

<b>Citation</b>	Goossens, L., Maes, M., Danneel, S., Vanhalst, J., & Nelemans, S. A. (2017). Differential Loneliness Scale (DLS). In V. Zeigler-Hill and T. K. Shackelford (Eds.), <i>Encyclopedia of personality and individual differences</i> . New York, NY, US: Springer. doi:10.1007/978-3-319-28099-8_23-1
<b>Archived version</b>	Author manuscript: the content is identical to the content of the published paper, but without the final typesetting by the publisher
<b>Published version</b>	<a href="https://doi.org/10.1007/978-3-319-28099-8_23-1">doi:10.1007/978-3-319-28099-8_23-1</a>
<b>Author contact</b>	<a href="http://www.marliesmaes.com">www.marliesmaes.com</a>

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**Authors:** Luc Goossens, Marlies Maes, Sofie Danneel, Janne Vanhalst, & Stefanie A.

Nelemans

Department of School Psychology and Development in Context, KU Leuven - University of

Leuven, Tiensestraat 102, Box 3715, 3000 Leuven, Belgium, E-mail:

Luc.Goossens@kuleuven.be

### **Title of Entry**

Differential Loneliness Scale

### **Synonym**

DLS

### **Definition**

The term “loneliness” refers to the negative feelings that emerge when people experience their social relationships as deficient (Perlman & Peplau, 1981). The Differential Loneliness Scale (DLS; Schmidt & Sermat, 1983), which is only used as a research instrument, comprises 60 items, which are answered “true” or “false”. The scale measures loneliness in four kinds of relationships, that is, friendships, relationships with family members, romantic-sexual relationships, and relationships with larger groups or the community.

### **Theoretical Background**

There are two approaches to the study of loneliness, the unidimensional one and the multidimensional one. The unidimensional view implies that loneliness can best be captured by a single score that reflects the degree of loneliness that a person experiences in his or her network of social relationships as a whole. The multidimensional view implies that loneliness can be experienced to a different degree in different relationships or, somewhat broader, in different contexts (Russell, 1982). Some people feel lonely in their relationships with their friends, but experience virtually no loneliness in their relationships with family members. For others, the reverse is the case. Loneliness scales that are inspired by the multidimensional

approach comprise several subscales that each yield an estimate of loneliness in a different type of relationship. The DLS is one of these instruments.

### **Description**

None of the DLS items contains the word “lonely” or “loneliness”, but they refer to the lack of social provisions, such as social support, respect or intimacy. It is assumed that lacking those provisions in one’s relationships can lead to loneliness. The measure includes both positive items (that assess whether a particular provision is being offered and are reverse coded) and negative items (that assess whether a specific provision is not being offered). Each item also refers to one of four types of relationships, that is, relationships with friends, family members, romantic-sexual partners, and large groups or communities. From an initial larger pool of items, those 60 items were selected that showed the lowest positive correlation with depression and anxiety and the lowest negative correlation with self-esteem and socially desirable responding (Schmidt & Sermat, 1983). Sample items are “Most of my friends understand my motives and reasoning” (reverse coded; Friends), “Members of my family give me the kind of support that I need” (reverse coded; Family), “I seldom get the emotional security I need from a romantic or sexual relationship” (Romantic-sexual), and “No one in the community where I live cares much about me” (Groups).

The instrument is available in two versions. In the adult version, there are 22 items regarding friendships, 18 items regarding family relationships, 12 regarding romantic-sexual relationships, and 8 items regarding relationships with groups or communities. The version for college students also has 60 items, that is, 15 items per subscale. This version, however, had been used rarely. A brief version with 20 items in all, that is, 5 items per subscale, has also been developed and has been used in several studies. In this review, the findings for the 60-item adult version are reported, unless indicated otherwise.

The instrument was developed in English in Canada (Schmidt & Sermat, 1983) and has been used in the United States (e.g., Newcomb & Bentler, 1987). It has further been translated into several languages, including Dutch (Goossens et al., 2009) and German (Keller & Lamm, 1998).

