of the SDSPM, adequately reflected the covariance matrix of the data. All factors in the present study were allowed to correlate freely. Finally, the specified model was tested with fully standardized coefficients obtained from the maximum likelihood solution.

Three indices of fit were used to evaluate the adequacy of the four-factor model: the chi-square (Bollen, 1989), the comparative fit index (CFI; Bentler, 1990) and the Bentler–Bonnet non-normed fit index (NNFI; Tucker & Lewis, 1973). A nonsignificant chi-square indicates that the model is an adequate representation of the sample data. However, because the chi-square is sensitive to large sample size (Hoyle, 1995), other fit indices, the CFI and the NNFI, were used to evaluate if the proposed model was an adequate representation of the observed data. The CFI index varies between 0 and 1, whereas the NNFI can go out of this range (i.e., > 1). A hypothesized model is believed to be an adequate representation of the data when values of the CFI and the NNFI exceed .90 (Hoyle, 1995).

The results from the four-factor CFA indicated that the factor structure of the SDSPM provided an adequate fit for the data ($\chi^2 = 142.12$, $df = 48$, $p < .001$; CFI = .96; NNFI = .95). Table 1 presents the factor loadings and the subscale items for the four-factor model. As can be seen, the four factors do reflect the hypothesized model. In general, loadings were moderate to high and all loadings were significant (t statistics > 10.7 , $p > .01$).

Correlations among the Four Subscales

Pearson correlations were computed among the four subscales of the SDSPM. According to SDT (Deci & Ryan, 1985), correlations among the four subscales should display a self-determination continuum where adjacent subscales (e.g., intrinsic motivation and identified regulation) correlate positively and subscales at the opposite ends of the proposed continuum (i.e.,

TABLE 1
The SDSPM Subscales Items and Factor Loadings from Confirmatory Factor Analysis:
Study 1 ($n = 436$)

Subscales	Items	Factor loadings			
		IM	ID	IJ	AM
Intrinsic Motivation (IM)	Pleasure in . . .				
	Gaining Information	.86			
	Evaluating Information	.95			
Identification (ID)	Voting	.64			
	Choose to . . .				
	Gain Information		.85		
	Evaluate Information		.90		
Introjection (IJ)	Vote		.67		
	Supposed to . . .				
	Gain Information			.81	
	Evaluate Information			.93	
Amotivation (AM)	Vote			.57	
	I don't know why . . .				
	Gain Information				.83
	Evaluate Information				.80
	Vote				.56

intrinsic motivation and amotivation) correlate negatively. As can be seen in Table 2, the political motivation's subscales closer together on the self-determination continuum were positively associated, whereas subscales further apart on this continuum were negatively correlated. For instance, intrinsic motivation was positively associated with identification ($r = .31, p < .01$), uncorrelated to introjection ($r = .04, p > .05$), and negatively related to amotivation ($r = -.20, p < .01$). These results provide some support for the self-determination continuum that is supposed to underlie the distinction

TABLE 2
Pearson Correlations among the SDSPM Subscales: Study 1

Subscales	Subscales			
	IM	ID	IJ	AM
Intrinsic Motivation (IM)	—			
Identified Regulation (ID)	.31	—		
Introjected Regulation (IJ)	.04	.04	—	
Amotivation (AM)	-.20	-.42	.14	—

Note. Coefficients greater than .14 are significant ($p < .01$); $n = 436$.

TABLE 3
Means, Standard Deviations, and Alphas for the
SDSPM Subscales: Study 1 ($n = 436$)

Subscales	Mean	SD	α
Intrinsic Motivation	3.76	1.90	.85
Identification	5.53	1.53	.84
Introjection	2.55	1.58	.78
Amotivation	1.53	0.98	.77

between the different kinds of self-regulation assessed by the SDSPM. Scales measuring motivation in domains such as education (Vallerand et al., 1992, 1993), work (Blais et al., 1993), and sports (Pelletier et al., 1995) also found support for the self-determination continuum by observing a similar pattern of correlations among the regulation subscales.

Internal Consistency of the Four Subscales

Internal consistency scores (Cronbach's alpha) were computed for each of the four subscales of the SDSPM. These scores are presented in Table 3 along with the means and the standard deviations for each subscales. As can be seen, α values varied from .77 to .85, thus indicating that the subscales show adequate levels of internal consistency.

