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# The Fundamental Need to Belong: On the Distinction Between Growth and Deficit-Reduction Orientations

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## Abstract

The need for belongingness (the universal need to form and maintain positive, stable interpersonal relationships) has led to much research over the past decade. Although such a need is universal, some qualitative differences exist in its orientation. Specifically, two belongingness need orientations are proposed: a growth orientation (a belongingness need directed toward interpersonal actualization) and a deficit-reduction orientation (a belongingness need directed toward interpersonal deficit reduction or repair). It is hypothesized that a deficit-reduction orientation to the need to belong is associated with lower levels of intrapersonal and interpersonal psychological functioning compared to a growth orientation. The results of a series of four studies supported the proposed hypotheses. Implications of the proposed model for future research on the need to belong are discussed.

## Keywords

belongingness orientations model, relatedness, psychological adjustment

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Humans have a natural tendency to seek and thrive in intimate, coherent, and meaningful relationships (Baumeister & Leary, 1995). Supporting this hypothesis, the 2006 Canadian census revealed that 90% (i.e., more than 26 million individuals) of the population lives in a household of at least two persons (Statistic Canada, 2006). Furthermore, this desire for social connections appears to be so fundamental that a simple threat of rejection invokes neural reactions similar to those involved in actual physical pain (MacDonald & Leary, 2005). Similarly, a high concern for social connections has been found to enhance cognitive functions (Pickett, Gardner, & Knowles, 2004) and selective memory for social events (Gardner, Pickett, & Brewer, 2000).

## Different Approaches to the Need to Belong

More than 50 years ago, McClelland (see McClelland, 1985, for a review) developed an influential theory in which he posited the existence of the psychological need for affiliation defined as a concern for establishing and maintaining positive relationships with another person or group. McClelland (1985) proposed that people differ in the strength to which they possess this need. Projective measures such as the Thematic Apperception Test (TAT) were employed to empirically assess the need for affiliation's strength. Research has shown that individuals high in the need for affiliation were

energized to behave in an affiliative way, were more sensitive to affiliative cues, and learned affiliative associations faster than individuals with a low need for affiliation (Atkinson & Walker, 1958; Boyatzis, 1972; Constantian, 1981; Lansing & Heyns, 1959; McClelland, 1975, 1985). The specific origins of the need for affiliation remain unclear. McClelland (1985) suggested that the relationship parents have with their children might be more important to the development of the need for affiliation than any specific parenting technique they employ. McClelland argued that the need itself was probably universal but need strength was influenced by the upbringing environment.

Self-determination theory (SDT; Deci & Ryan, 2000) also posits that people have a basic universal psychological need for relatedness (the need to feel connected, i.e., to care for and be cared for by significant others) that must be satisfied to function optimally. Much research has demonstrated the positive influence of the need for relatedness' satisfaction

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on cognitive, affective, and behavioral outcomes (see Deci & Ryan, 2000; Vallerand, 1997).

Within the SDT tradition (Deci & Ryan, 2000; Ryan, 1995; Ryan & Deci, 2002), it is believed that the psychological need for relatedness is innate and universal. It is assumed that every individual possesses the need to feel related to significant others and that they have to satisfy their need for relatedness to enjoy high psychological well-being and psychological adjustment. Within SDT, individual differences in strength in the need for relatedness are believed to exist but are not considered important and thus not addressed.

Finally, Baumeister and Leary (1995) define the need to belong as a "need for frequent, nonaversive interactions within ongoing relational bonds." The need to belong is also postulated to be a powerful force affecting people's cognitions, emotions, and behaviors (Baumeister & Leary, 1995). Leary, Kelly, Cottrell, and Schreindorfer (2006) later developed a scale to measure individual differences in the strength of the need to belong. This scale appears to focus on the strength or intensity of people's need to be accepted or not rejected by others, conveying a sense of deficit rather than focusing on the satisfaction of the belongingness need as generally understood within SDT's tradition, which presents it as a growth need. Thus, based on Leary and colleagues' research, the need to belong is considered to be variable in strength from one individual to the next. That is, it is believed that some individual differences in strength exist in people's need for social connections.

### *Belongingness Orientation Model (BOM)*

The BOM makes four major propositions. The first posits that the belongingness need is innate in humans and thus universal as it is proposed by STD as well as Baumeister and Leary's research. Much evidence exists to that effect (see Baumeister & Leary, 1995; Deci & Ryan, 2000). A second proposition is that two distinct orientations exist as to how the need for belongingness guides one's interaction with the social world. Although we agree with Leary et al. (2006) and McClelland (1985) that a distinction in the belongingness need strength exists, we posit that differences in the quality of the need also operate. Specifically, we postulate that a growth orientation and a deficit-reduction orientation come to evolve from the need for belongingness.

A growth orientation leads one to connect with others while reflecting a genuine interest toward them. Relationships with others are thought to be important because they are enriching and provide the basis for an autonomous personal and interpersonal development. A growth orientation leads to a genuine interest in interpersonal relationships, to commitment to significant others, and to opening up to others in a nondefensive way, without being afraid of negative judgment (Hodgins & Knee, 2002). In part, because social relationships are more satisfying from a growth-oriented perspective,

this orientation is more likely to lead to higher levels of subjective well-being (Diener, 2000; Ryff, 1995).

Conversely, a deficit-reduction orientation leads to desire the closeness of others to fill a social void. This belongingness orientation is directed toward a social deficit reduction because of a constant craving for social acceptance. Specifically, with a deficit-reduction orientation, people are searching for others' acceptance to feel more secure. A high level of interest for interpersonal relationships is also associated with this belongingness orientation, but unlike a growth orientation, it is in the aim of appeasing a need for security and a fear of rejection. A high desire for others' acceptance as well as high levels of loneliness, seeking popularity and others' attention, and low self-esteem should all be associated with a deficit-reduction belongingness orientation. As a result, high levels of social anxiety, insecurity, and thus a constant need to be reassured are likely to be experienced. A deficit-reduction orientation and its related fear of social rejection are thought to lead to regular engagement in social comparison (Festinger, 1954) to evaluate how one is doing socially compared to those around them. In part because of a negative and unfulfilling social life, a deficit-reduction orientation is hypothesized to lead to the experience of low levels of psychological adjustment. Even when satisfying social relationships exist, with a deficit-reduction orientation one consistently experiences a social deficit. Thus, such a state should not lead to high levels of psychological adjustment. At best, a short-lived sense of reassurance may be experienced.

The BOM's third proposition postulates that prior social experiences will dictate how the need for belongingness will develop into one of the two belongingness need orientations. We believe that the two orientations are present in all people to different degrees. However, although either of the two orientations can be triggered under the appropriate conditions, it is nevertheless hypothesized that one orientation is typically more predominant than the other for most people. Prior social experiences, mainly early childhood experiences, have the potential to shape people's personal views concerning their own ability to satisfy their fundamental psychological needs (McClelland, 1985). Specifically, it is proposed that when one has systematically experienced secure and satisfying social relationships from birth, one should have developed a cognitive representation of relationships that is positive (Mikulincer & Shaver, 2007). Such experiences of effective and positive interpersonal dynamics are hypothesized to promote the development of a growth belongingness orientation. Indeed, because individuals with such prior relational past experiences have had their belongingness need consistently satisfied, they can enter new social contexts and relationships with a confidence that their belongingness need will be satisfied again in the future. Conversely, when the social relationships one has experienced over the years have been deprived of trust, love, and mutual respect, one's belongingness need has never been fully satisfied. Consequently,

the quest for belongingness satisfaction and the fear of losing acquired relationships is always ongoing. Thus, prior experiences of this type are likely to lead to the development of a deficit-reduction belongingness orientation.

The final proposition from the BOM posits that people's belongingness orientations not only lead to different social experiences but also influence how they are actually perceived and treated by others. The growth need orientation is hypothesized to lead to adaptive outcomes and deficit-reduction need orientation to less adaptive and even at times to maladaptive consequences. More specifically, because when people adopt a growth-oriented belongingness orientation they are more likely to express genuine interest in others, they should be able to create social connections rapidly. Furthermore, their ability to connect with others without fearing potential rejection should make them more likable and more socially accepted by others. Conversely, the insecurity of people adopting a deficit-reduction orientation and the fact that they are constantly searching for a sign of rejection may actually create the very conditions they seek to prevent, thereby leading to low likability in the eyes of others. This reduced likability can result in low levels of social acceptance and social rejection, which should perpetuate their feelings of interpersonal deficit as well as feelings of loneliness.