### **Internal Structure**

All of the correlations among the four subscales are significant, with average  $r = .26$  (Keller & Lamm, 1998) or  $r = .37$  (Schmidt & Sermat, 1983), but according to the scale developers they are not so high as to preclude the individual usefulness of the subscales. In line with the unidimensional approach, the developers also proposed a total score for the DLS across all 60 items.

Exploratory factor analysis with varimax rotation on a sample of adults yielded a four-factor structure but it did not support the expected composition of the instrument. A family factor, a romantic-sexual factor, and two friend factors were obtained (Schmidt & Sermat, 1983). The expected four-factor structure also failed to receive empirical support in another exploratory factor analysis on college students. Three factors were found: A family factor, a romantic-sexual factor, and a factor on which both the friend and group or community items loaded (Keller & Lamm, 1998). So a separate group or community factor failed to emerge in both analyses. Confirmatory factor analysis has not been conducted on the DLS.

### **Psychometric Properties - Subscales**

Estimates of internal consistency are acceptable to good (i.e., typically between .70 and .90) for the four subscales (Keller & Lamm, 1998; Schmidt & Sermat, 1983). Information on test-retest reliability is not available.

Construct validity of the four subscales has been firmly established. The family, friends, and romantic-sexual subscales correlated substantially with their respective counterparts in the Social and Emotional Loneliness Scale for Adults (SELSA; diTommaso & Spinner, 1993)

with  $r$ s ranging between .77 and .88 (Cramer & Berry, 1999). Similar findings were obtained with the brief versions of the friends and family subscales (Goossens et al., 2009).

Convergent validity was clearly demonstrated for the DLS subscales. Significant negative associations with perceived friend support and perceived family support were found for the brief versions of the friends and family subscales, respectively (Newcomb & Bentler, 1987).

Loneliness in relationships with friends during the first year in college showed a positive correlation with students' longing for older friendships that predated the college period (Paul & Brier, 2001). Significant negative associations were also found with perceived partner support and relationship satisfaction (e.g., Newcomb, 1994) for both the full and the brief versions of the romantic-sexual subscale, and with membership of community organizations and satisfaction with such organizations for the brief version of the group or community subscale (Newcomb, 1990).

### **Psychometric Properties – Total Score**

Estimates of internal consistency for the total DLS are excellent (i.e.,  $> .90$ ; Keller & Lamm, 1998; Schmidt & Sermat, 1983). Information on test-retest reliability is not available.

The total score shows a fair degree of construct validity. The score correlated substantially with a single-item self-report measure of loneliness ( $r = .40$  to  $.60$ ; Schmidt & Sermat, 1983) and with the unidimensional UCLA Loneliness Scale ( $r = .70$ ; Russell, 1996). Good convergent validity was demonstrated through significant correlations with related constructs.

These include positive associations with communication anxiety and social anxiety and negative associations with self-esteem, self-disclosure, perspective taking, and social skills knowledge (e.g., Bruch, Kaflowitz, & Pearl, 1988).

### **Global Evaluation**

Opinions on the utility of the DLS tend to differ. An extensive review of extant measures of loneliness (Shaver & Brennan, 1991) concluded that the scale probably measures social

deficits or unmet social needs rather than loneliness per se. At the same time, the instrument has considerable merit, because of the unusual breadth of its underlying concept of social needs, its intent to differentiate between different types of loneliness as experienced in different relationships, and its attempt to distinguish loneliness optimally from anxiety, depression, and low self-esteem. Another review (Marangoni & Ickes, 1989) did acknowledge these unique features of the measure, but saw the lack of a clear factor structure, and the authors' failure to use confirmatory factor analysis during scale development in particular, as a major flaw that seriously limits its overall utility. As a result of this criticism, the measure seems to have fallen into disuse.

