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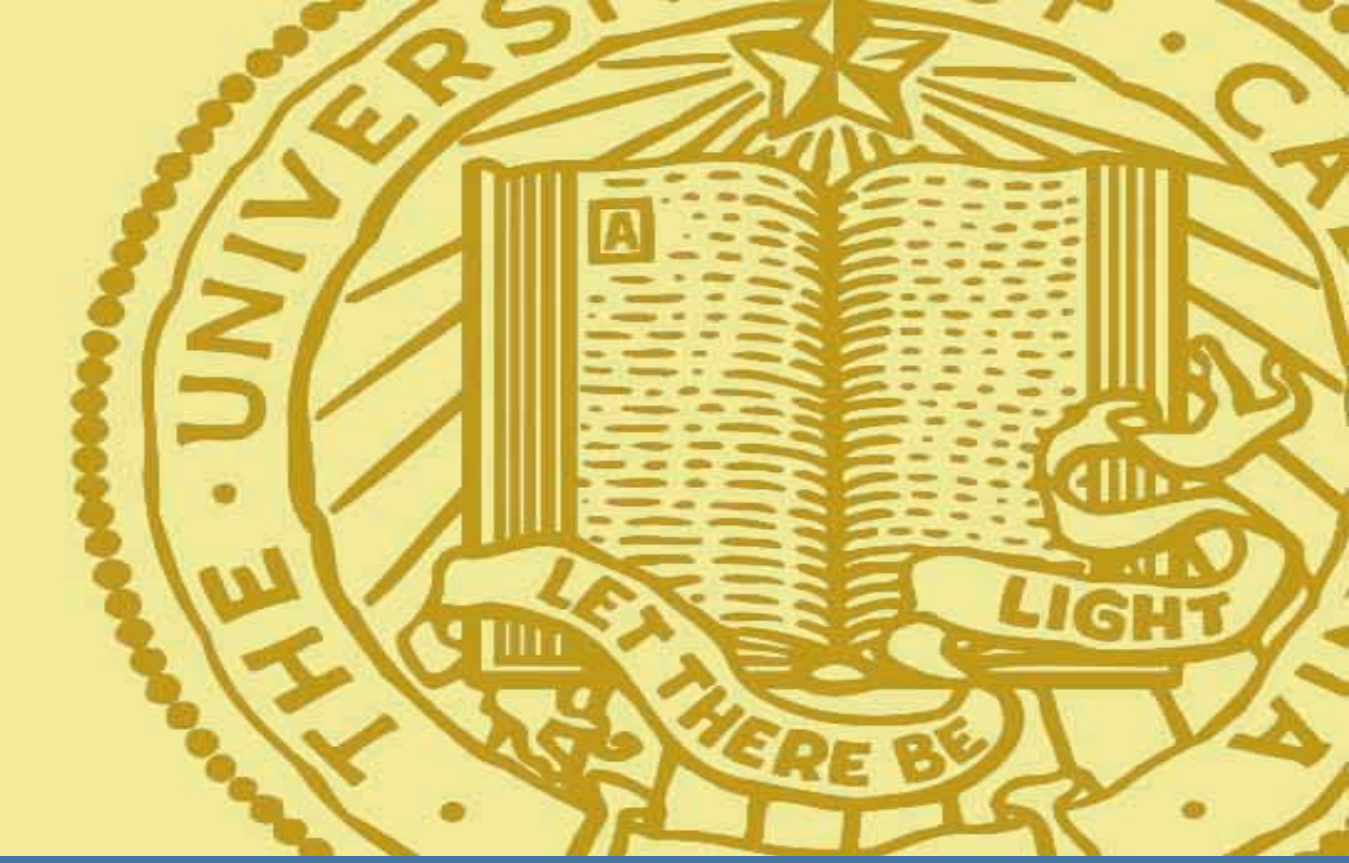
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Motivation Matters

Development of a Short Form Measure of Solitude for Adolescents and Emerging Adults



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Aims of the Study

Solitude affords adolescents and emerging adults opportunities for mood regulation (Larson, Csikszentmihalyi, & Graef, 1982), identity development (Larson, 1997), and self-reflection (Long & Averill, 2003) as they navigate the key developmental task of individuation (Grotevant & Cooper, 1998). Despite these known mental health benefits, some researchers have associated solitude with negative outcomes such as rejection and loneliness (Burger, 1995).

The purpose of this study was to develop a short form of the **Motivation for Solitude Scale (MSS)** (Nicol, 2005); Nicol's scale draws on **Self-Determination Theory** (Ryan & Deci, 2002) and distinguishes between **self-determined solitude (SDS)** (i.e., moving toward the self for creative or reflective purposes) and **not-self-determined solitude (NSDS)** (i.e., withdrawing from people because of rejection or anxiety). The MSS represents an improvement over the widely used **Preference for Solitude Scale (PSS)** (Burger, 1995) because the PSS does not differentiate between positive and negative reasons for preferring solitude. Mental health outcomes correlated with the PSS, such as loneliness, may depend on individuals' motivation for solitude.