Although no direct evidence for our model exists, some related research offers indirect support for some of the model's propositions. First, as previously stated, much evidence supports the existence of the need for belongingness. For instance, individuals whose need is not met experience psychological and physical health problems (for a review, see Baumeister & Leary, 1995). Second, most theorists (Leary et al., 2006; McClelland, 1985) who posit the existence of individual differences in the need for belongingness propose that this difference is quantitative in nature (high vs. low). However, it should be noted that some researchers have nevertheless attempted to derive two orientations of the affiliative need (e.g., Boyatzis, 1973; DeCharms, 1957). Although research on this issue has typically yielded inconsistent findings, possibly because of the TAT methodology used, some results are interesting. For instance, using a semiprojective measure, Boyatzis (1973) found the existence of two orientations for those high in the need for affiliation, namely, affiliative interest and fear of rejection. Individuals high in affiliative interest had a higher number of close friends and enjoyed spending time alone, whereas those high in fear of rejection had attitudes very similar to their closest friends and did not enjoy time spent alone. However, Boyatzis's research focuses more on people's desire for belongingness than on the basic universal psychological need as it is conceptualized by SDT (Deci & Ryan, 2000) and by Baumeister and Leary (1995) as well as how it is defined by the BOM. Furthermore, Mehrabian (1970) distinguished between two dispositions relevant to understanding affiliation motivation: affiliative

tendency and sensitivity to rejection. However, later research showed that the sensitivity to rejection dimension was not related to affiliation motivation (see Hill, 2009). Maslow (1955) also distinguished between deficit needs and growth needs. However, in his conceptualization, there is a hierarchy of needs where some have to be satisfied (i.e., deficit needs such as safety) before others come into operation (e.g., self-actualization). No such hierarchy is posited in the BOM. Furthermore, several of the deficit needs were physical in nature and were hypothesized to lead to positive outcomes. In the BOM, we strictly focus on psychological needs, and the effects of the deficit needs are hypothesized to lead to less than optimal outcomes. Finally, it should also be underscored that although SDT (Deci & Ryan, 2000) does not propose individual differences in the need for relatedness, it nevertheless posits that when a basic psychological need has consistently been unsatisfied, need substitutes can emerge (Ryan & Deci, 2002). Therefore, if individuals are unable to satisfy their need for relatedness, they may develop a need for fame, image, and popularity as indexed by extrinsic values (Kasser, 2002) that is not expected to promote psychological adjustment (Ryan & Deci, 2002). Finally, very little research has looked at the influence of prior social experiences and environmental conditions on individual differences in the need for belongingness. However, the little research available seems to suggest that parental neglect (McClelland & Pilon, 1983) leads to higher levels of desire for belongingness and especially higher levels of the fear of rejection dimension, as well as the adoption of extrinsic values (Kasser, Ryan, Zax, & Sameroff, 1995; Williams, Cox, Hedberg, & Deci, 2000).

### *The Present Research*

The purpose of the present research was to test some of the hypotheses of the BOM. Study 1 aimed at validating the belongingness orientations by testing their factorial, discriminant, and convergent validity. Using structural models, Studies 2 to 4 tested hypotheses regarding outcomes associated with both orientations. Specifically, both belongingness orientations were hypothesized to be differently associated with interpersonal (social anxiety and loneliness [Studies 2 and 4]) and intrapersonal (two distinct dimensions of eudaimonic well-being [Study 3] and self-esteem [Study 2]) outcomes. In addition, both belongingness orientations were hypothesized to be differently predicted by participants' prior social experiences (Study 3). Finally, Study 4 examined how both belongingness orientations can prospectively influence participants' social acceptance and social involvement as assessed by their colleagues.

### **Study 1**

The major purpose of Study 1 was to develop a scale to assess the growth and deficit-reduction belongingness orientations

and validate these constructs. Three samples were used in Study 1. The bifactorial structure of the scale was tested with two independent samples of college students, and the discriminant and convergent validity of the constructs was assessed with a third sample. We hypothesized that some psychological constructs would be related to both orientations, such as the importance of interpersonal relationships, and that both belongingness orientations would be unrelated to the importance people place on the competence and the autonomy needs. However, extraversion and resiliency, as well as commitment toward an important relationship and self-disclosure in relationships, were hypothesized to be related only to the growth orientation. Extraverted individuals connect more easily with people and develop better social support networks (Russell, Booth, Reed, & Laughlin, 1997), which is believed to be characteristic of a growth orientation. Resiliency, defined as an ability for positive adaptation despite adversity (Luthar & Cicchetti, 2000), is a characteristic of a growth orientation because of a capacity to adapt behaviors to current social interactions. Finally, it was believed that a growth orientation renders people ready to commit themselves to a relationship and to self-disclose without fear.

Conversely, the importance of the need for security (Sheldon, Elliot, Kim, & Kasser, 2001), the importance of the need for popularity (Sheldon et al., 2001), the strength of the need to belong (Leary et al., 2006), and a propensity for needing others' attention (Hill, 1987) as well as to engage in social comparison (Festinger, 1954) were believed to be only associated with a deficit-reduction orientation. This is because these constructs represent the insecure side of a deficit-reduction orientation that should translate into a desire for popularity and a desire for people's attention. Thus, Study 1 represents a first attempt at testing the discriminant and convergent validity of both belongingness orientation constructs.

## Method

**Participants and procedure.** Sample 1 was composed of 138 university undergraduate students (93 females and 45 males) with a mean age of 22.49 years ( $SD = 3.78$  years). Sample 2 was composed of 199 college students (116 females, 80 males, and 3 unspecified) with a mean age of 21.15 years ( $SD = 6.05$  years). Finally, Sample 3 was composed of 142 university undergraduate students (113 females, 28 males, 1 unspecified) with a mean age of 25.55 years ( $SD = 6.99$  years). Data from Sample 1 served for the exploratory factor analysis, and data from Samples 2 and 3 served for the confirmatory factor analysis and the discriminant and convergent test of the constructs, respectively. All alphas were based on Sample 3. Participants completed questionnaires individually in classrooms. All questionnaires were in French, and every scale that was available only in English

was translated following Vallerand's (1989) systematic translation procedure.

## Measures

**Belongingness Orientation Scale.** We developed the Belongingness Orientation Scale, which was first composed of 14 items reflecting the definition of the growth and deficit-reduction orientations. Growth-oriented items reflect a growth and personal blossoming approach to interpersonal relationships such as "My relationships are important to me because I consider that the people I meet are fascinating." Deficit-reduction-oriented items reflect an interpersonal deficit-reduction approach to interpersonal relationships such as "My relationships are important to me because they fill a void in my life."

**Interpersonal Relationships' Importance.** This five-item scale was developed by the authors for the purposes of the present study to evaluate how important interpersonal relationships were to participants (e.g., "My interpersonal relationships are central elements in my life" and "Relationships with others are important for me";  $\alpha = .84$ ).

**Need for Relatedness.** Participants completed Richer and Vallerand's (1998) 10-item Need for Relatedness Scale. This scale assessed how important it was for them to be related to others with items such as "It is important for me to be close to others" ( $\alpha = .86$ ).

**Importance of Psychological Needs.** Participants completed a scale assessing how important four potential psychological needs were for them (Sheldon et al., 2001). There were three items assessing the importance of each need: autonomy (e.g., "It is important for me to be free to do things my own way";  $\alpha = .68$ ), competence (e.g., "It is important for me to be very capable in what I do";  $\alpha = .73$ ), security (e.g., "It is important for me to be safe from threats and uncertainties";  $\alpha = .88$ ), and popularity (e.g., "It is important for me to be a person whose advice others seek out and follow";  $\alpha = .89$ ).

**Relationship Commitment.** This scale was adapted from Sternberg (1997) and was composed of six items assessing participants' commitment to a significant other. Participants were asked to identify a person who was important in their life and to think of this person while answering the scale's items (e.g., "I have confidence in the stability of my relationship with this person";  $\alpha = .88$ ). Items from all previous scales were reported on a 7-point Likert-type scale ranging from 1 = *do not agree at all* to 7 = *completely agree*.