Gender Differences between the Subscale Means

A Gender \times Scale analysis of variance with repeated measures on the scale factor was conducted. Results indicated that the main effect for Gender [$F(1, 422) = .16, p > .05$] as well as the Gender \times Scale interaction [$F(3, 420) = 1.26, p > .05$] failed to reach statistical significance. The analysis revealed that the main effect for scale was significant [$F(3, 420) = 432.09, p < .001$]. As can be seen in Table 3, the most important motivation for this sample was identified regulation ($M = 5.53$), followed in order by intrinsic motivation ($M = 3.76$), introjected regulation ($M = 2.55$), and amotivation ($M = 1.53$).

Discussion

This first study examined the structural validity and internal consistency of the SDSPM, a scale designed to assess four types of self-regulation toward politics, namely intrinsic motivation, identification, introjection, and amotivation. Results from CFA provided empirical support for the four-factor structure of this political motivation scale with relatively high loadings for all subscales' items. Cronbach's alpha indices confirmed the high reliability of each of the four subscales with values of .77 and above. Pearson correlations among the SDSPM's subscales revealed association patterns consistent

with the continuum proposed in the SDT. Taken together, these findings support the structural validity and the internal consistency of the SDSPM and suggest that this scale can reliably assess four distinct types of self-regulation toward politics. The results did not indicate any significant gender effect. In the next study, we examine the temporal stability of each of the four regulatory styles measured with the SDSPM.

STUDY 2

Method

Participants and Procedure

Participants were 77 French-speaking Canadian undergraduates ($M = 19.4$ years of age) enrolled in psychology, science, or education programs at the Université de Moncton in the province of New Brunswick. All participants (65 women and 12 men) were of voting age, attended the same social psychology class, and volunteered to take part in a study examining people's attitudes toward politics in general. Participation involved completing a 16-item Self-Determination Scale of Political Motivation in French on two separate occasions, both held during class and 5 weeks apart. Because the events surrounding political campaigns could influence (at least momentarily) one's attitudes toward politics, we examined the temporal stability of the SDSPM during a time when no election or referendum was held. Both test and retest were held in the fall of 1998.

All participants were assured that their responses would be anonymous and confidential. We were able to match their follow-up and initial questionnaires because we had instructed them to list their parents' birthdates on both questionnaires. Parents' birthdates were chosen because this is information that nearly all participants can easily remember but that is not available to others, thus ensuring anonymity.

Measures

Political motivation. The 16-item SDSPM used in this second study was the same scale as the one described above, with only one exception. In the present study, participants were asked to respond to one additional question (i.e., "Why is it important that you voice your concerns during elections or referenda?"). This question focuses on a political dimension (i.e., making one's preoccupations known) that was not assessed by the three questions presented in Study 1 (i.e., getting information about the position of the different political parties, weighing all the political issues, and voting). The four subscales and the scoring procedure for the SDSPM were described in the introduction of this article.

Results

Internal Consistency of the Four Subscales

Internal consistency scores (Cronbach's alpha) were computed for each of the four subscales of the SDSPM at both assessments. These scores are presented in Table 4 along with the means and the standard deviations for each subscales. As can be seen, α values varied from .74 to .85 at Time 1 and from .86 to .90 at Time 2, which was 5 weeks after the initial assessment. Overall, these results replicate those observed in Study 1, as well as those in previous research (i.e., Koestner et al., 1996; Losier & Koestner, 1999),

TABLE 4

Means, Standard Deviations, and Alphas for the SDSPM Subscales for Both Time 1 and Time 2 Assessments: Study 2 ($n = 77$)

Subscales	Time 1			Time 2		
	Mean	SD	α	Mean	SD	α
Intrinsic Motivation	2.81	1.52	.85	2.58	1.50	.90
Identification	4.30	1.51	.84	4.18	1.60	.90
Introjection	2.71	1.21	.74	3.04	1.34	.89
Amotivation	1.95	1.19	.82	2.04	1.32	.86

and indicate that the subscales show high levels of internal consistency. Again, as shown in the first study, participants were mostly identified ($M = 4.30$ and 4.18) and generally less amotivated ($M = 1.95$ and 2.04) toward politics. They endorsed intrinsic ($M = 2.81$ and 2.58) and introjected ($M = 2.71$ and 3.04) reasons for following politics almost equally.