### **Conclusion**

Two subscales of the DLS, that is, the ones that measure loneliness in relationships with family members and romantic-sexual partners, can be put to good use in empirical research on loneliness. Caution is in order when using the other two subscales that measure loneliness in the relationship with friends and with larger groups, because these two types of loneliness cannot be easily distinguished from one another. The total DLS score is highly reliable and has shown substantial construct validity, but the scale looks excessively long compared to other unidimensional loneliness scales that are used more commonly.

### **Cross References**

Self-esteem

UCLA Loneliness Scale

Social and Emotional Loneliness Scale for Adults

Convergent validity

Internal consistency

Test-retest reliability

Construct validity

Varimax rotation

Multidimensional personality assessment

Unidimensional personality assessment

### **References**

- Bruch, M. A., Kaflowitz, N. G., & Pearl, L. (1988). Mediated and non-mediated relationships of personality components to loneliness. *Journal of Social and Clinical Psychology, 6*, 346-355. doi:10.1521/jscp.1988.6.3-4.346
- Cramer, K. M., & Barry, J. E. (1999). Conceptualizations and measures of loneliness: A comparison of subscales. *Personality and Individual Differences, 27*, 491-502. doi: 10.1016/S0191-8869(98)00257-8
- diTommaso, E., & Spinner, B. (1993). The development and initial validation of the Social and Emotional Loneliness Scale for Adults (SELSA). *Personality and Individual Differences, 14*, 127-134. doi:10.1016/0191-8869(93)90182-3
- Goossens, L., Lasgaard, M., Luyckx, K., Vanhalst, J., Mathias, S., & Masy, E. (2009). Loneliness and solitude in adolescence: A confirmatory factor analysis of alternative models. *Personality and Individual Differences, 47*, 890-894. doi:10.1016/j.paid.2009.07.011
- Keller, K., & Lamm, H. (1998). Beziehungsspezifische Einsamkeit: Reliabilität und Validität der ins Deutsch übertragenen Differential Loneliness Scale von Schmidt und Sermat (1983) [Loneliness in different relationships: Reliability and validity of the German version of Schmidt and Sermat's (1983) Differential Loneliness Scale]. *Zeitschrift für Sozialpsychologie, 29*, 51-55.
- Marangoni, C., & Ickes, C. W. (1989). Loneliness: A theoretical review with implications for measurement. *Journal of Social and Personal Relationships, 6*, 93-128. doi:10.1177/026540758900600107
- Newcomb, M. D. (1990). Social support by many other names: Toward a unified conceptualization. *Journal of Social and Personal Relationships, 7*, 479-494. doi:10.1177/0265407590074005

- Newcomb, M. D. (1994). Drug use and intimate relationships among women and men: Separating specific from general effects in prospective data using structural equation models. *Journal of Consulting and Clinical Psychology, 62*, 463-476. doi:10.1037/0022-006X.62.3.463
- Newcomb, M. D., & Bentler, P. M. (1987). Loneliness and social support: A confirmatory hierarchical analysis. *Personality and Social Psychology Bulletin, 12*, 520-535. doi:10.1177/0146167286124015
- Paul, E. L., & Brier, S. (2001). Friendsickness in the transition to college: Precollege predictors and college adjustment correlates. *Journal of Counseling and Development, 79*, 77-89. doi:10.1002/j.1556-6676.2001.tb01946.x
- Perlman, D., & Peplau, L. A. (1981). Toward a social psychology of loneliness. In R. Gilmour & S. Duck (Eds.), *Personal relationships: 3. Relationships in disorder* (pp. 31-56). London, UK: Academic Press.
- Russell, D. (1982). The measurement of loneliness. In L. A. Peplau & Perlman, D. (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy* (pp. 81-104). New York, NY: Wiley.
- Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*, 20-40. doi:10.1207/s15327752jpa6601\_2
- Schmidt, N., & Sermat, V. (1983). Measuring loneliness in different relationships. *Journal of Personality and Social Psychology, 44*, 1038-1047. doi:10.1037/0022-3514.44.5.1038
- Shaver, P. R., & Brennan, K. A. (1991). Measures of depression and loneliness. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 195-289). San Diego, CA: Academic Press.

