

# Locus of Control and Psychological Well-Being: Separating the Measurement of Internal and External Constructs -- A Pilot Study

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Locus of Control and Psychological Well-Being:  
Separating the Measurement of Internal and External Constructs --  
A Pilot Study

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### Abstract

When measuring the relationship between locus of control (LOC) and psychological well-being, internal and external locus of control have been bound within a single construct. In this pilot study, it was hypothesized that internal and external locus of control would each predict unique variance in psychological well-being. University students ( $n = 577$ ) took part in a self-report survey through an online data-collection system. Using simultaneous linear regression analyses, results showed that external LOC predicted unique variance in self-esteem, depression, and stress. Internal LOC was found to have no unique association with psychological well-being. This implies that internal and external LOC should be measured as two separate constructs, and that external LOC is the main factor in predicting well-being.

Keywords: locus of control, psychological well-being, stress, depression, self-esteem, constructs

### Locus of Control and Psychological Well-Being:

#### Separating the Measurement of Internal and External Constructs – A Pilot Study

The factors of self-esteem, stress, and depression which make up psychological well-being have been the focus of numerous studies and polls, as more of the human population tries to adapt to post-modern life. Recent polling by the American Psychological Association in 2010 reveals that stress for many Americans continues to center around money, their work, and the overall economy (Anderson, 2010). Developed as a social theory by Rotter (1966), events in life, such as shifts in the economy and employment, are viewed through a prism; a set of beliefs about who or what pulls the levers and enacts change. The scientific community refers to this phenomenon as locus of control, and it could carry promise in explaining variances in psychological well-being (Garber & Seligman, 1980). The most popular measure of locus of control depends on a single-dimension construct to explain variance, yet many studies following Rotter's initial conclusions find it insufficient, predicting a multidimensional structure could offer better measurement (Parkes, 1985). The purpose of this study is to examine locus of control as two separate constructs, internal and external locus of control, and observe the two constructs' individual effects to psychological well-being.

Locus of control refers to whether one believes that the outcome of an event is decided by one's own actions or by chance (Rotter, 1966). One who believes an outcome is decided by his or her own actions is described to be someone high in internal locus of control. An individual that attributes the outcome more to chance would be considered high in external locus of control.

Efforts to measure locus of control stem from the work of J.B. Rotter, with the creation of the *Rotter Locus of Control Scale*. Through this scale, the participant is given two viewpoints from which to choose, and of those viewpoints, one gives credit towards the self, or internal

locus of control, the other crediting outside forces, or external locus of control (Rotter, 1966).

Per Rotter's instructions, a score is tallied across a single continuum, with a high score indicating high external locus of control, and a low score suggesting higher internal locus of control.

After several studies expressed dissatisfaction with the Rotter's popular unidimensional model, a study measuring the goodness-of-fit of six factors extracted from the original scale was created. Using the 'very simple structure' index technique, it was determined that a two-factor orthogonal analysis provided the best measure, suggesting that a single measure of locus of control over a single continuum, as presented by Rotter, does not offer the best assessment of the construct (Parkes, 1985).

The two strongest factors identified by Parkes' study were personal level reflection of control, with an emphasis on hard work and ability, and an emphasis on the external viewpoint of luck and chance. These two factors correspond to internal and external locus of control respectively, thus concluding that an effective measurement of locus of control requires separate constructs.

Past studies have consistently found that locus of control is associated with psychological well-being, but the conclusions were all based upon Rotter's unidimensional definition. Such studies include Garber (1980) who concluded that indicators of good psychological well-being came from participants reporting lower indices of stress and depression, linking it to high internal locus of control. Grob (2000) reported that stress is often the result of feeling powerless in a given situation, which suggests it is linked to having an external locus of control. According to Emmons and Diener (1989), individuals who are low in self-esteem are more likely to believe outcomes are not under their own influence and control, and Emmons (1986) concluded that different variables influence well-being if they affect a person's ability to achieve his or her

goals. In an interesting divergence theory cross-cultural study, more individualistic cultures were shown to have high subjective well-being, attributing it to high internal locus of control (Stocks, 2012). Klonowicz (2001), in trying to measure locus of control as a determinant of subjective well-being made similar conclusions, concluding that high internal locus of control relates to more positive affect. These studies suggest that internal and external locus of control each have a unique relationship to psychological well-being.

It stands to reason, then, that the current locus of control equation by Rotter cannot sufficiently explain variance in psychological well-being. This is the first study to examine how internal and external locus of control each contributes to psychological well-being. It is hypothesized that internal locus of control will positively predict unique variance in self-esteem and negatively predict unique variance in depression and stress when controlling for external locus of control. Secondly, it is hypothesized that external locus of control will negatively predict unique variance in esteem and positively predict unique variance in stress and depression when controlling for internal locus of control.

## **Method**

### **Participants and Procedure**

Participants were 577 undergraduate psychology students from a public southeastern university in the United States. Of the 577 students, 170 were male, 407 female. Ages ranged from 17 to 59 years old, with 92.7% of participants identifying as Caucasian. All participants agreed to take part in the study in exchange for credit towards course completion. Through an online data-collection system, students were able to sign up, receive, and give informed consent before taking part in the study. Participants were then given and completed survey questions, read a debriefing statement, and logged out of the data-collection system.

## Measures

**Locus of Control.** In order to assess internal and external locus of control as separate constructs, the measure was divided into separate statements, which participants rated using a Likert scale, as opposed to the original either-or format. Participants answered fourteen items from the Rotter (1966) Locus of Control Scale. Twelve of the fourteen items concerned locus of control, six internal and six external. The remaining two items were filler questions. Separate scores were recorded for internal ( $\alpha = .57$ ) and external locus of control ( $\alpha = .64$ ). An example of an item is, "Many times I feel that I have little influence over things that happen to me." Participants rated the items using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*).

