

Why Are You Learning a Second Language? Motivational Orientations and Self-Determination Theory

Kimberly A. Noels
University of Saskatchewan

Luc G. Pelletier
Richard Clément
University of Ottawa

Robert J. Vallerand
University of Québec at Montréal

As an initial step in extending Deci and Ryan's (1985) self-determination theory to the investigation of motivation in second language (L2) learning, the first goal of our

Kimberly A. Noels, Department of Psychology; Luc G. Pelletier and Richard Clément, School of Psychology; Robert J. Vallerand, Département de Psychologie.

A version of this article was presented at the XIII^{ième} Congrès annuel de la Société québécoise pour la recherche en psychologie at Montréal, Québec, November 9–11, 1990. Preparation of this article was facilitated by a doctoral fellowship from the Social Sciences and Humanities Research Council of Canada to the first author and through various grants from the Social Sciences and Humanities Research Council of Canada, the Natural Science and Engineering Research Council of Canada, and the Medical Research Council to the second, third, and fourth authors. The authors would like to express their appreciation to Zoltán Dörnyei, Peter MacIntyre, and Paul Tremblay for their invigorating and insightful discussions on the topic, and to three anonymous reviewers for their helpful comments on an earlier version of this article. They would also like to thank Ann Beaton and Kim Tuson for their assistance with the data collection, as well as the students and professors of the School of Psychology at the University of Ottawa, Canada, for their participation in this project.

Correspondence concerning this article may be sent to Kimberly Noels, Department of Psychology, University of Saskatchewan, Saskatoon, SK, Canada, S7N 5A5. Internet: noels@duke.usask.ca

study was to assess the validity and reliability of a scale of intrinsic and extrinsic motivation for L2 learning. The second purpose was to examine the relations between these types of motivation and the four orientations discussed by Clément and Kruidenier (1983). The results generally supported the psychometric integrity of the scale. Moreover, the 7 correlated motivational subscales corresponded with different orientations. The results are discussed with reference to how intrinsic and extrinsic motivation are relevant to theorizing on the role of orientations in L2 motivation.

For several decades, researchers in social psychology and education have recognized the importance of motivation for successful second language (L2) learning (see Gardner, 1985; Gardner & Clément, 1990, for review). In fact, affective variables, such as attitude, orientations, anxiety, and motivation, have been shown to be at least as important as language aptitude for predicting L2 achievement (Gardner, 1985). Recently, however, there has been some discussion regarding the formulation of L2 motivation, and the argument has been advanced that L2 researchers need to explore models of motivation developed by educational and social psychologists not directly involved in L2 research (cf. Crooks & Schmidt, 1991; Dörnyei, 1994a, 1994b; Oxford & Shearin, 1994; Skehan, 1989). The purpose of the present study is to consider how one current conceptualization of intrinsic and extrinsic motivation, self-determination theory (Deci & Ryan, 1985), might inform understanding of motivation, and, more particularly, how aspects of this theory relate to the motivational orientations described by Clément and Kruidenier (1983).

Orientations: The Basis of Language Learning Motivation

In their early formulation of L2 motivation, Gardner and Lambert (1959, 1972) suggested that an individual's motivation to learn an L2 is sustained by both attitudes toward the L2

community and the goals, or orientations, sought through the acquisition of the L2. These authors identified two classes of orientations. First, the integrative orientation refers to a desire to learn the L2 in order to have contact with, and perhaps to identify with, members from the L2 community. This orientation can be contrasted with the instrumental orientation, which refers to a desire to learn the L2 to achieve some practical goal, such as job advancement or course credit. Based on Mowrer's (1950) suggestion that identification and positive affect toward parents are important for first language acquisition, Gardner and Lambert (1972) suggested that individuals with an integrative orientation would demonstrate greater motivational effort in learning an L2, and, thus, achieve greater L2 competence.

This formulation inspired a considerable amount of research, the results of which have been inconsistent (for reviews see Au, 1988; Gardner, 1985). Some early studies upheld the relative importance of the integrative orientation (e.g., Gardner & Lambert, 1959). Others did not support the model, however, either because the instrumental orientation predicted L2 outcomes as well as, or better than, the integrative orientation, or because the integrative orientation had a negative correlation with proficiency (e.g., Chihara & Oller, 1978; Gardner & Lambert, 1972; Lukmani, 1972; Oller, Hudson, & Liu, 1977). In response to the conflicting findings of these early studies, Clément and Kruidenier (1983) suggested that definitional problems and the failure to consider the influence of the social milieu were the source of these discrepancies. In their examination of orientations in French and English high school students of Spanish, English, and French, in unilingual and multilingual contexts, they found that the integrative orientation appeared only in multicultural contexts among members of a clearly dominant group. Four orientations, however, proved to be common to all groups of learners: (1) travel, (2) friendship, (3) knowledge, and (4) the instrumental orientations.

The results of this and several similar studies (Belmechri & Hummel, 1998; Clément, Dörnyei, & Noels, 1994; Dörnyei, 1990; Moïse, Clément, & Noels, 1990; Noels & Clément, 1989; Ozkut,

1990) pose a problem for the conceptualization of L2 orientations. Although it was originally suggested that the desire for contact and identification with members of the L2 group would be critical for L2 acquisition, it would now appear that it is not fundamental to the motivational process, but has relevance only in specific sociocultural contexts. Rather, four other orientations may be seen to sustain motivation. This finding, however, has not been followed up with a conceptual rationale describing a psychological mechanism to account for the importance of the four orientations for L2 motivation named above.