**Strength of the Need to Belong.** A 10-item Strength of the Need to Belong Scale (Leary et al., 2006) was completed. This scale assesses the strength of people's belongingness need. It contains items such as "It bothers me a great deal when I am not included in other people's plans," "I do not like being alone," and "My feelings are easily hurt when I feel that others do not accept me." Items were reported on a 5-point Likert-type scale ranging from 1 = *do not agree at all* to 5 = *completely agree* ( $\alpha = .74$ ).



**Table 1.** Results From the Exploratory Factor Analysis of the Belongingness Orientations Scale: Study 1, Sample 1

Scale items	Factor 1 (growth orientation)	Factor 2 (deficit- reduction orientation)	M	SD
My interpersonal relationships are important to me because ...				
... I find it exciting to discuss with people on numerous topics. (1)	.75	-.03	5.76	1.25
... I have a sincere interest in others. (2)	.72	-.06	5.55	1.47
... I consider that the people I meet are fascinating. (3)	.71	-.06	5.03	1.32
... they allow me to discover a lot about others. (4)	.71	-.03	5.60	1.10
... they allow me to learn about myself. (5)	.61	.15	5.18	1.43
... it appeases me to feel accepted. (6)	.09	.94	4.47	1.49
... I need to feel accepted. (7)	-.03	.92	4.38	1.58
... I don't want to be alone. (8)	.16	.57	4.09	1.84
... it gives me a frame of reference for the important decisions I have to make. (9)	.07	.46	4.65	1.51
... they fill a void in my life. (10)	-.04	.42	4.28	1.63
... they give me stimulation. (11)	.49	.37	5.37	1.38
... being with others is a leisure for me. (12)	.63	.23	5.38	1.49
... it's something that has affected me negatively in the past and I don't want to relive it. (13)	-.37	.46	2.74	1.91
... it makes me feel secure to know others' opinions. (14)	.29	.42	4.46	1.40

Rejected items are shown in italics.

**Interpersonal Orientation Scale (IOS).** This 12-item scale assesses four dimensions assumed to underlie affiliation motivation (Hill, 1987). There were three items for each dimension: emotional support (e.g., "If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better";  $\alpha = .82$ ), attention (e.g., "I like to be around people when I can be the center of attention";  $\alpha = .40$ ), positive stimulation (e.g., "I feel like I have really accomplished something valuable when I am able to get close to someone";  $\alpha = .69$ ), and social comparison (e.g., "I find that I often look to certain other people to see how I compare to others";  $\alpha = .75$ ). Items were reported on a 5-point Likert-type scale ranging from 1 = *absolutely not true* to 5 = *absolutely true*.

**Affiliative Tendency.** This 12-item scale assessed participants' affiliative tendency (Mehrabian, 2000). It was composed of items such as "It is useful for me to discuss my hopes and fears with friends" ( $\alpha = .63$ ). Items were reported on a 9-point Likert-type scale ranging from -4 = *do not agree at all* to +4 = *very highly agree*.

**Self-Disclosure.** This 15-item scale assessed participants' willingness to talk about numerous topics such as the things they like, their physical appearance, their sexual experiences, and their personal goals and ambitions to people in general ( $\alpha = .78$ ; Balswick & Balkwell, 1977). Items were reported on a 4-point Likert-type scale ranging from 1 = *I would never talk about that* to 4 = *I would certainly talk about that*.

**Resiliency.** This 14-item scale assessed resiliency as a personality trait (e.g., "I get over my anger at someone reasonably quickly";  $\alpha = .61$ ; Block & Kremen, 1996). Items were

reported on a 4-point Likert-type scale ranging from 1 = *do not agree at all* to 4 = *completely agree*.

**Extraversion.** This measure was a short 12-item scale from the NEO personality inventory (Costa & McCrae, 1985). The scale was composed of items such as "I like being surrounded by a lot of people" ( $\alpha = .77$ ). Items were reported on a 5-point Likert-type scale ranging from 1 = *do not agree at all* to 5 = *completely agree*.

## Results and Discussion

**Factorial validity.** An exploratory factor analysis was first conducted on the data of Sample 1. The extraction method was principal component analysis with an oblimin rotation. A two-factor solution emerged. Based on the analysis we eliminated items that loaded on both factors and those that showed weak factor loadings. We selected a total of 10 items (5 for each factor) having the highest loadings on the hypothesized factors and adequately measuring the proposed constructs. A second exploratory factor analysis was then conducted on the final set of 10 items. Results revealed a two-factor solution: Factor 1 with an eigenvalue of 3.76, explaining 37.60% of the variance, and Factor 2 with an eigenvalue of 2.17, explaining 21.67% of the variance, for a total of 59.27% of total variance explained. All 5 growth-oriented items loaded above .72 on Factor 1, and all 5 deficit-reduction items loaded above .68 on Factor 2. None of the 10 items showed signs of cross-loading. Table 1 shows the loadings of each item on both factors, their wordings, and their

**Table 2.** Intercorrelations Between the 14 Items of the Belongingness Orientations Scale: Study 1, Sample 1

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Growth	1.00												
2. Growth	.46***	1.00											
3. Growth	.47***	.63***	1.00										
4. Growth	.58***	.39***	.49***	1.00									
5. Growth	.41***	.42***	.55***	.53***	1.00								
6. Deficit reduction	.27**	.13	.10	.20*	.22*	1.00							
7. Deficit reduction	.16	.10	.04	.08	.19*	.72***	1.00						
8. Deficit reduction	.13	.20*	.25**	.17*	.38***	.53***	.56***	1.00					
9. Deficit reduction	.08	-.01	.07	.13	.20*	.34***	.44***	.37***	1.00				
10. Deficit reduction	.17	.11	.11	.17*	.27**	.47***	.47***	.34***	.46***	1.00			
11. Rejected item	.34***	.36***	.41***	.41***	.37***	.37***	.31***	.29**	.33***	.37***	1.00		
12. Rejected item	.42***	.48***	.47***	.39***	.46***	.32***	.25**	.32***	.21*	.27**	.43***	1.00	
13. Rejected item	-.26**	-.12	-.12	-.17*	-.06	.15	.15	.13	.27**	.16	.04	-.04	1.00
14. Rejected item	.18*	.35***	.37***	.16	.24**	.36***	.32***	.34***	.27**	.28**	.31***	.31***	.10

Items are numbered following the order shown in Table 1.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 3.** Results From the Confirmatory Factor Analysis of the Belongingness Orientations Scale: Study 1, Sample 2

Scale items	Factor 1 (growth orientation)	Factor 2 (deficit- reduction orientation)	M	SD
My interpersonal relationships are important to me because . . .				
. . . I find it exciting to discuss with people on numerous topics.	.75		6.01	1.19
. . . I have a sincere interest in others.	.72		5.56	1.32
. . . I consider that the people I meet are fascinating.	.71		5.20	1.31
. . . they allow me to discover a lot about others.	.71		5.74	1.22
. . . they allow me to learn about myself.	.61		5.15	1.52
. . . it appeases me to feel accepted.		.94	4.55	1.81
. . . I need to feel accepted.		.92	4.46	1.77
. . . I don't want to be alone.		.57	4.50	1.80
. . . it gives me a frame of reference for the important decisions I have to make.		.46	4.77	1.63
. . . they fill a void in my life.		.42	4.54	1.71

means and standard deviations. Finally, Table 2 shows the intercorrelations among the 10 items of the Belongingness Orientations Scale.

A confirmatory factor analysis (CFA with LISREL 8.80) was then conducted on the data of Sample 2 (method of estimation was maximum likelihood). It was hypothesized that a measurement model with two latent factors predicted by their respective five items from the Belongingness Orientation Scale would yield a coherent and meaningful fit to the data. Results provided support for the model,  $\chi^2(df = 34, N = 199) = 79.93$ ,  $p < .05$ , normed chi-square index (NCI) = 2.35, root mean square error of approximation (RMSEA) = .08 [.06, .11], normed fit index (NFI) = .93, non-normed fit index (NNFI) = .94, comparative fit index (CFI) = .95, goodness-of-fit index (GFI) = .93, and standardized root mean square residual (SRMR) = 0.07. All factor loadings were significant. Table 3

shows the loadings of each item, their wordings, and their means and standard deviations.