Temporal Stability of the Four Subscales

In order to examine the temporal stability of the SDSPM, Pearson correlations were conducted between both Time 1 and Time 2 assessments. As can be seen in Table 5, the correlations between both assessments were significant and moderately high for each of the four subscales (r 's $> .63$, $p < .001$). In addition, the subscales closer together on the self-determination continuum were again positively associated, whereas subscales further apart were negatively correlated, thus replicating the results from Study 1 but this time longitudinally. For instance, Time 1 assessment of intrinsic motivation was positively associated with identification ($r = .39$, $p < .01$), uncorrelated to introjection ($r = .11$, $p > .05$), and negatively related to amotivation ($r = -.23$, $p < .05$) measured at Time 2. These results suggest that the SDSPM

TABLE 5

Pearson Correlations among the SDSPM Subscales for Both Time 1 and Time 2 Assessments: Study 2

Subscales at Time 1	Subscales at Time 2			
	IM	ID	IJ	AM
Intrinsic Motivation (IM)	.63	.39	.03	-.23
Identification (ID)	.42	.75	-.15	-.67
Introjection (IJ)	.11	.02	.65	.15
Amotivation (AM)	-.26	-.49	.37	.79

Note. Coefficients greater than .29 are significant ($p < .01$); $n = 77$. Coefficients in bold indicate associations between Time 1 and Time 2 assessments from each subscale.

show relatively high stability over a 5-week period when no election or referendum campaign is being held.

Discussion

The high internal consistency observed in Study 1 is also noted in this second study, which suggests that the SDSPM can reliably assess intrinsic motivation, identification, introjection, and amotivation toward politics. Association patterns consistent with the self-determination continuum were again observed, thus replicating results from the first study but this time over a 5-week period. The results from Study 2 also suggest that the four subscales show moderately high temporal stability. Indeed, the correlational results reported in Table 5, as well as the mean scores presented in Table 4, indicate that people's self-regulation toward politics show little movement over 5 weeks, i.e., during a period with no political campaign. This suggests that the values about politics that one has internalized may influence his or her sustained affective, cognitive, and behavioral involvement toward politics. Previous studies (i.e., Koestner et al., 1996, Losier & Koestner, 1999) have shown that the regulatory styles measured with the SDSPM are associated with distinctive political outcomes over a relatively short time span (e.g., 2 weeks) soon before and after a vote.

In the third and final study we further examine the predictive validity of the SDSPM, its discriminant validity, and the influence that particular parenting factors may have on how one internalizes political values. Consistent with the notion that identification reflects greater integration in personality than introjection (Deci & Ryan, 1991), we anticipated that identified regulation would be associated with less variability (or greater consistency) in political attitudes. Intrinsic motivation and amotivation both represent behavior regulations that are not part of the internalization process, and therefore we did not predict any association between these regulatory styles and variability of political attitudes. We also anticipated that the SDSPM's subscales would show weak to moderate associations with corresponding subscales in other domains, thus suggesting some degree of discriminant validity. Finally, although we did not make any specific predictions concerning the associations between parenting factors and the four subscales of the SDSPM, we anticipated that parenting would be related to the internalization of political values based on such observations in the education domain (e.g., Grolnick & Ryan, 1989).

STUDY 3

Method

Participants and Procedure

Participants were recruited via advertisements in the student newspaper. Participants were 134 female and 34 male University students. Their ages ranged from 18 to 28 with a mean

of 20.9. The study was described as focusing on academic motivation and participants were compensated with \$20 for their involvement. All participants were assured that their responses would be anonymous and confidential.

Participants visited a laboratory in groups of three to five students to complete a package of questionnaires. The package included scales assessing political, academic, and environmental motivation along with a scale assessing the extent to which their parents provided autonomy, structure, and involvement in each of these domains. Participants also completed an attitude questionnaire that included questions about all three domains. The present investigation focuses on the political attitude questions which inquired about participants' feelings about a contemporaneous issue in Canadian politics, namely the need for increased funding for higher education. This topic was chosen because of its relevance to university students and because it was frequently discussed in the media.