Perhaps because of this conceptual impasse, there has recently been much discussion about the nature of language learning motivation (e.g., Dörnyei, 1994a, 1994b; Gardner & Tremblay, 1994; Oxford, 1994; Oxford & Shearin, 1994), and a shift among some L2 scholars to consider alternative motivational models (e.g., Brown, 1990, 1994; Clément et al., 1994; Crooks & Schmidt, 1991; Dörnyei, 1990; Tremblay & Gardner, 1995; Wen, 1997). These models are not meant to replace the integrative-instrumental distinction, but rather to complement it (Oxford, 1996). One formulation that has received the attention of several scholars is the distinction between intrinsic and extrinsic motivation (e.g., Brown, 1994; Dickinson, 1995; Dörnyei, 1994a; Schmidt, Boraie, & Kassabgy, 1996; Williams & Burden, 1997). The following discussion describes this formulation as conceptualized by Deci and Ryan (1985, 1995; Deci, Vallerand, Pelletier, & Ryan, 1991; Vallerand, 1997) in their self-determination theory (see Noels, Clément, & Pelletier, 1999, for a similar discussion).

A Self-Determination Approach to Motivation

According to self-determination theory, there are two general types of motivation, one based on intrinsic interest in the activity per se and the other based on rewards extrinsic to the activity itself. These types of motivation are not categorically different, however, but rather lie along a continuum of self-determination, as outlined below.

Intrinsic motivation. Intrinsic motivation (IM) generally refers to motivation to engage in an activity because that activity is enjoyable and satisfying to do. According to Deci and Ryan (1985), IM is founded upon innate needs for competence and self-determination. These researchers hypothesize that when people are free to choose to perform an activity, they will seek interesting situations where they can rise to the challenges that the activity presents. By striving to meet these challenges, they develop a sense of competence in their abilities. Recently, Vallerand and his colleagues (Vallerand, 1997; Vallerand, Blais, Brière, & Pelletier, 1989; Vallerand et al., 1992, 1993) proposed a three-part taxonomy of IM. The first type of IM, IM-Knowledge, is the motivation for doing an activity for the feelings associated with exploring new ideas and developing knowledge. A second type, IM-Accomplishment, refers to the sensations related to attempting to master a task or achieve a goal. The third type, IM-Stimulation, relates to motivation based simply on the sensations stimulated by performing the task, such as aesthetic appreciation or fun and excitement. The common basis of these three subtypes is the pleasurable sensations experienced during the self-initiated and challenging activity.

Extrinsic motivation. In contrast to intrinsically motivated behaviors, extrinsically motivated behaviors are those actions carried out to achieve some instrumental end, such as earning a reward or avoiding a punishment. This type of motivation does not necessarily imply a lack of self-determination in the behaviors performed. Rather, Deci and Ryan (1985; Vallerand, 1997) maintained that different types of extrinsic motivation (EM) can be classified along a continuum according to the extent to which they are internalized into the self-concept (that is, the extent to which the motivation is “self-determined”).

Within the realm of education, three levels of EM have been distinguished (Vallerand, 1997; Vallerand et al., 1989, 1992, 1993). From the lowest to highest level of self-determination these are: (1) external regulation, (2) introjected regulation, and (3) identified regulation.¹ *External regulation* is defined as those activities

that are determined by sources external to the person, such as tangible benefits or costs. If the reason for learning the language is taken away, there is no incentive to continue engagement in the learning process (cf. instrumental orientation, Gardner & MacIntyre, 1991).

A second type of extrinsic motivation which is more internalized into the self-concept is *introjected regulation*. Introjected regulation refers to reasons that pertain to performing an activity due to some type of pressure that individuals have incorporated into the self, such that they compel themselves to carry out that activity. Although the source of the pressure is internal, it is not self-determined because the people are reacting to a pressure, not acting on the basis of personal choice. An example of this type of regulation are the students who practice an L2 because they would feel ashamed if they could not speak the L2. Learning would only take place as long as they felt the need to reduce guilt.

The most self-determined form of extrinsic motivation is *identified regulation*. At this point individuals invest energy in an activity because they have chosen to do so for personally relevant reasons. In this situation, students would carry out the activity because of its importance for achieving a valued goal. For instance, language learners who feel that L2 fluency is an important aspect of their educational development will endure repetitive oral exercises in the interest of attaining this level of competence.

Amotivation. Deci and Ryan (1985) contrasted all types of IM and EM with *amotivation*. Amotivation refers to the situation in which people see no relation between their actions and the consequences of those actions; the consequences are seen as arising as a result of factors beyond their control (cf. *learned helplessness*; Abramson, Seligman, & Teasdale, 1978). In such a situation, people have no reason, intrinsic or extrinsic, for performing the activity, and they would be expected to quit the activity as soon as possible.

IM, EM, and L2 learning. Several L2 scholars have suggested that IM and EM may be useful constructs for understanding L2 motivation (e.g., Brown, 1994; Crooks & Schmidt, 1991; Dickinson,

1995; Dörnyei, 1994a; Kamada, 1986; Schmidt et al., 1996; Skehan, 1989; Ushioda, 1996). Indeed, some empirical evidence suggests that the distinction between intrinsic and extrinsic goals can be of service in predicting L2 learning outcomes. For example, Ramage (1990) found that continuing students were more motivated to learn language for language's sake—that is, they were more intrinsically motivated—than discontinuing students. Discontinuing students had a stronger interest in language learning as a means to other goals (e.g., academic credit); that is, they were more extrinsically motivated. Tachibana, Matsukawa, and Zhong (1996) found that Japanese students' interest in English was related to increased intrinsic motivation, more determination to achieve better English scores, and a greater likelihood of achieving high scores. Ehrman (1996) reported that, among other things, intrinsic motivation correlated positively with end-of-training speaking and reading proficiencies. It is important also to note that positive attitudes toward the learning situation have consistently been associated with L2 achievement and related outcomes in research conducted on Gardner's socioeducational model (see Gardner, 1985, for review). Thus, although L2 motivation has not been addressed in the self-determination framework (but see Dörnyei, 1994a, for discussion), some evidence points to the utility of the intrinsic/extrinsic distinction for predicting L2 learning outcomes.

In summary, Deci and Ryan's (1985) discussion of IM and EM allows for a reorganization of many orientations into a systematic framework. Moreover, this theory has an advantage over empirically derived orientation frameworks in that it provides psychological mechanisms—self-determination and perceived competence—that can explain and predict how orientations are related to learning outcomes.

