

Original Research  
**Lay Theories of Suicide in Turkish and American Students**

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**Abstract:** The purpose of this study was to compare the lay theories of suicide held by Turkish and American respondents. Measures of attitudes toward suicide and of personality variables were administered to 330 Turkish undergraduates and 419 American undergraduates. Turkish students saw interpersonal factors as less important and societal factors as more important in causing suicide as compared to the American students, and they also reported more stigma toward attempted suicides. Personality correlates of these attitudes were similar in the two groups. The similarities between the two groups of respondents in their theories of suicide outweighed the differences.

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In recent years, several studies have explored lay, as opposed to scholarly, theories of behavior, such as lay theories of schizophrenia (Furnham & Bower, 1992) and suicide (Knight, et al., 2000). These studies typically entail giving an inventory consisting of a variety of statements about the behavior of interest, and so they resemble inventories devised to measure attitudes toward suicide.

There have been several scales devised to measure attitudes toward suicide (e.g., Diekstra & Kerkhof, 1989; Domino & Perrone, 1993) and scales to measure myths about suicide (e.g., McIntosh, et al., 1985). However, none of these scales were devised with any particular theoretical model in mind, and efforts to see if meaningful scales can be devised from these inventories have proved fruitless (e.g., Anderson, et al., 2008).

In contrast, Lester and Bean (1992) proposed that the causes of suicide could be attributed to intrapsychic factors (such as depression), interpersonal factors (such as the break-up of a romantic relationship) or social factors (such as oppression on the basis of race or religion). More recently, Voracek, et al. (2007) have devised a scale to measure the degree to which respondents believe

that there is a genetic basis for suicide. These scales provide a more useful way of assessing lay theories of suicide than more general inventories measuring attitudes toward suicide.

The present study used the Lester and Bean (1992) scale to explore the way in which respondents weigh the different factors that are possibly implicated in causing suicide (intrapsychic, interpersonal and social). Using this scale, Walker, Lester and Joe (2006) found that African American students saw interpersonal problems as less important in causing suicide than did European American students. On other scales, the two groups did not differ in the stigma they felt toward attempted suicides, but they did differ in their responses to an inventory that measured beliefs about who "owns" one's life. African American students gave God more importance in this regard and one's self and the state less importance.

Voracek, Loibl and Lester (2007) gave a German translation of the scale to Austrian students and found that scores on all three subscales were positively associated with one another, indicating that the critical dimension is a belief that suicide has definite causes regardless of the type of cause. Voracek, et al. found that religiosity and political views were associated with these beliefs. For example, religiosity was positively associated with the belief in intrapsychic causes, while liberal political views were negatively associated with a belief in interpersonal causes.

In further studies of the scale, Loibl and Voracek (2007) found that the Lester and Bean scale

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had moderate internal consistency and the factor pattern matched the content of the scales. Scores on all three subscales were again positively associated, but were unrelated to sex, intelligence, knowledge about suicide, personality traits and social desirability. Endorsing intrapsychic causes for suicide was associated with an older age, religiosity, a conservative political orientation and belief in an internal locus of control. Loibl, Tran, Hirner and Voracek (2008) found moderate test-retest reliabilities for the scales, and they replicated the association of a belief in intrapsychic causes for suicide with belief in an internal locus of control.

Lay theories of suicide may vary greatly from culture to culture. Several studies have noted that culture affects how people perceive mental illness and how they respond to individuals with mental illness (Leff, 1988). In Asian cultures, mental illness is often hidden since it affects the family's reputation and status (Furnham & Muraio, 1999). Furnham and Chan (2004) found that Chinese respondents in Hong Kong favored social explanations of schizophrenia as compared to British respondents.

The present study explored lay theories of suicide in two very different nations, the United States (a mainly Christian culture) and Turkey (a mainly Muslim culture) in order to explore whether the differences in nationality/ethnicity played a role in lay theories of suicide.

## Method

### Subjects

The samples were convenience samples chosen because of the affiliations of the authors. In Turkey, 330 undergraduate students were recruited from five universities: Middle East Technical University, Hacettepe University, Ankara University, Gazi University and Süleyman Demirel University. There were 163 females and 167 males with a mean age of 20.8 years (standard deviation = 1.6). In the United States, 419 undergraduate students were recruited from two universities: The Richard Stockton College of New Jersey and the University of South Carolina. There were 316 females and 103 males with a mean age of 21.2 years (standard deviation = 4.0).