All participants were mailed and asked to complete the attitude questionnaire again after 4 and 8 weeks.

Measures

Political motivation. The subscales of the Self-Determination Scale of Political Motivation and the scoring procedure are described in the introduction of this article. The 16-item SDSPM used in this study is the same scale as the one described under Study 2, except that it was in English. Recall that the stems used in the SDSPM to assess each of the four regulatory styles (i.e., intrinsic motivation, identification, introjection, and amotivation) were taken from scales developed and validated in both French and English by Vallerand and his colleagues (Vallerand & O'Connor, 1989; Vallerand et al., 1995).

In the present study, the Cronbach's alphas for the English-language version of the scale varied from .77 to .84 (see Table 6) and were thus comparable to the alphas observed with the French version of the instrument in the two previous studies (see Tables 3 and 4). The correlations between the SDSPM's subscales in English showed a similar pattern of associations to the one observed with the French-language version of the scale, i.e., regulatory styles closer together on the self-determination continuum were positively related while types of

TABLE 6
Means, Standard Deviations, and Alphas for the
SDSPM Subscales and the Parenting Factors: Study
3 ($n = 65$)

Variables	Mean	SD	α
SDSPM subscales			
Intrinsic Motivation	3.23	1.52	.82
Identification	4.71	1.38	.79
Introjection	2.88	1.34	.77
Amotivation	1.82	1.22	.84
Parenting factors			
Autonomy-Support	4.64	1.50	.78
Involvement [†]	4.55	1.83	$r = .72$
Structure [†]	3.90	1.82	$r = .67$

[†] This parental factor was measured with two items.

regulation further apart were inversely associated (see Table 7). These results, along with the fact that the stems used in the SDSPM were subjected to cross-validation studies in French and English (i.e., Vallerand & O'Connor, 1989; Vallerand et al., 1995), suggest that both language versions of the instrument are equivalent.²

Academic motivation scale (AMS). The AMS (Vallerand et al., 1992, 1993) consists of 28 items to which individuals respond on a Likert-type scale ranging from 1 (*does not correspond at all*) to 7 (*corresponds exactly*) with a midpoint at 4 (*corresponds moderately to me*).

Participants are asked to consider "Why are you going to school?". Twelve responses are given that reflect intrinsic motivation (e.g., "For the pleasure I experience in broadening my knowledge about subjects that appeal to me"), whereas four reasons assess identification (e.g., "Because this will help me make a better choice regarding my career orientation"), introjection (e.g., "To prove to myself that I am capable of completing school"), external regulation (e.g., "In order to get a more prestigious job later on"), and amotivation (e.g., "I don't know; I can't come to understand what I am doing in school"). Vallerand and his colleagues (1992, 1993; Vallerand, Fortier, & Guay, 1997) reported that the AMS possesses adequate reliability and shows evidence of predictive validity.

The motivation toward the environment scale (MTES). The MTES (Pelletier et al., 1998) was used to assess participants' motivational styles (intrinsic motivation, integrated, identified, introjected, external regulation, and amotivation) when they engage in environmentally friendly activities. Each regulatory style is assessed with four items. Using a Likert-type scale ranging from 1 (*does not correspond at all*) to 7 (*corresponds exactly*), participants rated the degree to which the proposed reasons described in the scale corresponded to their reasons for engaging in environmentally friendly behaviors. For example, an introjected response is "Because I would feel guilty if I didn't." The reliability and validity of the MTES have been shown to be satisfactory (Pelletier et al., 1998).

Variability of political attitudes. Variability of political attitudes was assessed by examining the extent to which participants attitudes varied regarding a current political issue. On three separate occasions, each participant was asked to use a Likert-type scale to rate the degree to which he or she supported (ranging from 1 = *do not support at all* to 7 = *strongly support*) "The federal government's proposed policy of providing direct grants to college students." Variability of attitudes was assessed by calculating the standard deviation of participant's responses across the three assessments.