**Self-Esteem.** The Rosenberg Self-Esteem scale (RSES; Rosenberg, 1965;  $\alpha = .88$ ) measures global self-esteem. This scale is well known for its high reliability and validity for measuring global self-esteem. An example of an item is, "I feel that I am a person of worth, at least on an equal plane with others." Participants will rate the items using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*).

**Depression.** The Center for Epidemiological Studies Depression scale (CES-D; Radloff, 1977;  $\alpha = .92$ ) was used to measure depression. The CES-D correlates strongly with the number of negative life events and other measures of depression, such as the Beck Depression Inventory (Beck, 1967). Respondents were asked to indicate how often they have felt certain ways in the past two weeks. Examples of items include, "I felt depressed" and "I had crying spells." Participants rated the items using a 5-point scale (1 = *never*, 5 = *very often*).

**Perceived Stress.** The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983;  $\alpha = .80$ ) measures individuals' sense of personal control over daily life stressors. The scale correlates strongly with depression and physical symptomatology ( $r_s = .70$  and  $.65$ , respectively).

Participants will be asked to indicate how often they felt a certain way during the past 2 weeks by finishing the sentence “In the past 2 weeks, how often have you . . .” with each item.

Participants rated items on a 5- point scale (1 = *never*, 5 = *very often*). An item example is “. . . been upset because of something that happened recently.”

### Results

Performing a bivariate correlation analysis among the variables, it was found that internal locus of control was shown to be negatively related to external locus of control ( $r = -.20, p < .01$ ) and stress ( $r = -.09, p < .05$ ), and positively related to self-esteem ( $r = .10, p < .05$ ). External locus of control was shown to be negatively related to self-esteem ( $r = -.32, p < .01$ ), depression ( $r = .30, p < .01$ ), and stress ( $r = .27, p < .01$ ).

To test the hypothesis that internal locus of control and external locus of control would each predict unique variance in self-esteem, depression, and stress, a series of simultaneous linear regression analyses were conducted with internal and external locus of control entered as the independent variables, and self-esteem, depression, and stress entered separately as the dependent variables. The results showed that external locus of control positively predicted depression ( $\beta = .30, p < .01$ ) and stress ( $\beta = .26, p < .01$ ), and negatively predicted self-esteem ( $\beta = -.30, p < .01$ ). In contrast, internal locus of control did not predict unique variance in self-esteem ( $\beta = .03, p < .05$ ), depression ( $\beta = .01, n.s.$ ), or stress ( $\beta = -.03, p < .05$ ). Thus, the hypothesis was only partially supported with external locus of control being the only significant predictor of self-esteem, depression, and stress.

### Discussion

The purpose of this study was to test the hypothesis that internal and external locus of control would each uniquely predict self-esteem, depression, and stress. With external locus of

control being the only significant predictor of psychological well-being, the hypothesis was only partially supported.

These results suggest that every day activities that are not within one's control will have a significant effect on psychological well-being. It calls into question the value of self-help books, many of which can be found in the psychology section of most book stores. Feeling as though one has personal control does not seem to make a difference in a person's psychological well-being.

The results of this study support Parkes (1985) recommendation, that the optimal definition of locus of control involves two factors rather than one. This is especially important because recent studies have continued to use the unidimensional definition. Stocks (2012) conducted a cross-cultural study that correlate subjective well-being with locus of control, with higher well-being being attributed to higher internal locus of control. Without disputing Stocks' conclusion, it still remains that the results cannot fully explain well-being with the exclusion of external locus of control. Klonowicz (2001), when determining reactivity and locus of control as determinants of subjective well-being, a similar conclusion is made that higher internal control relates to more positive affect. If either study had viewed internal and external locus of control as separate constructs, they would have found that it was not high internal locus of control, but low external locus of control that affected psychological well-being results.

In the professional field, self-esteem, depression, and stress are important topics for clients in therapy, and for the therapists when treating their clients. While this study is unlikely to suggest new or major changes in treatment options, it may give a better indication as to how much importance should be placed on external locus of control when treating psychological well-being. Alternatively, if a client is found to be high in internal locus of control, but also

experiences high levels of stress and depression, the results of this study suggest that the client probably also has a high external locus of control.

For those who wish to recreate or extend upon this study, it is important to note some of the limitations. While we were fortunate to have a wide range of ages in our participants, all participants were college students who were in psychology courses; possibly limiting participant perspective. Furthermore, the survey was administered over the internet through a self-report model. Beyond the limits of self-report, internet surveys may provide an extra challenge in anticipating and preventing confounds due to uncontrolled environment. For example, the participant taking the survey may elicit the opinion of a roommate or friend in the same room. Finally, these results are limited in that they cannot determine causality.

Future research should consider the implications of internal and external locus of control when applying locus of control as a factor. Related research to this topic yielded some discussion about individualistic and collectivist attitudes and how they might interact with past locus of control studies. Primarily, these previous studies have been administered in the West, which are mostly individualistic, high internal locus of control cultures. Furthermore, to create a link towards causality, future studies should consider priming participants to think of either internal or external locus of control before measuring well-being. For example, priming a participant for internal locus of control might include using words like control, responsibility, and determined. External control priming words might include accident, luck, or chance. By using a priming manipulation, future researchers on this topic can create a casual test of the locus of control to well-being link.

The results of this study do not refute results or conclusions made by previous studies concerning locus of control and psychological well-being. Instead, it builds upon those studies

by recognizing that internal and external locus of control are two individual constructs.

Furthermore, when it comes to locus of control and psychological well-being, external locus of control should be the primary focus for clients and professionals alike.

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