### Questionnaire

The questionnaires, given anonymously and presented in Turkish for the Turkish students and in English for the American students, contained the following scales:

(1) A questionnaire devised by Lester and Bean (1992) to measure the extent to which respondents assign intrapsychic, interpersonal or societal causes to suicide. Each subscale has six items answered on Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). Scores on

each subscale range from 6 to 36. Cronbach alphas for the Turkish sample were, respectively, 0.51, 0.50 and 0.51 and for the American sample 0.56, 0.41 and 0.55.

(2) A social distance scale devised by Lester (1988) to measure the stigma associated with dying people which was adapted to measure the stigma felt toward attempted suicides. This was based on conventional social distance scales (e.g., Kalish 1966) and consisted of 8 items asking such questions as, "Would you buy a house next to this person," answered Yes/No. Scores range from 0 to 8. Cronbach alpha for the Turkish sample was 0.75 and for the American sample 0.85.

In addition, a number of scales were given as possible correlates of attitudes toward suicide assessed by the two scales mentioned above.

(3) The Beck Hopelessness Scale (Beck, et al, 1974), a 20-item scale answered using a true/false format. This scale has excellent reliability and validity, and it has been used in hundreds of studies and consistently found to be a strong correlate of current suicidal ideation, recent suicide attempts and future suicidal actions both nonlethal and lethal (Reinecke & Franklin-Scott, 2005). Scores range from 0 to 20. Cronbach alpha for the Turkish sample was 0.85 and for the American sample 0.80.

(4) A manic-depressive experience scale (Thalbourne, et al., 1994), with 9 items to measure depression and 9 items to measure mania, answered using a true/false format. These two scales have shown good reliability and good validity (Lester, 2000). Scores on each subscale range from 0 to 9. The Cronbach alphas for the Turkish sample were 0.32 for mania and 0.55 for depression, and for the American sample 0.42 and 0.64, respectively

(5) The Reynolds (1987) Suicide Ideation Questionnaire, with 30 items answered on a seven-point scale ranging from 1 (I never had this thought) to 7 (almost every day). Scores range from 0 to 180. Cronbach alpha for the Turkish sample was 0.92 and for the American sample 0.95.

(6) A questionnaire devised by Ross and Kaplan (1993-1994) to measure whether the respondent believes that life belongs to the individual, to God or to the state. Each subscale has 7 items answered on a scale from 1 (disagree) to 5 (agree). Scores on each subscale range from 7 to 35. Cronbach alphas for the Turkish sample were, respectively, 0.57, 0.86 and 0.64 and for the American sample 0.77, 0.90 and 0.63.

(7) A questionnaire devised by Gorsuch and McPherson (1989) to measure the religiosity of respondents and distinguishing whether their religiosity was motivated by intrinsic motives (e.g., "It is important for me to spend time in private thought and prayer") or extrinsic motives (I go to church mostly to spend time with my friends"). The items are answered on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Scores on the 8-item intrinsic subscale range from 8 to 40 and on

**Table 1: Mean scores for the Turkish and American students.**

Variable	Turkish students	American students	t	two-tailed p
	N=330	N=419		
	Mean (SD)	Mean (SD)		
Stigma for attempters	2.29 (2.14)	1.86 (1.83)	2.96	< .01
<i>Causes of suicide:</i>				
Intrapsychic	24.13 (4.84)	23.59 (4.26)	1.62	ns
Interpersonal	20.24 (4.63)	21.43 (3.66)	3.91	< .001
Societal	22.55 (4.38)	21.15 (3.97)	4.55	< .001

the 6-item extrinsic subscale from 6 to 30. Cronbach alphas for the Turkish sample for the intrinsic and extrinsic subscales were 0.79 and 0.66, respectively and for the American sample 0.84 and 0.79.

The Turkish translations of the scales were back-translated and checked for accuracy in conveying the meaning of the items. The study was approved by the institutional review boards.

### Results

The Turkish and American respondents differed significantly in their attitudes toward suicide (see Table 1). The Turkish respondents displayed greater stigma toward an attempted suicide than the American respondents – 2.3 versus 1.9 on a scale ranging from 0 to 8 (see Table 1).