² In previously published articles, we also reported findings for which French- and English-speaking Canadian participants completed the French or English versions of the SDSPM, respectively, in the context of the same political campaign (see Koestner et al., 1996: Study 1) or concerning distinct political events (see Losier & Koestner, 1999). Again, the alpha values reported in those studies were adequate and comparable for both language versions of the instrument. In the study where both language versions of the SDSPM were used to assess regulatory styles toward the *same* political event, independent *t* tests revealed no significant difference between the French- and English-speaking Canadian participants for each of the four subscales of the instrument (see Koestner et al., 1996: Study 1). In the study by Losier and Koestner (1999), data were collected with the French or English versions of the SDSPM from two samples of participants, one group that predominantly had French as their native language and the other group composed of mainly English-speaking participants. Results from hierarchical regressions revealed that native language was not a significant factor in predicting the SDSPM's self-regulatory styles nor the different political outcomes measured (see Losier & Koestner, 1999). Taken together, the present and past findings using the SDSPM (as well as the validation studies conducted by Vallerand and O'Connor from which the SDSPM was derived) suggest that its French and English language versions are construct equivalent and that they empirically perform in a comparable manner.

TABLE 7
 Correlation Coefficients between the SDSPM Subscales and the Corresponding Regulatory Styles toward School (AMS) and the Protection of the Environment (MTES): Study 3

Regulatory styles in three domains	Political Motivation (SDSPM)					Academic Motivation (AMS)					Environment Motivation (MTES)				
	IMP	IDP	IJP	AMP	IMA	IDA	IJA	AMA	IME	IDE	IJE	AME			
Political Motivation (SDSPM)															
Intrinsic Motivation (IMP)	—														
Identified Regulation (IDP)	.50	—													
Introjected Regulation (IJP)	.12	.03	—												
Amotivation (AMP)	-.26	-.46	.20	—											
Academic Motivation (AMS)															
Intrinsic Motivation (IMA)	.10	.25	.11	-.12	—										
Identified Regulation (IDA)	.13	.26	.31	.07	.33	—									
Introjected Regulation (IJA)	.17	.18	.40	.14	.53	.47	—								
Amotivation (AMA)	.07	-.07	-.01	.06	-.33	-.36	-.17	—							
Environment Motivation (MTES)															
Intrinsic Motivation (IME)	.09	.21	.01	-.01	.43	.25	.28	-.16	—						
Identified Regulation (IDE)	.05	.27	.08	-.08	.27	.24	.15	-.07	.42	—					
Introjected Regulation (IJE)	.12	.21	.17	.02	.19	.18	.28	.06	.25	.59	—				
Amotivation (AME)	.08	-.03	.19	.21	-.10	-.03	.02	.35	-.26	-.29	-.08	—			

Note. Coefficients greater than .24 are significant at $p < .01$, and coefficients greater than .16 are significant at $p < .05$; $n = 168$. Coefficients in bold indicate associations between each of the political subscales and their corresponding self-regulation in school or toward the protection of the environment.

Parental support of political involvement. Parenting factors relevant to political involvement were assessed with an eight-item scale developed for this study. All responses were made on 7-point Likert scales, where 1 was defined as *strongly disagree* and 7 as *strongly agree*. Parental involvement (e.g., “My parents have taken an interest in my political stance”) and parental structure (e.g., “My parents have communicated to me the importance of political issues, as well as the consequences my actions have regarding these issues”) were each assessed with two items. The other four items served to measure parental autonomy–support (e.g., “My parents have encouraged me to independently explore and learn about political issues”). Moderately high correlations were observed between the items assessing parental involvement ($r = .72, p < .001$) and parental structure ($r = .67, p < .001$), while an α of .78 was obtained for the parental autonomy–support subscale. Thus, this eight-item scale showed adequate levels of internal reliability.

Results

Table 6 presents the means, standard deviations, and Cronbach’s alpha values for both the political motivation and parental support scales. The mean scores for the SDSPM’s subscales are comparable to those observed in the two previous studies, where the French version of the instrument was used. Again, identification was the most strongly endorsed reason for following politics, followed by intrinsic motivation and introjection. Amotivation was the least frequently endorsed regulation toward politics. Mean scores for the parenting factors showed that students felt that their parents were generally moderately involved in their political participation and moderately supportive of their autonomy. Parent’s provision of structure in the political domain was rated below the midpoint of the scale of 1–7.