*Convergent and discriminant validity of the belongingness orientations.* Data from Sample 3 were used to assess the convergent and discriminant validity of the belongingness orientations. Because of the high number of correlations (i.e., 32), a Bonferroni correction was used to adjust the significance value from the traditional  $p < .05$  to  $p < .0016$  (.05/32; see Table 4). Furthermore, the significance value of the difference between both correlations for each pair of correlations is presented in Table 4 to detect differences in relationship strength. First, the correlation between the Growth and Deficit-Reduction Belongingness Orientation subscales was significant. The growth and deficit-reduction orientations were both positively and significantly associated with interpersonal relationships valuation, affiliative tendencies, and

**Table 4.** Correlations Between Growth and Deficit-Reduction Belongingness Orientations and Related Psychological Constructs: Study 1

	Growth orientation	Deficit-reduction orientation	<i>p</i> value of correlation difference
Psychological constructs related to both belongingness need orientations			
Importance of interpersonal relationships	.50***	.36***	<i>p</i> = .15
Need for relatedness	.46***	.39***	<i>p</i> = .48
Affiliative tendency	.30***	.34***	<i>p</i> = .72
IOS's positive stimulation	.44***	.32***	<i>p</i> = .25
IOS's emotional support	.22**	.27***	<i>p</i> = .66
Psychological constructs related to a growth orientation			
Extraversion	.47***	.04	<i>p</i> = .001
Commitment	.42***	.16	<i>p</i> = .02
Resiliency	.41***	.08	<i>p</i> = .003
Self-disclosure	.22**	.01	<i>p</i> = .08
Psychological constructs related to a deficit-reduction orientation			
Need to belong	.08	.59*	<i>p</i> = .001
IOS's attention	.06	.38*	<i>p</i> = .005
IOS's social comparison	.13	.37*	<i>p</i> = .03
Need for security	-.04	.24*	<i>p</i> = .02
Need for popularity	.03	.21*	<i>p</i> = .13
Psychological constructs unrelated to belongingness orientations			
Need for competence	.08	-.05	<i>p</i> = .28
Need for autonomy	.17	-.05	<i>p</i> = .07

*N* varies from 134 to 141.

\**p* < .05. \*\**p* < .01. \*\*\**p* < .0016.

Richer and Vallerand's (1998) need for relatedness. Furthermore, both belongingness orientations were positively and significantly related to the positive stimulation and the emotional support dimensions of the IOS (Hill, 1987). The importance of the needs for competence and autonomy were found to be unrelated to both belongingness orientations.

Some psychological constructs were positively and significantly related to a growth belongingness orientation but were unrelated to the deficit-reduction orientation. For example, participants' commitment to one significant relationship and the personality traits of extraversion and resiliency were only related to the growth orientation. Additionally, participants' willingness to self-disclose in relationships tended to be associated with a growth orientation while being unrelated to a deficit-reduction orientation. Finally, some psychological variables were only associated with a deficit-reduction belongingness orientation such as the strength of the need to belong (Leary et al., 2006), the importance of the needs for popularity and security, and the attention-seeking and social comparison dimensions of the IOS (Hill, 1987).

Both subscales had good internal consistencies across all samples (alphas for the Growth-Oriented subscale ranged between .77 and .83; alphas for the Deficit-Reduction subscale ranged between .80 and .83). The correlations between the two belongingness orientations are .28 for Sample 1, .39 for Sample 2, and .21 for Sample 3. The means for the Growth-Oriented subscale were 5.43 (*SD* = 1.01, skewness = -.64), 5.53 (*SD* = 1.01, skewness = -.98), and 5.85 (*SD* = .71, skewness = -.32) for Samples 1, 2, and 3, respectively. The

means for the Deficit-Reduction subscale were 4.37 (*SD* = 1.21, skewness = -.19), 4.56 (*SD* = 1.32, skewness = -.31), and 4.75 (*SD* = 1.12, skewness = .01) for Samples 1, 2, and 3, respectively.

Results of Study 1 validated the two-factor structure of the scale as well as the distinction between a growth and a deficit-reduction belongingness orientation. Specifically, Study 1 demonstrated that both belongingness orientations were similarly associated with some belongingness constructs while being differently associated with distinct personality dimensions, interpersonal behaviors, and cognitions. Furthermore, whereas Richer and Vallerand's (1998) Need for Relatedness Scale was related to both belongingness orientations relatively equally, the Leary et al. (2006) Strength of the Need to Belong Scale was only related to the deficit-reduction belongingness orientation. We believe that this is because items from Leary et al.'s scale focus on rejection avoidance whereas items from Richer and Vallerand's scale are more encompassing and focus on the desire and the importance of developing healthy interpersonal relationships. In sum, Study 1 supported the bifactorial structure of the scale as well as the discriminant and convergent validity of the proposed constructs.

## Study 2

Study 2 aimed at testing whether the two types of belongingness orientations could predict different interpersonal consequences. According to sociometer theory (Leary & Baumeister,



2000; Leary, Tambor, Terdal, & Downs, 1995), self-esteem acts as a barometer of people's past, present, and future perceived relational value. Because the belongingness need is consistently directed toward interpersonal deficit reduction, it is proposed that low self-esteem would result from a deficit-reduction belongingness orientation. It could be argued that peoples' self-esteem determines their belongingness orientation; however, the BOM proposes that self-esteem is a psychological consequence that is affected by peoples' belongingness orientation and their recent social experiences. Additionally, it was further proposed that a deficit-reduction orientation would be positively associated with high levels of social anxiety as well as with high levels of loneliness. This is because people primarily holding this belongingness orientation have a lot on the line within social situations that renders them susceptible to experiencing social anxiety and are rarely satisfied with the quantity and/or quality of their relationships, resulting in heightened feelings of loneliness. Conversely, because much less self-imposed pressure exists with a growth orientation within social contexts, this orientation was hypothesized to be positively related to self-esteem and negatively related to social anxiety and loneliness.

Finally, these relationships were hypothesized to take place even after controlling for participants' global motivational orientations (Vallerand, 1997). Specifically, Vallerand (1997) proposes that at the global level, motivation represents peoples' typical levels of self-determination, their general reasons as to why they act the way they do. Vallerand argues that peoples' global self-determined motivation results from the global (general) satisfaction of their three psychological needs. Thus, it was deemed important to test whether BOM's belongingness orientations could influence interpersonal outcomes independently of participants' global motivational orientations to demonstrate that they are indeed not only conceptually but empirically different constructs than self-determined motivation.

## Method

**Participants and procedure.** Participants were 105 college students (51 females and 54 males) with a mean age of 18.82 years ( $SD = 1.20$  years). Participants completed the questionnaires individually in classrooms. All questionnaires were in French, and every scale that was available only in English was translated following Vallerand's (1989) systematic translation procedure.

## Measures

**Belongingness Orientation Scale.** The Belongingness Orientation Scale was again used in this study. Cronbach's alphas were .79 and .81 for the growth and deficit-reduction orientations, respectively.

**Global Motivation Scale.** Participants completed the 18-item Global Motivation Scale (Guay, Mageau, &

Vallerand, 2003). This scale contained six subscales representing different reasons why participants generally do things. According to SDT (Deci & Ryan, 2000; Vallerand, 1997), motivational orientations can be aligned along a self-determination continuum, ranging from intrinsic motivation (highest level of self-determination) to amotivation (a relative absence of motivation). Each subscale contained three items associated with a different degree of self-determined motivation. Items were scored on a 7-point Likert-type scale, ranging from 1 = *do not correspond at all* to 7 = *completely correspond*. In line with the self-determination continuum, we computed a self-determined global motivation variable for each participant by adding the Intrinsic, Integrated, and Identified subscales (e.g., "because I like making interesting discoveries";  $\alpha = .77$ ). Likewise, we computed a non-self-determined global motivation variable by adding the Introjected, External, and Amotivation subscales (e.g., "to show others what I am worth";  $\alpha = .80$ ). This procedure has been widely used in previous research (e.g., Carver & Baird, 1998; Miquelon, Vallerand, Grouzet, & Cardinal, 2005).