With respect to the causes of suicide, Turkish and American respondents did not differ in the extent to which they saw intrapsychic factors as causes of suicide, but the Turkish respondents saw interpersonal factors as somewhat less important and societal factors as somewhat more important as causes of suicide than did the American respondents.

#### *The Causes of Suicide*

Interestingly, in both groups, scores for the three causes of suicide (intrapsychic, interpersonal and societal) were positively, but weakly, associated (see Table 2). For the Turkish respondents, the correlations were 0.37, 0.32 and 0.50 and for the American respondents 0.38, 0.40 and 0.47 (two-tailed  $p < .001$ ).

For the Turkish respondents, the correlations between stigmatising attempted suicides and a belief that suicide was caused by intrapsychic and interpersonal factors were positive ( $r_s = 0.23$  and  $0.17$ , respectively). Similarly, for the American respondents the correlations between stigmatising attempted suicides and a belief that suicide was caused by intrapsychic, interpersonal and societal causes were all positive ( $r_s = 0.29$ ,  $0.25$  and  $0.12$ , respectively).

#### *Correlates of Stigmatising Attempted Suicide*

Kalish (1966) and Lester (1992-1993) found that the stigma reported toward attempted

suicides by American students on a social distance scale was greater than that reported toward ethnic and religious groups (such as African Americans and Jewish individuals). Neither of those studies sought to identify correlates of this stigma.

For the Turkish respondents, stigmatising attempted suicides was positively associated with hopelessness ( $r = 0.16$ ,  $p < .01$ ), suicidal ideation ( $r = 0.11$ ,  $p < .05$ ), intrinsic and extrinsic religiosity ( $r_s = 0.25$  and  $0.33$ ,  $p < .001$ ), and a belief that one's life belongs to God and to the state ( $r_s = 0.25$  and  $0.20$ ,  $p < .001$ ), and negatively with depression ( $r = -0.18$ ,  $p < .01$ ) and a belief that one's life belongs to oneself ( $r = -0.17$ ,  $p < .01$ ).

For the American respondents, stigmatising attempted suicides was not associated with intrinsic or extrinsic religiosity. The association with depression was negative ( $r = -0.16$ ,  $p < .001$ ), as were the associations between stigma and hopelessness and suicidal ideation ( $r_s = -0.12$  and  $-0.20$ ,  $p < .05$  and  $.001$ , respectively). Belief that one's life belongs to God was positively associated with stigma ( $r = 0.16$ ,  $p < .001$ ) and negatively with a belief that one's life belongs to oneself ( $r = -0.11$ ,  $p < .05$ ).

#### *Correlates of Endorsement of Causal Factors*

The patterns of associations between personality variables and beliefs about the causes of suicide showed some similarities. In both Turkish and American students, religiosity scores were positively associated with a belief in intrapsychic causes while depression scores were negatively associated with a belief in intrapsychic causes. Belief that one's life belongs to the state was positively associated in both samples with a belief in interpersonal and in societal causes, while a belief that one's life belongs to oneself was associated a belief in societal causes.

### Discussion

This comparison of Turkish and American students revealed only slight differences in the beliefs about causal factors for suicide. Turkish students viewed societal factors as more important and interpersonal factors as less important than the American students. The Turkish students did stigmatise attempted suicides more than did the American students.