Predictive Validity of Political Attitudes

In order to assess the degree of “variability of political attitudes,” participants were asked about a current issue (i.e., grant policy to students) on three separate occasions. We computed variability in their ratings by taking the standard deviation across the three assessments. The correlations for the four political self-regulation subscales with “variability of political attitudes” revealed only one significant relation. Identification was related to less variability in one’s political attitudes ($r = -.21, p < .05$). Therefore, it appears that the more participants had successfully internalized values related to political participation, the less likely they were to change their attitudes over time. Intrinsic motivation ($r = -.09$), introjection ($r = -.09$), and amotivation ($r = .12$) were *not* significantly (p ’s $> .10$) related to “variability in one’s political attitudes.”

Discriminant Validity for the Four Subscales

Table 7 presents the correlation matrix for four regulatory styles (i.e., intrinsic motivation, identification, introjection, and amotivation) in three different domains, namely toward politics (assessed with the SDSPM), school (measured with the AMS), and protection of the environment (assessed with the MTES). The correlations relevant to the discriminant validity of the

SDSPM's subscales are those involving the corresponding regulatory styles toward school and protection of the environment. These correlations reveal that the SDSPM's subscales are unrelated to moderately associated with the corresponding self-regulations toward school or the environment (r 's ranging from .06 to .40). Interestingly, there appears to be some cross-domain regularity for introjection and identification but not intrinsic motivation. Since we contend that intrinsic motivation emerges directly from one's relation to a particular task, and that it is not part of a learning or internalization process, it may make sense that there is little relation across these domains. On the other hand, someone who is working on internalizing the value of political participation is also likely to be struggling with other age-appropriate challenges, such as learning to care about the environment and school participation. Overall, these results provide preliminary support for the discriminant validity of the SDSPM and thus suggest that self-regulation in the realm of politics is distinct from that in the realms of academics and environment.

Parenting Factors Associated with Self-regulation toward Politics

We measured reports of parental autonomy–support, structure, and involvement in the domain of politics. We used these measures as independent variables in multiple-regression analyses to predict each of the types of political self-regulation. Amotivation was significantly inversely related to parental involvement ($\beta = -.26, p < .01$) and marginally associated with parental structure ($\beta = -.15, p = .12$). Introjection was positively related to structure ($\beta = .25, p < .01$), but negatively associated with involvement ($\beta = -.22, p < .05$). Identification was positively related to both parental structure ($\beta = .24, p < .01$) and autonomy–support ($\beta = .16, p < .05$). Intrinsic motivation was related only to parental involvement ($\beta = .26, p < .01$). Thus, participants who perceived that their parents showed greater interest in their political stance (i.e., parental involvement) reported being less amotivated and introjected toward politics and more intrinsically motivated by politics. Participants who were more likely to report that their parents communicated to them the relevance of one's actions regarding political issues (i.e., parental structure) were also more likely to endorse identified and introjected reasons for following politics and tended to feel less amotivated toward politics. Finally, participants who perceived their parents as supportive of their initiatives to explore and learn about political issues (i.e., parental autonomy–support) were more likely to show identified regulation toward politics. These results provide some evidence of distinctive parental factors related to the four subscales of the SDSPM.

Discussion

The results from this last study corroborate and extend previous findings concerning the political outcomes associated with the different types of self-regulation assessed with the SDSPM. The above results show that more suc-

successful internalization of political values (i.e., identification) is associated with more stable political attitudes. This extends previous findings by Koesner and his colleagues (1996: Study 2), suggesting that when political values are less successfully internalized (i.e., introjection), the person is more vulnerable to attitude change following an experimental manipulation. The present study also extends previous results by showing that the different types of regulation assessed with the SDSPM are relatively distinct from the corresponding self-regulations toward school (AMS) and the protection of the environment (MTES). This supports Vallerand's (1997) multilevel analysis of intrinsic and extrinsic motivation, which suggests that self-regulation can be assessed at a contextual level, i.e., toward different domains of activities, and where distinct antecedents and outcomes are associated with particular types of self-regulations. Indeed, the findings (present and previous) from the political realm suggest that distinct affective, cognitive, and behavioral outcomes are associated with the different regulatory styles measured with SDSPM.