Intrinsic / Extrinsic Motivation and Orientations Toward L2 Learning

The question remains, however, as to how the orientations described by self-determination theory relate to the orientations

described by Clément and Kruidenier (1983). There is a definitional similarity between instrumentally oriented motivation and externally regulated motivation in that both constructs emphasize the pursuit of an activity as a reaction to some object external to the individual and the activity per se. The relations between EM and IM and the other three orientations, however, are less obvious. Travel, knowledge, and friendship orientations could be considered extrinsically motivated goals, in the sense that they refer to reasons extrinsic to language learning itself. At the same time, it is conceivable that these orientations are relatively self-determined orientations in that they may be related to values that the individual has incorporated into the self-concept. Alternatively, they may be related to IM to the extent that they give rise to positive feelings through the promotion of autonomy, self-perceptions of competence, or both. Thus, to integrate self-determination theory into current formulations of orientations for L2 learning, it is important to explore the relations between these orientations and the motivational constructs described by Deci and Ryan (1985) and Vallerand and his colleagues (e.g., Vallerand, 1997; Vallerand et al., 1992).

Following these considerations, the present study has two purposes. First, a new instrument for assessing learners' L2 orientations from a self-determination perspective is presented, and relations between the various subtypes of motivation and variables hypothesized to be related to variations in self-determination are examined. Second, given that these motivational subtypes can contribute to the understanding of the results found in studies of orientations, the relations between these motivational constructs and the four orientations discussed by Clément and Kruidenier (1983) are explored.

Method

Participants

Students registered in English psychology classes at a French-English bilingual university were asked to participate in the study.² For the present purposes, only students who were English speakers (that is, both their mother tongue and language used most often were English) and who were learning French as an L2 were retained for the analyses, resulting in a sample size of 159 participants. They ranged in age from 18 to 50, with a mean age of 22 years. Women composed 70% of the sample. The length of time spent learning the L2 ranged from a few months to 34 years, with a mean length of 10.9 years.

Materials

The materials used in this study consisted of a questionnaire with three sections. A description of the scales and items used, along with the Cronbach alpha, follows.

Clément and Kruidenier's (1983) orientations. The first section consisted of randomly ordered items from the instrument used by Kruidenier and Clément (1986; see also Clément & Kruidenier, 1983), which represented the four orientations found to be important across all groups of L2 learners. Thus, nine items represented the Instrumental scale (alpha = .88; e.g., "Because it will help me to get a better paying job"), nine items represented the Knowledge scale (alpha = .91; e.g., "Because it will make me a more knowledgeable person"), four items represented the Travel scale (alpha = .90; e.g., "Because it will help me if I should ever travel"), and four items represented the Friendship scale (alpha = .94; e.g., "Because I would like to make friends with some speakers of the second language"). The students rated the extent to which the proposed reasons corresponded with their own reasons for L2 learning, using a 7-point scale that ranged from 1 = *Does not*

correspond at all to 7 = Corresponds exactly. A high score indicated strong agreement with the proposed reason.

Intrinsic motivation, extrinsic motivation, and amotivation.

The second section contained scales designed to assess Amotivation, the three types of EM, including External, Introjected, and Identified regulation, and the three types of IM, including Knowledge, Mastery, and Stimulation (see the Appendix for sample items). Items for these scales were adapted from the Academic Motivation Scale (Vallerand et al., 1989; for English versions, see Vallerand et al., 1992, 1993), and additional items were generated in order to have eight items for each subscale. The items were randomly ordered throughout the second section. The students were asked to rate the extent to which the proposed reason applied to themselves by using the same type of 7-point scale as described in the Orientations section above. A high score suggested a high degree of correspondence between the proposed reason and the students' reasons for studying an L2.

Antecedents and consequences of self-determination.

The third section was composed of four scales that measured various psychological variables that have been shown to be differently related to intrinsic and extrinsic motivation. The items were presented in random order. The students were asked to indicate on a 7-point scale—anchored at one end by 1 = *Disagree completely* and at the other end by 7 = *Agree completely*—the degree to which they agreed with the proposed item. A high score thus corresponded to a high degree of agreement with the proposed item.

Two scales were chosen because they represented theoretical antecedents to variations in motivation across the self-determination continuum. Accordingly, the first scale, Perceptions of Competence (adapted from Harter, 1982), consisted of five items representing the students' self-perceptions of competence in the L2 (alpha = .81; e.g., "I consider myself good in my second language"). The second scale, Freedom of Choice (adapted from Ryan & Connell, 1989), was composed of four items indexing students' perceptions of autonomy in regulating their language learning

($\alpha = .68$; e.g., “I experience a lot of freedom in learning a second language”).

Two other scales were chosen because they represented consequences of variations across the self-determination continuum. Thus, Anxiety³ consisted of three items that measured feelings of pressure or tension in learning an L2 ($\alpha = .70$; e.g., “I am generally anxious when speaking my second language”), and Intention to Continue L2 Studies had four items that measured the students’ intention to continue learning the L2 in the future ($\alpha = .86$, both scales adapted from Ryan & Connell, 1989; e.g., “I want to continue to learn a second language”).

Procedure

The study was conducted during regular class time. The researcher informed the students that their participation was voluntary and that their responses would remain confidential. The students filled out the questionnaires without a time limit.

Results

Overview of Analyses

The first purpose of this study was to examine the psychometric properties of a scale to assess amotivation, EM, and IM in L2 learners. The analytic strategy was adapted from that of Vallerand and his colleagues (e.g., Vallerand et al., 1989, 1992, 1993). To derive a distinctive and reliable subscale for each motivation subtype, exploratory factor analyses and reliability analyses were conducted. To assess the construct validity of the subscales, the subscales were correlated with one another and the hypothesized antecedents and consequences of the motivational subtypes. To explore the correspondence between the motivational subtypes and the four orientations (i.e., the second purpose of the study), correlations were computed between the subtypes and the

orientations, as well as between the four orientations and the other L2 variables. These analyses are described in greater detail below.