Table 2: Correlates of attitudes and beliefs about suicide

	Stigma	Intrapsychic causes	Interpersonal causes	Societal causes
<b>Turkish Students</b>				
Age	-0.08	0.02	0.02	0.09
Sex	0.08	0.13 *	0.08	-0.11
Hopelessness	0.16 **	-0.09	0.19 ***	0.05
Suicidal ideation	0.11 *	-0.08	0.08	-0.02
Manic tendencies	-0.09	-0.08	-0.03	0.03
Depressive tendencies	-0.18 **	-0.17	0.08	0.12 *
Intrinsic religiosity	0.25 ***	0.30 ***	0.12 *	0.01
Extrinsic religiosity	0.33 ***	0.34 ***	0.25 ***	0.11
Ownership of life:				
God	0.25 ***	0.38 ***	0.13 *	0.01
The individual	-0.17 **	-0.06	0.12 *	0.19 ***
The state	0.20 ***	0.16 **	0.35 ***	0.24 ***
Stigma	-	0.23 ***	0.17 **	-0.02
Intrapsychic causes	-	-	0.37 ***	0.32 ***
Interpersonal causes	-	-	-	0.50 ***
<b>American Students</b>				
Age	0.02	-0.05	-0.12	-0.14 **
Sex	-0.04	-0.01	0.11 *	0.01
Hopelessness	-0.12 *	-0.14 **	-0.05	0.03
Suicidal ideation	-0.20 ***	-0.14 **	-0.01	0.07
Manic tendencies	-0.06	0.01	0.12 *	0.14 **
Depressive tendencies	-0.16 ***	-0.10 *	-0.01	0.09
Intrinsic religiosity	0.06	0.14 **	0.02	-0.08
Extrinsic religiosity	0.08	0.21 ***	0.04	0.06
Ownership of life:				
God	0.16 ***	0.28 ***	0.08	0.00
The individual	-0.11 *	-0.10	0.01	0.10 *
The state	-0.03	0.08	0.17 ***	0.17 ***
Stigma	-	0.29 ***	0.15 **	0.12
Intrapsychic causes	-	-	0.38 ***	0.40 ***
Interpersonal causes	-	-	-	0.47 ***

\* two-tailed  $p < .05$ ; \*\* two-tailed  $p < .01$ ; \*\*\* two-tailed  $p < .001$

However, the two groups showed similar patterns of response to the measures. For both samples, belief in one cause for suicide was associated with belief in the other causes, and belief in the causes was associated with less stigma toward those who attempt suicide. In both samples, the more religious students showed less stigma toward attempted suicides, while the more depressed students showed more stigma. The results of this study suggest,

therefore, that the similarities in views about suicide of Turkish and American students and their correlates outweigh the differences.

The fact that scores on all three subscales of the Lester and Bean scale were positively associated in both Turkish and American students indicates that the concerns of psychologists about the causation of suicide are largely irrelevant to lay people. Whereas psychologists debate the contributions of nature

(genes) and nurture (experiences), and the relative contribution of different kinds of experience, lay people seem to be concerned with whether suicide is understandable and predictable or not, a much more holistic concern. This result replicates the finding of Voracek, Loibl and Lester (2007) in a sample of Austrian students, and suggests that scales need to be devised that assess lay attitudes and theories about suicide that are more relevant to lay concerns.

The study does have some limitations. As is the case for much psychological research, the samples were composed of undergraduate students, and the beliefs and attitudes of this population may differ considerably from those of less educated respondents. The Cronbach reliabilities for some of the scales were rather low, especially the Lester and Bean questionnaire, the manic-depression scale, and the ownership of life scale. It would be preferable in future research to use more reliable scales. Third, the American sample had more women than men and, although sex did not correlate with most of the measures, future research should endeavor to obtain a more balanced sex distribution.

Although the students came from two countries that have different compositions by religion, the religious affiliation of the students was not asked. Although we can assume that the study compared Muslim and Christian students, the presentation of this study has been phrased in terms of comparing Turkish and American students. Future research should explore more carefully the role of religious affiliation on lay theories of suicide and psychiatric disorders and, in addition, take into account the particular sect within the major religion. For example, in Muslim cultures, Shi'ites and Sunnis may have different beliefs while, in Christian cultures, Catholics and Protestants (as well as the different sects within the Protestant group) may have different beliefs. However, this study is rare in comparing lay theories and attitudes toward suicide in two countries, thereby examining the generality of the associations, and it is hoped that the study stimulates further research in this interesting area.

Turkey and the United States differ in many social and cultural ways. For example, it may be that they differ along the dimension of individualism/collectivism. Future research might also focus on ways in which cultures differ and choose a sample of nations that differ on these dimensions in order to explore how these dimensions affect attitudes toward suicide and correlates among the attitudes.