The results from this third study also suggest that parenting factors may act as antecedents of the particular types of self-regulation toward politics. Parenting structure was positively associated with identification and introjection, whereas parenting involvement was positively related to intrinsic motivation, but inversely related to introjection and amotivation. Perceived autonomy-support from parents was positively associated with identification. These results suggest that distinctive parental factors may influence the shaping of particular types of self-regulation toward politics. Grolnick and Ryan (1989) found that parental levels of autonomy-support were highly predictive of children reporting greater identification for achievement tasks as well as with better teacher-rated adjustment and performance in class. Williams and Deci (1996) showed that supervisors' level of autonomy support led to the development of identified regulation among medical students. Experimental studies similarly highlighted the critical role played by autonomy support in promoting identified regulation (Beauchamp, Halliwell, Koesner, & Fournier, 1996; Deci et al., 1994). Therefore, it appears that autonomy-support and other parenting factors, such as structure and involvement, can influence the internalization of socially valued behaviors. More research is needed to fully examine the role of parenting factors in the shaping of particular types of self-regulation toward politics.

GENERAL DISCUSSION

The present investigation sought to provide further empirical evidence concerning the psychometric credentials of the Self-Determination Scale of Political Motivation and its usefulness for examining individual differences in why people follow politics. The findings from the present three studies support the four-factor structure of the SDSPM (Study 1) and suggest it has

good test–retest reliability (Study 2) as well as predictive validity (Study 3). The results also provide preliminary support for the discriminant validity of the instrument (Study 3). The internal consistency of its four subscales was confirmed in all three studies with relatively high alpha values (α 's > .74) for both the French (Studies 1 and 2) and English (Study 3) versions of the scale, and association patterns among the four subscales consistent with the self-determination continuum were observed with both single (Studies 1 and 3) and longitudinal (Study 2) assessments. Results from previous research (i.e., Koestner et al., 1996; Losier & Koestner, 1999) have also demonstrated the predictive validity of the SDSPM with associations between each of its four regulatory styles and distinctive affective, cognitive, and behavioral outcomes. Taken together the present and past findings suggest that the SDSPM is a reliable measure that can be used to extend the application of Self-Determination Theory (Deci & Ryan, 1985, 1991, 2000) into the realm of politics.

Future research should focus on the developmental correlates of different regulatory styles toward politics. The results obtained in Study 3 suggest that parenting factors, such as involvement and providing autonomy–support and structure about politics, may influence the internalization process of political values and thus the emergence of distinct regulatory styles. Research in the education domain suggests that parents' autonomy–support influences the emergence of particular self-regulatory styles in students (Grolnick & Ryan, 1989), as well as their persistence (Vallerand et al., 1997) and performance (Guay & Vallerand, 1997) in school. Longitudinal research is needed to confirm the role of parenting factors in the development of different self-regulatory styles. Because the quality of the response people give to various social demands is tied to their development and adaptation throughout their lives, it is important to gain a better understanding of not only what individuals find naturally attractive or intrinsically appealing, but also of *how* they take in or internalize socially valued behavior regulations.

We feel that the present investigation combined with previous research using the SDSPM can help us better understand *why* the successful internalization of values toward politics seems to be at the core of people's active and conscientious commitment toward democratic ideals. This investigation, along with previous work, suggests that a failure to integrate the activity into one's personal goals and values creates a risk that certain important aspects of the activity may be ignored (such as voting in elections). By gaining a better understanding of *why* and *how* internalization of political values occurs, we may be able to better comprehend the process of integrating other socially valued attitudes and behaviors. However, future research on the internalization process should be carried out in other spheres of human activity as well because the distinctive role of self-regulatory styles could be more salient when behavioral regulation is considered in domains as different as

politics, education, and work and perhaps even within domains, depending on the nature of the task (Vallerand, 1997). Contemporary motivation research must not only be concerned with whether people are motivated vs amotivated, but also must take into account qualitatively distinct regulation styles in various domains in order to achieve a better understanding of individuals' variability in vitality, growth, and adjustment.