The original MSS (Nicol, 2005) contains 56 items and was tested only on samples of emerging adults and adults; to make the scale more user-friendly and applicable to a wider age range, we tested adolescents and emerging adults to develop a short form with 14 items. We gathered three waves of data to assess the psychometric properties of our scale and its association with Nicol's (2005) and Burger's (1995) scales and the measures they used to assess the mental health correlates of solitude. Here we present the factor analysis results with final version of the short form, tested with an adolescent sample.

Method

Wave 1: We reduced the original 56 items to 22 and tested it with an ethnically and gender diverse sample of 284 college students. We eliminated items that were redundant, had factor loadings below .40, or had poor face validity. A maximum likelihood exploratory factor analysis with Oblimin rotation indicated a satisfactory two factor solution that replicated Nicol's original findings; it accounted for 42.5% of the variance (the original scale accounted for 40%). Cronbach's alpha was high (Self-determined = .84; Not-self-determined = .87), and the factors were not too correlated with each other (.164).

Wave 2: We eliminated three more items to reduce the scale further, based on these criteria: items loading too highly on both factors, low communalities, and high inter-item correlation. We tested this 19-item version with another ethnically and gender diverse sample of 266 college students. Results similar to Wave 1 were obtained with this version of the scale.

Wave 3: We eliminated five more items for this final version. Here we present findings for the short-form of 14 items, tested with an ethnically and gender diverse sample of adolescents from California and Michigan.

Participants

N = 176

14 – 18 years old

53% female

50% Latino
30% White
13% Mixed race
7% Other



Procedure

Participants completed an on-line survey that included our 14-item short-form of the Motivation for Solitude Scale and Nicol's (2005) correlation measures: Preference for Solitude Scale (Burger, 1995); UCLA Loneliness Scale (Hays & DiMatteo, 1987); and the Autonomy and Positive Relations with Others subscales of Ryff's well-being scale (Ryff & Keyes, 1995). In addition, we included the Identity subscale of the Erikson Psychosocial Stage Inventory (Rosenthal, Gurney, & Moore, 1981) and the Extraversion subscale of the Big Five Inventory (John, Naumann & Soto, 2008). Using Mplus, we performed an Exploratory Factor Analysis on these data to test a two-factor solution for a 14-item short form.

Results: Exploratory Factor Analysis with a Two-Factor Solution

Factor Loadings for Self-determined Solitude

- .73 It helps me gain insight into why I do the things I do
- .68 I value the privacy
- .67 I feel energized when I spend time by myself
- .64 I can engage in activities that really interest me
- .64 I enjoy the quiet
- .57 It sparks my creativity
- .55 Being alone helps me get in touch with my spirituality
- .52 It helps me stay in touch with my feelings

Correlations with Self-Determined Solitude

- + association with Preference for Solitude
- Not-self-determined Solitude

No association with loneliness

Factor Loadings for Not-Self-Determined Solitude

- .87 I don't feel liked when I'm with others
- .86 I feel uncomfortable when I'm with others
- .86 I feel like I don't belong when I'm with others
- .75 I can't be myself around others
- .71 I feel anxious when I'm with others
- .67 I regret things I say or do when I'm with others

Correlations with Not-Self-Determined Solitude

- + association with Preference for Solitude
- Self-determined Solitude
- Loneliness
- association with Identity
- Autonomy
- Positive Relations with Others
- Extraversion

Variable	1	2	3	4	5	6	7	8
1. Preference for Solitude Scale (PSS)	-							
2. Motivation for Solitude, Self-Determined (SDS)	.34**	-						
3. Motivation for Solitude, Not-Self-Determined (NSDS)	.21**	.27**	-					
4. Identity	-.29**	-.08	-.53**	-				
5. Autonomy	-.01	.10	-.37**	.44**	-			
6. Positive Relations with Others	-.32**	-.04	-.60**	.65**	.40**	-		
7. Extraversion	-.35**	-.03	-.25**	.39**	.16*	.41**	-	
8. Loneliness	.29**	-.08	.64**	-.62**	-.31**	-.77**	-.45**	-

N = 176
*p < .05 **p < .01

Discussion

Depending on its motivation, solitude affords positive or negative experiences. Only the not-self-determined subscale (NSDS) correlated positively with loneliness and negatively with identity development and extraversion. Similar results with Burger's Preference for Solitude Scale indicate that NSDS does not account for the more constructive and proactive dimension of solitude, which Nicol (2005) calls "Self-determined."

Our research suggests that the motivation to be alone is a key factor in whether the experience of solitude is risky or generative. Solitude is associated with poor mental health outcomes only when it is not self-determined, that is, characterized by a withdrawal from others because of anxiety, discomfort, or rejection.

Despite fears that solitude behaviors may lead to isolation and loneliness, our findings indicate that when solitude is self-determined, that is, intentionally sought for constructive purposes like reflection, emotional regulation, creativity, or insight, it is not correlated with loneliness. These findings support claims that solitude, isolation, and loneliness are distinct states, and that unsociability in childhood (Coplan & Weeks, 2010; Katz & Buchholz, 1999) and volitional solitude or an affinity for aloneness during adolescence may afford positive socio-emotional development (Larson, 1997; Marcoen & Goossens, 1993).