

28 MEASURES OF LOCUS OF CONTROL



Including;

Validity and Reliability Data

Evaluative Commentary

Abstracts of Studies Using the Measures

Related References

This is a "MUST READ", "MUST HAVE" document for serious students of Locus of Control

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The Locus of Control Construct's Various Means of Measurement:
A researcher's guide to some of the more commonly used Locus of Control scales
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Psychology/Achievement/Academics/Internal Control

For Mum and Pup, as usual.

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INTRODUCTION

A person's Locus of Control is where that person places the primary causation of events in his or her life. Is a poor grade on an exam due to poor study habits or the inadequacy of the professor? Or perhaps you were fated to fail the class? Does a car accident occur because you weren't paying attention or because others need to learn how to drive? Locus of Control theory evolved from Bandura's Social Learning Theory, which posits that observed and imitated behaviors are either reinforced through reward or extinguished through punishment. Locus of Control falls on a continuum, with those who believe that their life is largely controlled by outside forces (externals) falling on one end of the spectrum while those who believe that by and large they control their own lives (internals) falling on the other end. As I have discovered in my research, locus of control can be used to predict things from psychological well-being to health behaviors, from academic and economic success to reaction to hardships.

If it seems obvious that a person's Locus of Control can be a driving influence on personality and behavior, you and I are in the same boat. If you are interested in using this information to change your own or other's behavior, this may not be the document you are looking for. I suggest you take a look at teachinternalcontrol.com, and explore some of the suggestions provided by Russ Hill's recent book *Teach Internal Locus of Control*.

If you are interested in researching Locus of Control and exploring the ways in which it does and does not influence personality and behavior, this is what you are looking for. Please read on.

This publication is meant to be a starting point for researchers. In short, it contains a list of some of the more commonly used Locus of Control scales. For each of the scales, I address who wrote the scale, what it is used for, and links to validity studies, critiques, and studies that have implemented the scale in their own research. It is my intention that individuals could use this document to determine the scales they wish to explore. In addition, I have provided enough references to begin a literature search. If you are looking for extreme detail, particularly statistics, you will not find it here¹. However, you will find links to that information. Nothing in this document is exhaustive, and it is not meant to be an end point. Rather, I intend it to foster the beginning of your research.

I also intend for it to paint a picture of the complexity of the construct. Such a simple idea, that your perception of the work affects how you react to it, has been grasped by many researchers who have taken it in a million directions. Scales range from targeting the general population to individuals who experience frequent headaches. Research papers focus on mental health, physical health, social interactions, parental strategies, academic and economic success, creativity and everything in between. It was my reaction while

¹ If you are looking for more detail, here are two good sources:

Lefcourt, H. M. (Ed.). (1981). *Research with the Locus of Control construct: Volume 1: Assessment methods*. New York, NY: Academic Press Inc.

Furnham & Steele (1993). [Measuring Locus of Control: A critique of general, children's, health- and work-related Locus of Control questionnaires](#). *British Journal of Psychology*, 84, 443-479

writing the book to be amazed at the nuances of the concept, and it is my hope to transfer that wonder to you.

When possible, I have included the full scales in the document. This is for you to get an idea for the layout and contents of the scale. If you wish to use the scale in your research, it is always best to get the original from the authors, which is why I do not include scoring information in this document. When abstracts are available for a study, I have provided a link. Documents that are not linked do not have free readily available abstracts, but they can be found through professional search engines such as EBSCO.

I have attempted to contact the creators of each scale. This was not always possible, as sometimes contact information could not be found. If you have created a scale that is in this document and I have not contacted you, I encourage you to write to me. I am interested in hearing from you, and I am open to suggestions.

I encourage my casual readers to contact me as well. Have I forgotten to include a scale you think I should have? Did you come across a study you would like to see here? Let me know! As the body of Locus of Control Research is always growing and evolving, I want this document to grow and evolve as well. Let me know what you notice. Let me know what you think.

Best wishes for your research!

- Rita Halpert

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GENERAL MEASURES

James Internal-External Locus of Control Scale

William Homer James (1963)

The James Internal-External Locus of Control Scale is one of the first devised measures of Locus of Control. James was a student of Julian Rotter, whose social learning theory influenced the development of Locus of Control as a construct. Unlike the Rotter Locus of Control scale in which participants are forced to choose between two statements, the James scale is a Likert-type scale in which participants rate how well a statement could be applied to their own thinking. In James's scale, the ratings range from 0 (strongly disagree) to 3 (strongly agree). This measure contains 60 items, half of which are filler questions. There is a shortened version ([Dixon 1976](#)), in which some filler items are altered or eliminated. All items on the James scale are worded from an external point of view (see below). James developed this scale in an unpublished doctoral dissertation while studying under Rotter. The abstract for this dissertation is not readily available.