Validity and Reliability Analyses

Exploratory factor analyses. To determine the best items for each of the motivation subscales, exploratory factor analyses were conducted using maximum likelihood extraction technique followed by oblique rotation. Because of the large number of variables, these analyses were carried out independently for the intrinsic and extrinsic subscales.⁴ The analysis strategy involved an iterative process, whereby any item that did not contribute appreciably to the solution (i.e., those with loadings $< |.30|$ or that crossloaded on other factors) was eliminated, and the correlation matrix was reanalyzed. An additional unsatisfactory item was then removed, and the matrix was reanalyzed. This process was repeated until there were three items to define each subscale.

Once the final three items were decided upon for each of the subscales, both intrinsic and extrinsic items were included in one factor analysis. The results of this analysis yielded seven factors, accounting for 67.2% of the variance ($\chi^2 = 75.16$; $df = 84$; $p = .74$; see Table 1).⁵ An examination of the factor structure revealed that, although there were some crossloadings, the factors represented the seven hypothesized motivational constructs. Overall, these results support the distinctiveness of each of the subscales.

As shown in Table 2, the Cronbach alpha index of internal consistency was acceptable for all subscales, varying between .67 and .88. A score was calculated for each subject as the mean of the responses to the items composing each subscale after prorating for unanswered items (Tabachnick & Fidell, 1989). An examination of the means, standard deviations, skewness, and kurtosis values for the final subscales suggested that a normal distribution was underlying the responses. Only the Amotivation scale was significantly skewed. This pattern is consistent with the fact that

Table 1

Pattern matrix, communalities(η^2), eigenvalues, and factor variance for the final maximum likelihood factor analysis of amotivation, intrinsic motivation, and extrinsic motivation items with oblique rotation

Items ^a	Factors							η^2
	1	2	3	4	5	6	7	
Amotivation 1	-.06	.05	-.01	.85	.04	-.16	-.04	.77
Amotivation 2	.01	-.07	-.03	.91	-.17	.04	.07	.71
Amotivation 3	-.02	.01	-.02	.69	.12	.11	-.02	.50
External 1	-.10	.24	.02	-.04	-.08	.46	-.07	.90
External 2	.01	.93	-.03	-.06	.01	-.01	.05	.88
External 3	.04	.94	.04	.06	.05	.00	-.01	.30
Introjected 1	.12	.01	-.10	-.03	.13	.53	.19	.43
Introjected 2	-.02	-.13	.00	-.04	.21	.51	.22	.48
Introjected 3	.08	-.05	.18	-.10	-.01	.61	-.12	.44
Identified 1	1.02	.03	-.03	-.01	.01	.01	-.05	.99
Identified 2	.27	.17	-.03	-.14	.02	-.03	.46	.56
Identified 3	.77	.00	.06	-.06	.04	.00	.01	.72
Knowledge 1	.05	-.03	.35	.02	-.05	-.02	.64	.75
Knowledge 2	-.05	-.02	.19	-.05	.16	.08	.61	.69
Knowledge 3	.23	.03	.24	.00	.15	-.04	.41	.50
Accomplishment 1	.01	-.03	.77	-.07	.15	.05	.06	.85
Accomplishment 2	.13	.13	.66	.02	-.01	.09	.11	.72
Accomplishment 3	.03	-.04	.62	-.10	.18	-.02	.06	.65
Stimulation 1	.04	-.01	.04	-.01	.84	-.05	-.04	.72
Stimulation 2	.07	.06	.19	.04	.69	-.06	-.10	.79
Stimulation 3	.08	.03	.06	-.01	.59	.22	.01	.60
Eigenvalue	4.55	2.01	3.93	1.60	0.73	0.85	0.43	
Percentage of variance accounted for by factor	21.7	9.6	18.7	7.6	3.5	4.1	2.0	

Note. Suggested factor names: 1—Identified Regulation, 2—External Regulation, 3—Intrinsic Motivation–Accomplishment, 4—Amotivation, 5—Intrinsic Motivation–Stimulation, 6—Introjected Regulation, 7—Intrinsic Motivation–Knowledge.

^aSee the appendix for corresponding items.

Table 2

Motivation subscale means, standard deviations, intercorrelations, and Cronbach alpha indices of internal consistency (on diagonal)

Subscales	<i>M</i>	<i>SD</i>	Subscales							
			1	2	3	4	5	6	7	
1 Amotivation	1.55	1.06	(.82)							
2 External Regulation	3.94	1.45	-.20*	(.75)						
3 Introjected Regulation	2.23	1.16	-.05	.16*	(.67)					
4 Identified Regulation	4.51	1.57	-.43*	.19*	.29*	(.84)				
5 Intrinsic Motivation– Knowledge	3.21	1.53	-.28*	.04	.40*	.63*	(.85)			
6 Intrinsic Motivation– Accomplishment	3.04	1.54	-.30*	.15*	.42*	.58*	.76*	(.88)		
7 Intrinsic Motivation– Stimulation	2.66	1.54	-.15*	.05	.45*	.58*	.64*	.68*	(.85)	

Note. $N = 159$.

* $p < .05$.

these students were voluntarily attending a school where bilingualism is valued and where acquiring an L2 is a degree requirement. Such students can be presumed to be either extrinsically or intrinsically motivated, and it is thus not surprising that they felt very little amotivation with regard to language learning.

Intercorrelations between IM and EM orientations. In order to verify the existence of a self-determination continuum, a Pearson product-moment correlation matrix was calculated on the scores of each of the subscales. It was hypothesized that a simplex pattern would be evident. That is, we hypothesized that the kinds of motivation that are more self-determined would be inversely related to those that are less self-determined. In addition, we thought correlations among adjacent scales would be positive and higher than those with the more theoretically distant scales.

The pattern of intercorrelations generally suggested a simplex pattern (see Table 2). The correlations among the three types of IM were among the highest. The size of these correlations suggested that the subscales tapped a similar, though not identical, construct. The higher positive correlations were generally those between adjacent subscales. For example, the subscales for the three types of IM correlated highest and positively with Identified Regulation, correlated positively but less highly with Introjected Regulation, showed a nonsignificant correlation with External Regulation, and correlated negatively with the Amotivation scale.