## References

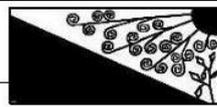
- Anderson, A. L., Lester, D., & Rogers, J. R. (2008). A psychometric investigation of the Suicide Opinion Questionnaire. *Death Studies*, 32, 924-936.
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism. *Journal of Clinical & Consulting Psychology*, 42, 861-865.
- Diekstra, R. F. W., & Kerkhof, A. J. F. M. (1989). Attitudes toward suicide. In R. F. W. Diekstra, R. Maris, S. Platt, A. Schmidtke & G. Sonneck (Eds.) *Suicide and its prevention*. pp. 91-107. Leiden: E. J. Brill.
- Domino, G., & Perrone, L. (1993). Attitudes toward suicide. *Omega*, 27, 195-206.
- Furnham, A. F., & Bower, P. (1992). A comparison between academic and lay theories of schizophrenia. *British Journal of Psychiatry*, 161, 201-210.
- Furnham, A. F., & Chan, E. (2004). Lay theories of schizophrenia. *Social Psychiatry & Psychiatric Epidemiology*, 39, 543-552.
- Furnham, A. F., & Muraio, M. (1999). A cross-cultural comparison of British and Japanese lay theories of schizophrenia. *International journal of social Psychiatry*, 46, 4-20.
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement. *Journal for the Scientific Study of Religion*, 28, 348-354.
- Kalish, R. A. (1966). Social distance and dying. *Community Mental Health Journal*, 2, 152-155.
- Knight, M. T. D., Furnham, A. F., & Lester, D. (2000). Lay theories of suicide. *Personality & Individual Differences*, 29, 453-457.
- Leff, J. (1988). *Psychiatry around the globe*. London: Gaskell.
- Lester, D. (1988). Prejudice toward AIDS patients versus other terminally ill patients. *American Journal of Public Health*, 78, 854.
- Lester, D. (1992-1993). The stigma against dying and suicidal patients: a replication of Richard Kalish's study twenty-five years later. *Omega*, 26, 71-75.
- Lester, D., & Bean, J. (1992). Attribution of causes to suicide. *Journal of Social Psychology*, 132, 679-680.
- Lester, D. (2000). Manic-depressiveness scale. In J. Maltby, C. A. Lewis & A. P. Hill (Eds.). *Commissioned reviews of 300 psychological tests* (pp. 594-597). Lampeter, Wales: Edwin Mellen Press.
- Loibl, L. M., Tran, U. S., Hirner, A., & Voracek, M. (2008). Lay theories of suicide: test-retest reliability and further validation of Lester and Bean's attribution of causes to suicide. *Psychiatria Danubina*, 20(1), 26-30.
- Loibl, L. M., & Voracek, M. (2007). Psychometric properties and correlates of the Lester-Bean Attribution of Causes to Suicide Scale (German form). *Psychological Reports*, 101, 47-52.

- McIntosh, J. L., Hubbard, R. Q., & Santos, J. F. (1985). Suicide facts and myths. *Death Studies*, 9, 267-281.
- Reinecke, M. A., & Franklin-Scott, R. L. (2005). Assessment of suicide. In R. I Yufit & D. Lester (Eds.), *Assessment, treatment, and prevention of suicidal behavior* (pp. 29-61). Hoboken, NJ: John Wiley & Sons.
- Reynolds, W. M. (1987) *SIQ Form HS*. Odessa, FL: Psychological Assessment Resources.
- Ross, L. T., & Kaplan, K. J. (1993-1994) Life ownership orientation and attitudes toward abortion, suicide, doctor-assisted suicide, and capital punishment. *Omega*, 28, 17-30.
- Thalbourne, M. A., Delin, P. S., & Bassett, D. L. (1994) An attempt to construct short scales measuring manic-depressive-like experience and behaviour. *British Journal of Clinical Psychology*, 33, 205-207.
- Walker, R. L., Lester, D., & Joe, S. (2006). Lay theories of suicide. *Journal of Black Psychology*, 32, 320-334.
- Voracek, M., Egle, J., Schleicher, S., Loibl, L. M., & Sonneck, G. (2007). The Beliefs in the Inheritance of Risk Factors for Suicide Scale (BIRFSS): further results on demographic correlates, dimensionality, reliability, and validity. *Omega*, 55, 279-296.
- Voracek, M., Loibl, L. M., & Lester, D. (2007). Lay theories of suicide among Austrian psychology undergraduates. *Crisis*, 28, 204-206.

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