REFERENCES

- Beauchamp, P. H., Halliwell, W. R., Fournier, J. F., & Koestner, R. (1996). Effects of cognitive-behavioral psychological skills training on the motivation, preparation, and putting performance of novice golfers. *Sport Psychologist*, **10**, 157–170.
- Bentler, P. M. (1990). Comparative fit indices in structural models. *Psychological Bulletin*, **107**, 238–246.
- Bentler, P. M. (1993). *EQS structural equation program manual*. Los Angeles, CA: BMDP statistical software.
- Blais, M. R., Brière, N. M., Lachance, L., Riddle, A. S., & Vallerand, R. J. (1993). L'inventaire des motivations au travail de Blais [The Blais Work Motivation Scale]. *Revue Québécoise de psychologie*, **14**, 185–215.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Deci, E. L., Eghrari, H., Patrick, P. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, **62**, 119–142.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. A. Dienstbier (Ed.), *Nebraska symposium on motivation: Vol. 38, Perspectives on motivation* (pp. 237–288). Lincoln, NE: Univ. of Nebraska Press.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, **11**, 227–268.
- Godin, B. (1995, September 13). Le troisième mandat du PL ressemblera aux deux autres [The third mandat of the Liberal Party will look like the two previous]. *L'Acadie Nouvelle*, **12**(68), 4.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, **81**, 143–154.
- Guay, F., & Vallerand, R. J. (1997). Social context, students' motivation, and academic achievement: Toward a process model. *Social Psychology of Education*, **1**, 211–233.
- Hoyle, R. H. (1995). The structural equation modeling approach: Basic concepts and fundamental issues. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues and applications* (pp. 1–15). Beverly Hills, CA: Sage.
- Koestner, R., Losier, G. F., Vallerand, R. J., & Carducci, D. (1996). Identified and introjected forms of political internalization: Extending self-determination theory. *Journal of Personality and Social Psychology*, **70**, 1025–1036.
- Lessard, D. (1995, October 31). Le non de justesse [The No-side by a close margin]. *La Presse*, **112**(12), B1.
- Losier, G. F., & Koestner, R. (1999). Intrinsic versus identified regulation in distinct political campaigns: The consequences of following politics for pleasure versus personal meaningfulness. *Personality and Social Psychology Bulletin*, **25**, 287–298.

- Marcia, J. E. (1980). Identity in adolescence. In J. Abelson (Ed.), *Handbook of adolescent psychology* (pp. 159–187). New York: Wiley.
- O'Connor, B. P., & Vallerand, R. J. (1994). Motivation, self-determination, and person–environment fit as predictors of psychological adjustment among nursing home residents. *Psychology and Aging, 9*, 189–194.
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., Brière, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The Sport Motivation Scale (SMS). *Journal of Sport and Exercise Psychology, 17*, 35–53.
- Pelletier, L. G., Tuson, K. M., Green-Demers, I., Noëls, K., & Beaton, A. M. (1998). Why are you doing things for the environment? The motivation toward the environment scale (MTES). *Journal of Applied Social Psychology, 28*, 437–468.
- Seligman, M. E. P., Abramson, L. Y., Semmel, A., & von Bayer, C. (1979). Depressive attributional style. *Journal of Abnormal Psychology, 88*, 242–247.
- Seppa, N. (1996, November). Do americans take their voting rights for granted? *APA Monitor, 27*(11), 12.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1–10.
- Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 271–360). New York: Academic Press.
- Vallerand, R. J., & O'Connor, B. P. (1989). Motivation in the elderly: A theoretical framework and some promising findings. *Canadian Psychology, 30*, 538–550.
- Vallerand, R. J., O'Connor, B. P., & Hamel, M. (1995). Motivation in later life: Theory and assessment. *International Journal of Aging and Human Development, 41*, 221–238.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C. B., & Vallières, E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement, 52*, 1003–1019.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C., & Vallières, E. F. (1993). On the assessment of intrinsic motivation, extrinsic motivation, and amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. *Educational and Psychological Measurement, 53*, 159–172.
- Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology, 72*, 1161–1176.
- Williams, G. C., & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-determination theory. *Journal of Personality and Social Psychology, 70*, 767–779.