There was, however, a discrepancy from the expected pattern. Although all the EM and IM subscales were negatively correlated with the Amotivation subscale, the three types of IM exhibited lower negative correlations with this subscale than did the Identified Regulation subscale. Additionally, the Introjected Regulation subscale was somewhat more highly correlated with the IM subscales than with the Identified Regulation subscale. Apart from these findings, however, there is evidence of a pattern of correlations reflecting a continuum of increasing self-determination, from amotivation to less self-determined forms of motivation (i.e., External and Introjected Regulation) to

more self-determined forms of motivation (i.e., Identified Regulation and IM).

Correlations between IM and EM orientations and hypothesized antecedents and consequences. Pearson correlation coefficients were also calculated between the IM and EM subscales and the scales of four psychological constructs that have been shown to be differentially related to the various facets of motivation: perceived competence, perceptions of freedom of choice, anxiety, and intention to continue L2 studies. It was expected that Amotivation would be negatively related to Freedom of Choice, Perceived Competence, and Intention. Furthermore, it was expected that correlations with these variables would be highest and positive with more self-determined forms of motivation (Identified Regulation and IM), close to zero or slightly negative with less self-determined forms of motivation, and negative with amotivation. Correlations between the motivational constructs and Anxiety would show a similar but inverted pattern.

As shown in Table 3, in all cases, the Amotivation scale correlated in the expected manner with the four other scales, such that it was positively correlated with feelings of Anxiety, and negatively correlated with Perceived Competence, perceptions of Freedom of Choice, and Intention to Continue L2 Studies. As predicted, the External Regulation and Introjected Regulation subscales had low or no correlations with the criterion variables. Identified Regulation was strongly correlated with the criterion variables. Thus, a self-determination continuum is evident for the EM variables. Contrary to expectation, however, the Identified Regulation scale was more highly correlated with the criterion variables than were the IM subscales. With this limitation, these results demonstrate a distinction between more (i.e., IM and Identified Regulation) and less (i.e., External and Introjected Regulation) self-determined forms of motivation, in a manner reflective of a self-determination continuum.

Table 3

Correlations between motivation subtype, hypothesized antecedents and consequences of self-determination, and other orientations

	Motivation subtype						
	Amotivation	Extrinsic			Intrinsic		
		Ext.	Intro.	Id.	Know.	Accom.	Stim.
Antecedents							
Freedom of Choice	-.49*	-.01	.09	.58*	.51*	.43*	.43*
Perceived Competence	-.23*	.03	.06	.35*	.23	.23*	.15*
Consequences							
Intention to Continue	-.57*	.19*	.02	.55*	.49*	.46*	.34*
Anxiety	.17*	.12	-.07	-.31*	-.25*	-.18*	-.19*
Clément and Kruidenier (1983) Orientations							
Instrumental	-.24*	.74*	.15*	.20*	.18*	.20*	.07
Knowledge	-.35*	.12	.23*	.54*	.62*	.59*	.56*
Travel	-.27*	.06	.27*	.56*	.80*	.65*	.57*
Friendship	-.22*	.09	.32*	.45*	.63*	.51*	.55*

Note. $N = 159$.

Ext. = External Regulation. Intro. = Introjected Regulation. Id. = Identified Regulation. Know. = Intrinsic Motivation-Knowledge. Accom. = Intrinsic Motivation-Accomplishment. Stim. = Intrinsic Motivation-Stimulation.

* $p < .05$.

Correlations Between the IM and EM Orientations and the Instrumental, Travel, Knowledge, and Friendship Orientations

The results of the correlational analysis between the motivation subscales and the orientations discussed by Clément and Kruidenier (1983) indicated that, in all cases, the motivational orientations were negatively correlated with Amotivation (see Table 3). The Instrumental orientation was most highly correlated with External Regulation. As well, the Knowledge orientation and IM-Knowledge were highly intercorrelated. The Travel, Knowledge, and Friendship orientations were positively and highly correlated with the more self-determined forms of motivation, including the Identified Regulation and the IM subscales. These results suggest that although the Instrumental orientation and External Regulation subscale may tap similar reasons for learning an L2, the three other orientations connote relatively self-determined reasons for engaging in the L2 learning task.

A second analysis examined the relations between the four orientations and the criterion variables discussed above. As can be seen from Table 4, the Travel, Friendship and Knowledge orientations are strongly related to the criterion variables, in a pattern reminiscent of the more self-determined subscales described above. The Instrumental orientation yields no relation

Table 4

Correlations between instrumental, travel, knowledge, and friendship orientations and criterion variables

	Motivational orientation			
	Instrumental	Travel	Knowledge	Friendship
Freedom of Choice	-.08	.47*	.50*	.33*
Perceived Competence	-.03	.17*	.26*	.09
Intention to Continue	.28*	.52*	.46*	.38*
Anxiety	.08	-.16*	-.28*	-.15*

Note. $N = 159$.

* $p < .05$.

between criterion and motivational variables, except for a low significant correlation with the intention to continue L2 study. This pattern is consistent with that pertaining to the External Regulation subscale.

Discussion

The results of the analyses suggest that learner motivation can be validly assessed using the intrinsic and extrinsic subtypes outlined by Deci and Ryan (1985) and Vallerand and his colleagues (1989, 1992, 1993). In general, the factor analyses demonstrated a clear distinction between the subscales. Reflecting a self-determination continuum, the correlations between subscales suggest that one can distinguish between amotivation, less self-determined forms of motivation (external and introjected regulation), and more self-determined forms of motivation (i.e., identified regulation and IM). With regard to the correlations between the subscales and the criterion variables, although several of the predicted relations were evident, contrary to expectation, the identified regulation subscale has a stronger relation with the criterion variables than the IM subscales. The strong correlation between identified regulation and the other variables, although unexpected, is not a unique finding in examinations of self-determination theory (e.g., Koestner, Losier, Vallerand, & Carducci, 1996). This pattern might suggest that IM, although related to EM, lies on a continuum separate from EM,⁶ a possibility that warrants more research. On a more practical level, this finding might suggest that those who naturally enjoy the feeling of learning an L2 may not necessarily feel personally involved in the learning process; they may view language learning as a puzzle or a language game that has few repercussions in everyday life. To foster sustained learning, it may not be sufficient to convince students that language learning is interesting and enjoyable; they may need to be persuaded that it is also personally important for them. Overall, the present findings are consistent with earlier discussions of IM and EM in the related area of education

(e.g., Vallerand et al., 1989, 1992, 1993), indicating that motivational principles relevant in other settings may parallel some motivational constructs in the L2 domain.

