Optimism Scale Development

Technical Report

Executive Summary Description

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Purpose:

To develop a new Optimism test for the workplace that:

1. Is highly predictive of important work outcomes
2. Is face valid for the workplace
3. Addresses confusion over the multiple ways Optimism is defined and measured
4. Includes a diagnostic tool to help identify how to become more optimistic

Current state of Optimism measures and their challenges:

1. The theoretical definition of optimism is “positive expectancy of future outcomes”.
2. The existing measures are problematic. Some of the concerns include the following:

* Measures are based on both state and trait definitions..
  + Trait: Self-report perceptions of **future** success (LOT-R)
  + Explanatory Style: Causal explanations for **past** events (ASQ)
    - Explanatory style serves as a “proxy” measure for optimism (future outcomes). The perspective on past events is likely a contributor to Optimism, but is it the same as Optimism?
    - Contextual - Does Optimism vary by work, relationships, health, etc.?
* Time horizon is unclear
  + Future expectancies (LOT-R) vs. past attributions (ASQ) vs. present perspective (currently not measured)
* The common definition of Optimism is "cup is half full".
  + Implies the perception of current circumstances is a contributor, but is not included in existing measures
* It is unclear whether Optimism operates the same for positive and negative scenarios
* It is not clear whether Optimism and Pessimism are different constructs or two ends of a bipolar scale. The research on this is mixed.

Research Sample

The GrowOptimism test was designed to represent the general adult population. The research sample was primarily sourced from Mechanical Turk (in exchange for $1 or $2 depending on the phase of the research) and a smaller number of students who were granted extra credit to participate in the research (a standard practice). The majority of subjects were employed, 38.16% Male and 61.84% Female, with ages ranging from 18 to 81 years old. Aside from being minimally compensated to participate in the research, it is not expected that the sample differed significantly from the target population.

Analysis of Work:

Study 1:

1. Item Selection Procedure: Drafted Core Optimism Scale and multiple sub scales based on a comprehensive review of the theoretical optimism literature and existing optimism measures.

Items were drafted to represent the following dimensions: Global optimism, Pessimism, Contextual optimism (work, academics, relationships and health & fitness), Attributions and several sub-constructs hypothesized as antecedents to Optimism.

1. Analyzed the reliability of Core Optimism
2. Factor analyzed Optimism and Pessimism
3. 361 respondents
4. Results

* Results supported viewing Optimism and Pessimism as distinct, yet interrelated, constructs
  + The unidimensional model (all Global Optimism and Global Pessimism items loading onto one factor) did not fit the data well.
  + A second model was tested with two correlated latent factors, one for Global Optimism and one for Global Pessimism. This yielded a significantly better fit to the data.
* The results also suggested that Optimism may vary by context.
  + The unidimensional model (all Contextual Optimism items loading onto one factor) did not fit the data well.
  + A second model was tested with correlated latent factors for each of the respective Contextual Optimism domains (Work, Academics, Health & Fitness, and Relationships). This yielded a significantly better fit to the data.
  + Correlations between the individual scale-level Contextual Optimism variables and their related outcome variables were all higher than the scale-level Global Optimism variable.
    - For example, self-reported GPA was significantly related to Context Optimism – Academics, but not Global Optimism.
    - Outcome measures included self report success ratings for the following contexts: work, academics, health & fitness, and non-work relationships.

Study 2:

1. Revised scales and sub scales to improve clarity and reliability.
2. Measured reliabilities and correlated scales and subscales with outcomes
3. Reliabilities were high, ranging from .70 to 80.
4. Relationships to work requirements: Results showed that Optimism was correlated with life satisfaction, stress, burnout, and to a lesser extent work engagement.
5. 205 respondents
6. Results
   * Reliabilities for scales and subscales were high, ranging from .70 to .80.
   * 16 subscales were analyzed in the study including: Global Optimism, Pessimism, External Validation from others, Context (school, relationships, health and fitness, work, ), Resilience, Balance of positive to negative thinking, Speed of shifting, Momentum, Positive self-talk, Time focus, Appreciate/Gratitude, Mental contrasting, Global internal/external attributions, Unstable/stable, Global/specific, and Beliefs.
   * Outcomes measured included: Self rated Performance, Relationships, Health, GPA, and existing scales on Burnout, Life Satisfaction, Work Engagement and Stress.
   * The range of significant correlations between the subscales and outcome variables that relate to conclusions drawn ranged from (+/-) 0.6 to (+/-) 0.765.

Study 3

1. Revised scales again, optimizing the number and quality of items and scales.
2. Core Optimism scale had evidence of convergent validity - highly correlated with variables in expected direction (see table 1 below):
3. Also found discriminant validity evidence. Optimism did not correlate with unrelated variables (e.g., orderliness, self-discipline) as expected.
4. 245 respondents
5. Results

* Items from Study 3 that are included in the final version of the test have an average score of 279.11, with a standard deviation of 66.18.
* Reliabilities reported from items included in Study 3 were high, ranging from .70 to above .90.
* This study included items from the Global Optimism (future focus, present focus, pessimism), Work Optimism, and 10 subscales for a total of 67 items.
* Significant relationships between Optimism and the studied outcome variables are reported as follows:

Table 1

|  |  |  |
| --- | --- | --- |
| **Outcome with Optimism** | | |
| *Strong Relationship*   * Hope (*r*=0.795) * Mental Wellness (*r*=0.821) * LotR (*r*=0.912) * Resilience (*r*=0.759) * Happiness (*r*=0.824) | *Moderate Relationship*   * Self-efficacy (*r*=0.646) * Extraversion (*r*=0.579) | *Minimal/Low Relationship*   * Orderliness (*r*=0.093)*\** * Self-discipline (*r*=0.356)\*   *\*Evidence for discriminant validity* |

Scoring

Items for all studies were scored via a cumulative total from all answered items rated on a 7 point (1=*strongly disagree* to 7=*strongly agree*) Likert type rating scale.

*Normative Information:*

The final long version includes 62 measured test items (*M*=279.11, *SD* = 66.18) with the sample participants scoring at the following percentiles:

1. 25th Percentile: 231.5
2. 50th Percentile: 285.0
3. 75th Percentile: 329.0

The final short form includes 21 measured test items (*M*=101.44, *SD* = 26.66) with the sample participants scoring at the following percentiles:

1. 25th Percentile: 82.0
2. 50th Percentile: 104.5
3. 75th Percentile: 122.25

Recommendations:

The GrowOptimism test is currently being pilot tested for predictive validity in organizations using a blind testing experimental model. In other words, organizations are administering the test but not making hiring decisions based on the data (i.e, without getting the results). After the appropriate timeframe test scores will be correlated with performance data. Following this validation step, cut-scores will be developed.

At this point, some test participants may receive a simple report of their test results including normative data based on the population of prior test takers (for items and subscales where that data exists).