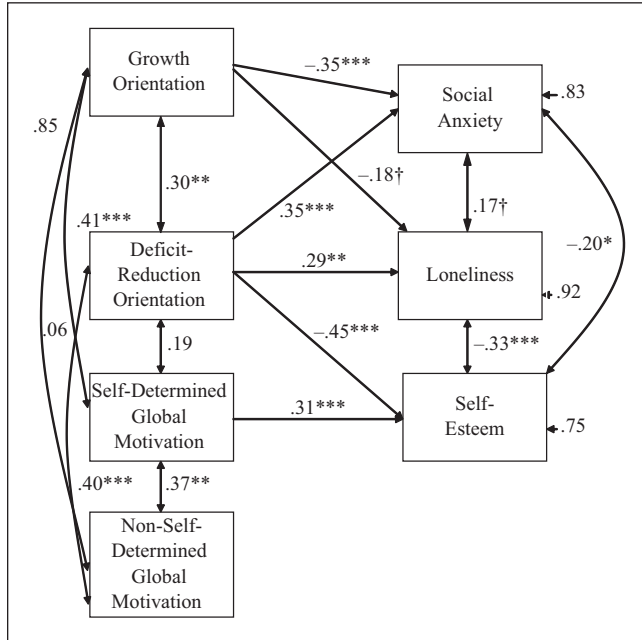
**Social anxiety.** Students' social anxiety was assessed with a 6-item subscale from the French version of the ERCS-22 (Pelletier & Vallerand, 1990) and was composed of items such as "When I talk in front of a group, I feel nervous" ( $\alpha = .77$ ).

**Self-esteem.** Students' self-esteem was assessed with the 10-item French Canadian version of the Rosenberg Self-Esteem Scale (1965). The French version of the scale has been validated by Vallières and Vallerand (1990). A sample item is "I believe that I possess a number of good qualities" ( $\alpha = .83$ ). The above items were scored on a 7-point Likert-type scale, ranging from 1 = *do not agree at all* to 7 = *completely agree*.

**Loneliness.** Students' levels of loneliness was assessed with a 10-item version of the UCLA Loneliness Scale (e.g., "At what frequency do you feel that people are around you but not with you?"  $\alpha = .81$ ; Russell, 1996). Students provided the frequencies at which they experienced numerous feelings on a 4-point Likert-type scale, ranging from 1 = *never* to 4 = *all the time*.

## Results and Discussion

A first path analysis model was conducted on the data (LISREL 8.80; method of estimation was maximum likelihood). The paths were first specified according to the hypothesized model. Specifically, paths from the growth orientation to all three consequences (i.e., social anxiety, loneliness, and self-esteem) and paths from the deficit-reduction orientation to all three consequences were estimated. Results revealed an unsatisfactory fit of the model to the data,  $\chi^2(df = 6, N = 105) = 17.83, p < .05, NCI = 2.97, RMSEA = .14 [.07, .22], NFI = .86, NNFI = .61, CFI = .89, GFI = .95, SRMR = .07$ . Inspection of the results revealed



**Figure 1.** Results of Study 2 path analysis: Outcomes of both belongingness orientations  
 $\dagger p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

that the path from the growth orientation variable to the self-esteem variable was not significant. Furthermore, inspection of the correlation residuals revealed that a significant relation existed between the self-determined global motivation variable and the self-esteem variable. Consequently, a second model incorporating these modifications was tested, and the results revealed a satisfactory fit of the model to the data,  $\chi^2(df = 6, N = 105) = 4.86, p > .05$ , NCI = .81, RMSEA = .00 [.00, .12], NFI = .97, NNFI = 1.03, CFI = 1.00, GFI = .99, SRMR = .03.

As shown in Figure 1, negative paths were obtained between growth orientation and social anxiety ( $\beta = -.35, p < .001$ ) and between growth orientation and loneliness ( $\beta = -.18, p < .10$ ). The estimated paths between deficit-reduction orientation and social anxiety ( $\beta = .35$ ) and between deficit-reduction orientation and loneliness ( $\beta = .29$ ) were both found to be positive and significant ( $ps < .001$  and  $.01$ , respectively). The estimated path between deficit-reduction orientation and self-esteem ( $\beta = -.45$ ) was found to be negative and significant ( $p < .001$ ). Finally, a positive and significant path was found between self-determined global motivation and self-esteem ( $\beta = .31, p < .001$ ).

To further validate the results from Study 2, an alternative model was tested in which the four predicting variables (i.e., growth orientation, deficit-reduction orientation, and the two global motivation variables) became the outcome variables, and the three outcome variables (i.e., social anxiety, loneliness, and self-esteem) became the predicting variables. Results of the path analysis revealed a nonsatisfactory fit of

the model to the data,  $\chi^2(df = 6, N = 105) = 13.46, p < .05$ , RMSEA = .11 [.03, .19], NFI = .90, NNFI = .75, CFI = .93, GFI = .96, SRMR = .08.

The present results suggest that although a growth orientation is negatively associated with anxiety and loneliness, a deficit-reduction orientation seems to put one at risk of experiencing intrapersonal (low self-esteem) and interpersonal negative consequences (social anxiety and loneliness). The positive relations between a deficit-reduction orientation and social anxiety and loneliness are paradoxical because they suggest that a deficit-reduction-oriented need to belong leads people to experience the very outcomes they seek to avoid. Finally, results of Study 2 provided support for the assumption that belongingness orientations are distinct from global motivational orientations.

### Study 3

The purpose of Study 3 was twofold. First, we looked at some of the social determinants of both orientations. The BOM hypothesizes that although the need to belong is innate, past social experiences can determine how the need will evolve into one of the two predominant orientations. It was hypothesized that participants' general attachment style would capture the quality of past social experiences one has experienced. Indeed, much research has shown that people's adult attachment patterns result from their prior relational experiences and thus provide a valid estimate of people's relational past (Bartholomew, 1990; Bowlby, 1969; Mikulincer & Shaver, 2007). In line with the BOM, it was hypothesized that a generally secure attachment style should lead to a growth orientation because such a style is rooted in past effective and secure interpersonal dynamics. Conversely, generally insecure attachment styles (i.e., fearful-avoidant and preoccupied) were hypothesized to predict a deficit-reduction belongingness orientation because insecure attachments generally result from experiences of relational anxiety and cravings for social acceptance.

The second purpose of Study 3 was to look at the role of the two belongingness orientations in the prediction of two dimensions of eudaimonic well-being (Ryff, 1995). It was hypothesized that both indices of well-being would be positively predicted by a growth orientation but negatively predicted by a deficit-reduction orientation. This is because a growth orientation should help people derive pleasure and personal development from their social relationships, which facilitates high levels of well-being, whereas a deficit-reduction orientation is associated with a constant attempt to reach a minimal level of social acceptance, which refrains people from experiencing satisfying relationships and thus thwarts psychological well-being. Finally, these relationships were hypothesized to take place even after controlling for the Strength of the Need to Belong Scale (Leary et al., 2006).

## Method

**Participants and procedure.** Participants were 220 students (117 females, 102 males, and 1 unspecified) with a mean age of 21.06 years ( $SD = 5.04$  years). Participants completed the questionnaires individually in classrooms. All questionnaires were in French, and every scale that was only available in English was translated following Vallerand's (1989) systematic translation procedure.

## Measures

**Belongingness Orientation Scale.** The Belongingness Orientation Scale was again used in this study. Alphas were .81 for both the growth and deficit-reduction orientations.

**Strength of the Need to Belong Scale.** The Strength of the Need to Belong Scale (Leary et al., 2006) used in Study 1 was used again in the present study ( $\alpha = .77$ ).

**Past social experiences (attachment styles).** The measure used to capture participants' past social experiences was the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991), which is composed of four vignettes describing each attachment style (i.e., secure, fearful-avoidant, preoccupied, and dismissing-avoidant). The vignettes are presented below:

**Secure Attachment Style.** It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

**Fearful-Avoidant Attachment Style.** I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.

**Preoccupied Attachment Style.** I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

**Dismissing-Avoidant Attachment Style.** I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Participants reported on a 7-point Likert-type scale ranging from 1 = *do not agree at all* to 7 = *completely agree* how each vignette corresponds to the way they normally behave in relationships.