This anomaly aside, the other correlations between the motivation subtypes and the hypothesized antecedents and consequences generally attest to the usefulness of this motivational paradigm for the prediction of educational outcomes. Although correlations do not indicate causation, the correlational pattern is consistent with the theoretical prediction that increased perceptions of freedom of choice and perceived competence are linked to more self-determined forms of motivation. Conversely, however, low perceptions of freedom of choice and perceived competence are also indicative of higher levels of amotivation. These findings are in line with those reported by Noels and her colleagues (1999), whereby the more students perceived their teachers as controlling and as failing to provide instructive feedback, the less they were intrinsically motivated.

Also consistent with the predictions of self-determination theory, the more internalized the reason for L2 learning, the more comfortable and persevering students claimed to be. Such a pattern might suggest that students who learn an L2 in an autonomy-supportive environment where feedback enhances their sense of competence in the learning task are likely to be those students who learn because it is pleasurable or because it appeals to their self-concept. They are also less likely to feel anxious in the learning process, and they are less likely to give up L2 learning. Such a pattern provides empirical support for the arguments of Littlewood (1996, 1999), Dickinson (1995; see also Dickinson & Wenden, 1995), Brookes and Grundy (1988), and others, who have argued that language programs that emphasize autonomy will likely foster student motivation and potential success. Before such conclusions can be made with complete confidence, future research, using longitudinal and experimental procedures, must test this speculated causal sequence, whereby the environmental factors that promote perceptions of freedom of choice and perceived competence give rise to specific orientations, which in turn predict

engagement in language learning and, ultimately, L2 achievement (cf. Guay & Vallerand, 1997).

The constructs of IM and EM assessed here are useful for understanding the importance of orientations for L2 motivation. The intrinsic and extrinsic subscales and the orientations demonstrated a high correspondence between conceptualizations. While the Instrumental orientation was highly correlated with External Regulation, the Travel, Friendship, and Knowledge orientations were most highly associated with the more self-determined and intrinsic types of motivation. Further support for this conclusion comes from the analysis of the relations between the orientations and the antecedent and consequent variables, in that these variables are related to both orientations and subtypes in similar ways. Whether one feels freedom of choice or competence is irrelevant if an external, practical reward dictates that an L2 be learned, as in the case of external regulation. On the other hand, learning an L2 in order to develop knowledge, to be well skilled in the tongue of the country to which one wishes to travel, and, to a lesser extent, to develop friendships are readily related to feelings of competence and autonomy, as in the case of IM. It would therefore appear that some psychological construct, perhaps related to the self-determination continuum proposed by Deci and Ryan (1985), underlies the two approaches.

Although this study revealed several similarities between Clément and Kruidenier's (1983) motivational orientations and Deci and Ryan's motivational constructs, there remain several issues to be examined in future research. First, the present study did not directly examine the relation between IM and EM and the most widely researched orientation, the integrative orientation. As noted elsewhere (e.g., Noels et al., 1999; see also Gardner, 1988), the link between the integrative orientation and the self-determination constructs is not straightforward. The integrative orientation is similar to IM in that it emphasizes positive attitudes toward language learning (cf. Noels, 1997). It is distinct from IM, however, in that it also includes mention of intergroup issues in the broader sociocultural context. In some respects, then, the

integrative orientation could be conceptualized as a form of EM, because of the mention of issues apart from personal enjoyment in the activity *per se*. Consistent with this duality, Wen (1997) reported that different motivational reasons for learning Chinese pertaining to intergroup contact may be classified as “instrumental” (i.e., EM) or as IM. Clearly, future research must more directly examine the link between the integrative orientation and aspects of IM and EM.

Second, it is necessary to consider the generalizability of the present findings, and, indeed, of the theoretical framework, to other types of language students. The present findings describe the motivational propensities of Anglo-Canadian students in a bilingual context; Clément and Kruidenier (1983), however, have indicated that some orientations may be found more reliably in some contexts than in others. As with all studies, then, it is essential to replicate this study to determine the applicability of the theory to other contexts. Such replication would seem particularly important given recent discussions concerning the relevance of North American conceptualizations of intrinsic motivation, based on research conducted primarily with Anglo-American and Anglo-Canadian participants, to other cultural contexts. For example, Iyengar and Lepper (1999) found that whereas Anglo-American children were more intrinsically motivated when they made their own choices, Asian American children were more intrinsically motivated when choices were made for them by trusted authority figures. In his discussion of personal choice in L2 motivation, Littlewood (1999) likewise suggested that such cultural constraints may be evident.

In conclusion, this article has presented a theoretical framework that can organize the orientations discussed by Clément and Kruidenier (1983) and suggested a mechanism to explain their importance for learners’ effort and achievement in the L2. Moreover, using the instrument to assess IM and EM described in this study to assess these constructs empirically, it will be possible to explore the relations among this paradigm and other motivational constructs, such as the integrative orientation. It remains the

subject of future research, however, to articulate the manner in which these different motivational processes can be consolidated into a more comprehensive model of L2 motivation that can account for how motivational parameters may be set in different sociocultural contexts.