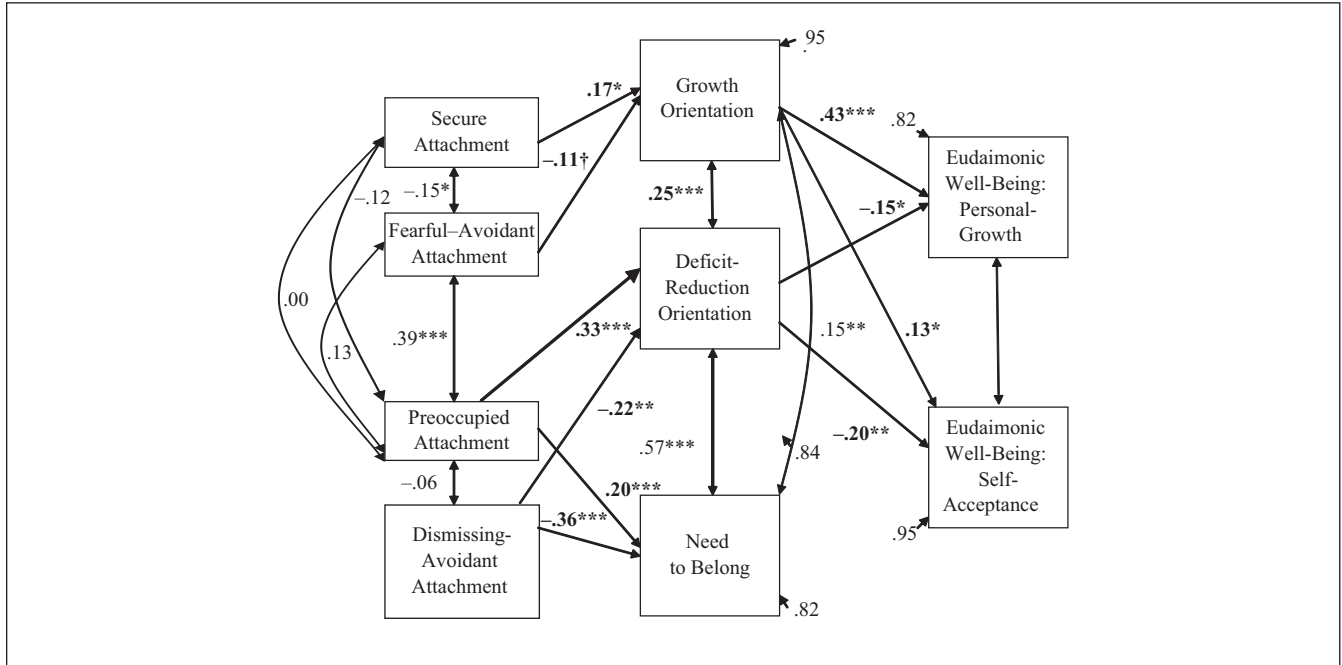
**Personal growth and self-acceptance.** Participants completed a short version of two subscales from the Eudaimonic Well-Being Scale (Ryff, 1995). The Personal Growth

subscale was composed of two items (e.g., "My life has been a continuous process of learning, changing, and growth";  $\alpha = .64$ ). The Self-Acceptance subscale was composed of three items (e.g., "When I look at the story of my life, I am pleased with how things have turned out";  $\alpha = .67$ ). Items were scored on a 7-point Likert-type scale, ranging from 1 = *do not agree at all* to 7 = *completely agree*.

## Results and Discussion

A first path analysis model was conducted on the data (LISREL 8.80; method of estimation was maximum likelihood). The paths were first specified according to the hypothesis. Specifically, a path from the secure attachment variable to the growth orientation variable as well as paths from the fearful-avoidant, preoccupied, and dismissing-avoidant attachment styles to the deficit-reduction orientation were specified. Furthermore, paths from the two belongingness orientations to the two dimensions of eudaimonic well-being were estimated. Results of the path analysis were satisfying,  $\chi^2(df = 18, N = 220) = 66.18, p < .05$ , NCI = 3.68, RMSEA = .11 [.08, .14], NFI = .83, NNFI = .71, CFI = .86, GFI = .94, SRMR = .11. Inspection of the results showed that the path from the fearful-avoidant variable to the deficit-reduction orientation variable was not significant. Furthermore, inspection of the correlation residuals suggested the addition of a path from the fearful-avoidant attachment variable to the growth orientation as well as paths from the preoccupied and dismissing-avoidant attachment variables to the strength of the need to belong variable. A second path analysis was thus tested with these modifications, and the results revealed a satisfactory fit of the model to the data,  $\chi^2(df = 16, N = 220) = 26.64, p > .05$ , NCI = 1.67, RMSEA = .06 [.01, .09], NFI = .93, NNFI = .93, CFI = .97, GFI = .97, SRMR = .06.

As shown in Figure 2, a significant path coefficient ( $p < .05$ ) was obtained between secure attachment style and growth orientation as well as a marginally negative significant path coefficient ( $p < .10$ ) between fearful-avoidant attachment style and growth orientation ( $\beta = -.11$ ). Positive and significant path coefficients were found between preoccupied attachment style and deficit-reduction orientation ( $\beta = .33, p < .001$ ) and between preoccupied attachment style and the need to belong variable ( $\beta = .20, p < .01$ ). Additionally, negative and significant path coefficients were found between dismissing-avoidant attachment style and deficit-reduction orientation ( $\beta = -.22, p < .01$ ) as well as between dismissing-avoidant attachment style and the need to belong variable ( $\beta = -.36, p < .001$ ). Furthermore, the estimated path coefficients between growth orientation and the personal-growth and self-acceptance dimensions of eudaimonic well-being ( $\beta_s = .43$  and  $.13$ , respectively) were both found to be positive and significant ( $ps < .001$  and  $.01$ , respectively). Finally, the estimated path coefficients between deficit-reduction orientation and the personal-growth and self-acceptance



**Figure 2.** Results of the path analysis from Study 3: Outcomes and antecedents of both belongingness orientations  
 $\dagger p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

dimensions of eudaimonic well-being ( $\beta$ s =  $-.15$  and  $-.20$ , respectively) were both found to be negative and significant ( $p$ s  $< .05$  and  $.01$ , respectively).

Alternative models were tested to provide additional support for the proposed model. First, an alternative model where the four attachment styles predicted the two eudaimonic well-being dimensions, which in turn predicted the two belongingness orientations and the need to belong, was tested. Second, an alternative model where the two belongingness orientations as well as the need to belong predicted the four attachment styles, which in turn predicted the two eudaimonic well-being dimensions, was tested. Results from these alternative models revealed a nonsatisfactory fit of the models to the data: alternative model 1,  $\chi^2(df = 14, N = 220) = 62.96, p < .05$ , RMSEA = .13 [.10, .16], NFI = .84, NNFI = .64, CFI = .86, GFI = .94, SRMR = .10; and alternative model 2,  $\chi^2(df = 16, N = 220) = 55.83, p < .05$ , RMSEA = .11 [.08, .14], NFI = .86, NNFI = .75, CFI = .89, GFI = .95, SRMR = .08.

As predicted, past positive social interactions as captured by a measure of secure attachment style was positively related to a growth orientation, whereas a past of fretful social interactions as assessed by a measure of preoccupied attachment style was positively related to a deficit-reduction orientation. The fearful-avoidant attachment style was found to be marginally negatively related to the growth orientation. Thus, a past of anxious and avoidant social experiences seems to be negatively associated with a growth orientation. The vignette corresponding to the fearful-avoidant attachment style portrayed someone who wants to be close to

others but is uncomfortable and finds it hard to trust others. The negative relation with a growth attachment and the lack of relation with the deficit-reduction orientation could be because these people do not need to reduce a social deficit but might just be uneasy and awkward socially. Finally, a past of suspicious and negative social experiences as captured by the dismissing-avoidant vignette was negatively related to deficit-reduction belongingness orientations. In the case of dismissing-avoidant attachment experiences, it is possible that a generally dismissing interpersonal disposition renders people less interested or disconnected from others altogether (Mikulincer & Shaver, 2007).

Several theorists (e.g., Baumeister & Leary, 1995; Deci & Ryan, 2000) have hypothesized that the satisfaction of the need for belongingness predicts psychological well-being. However, the results of the present study suggest that the positive contribution of the belongingness need to psychological well-being only applies to the growth orientation. In fact, the deficit orientation appears to undermine psychological well-being. Clearly, the distinction between the two orientations is important.

Finally, the present results held even when controlling for the presence of Leary et al.'s (2006) Strength of the Need to Belong Scale in the model. The correlations between both belongingness orientations and the Strength of the Need to Belong Scale were similar to those obtained in Study 1 (see Table 4). Leary et al.'s scale appears to be largely similar to the deficit-reduction orientation ( $r = .57$ ) but was nonetheless found to be positively related to the growth orientation ( $r = .15$ ). It is believed that these similarities exist because both the Belongingness Orientations Scale and the Strength



of the Need to Belong Scale are based on the assumption that the need for belongingness is a universal and innate need.