Revised version accepted 11 August 1999

Notes

1. According to Deci and Ryan (1985), a fourth type of EM, integrated regulation, represents a higher degree of self-determination than identified regulation. It was not included in the present discussion because earlier studies of motivation in education had difficulty distinguishing the construct from identified regulation (e.g., Vallerand et al., 1989). The difficulty may be related to the age of the respondents in that particular study: They may have been too young to have developed an integrated sense of self with regard to school studies. Since many of the 1st-year students examined in the present study may also be too novice to evidence a clear distinction between these constructs, integrated regulation was not examined. Future research is necessary to determine the utility of this distinction with regard to L2 learning.
2. The University of Ottawa is a French-English bilingual university. At the time in which the study was conducted, all undergraduate students were required to pass a proficiency test in their L2 before they could graduate from a degree program. Thus, motivation to learn an L2 is a relevant issue to these psychology students.
3. This scale was termed Tension by the original authors. It was renamed Anxiety in the present study to be consistent with L2 literature.
4. For the intrinsic subscales, the results of the final factor analysis using maximum likelihood extraction followed by oblique rotation showed that a three-factor solution accounted for 69.9% of the variance ($\chi^2 = 9.38$; $df = 12$; $p > .05$) in the interitem correlation matrix. An examination of the factor pattern indicated that the three factors represented the three hypothesized types of IM. The results of the final factor analysis on the correlations between the items of the EM and amotivation scales showed that four factors accounted for 60.7% of the variance ($\chi^2 = 22.89$; $df = 24$; $p > .05$). These four factors represented the three hypothesized types of EM and amotivation.
5. The loading of 1.02 for Identification 1 on the first factor may appear problematic. This finding, however, is not unusual (cf. Byrne & Baron, 1993) and may be an artifact of the factor analytic method chosen. We considered removing the item, but its face validity was high ("Because I choose to be the kind of person who can speak more than one language"). For this reason, and

because the results of the factor analyses done separately for IM and EM subscales did not reveal any anomalies, this item was left in the solution.

6. We are grateful to one reviewer for making this interesting suggestion.

References

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49–74.
- Au, S. Y. (1988). A critical appraisal of Gardner's social psychological theory of second-language learning. *Language Learning, 38*, 75–100.
- Belmechri, F., & Hummel, K. (1998). Orientations and motivation in the acquisition of English as a second language among high school students in Quebec City. *Language Learning, 48*, 219–244.
- Brookes, A., & Grundy, P. (Eds.). (1988). *Individualization and autonomy in language learning*. London: Modern English Publications and British Council.
- Brown, H. D. (1990). M & Ms for language classrooms? Another look at motivation. In J. E. Alatis (Ed.), *Georgetown University round table on language and linguistics* (pp. 383–393). Washington, DC: Georgetown University Press.
- Brown, H. D. (1994). *Teaching by principles*. Englewood Cliffs, NJ: Prentice Hall.
- Byrne, B. M., & Baron, P. (1993). The Beck Depression Inventory: Testing and cross-validating a hierarchical factor structure of nonclinical adolescents. *Measurement and Evaluation in Counseling and Development, 26*, 164–178.
- Chihara, I., & Oller, J. W. (1978). Attitudes and attained proficiency in EFL: A sociolinguistic study of adult Japanese speakers. *Language Learning, 28*, 55–68.
- Clément, R., Dörnyei, Z., & Noels, K. A. (1994). Motivation, self-confidence and group cohesion in the foreign language classroom. *Language Learning, 44*, 417–448.
- Clément, R., & Kruidenier, B. G. (1983). Orientations in second language acquisition: I. The effects of ethnicity, milieu and target language on their emergence. *Language Learning, 33*, 272–291.
- Crooks, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning, 41*, 469–512.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.

- Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. H. Kernis (Ed.), *Efficacy, agency and self-esteem* (pp. 31–49). New York: Plenum.
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation in education: The self-determination perspective. *The Educational Psychologist, 26*, 325–346.
- Dickinson, L. (1995). Autonomy and motivation: A literature review. *System, 23*, 165–174.
- Dickinson, L., & Wenden, A. (Eds.). (1995). Autonomy, self-direction and self access in language teaching and learning [Special issue]. *System, 23*.
- Dörnyei, Z. (1990). Conceptualizing motivation in foreign-language learning. *Language Learning, 40*, 45–78.
- Dörnyei, Z. (1994a). Motivation and motivating in the foreign language classroom. *Modern Language Journal, 78*, 273–284.
- Dörnyei, Z. (1994b). Understanding L2 motivation: On with the challenge. *Modern Language Journal, 78*, 515–523.
- Ehrman, M. (1996). An exploration of adult language learner motivation, self-efficacy, and anxiety. In J. L. Oxford (Ed.), *Language learning motivation: Pathways to the new century* (pp. 81–103). Honolulu: University of Hawai'i Press.
- Gardner, R. C. (1985). *Social psychology and second language learning*. London: Arnold.
- Gardner, R. C. (1988). Attitudes and motivation. *Annual Review of Applied Linguistics, 9*, 135–148.
- Gardner, R. C., & Clément, R. (1990). Social psychological perspectives on second language acquisition. In H. Giles and W. P. Robinson (Eds.), *Handbook of social psychology* (pp. 495–517). Chichester, UK: John Wiley & Sons.
- Gardner, R. C., & Lambert, R. C. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology, 13*, 266–272.
- Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second language learning*. Rowley, MA: Newbury.
- Gardner, R. C., & MacIntyre, P. D. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition, 13*, 57–72.
- Gardner, R. C., & Tremblay, P. F. (1994). On motivation, research agendas, and theoretical perspectives. *Modern Language Journal, 79*, 359–368.
- Guay, F., & Vallerand, R. J. (1997). Social context, student's motivation, and academic achievement: Toward a process model. *Social Psychology of Education, 1*, 35–58.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development, 53*, 87–97.

- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, 76, 349–366.
- Kamada, L. D. (1986, November). *Intrinsic and extrinsic motivational learning process: Why Japanese can't speak English*. Paper presented at the Japan Association of Language Teachers' International Conference on Language Teaching and Learning, Seirei Gakuen, Hamamatsu, Japan.
- 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.
- Kruidenier, B., & Clément, R. (1986). *The effect of context on the composition and role of orientations in second language learning*. Québec City, Québec: International Center for Research on Bilingualism.
- Littlewood, W. (1996). "Autonomy": An anatomy and a framework. *System*, 24, 427–435.
- Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics*, 20, 71–94.
- Lukmani, M. (1972). Motivation to learn a second language and second language proficiency. *Language Learning*, 7, 261–273.
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *Modern Language Journal*, 82, 545–562.
- Moïse, L. C., Clément, R., & Noels, K. A. (1990). Aspects motivationnels de l'apprentissage de l'espagnol au niveau universitaire [Motivational aspects of learning Spanish at the university level]. *Canadian Modern Language Review*, 46, 689–705.
- Mowrer, O. H. (1950). On the psychology of "talking birds"—A contribution to language and personality theory. In O. H. Mowrer (Ed.), *Learning theory and personality dynamics: Selected papers*. New York: Ronald Press.
- Noels, K. A. (1997, June). *Motivation and language learning: Linking teachers' interpersonal style with students' intrinsic and extrinsic motivation*. Paper presented at the Annual Convention of the Canadian Psychological Association, Toronto, Canada.
- Noels, K. A., & Clément, R. (1989). Orientations to learning German: The effect of language heritage on second language acquisition. *The Canadian Modern Language Review*, 45, 245–257.
- Noels, K. A., Clément, R., & Pelletier, L. G. (1999). Perceptions of teacher communicative style and students' intrinsic and extrinsic motivation. *Modern Language Journal*, 83, 23–34.

- Oller, J. W., Hudson, A. J., & Liu, P. F. (1977). Attitudes and attained proficiency in ESL: A sociolinguistic study of native speakers of Chinese in the United States. *Language Learning, 77*, 1–27.
- Oxford, R. (1994). Where are we regarding language learning motivation? *Modern Language Journal, 78*, 512–514.
- Oxford, R. (1996). *Language learning: Pathways to the new century*. Honolulu: University of Hawai'i Press.
- Oxford, R., & Shearin, J. (1994). Language learning motivation: Expanding the theoretical framework. *Modern Language Review, 78*, 12–28.
- Ozkut, I. (1990). *Motivational aspects of Turkish learners of English as a second language*. Unpublished Ph.D. thesis, School of Education, University of Ottawa, Ottawa, Canada.
- Ramage, K. (1990). Motivational factors and persistence in foreign language study. *Language Learning, 40*, 189–219.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology, 57*, 450–461.
- Schmidt, R., Boraie, D., & Kassabgy, O. (1996). Foreign language motivation: Internal structure and external connections. In R. L. Oxford (Ed.), *Language learning motivation: Pathways to the new century* (pp. 14–87). Honolulu, HI: The University of Honolulu Press.
- Skehan, P. (1989). *Individual differences in second language learning*. London: Arnold.
- Tabachnick, B. G., & Fidell, L. S. (1989). *Using multivariate statistics*. New York: Harper & Collins.
- Tachibana, Y., Matsukawa, R., & Zhong, Q. X. (1996). Attitudes and motivation for learning English: A cross-national comparison of Japanese and Chinese high school students. *Psychological Reports, 79*, 691–700.
- Tremblay, P. F., & Gardner, R. C. (1995). Expanding the motivation construct in language learning. *The Modern Language Journal, 79*, 505–518.
- Ushioda, E. (1996). *Learner autonomy*. Dublin, Ireland: Authentik.
- Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 271–360). San Diego, CA: Academic Press.
- Vallerand, R. J., Blais, M. R., Brière, N. M., & Pelletier, L. G. (1989). Construction et validation de l'Echelle de motivation en éducation (EME) [Construction and validation of the Academic Motivation Scale]. *Canadian Journal of Behavioural Science, 21*, 323–349.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C., & Vallières, E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement, 52*, 1003–1017.

- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Senécal, C., & Vallières, E. F. (1993). On the assessment of intrinsic, extrinsic and amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. *Educational and Psychological Measurement, 53*, 159–172.
- Wen, X. (1997). Motivation and language learning with students of Chinese. *Foreign Language Annals, 30*, 235–251.
- Williams, M., & Burden, B. (1997). *Psychology for language teachers: A social constructivist approach*. Cambridge: Cambridge University Press.

Appendix: Language Learning Orientations Scale—Intrinsic Motivation, Extrinsic Motivation, and Amotivation Subscales (LLOS-IEA)

Amotivation

1. I cannot come to see why I study a second language, and frankly, I don't give a damn.
2. Honestly, I don't know, I truly have the impression of wasting my time in studying a second language.
3. I don't know; I can't come to understand what I am doing studying a second language.

External Regulation

1. Because I have the impression that it is expected of me.
2. In order to get a more prestigious job later on.
3. In order to have a better salary later on.

Introjected Regulation

1. To show myself that I am a good citizen because I can speak a second language.
2. Because I would feel ashamed if I couldn't speak to my friends from the second language community in their native tongue.

3. Because I would feel guilty if I didn't know a second language.

Identified Regulation

1. Because I choose to be the kind of person who can speak more than one language.
2. Because I think it is good for my personal development.
3. Because I choose to be the kind of person who can speak a second language.

Intrinsic Motivation—Knowledge

1. For the pleasure that I experience in knowing more about the literature of the second language group.
2. For the satisfied feeling I get in finding out new things.
3. Because I enjoy the feeling of acquiring knowledge about the second language community and their way of life.

Intrinsic Motivation—Accomplishment

1. For the pleasure I experience when surpassing myself in my second language studies.
2. For the enjoyment I experience when I grasp a difficult construct in the second language.
3. For the satisfaction I feel when I am in the process of accomplishing difficult exercises in the second language.

Intrinsic Motivation—Stimulation

1. For the "high" I feel when hearing foreign languages spoken.
2. For the "high" feeling that I experience while speaking in the second language.
3. For the pleasure I get from hearing the second language spoken by native second language speakers.