## Study 4

There were four purposes to Study 4. First, whereas Studies 1 to 3 used self-reports, Study 4 looked at the role of the two belongingness orientations in the prediction of work colleagues' perceptions of participants. Because the two orientations are expected to lead to distinct behaviors, it was hypothesized that the two belongingness orientations would significantly predict colleagues' perceptions of participants. A second purpose of Study 4 was to replicate Study 2's results pertaining to social anxiety. However, this time participants' social anxiety as experienced within a work team was assessed, not trait anxiety as in Study 2. A third purpose of Study 4 was to use a prospective design to test our hypotheses. A final purpose of this study was to control for the potential influence of the personality traits of extraversion and neuroticism on social outcomes. University undergraduate students in a management program were asked to evaluate fellow students, whom they had never met before and with whom they worked during a semester, on dimensions of social involvement and social acceptance (likability). It was hypothesized that a deficit-reduction orientation would lead to less favorable evaluations and to lower levels of acceptance than a growth orientation. This is because a deficit-reduction orientation is associated with social neediness, which may be readily perceivable by others, resulting in low levels of actual acceptance. Furthermore, as shown in Study 1, a deficit-reduction orientation is associated with social comparison and the importance people place on the needs for attention and popularity. Thus, it is hypothesized that a deficit-reduction belongingness orientation leads to behaviors that are perceived negatively by others and eventually lead to lower levels of social acceptance and likability.

## Method

**Participants and procedure.** Participants were 109 university undergraduate students (62 females, 47 males) with a mean age of 26.09 years ( $SD = 6.81$  years). Participants were from management classes for which an important team project had to be completed over the course of the semester. Participants completed the Belongingness Orientation Scale and the Extraversion and Neuroticism scales at the beginning of the semester. The work teams were not yet formed at that time. At the end of the semester (i.e., between 1.5 and 2.5 months later), participants completed the social anxiety measure and they evaluated their social acceptance of their work team colleagues. Specifically they evaluated how much they liked working with these colleagues and how much they would want to work with them again in the future. Finally, participants evaluated their colleagues' social involvement within the work team. Only the evaluations made by

previously unknown colleagues were kept for the present analysis. Consequently, participants' colleagues did not have any prior contact with them before working together on the class project. In effect, because they did not know each other at Time 1, Time 2 assessments represent changes in participants' evaluation of their team colleagues. Questionnaires were completed individually in classrooms. All questionnaires were in French, and every scale that was only available in English was translated following Vallerand's (1989) systematic translation procedure.

## Measures

**Belongingness Orientation Scale (Time 1).** The Belongingness Orientation Scale was again used in this study. Cronbach's alphas were .79 for the growth orientation and .88 for the deficit-reduction orientation subscales.

**Extraversion and neuroticism (Time 1).** Extraversion and neuroticism were assessed with two 6-item scales from the NEO Personality Inventory (Costa & McCrae, 1985). The Extraversion scale was a shorter version of the one used in Study 1 and was significantly correlated to the 12-item version of the scale ( $r = .92, p < .001; \alpha = .78$ ). The Neuroticism scale was composed of items such as "I often feel inferior to other people" ( $\alpha = .78$ ). Items were reported on a 5-point Likert-type scale ranging from 1 = *do not agree at all* to 5 = *completely agree*.

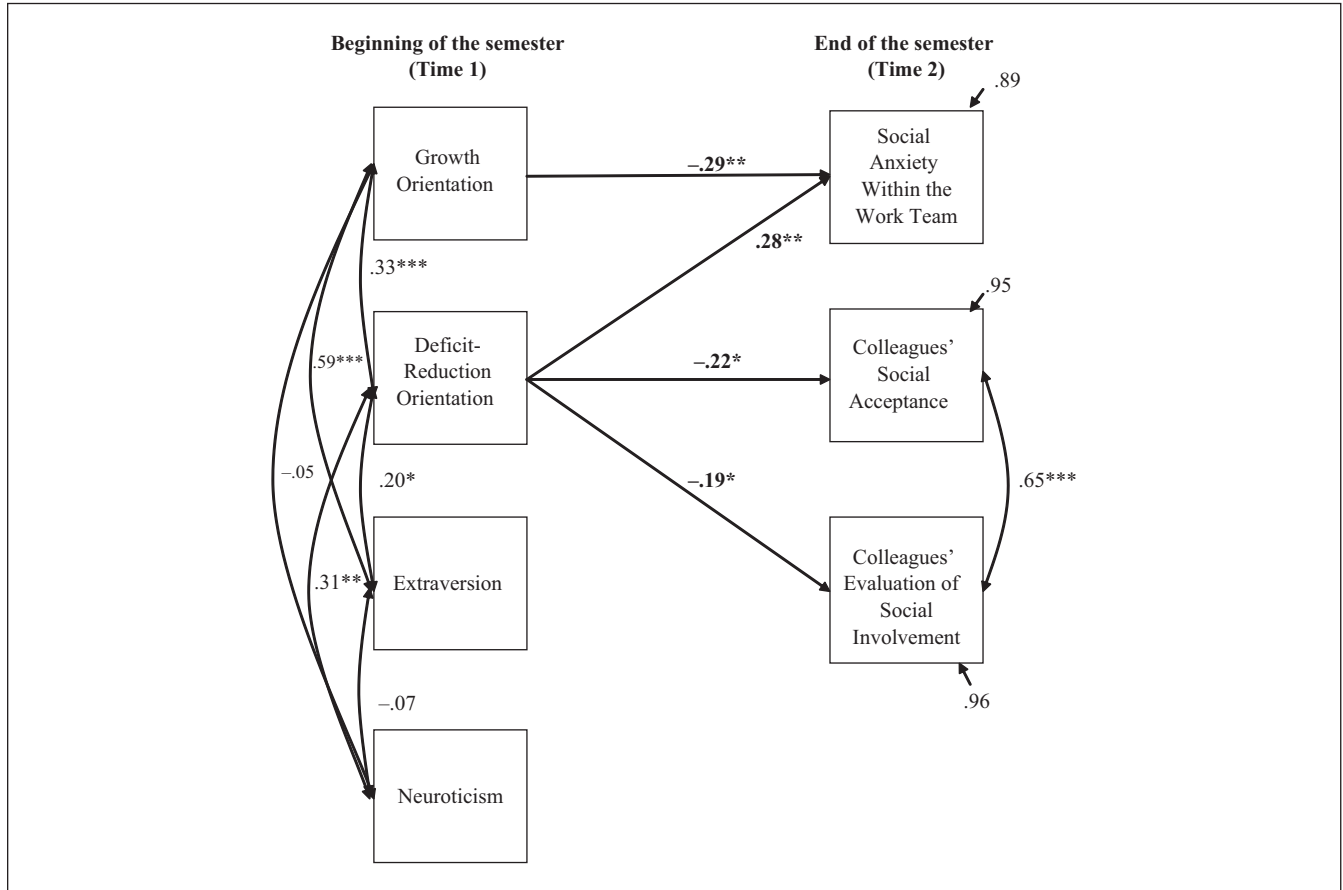
**Social anxiety (Time 2).** A three-item scale assessing how socially anxious participants were when working with their colleagues was used (e.g., "Within my work team, I felt I needed time to overcome my shyness";  $\alpha = .83$ ).

**Colleagues' evaluations of social acceptance and social involvement (Time 2).** Participants' level of social acceptance was evaluated by their work team colleagues with two items (e.g., "I liked working with this person" and "If possible, I would like to work with this person again";  $\alpha = .98$ ). Participants' social involvement within the work team was evaluated by their colleagues with three items (e.g., "This person was actively involved";  $\alpha = .77$ ). Again, each participant's social acceptance and social involvement within the team was evaluated by at least two colleagues (with a maximum of four). All previous items, except when stated otherwise, were reported on a 7-point Likert-type scale ranging from 1 = *do not agree at all* to 7 = *completely agree*.

## Results and Discussion

A first path analysis model was conducted on the data (LISREL 8.80; method of estimation was maximum likelihood). The paths were first specified according to the hypothesis. Specifically, paths from both belongingness orientations at Time 1 to the three consequences at Time 2 (i.e., social anxiety, colleagues' social acceptance, and colleagues' evaluation of social involvement) were estimated. Results of the path analysis revealed a satisfactory fit of the model to





**Figure 3.** Results of the prediction of social acceptance and social involvement in Study 4  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

the data,  $\chi^2(df = 8, N = 109) = 5.98, p > .05$ , NCI = .75, RMSEA = .00 [.00, .09], NFI = .96, NNFI = 1.04, CFI = 1.00, GFI = .98, SRMR = .042. Inspection of the results showed that the growth orientation at Time 1 was completely unrelated to the colleagues' social acceptance ( $\beta = -.01$ ) and colleagues' evaluation of social involvement ( $\beta = -.05$ ) variables. Consequently, a second model without these paths was tested, and results revealed again a satisfactory fit of the model to the data,  $\chi^2(df = 10, N = 109) = 7.28, p > .05$ , NCI = .73, RMSEA = .00 [.00, .08], NFI = .95, NNFI = 1.03, CFI = 1.00, GFI = .98, SRMR = .05.

As shown in Figure 3, significant path coefficients ( $p < .01$ ) were obtained between the growth orientation and social anxiety experienced within the work team ( $\beta = -.29$ ) as well as between the deficit-reduction orientation and social anxiety experienced within the work team ( $\beta = .28$ ). Furthermore, negative and significant path coefficients were found between the deficit-reduction orientation and colleagues' evaluation of social acceptance ( $\beta = -.22, p < .05$ ) and between the deficit-reduction orientation and colleagues' evaluation of participants' social involvement ( $\beta = -.19, p < .05$ ). These results were obtained while controlling for the influence of extraversion and neuroticism. No alternative

model was tested in Study 4 because of the prospective design of the study.

Results revealed that a deficit-reduction orientation measured at the beginning of the semester was negatively related to colleagues' evaluations of participants' social acceptance and social involvement. The need for others' attention that characterizes the deficit-reduction orientation appears to be perceptible enough to affect others' opinions and evaluations. Because of the salient concern for social acceptance associated with a deficit-reduction orientation, less energy might be at one's disposal (Baumeister, Bratslavsky, Muraven, & Tice, 1998) to focus on the task at hand when that task has to be performed in a social context that might generate an impression of passivity and low involvement in other team project members. However, a growth-oriented need to belong was not related to others' evaluation in Study 4. It might be that a growth belongingness orientation typically enables an easy and effortless navigation within the social environment, which creates less lasting and defining impressions on others than the social awkwardness that may characterize a deficit-reduction orientation. Finally, the model in Study 4 controlled for the personality traits of extraversion and neuroticism. The addition of these variables to the model

suggests that the two belongingness orientations have significant predictive power even when controlling for two personality dimensions that are known to influence social interactions (Asendorpf & Wilpers, 1998; Möller, 2004; Swickert, Rosentreter, Hittner, & Mushrush, 2002)

## General Discussion

The purpose of the present research was to test hypotheses derived from the BOM. Results from four studies provided strong support for the distinction between a growth-oriented and a deficit-reduction-oriented need for belongingness. First, the results of Study 1 supported the two-factor structure of the Belongingness Orientation Scale and the validity of both belongingness orientation constructs. Furthermore, Studies 2 to 4 showed that the two orientations were differently associated with interpersonal and intrapersonal consequences. Belongingness orientations were found to be related to outcomes independent of participants' global motivational orientations and of the Strength of the Need to Belong Scale (Leary et al., 2006). Thus, overall these findings provide support for the proposed distinction between a growth- and a deficit-reduction-oriented need for belongingness and lead to a number of implications.

### *On Belongingness Orientations and Outcomes*

The first implication is that the two belongingness orientations are related to different psychological outcomes. It was predicted that the growth and deficit-reduction orientations would be differently associated with experiences of social anxiety. Using a cross-sectional and a prospective design, respectively, Studies 2 and 4 found that a growth orientation was negatively related to social anxiety in general as well as in a new social context, whereas a deficit-reduction orientation was positively associated with such experiences. Consequently, it appears that primarily holding a growth orientation protects individuals from experiencing social anxiety in general and in new social contexts.

It appears from the results of Studies 2 and 4 that a deficit-reduction-oriented need renders people more vulnerable to social anxiety. Study 2 also showed that a deficit-reduction orientation was associated with high levels of loneliness. The social cravings of individuals holding a deficit-reduction orientation might be generally unsatisfied and appear to result in feelings of loneliness and anxiety. It is possible that individuals adopting this orientation are no more alone than individuals adopting a growth orientation. However, these situations of relative solitude might affect them more acutely, ultimately resulting in increased social neediness. Future research is needed to investigate this issue more thoroughly.

Of major importance is that both orientations were found to be differently associated with intrapersonal consequences. First, a deficit-reduction-oriented need to belong was found

to be negatively related to self-esteem (Study 2). This negative relation is coherent with sociometer theory (Leary & Baumeister, 2000; Leary et al., 1995). According to Leary et al. (1995), low self-esteem should act as an alarm that motivates people to increase their acceptance status up to a safer level. Future research should explore further if primarily holding a deficit-reduction orientation indeed motivates people to behave in ways that should increase their acceptance status, especially when their need is thwarted. Second, the belongingness orientations were differently associated with two dimensions of eudaimonic well-being (Ryff, 1995, Study 3). A growth-oriented need was positively associated with both indices of psychological adjustment, whereas a deficit-reduction-oriented need was negatively associated with them. Consequently, the way people understand their social interactions seems to have a real effect on their general psychological well-being. Future research is needed to determine whether people's belongingness orientation could also affect their physical health.

### *On the Impact of Belongingness Orientations on Others' Social Perceptions*

Using a prospective design, Study 4 found that a deficit-reduction orientation negatively predicts colleagues' evaluation of participants' social involvement and social acceptance within a new work team. Consequently, a deficit-reduction orientation produces a negative effect on others' actual perceptions. It might be that holding a deficit-reduction-oriented need influences the negative behaviors displayed within new social contexts, which in turn lead to negative evaluations from others. Actual behaviors were not assessed in the present research. However, based on the findings of Study 1, it is posited that individuals with a high deficit-reduction orientation may translate their sense of insecurity and their social neediness into inappropriate behaviors that lead others to dislike them (Sroufe, 1990). It might be that their constant focus on potential signs of rejection triggers social anxiety that depletes them of the much-needed cognitive energy required to properly self-regulate their social behavior (Muraven & Baumeister, 2000). However, future research assessing the actual social behaviors is clearly needed.

Although a growth orientation was negatively associated with social anxiety and a deficit-reduction orientation was positively associated with it in both Studies 2 and 4, the growth orientation did not result in higher likability from others in Study 4. It is possible that the positive effect it creates on others takes more time to evolve. Results of Study 1 revealed that a growth orientation is positively associated with engaging in self-disclosure and a willingness to commit more to others. It is plausible that the short duration of Study 4 (from 6 to 10 weeks) may not have been enough time to lead others to fully appreciate individuals primarily holding a growth orientation. Future research in ongoing relationships or over a longer period is needed to test this hypothesis.

## On the Determinants of Belongingness Orientations

The BOM postulates that prior experiences influence the belongingness orientation that will be generally internalized by people. Study 3 found some support for this hypothesis, as it was found that close, secure, and responsive past relationships predicted a growth orientation, whereas multiple relational insecurities predicted a deficit-reduction orientation. These results suggest, as predicted, that participants' past interpersonal experiences actually constitute a social determinant of their belongingness orientations. Although this may be so, it should be underscored that only one type of attachment (i.e., preoccupied attachment) was found to positively predict the deficit-reduction orientation. Future research is needed to investigate whether these findings can be replicated with other measures such as the Experiences in Close Relationships – Revised (ECR-R; Fraley, Waller, & Brennan, 2000). Furthermore, future research is needed to more fully chart the development of both belongingness orientations.

### Limitations and Future Research

Some limitations need to be underscored. First, no definitive causality conclusions can be derived from the present research because of the use of correlational designs. Second, future research is needed to investigate whether other measures of prior relational experiences might actually predict more effectively which belongingness orientation is primarily adopted. Finally, only university students were used in all four studies. Future research with members of the general population is needed to provide support for the external validity of the present conceptualization.

In sum, the present studies supported the four propositions of the model related to the determinants and outcomes of the two distinct orientations of the need to belong. It thus appears that although the desire for social connections is universal, it can manifest itself differently and may lead to different effects on how people navigate within their social world.

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The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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