JAMES INTERNAL-EXTERNAL LOCUS OF CONTROL SCALE

Fate

Wars between countries seem inevitable despite efforts to prevent them.
Some people seem born to fail while others seem born for success no matter what they do.
I feel that many people could be described as victims of circumstances beyond their control.
I have usually found that what is going to happen will happen, regardless of my actions.
I don't believe that a person can really be a master of his fate.
There's not much use in worrying about things... what will be, will be.

Luck

It is usually true of successful people that their good breaks far outweigh their bad breaks.
Many times I feel that we might just as well make many of our decisions by flipping a coin.
Getting a good job seems to be largely a matter of being lucky enough to be in the right place at the right time.
A great deal that happens to me is probably just a matter of chance.
It isn't wise to plan too far ahead because most of things turn out to be a matter of good or bad fortune anyhow.
When things are going well for me I consider it due to a run of good luck.
Most people don't realize the extent to which their lives are controlled by accidental happenings.
Most of the disappointing things in my life have contained a large element of chance.
Success is mostly a matter of getting good breaks.
I think that life is mostly a gamble.

Personal Control

I feel that I have little influence over the way people behave.
Success in dealing with people seems to be more a matter of the other person's moods and feelings at the time rather than one's own actions.
Many times I feel that I have little influence over the things that happen to me.
Sometimes I feel that I don't have enough control over the direction my life is taking.

Powerful Others

It is difficult for ordinary people to have much control over what politicians do in office.

It seems many times that the grades one gets in school are more dependent on the teacher's whims than on what the student can really do.

Excerpt from the James Internal-External Scale, as found in [Borich and Paver, 1974](#).

[Borich and Paver \(1974\)](#) warn that this measure does not test well for convergent or discriminant validity and suggest this as a possible reason as to why studies that test Locus of Control often produce inconsistent findings (in the same paper, Borich and Paver fail to find reliable validity in the Levenson Internal, Powerful Others and Chance Scale, the Nowicki Strickland Locus of Control Scale and the Rotter Internal External Locus of Control Scale). Dixon ([1976](#)) suggests that the "sledgehammer" approach taken by this scale (to measure Locus of Control as a general construct, rather than one that is situation-specific) is not the most valuable, and that specific scales for specific situations (academics, health, etc.) should replace the more general scales.

This scale is not widely used. A search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar with key words "James Internal External Locus of Control Scale", produced only 5 results. The following is a short list of studies which have used the James Internal-External Locus of Control Scale:

- [Horak and Slobodzian \(1978\)](#) used the James Internal-External Locus of Control Measure to investigate the effects of low-structure versus high-structure classes on college students.
- In France, [Syrotuik and D'arcy \(1982\)](#) found that while Locus of Control does not seem to directly influence levels of stress in response to work, it does seem to relate to reactions to said stress.
- [Srinivasan and Tikoo \(1992\)](#) investigated individuals purchasing cars and found internals generally did more research before purchase than externals.

References:

Borich, G. D. & Paver, S. W. (1974). Convergent and discriminant validity of the locus of control construct. *Report-Research; Tests/Questionnaires*

Dixon, D. N. (1976). Dimensionality of three adult, objective locus of control scales. *Journal of Personality Assessment, 40*, 310-319.

Horak, W. J. & Slobodzian, K. A. (1978). The effects of locus of control and method of presentation on pre-service teacher's achievement. *Proceedings from the Annual Meeting of the National Association for Research in Science Teaching*, Toronto: Canada

Srinivasan, N. & Tikoo, S. (1992). Effect of locus of control on information search behavior. *Advances in Consumer Research, 19*, 498-504.

Syrotuik, J. M. & D'arcy, C. (1982). Occupational stress, locus of control and health among men in a prairie province. *Canadian Journal of Behavioral Science, 14*, 122-133.

Rotter Internal-External Locus of Control Scale

Julian Rotter (1966)

Julian Rotter is credited for introducing the concept of Locus of Control. His work was largely based off the work of Albert Bandura, who developed the social learning theory. Rotter explains that humans can interpret events as being either a result of one's own actions or external factors. He goes on to suggest that whether or not people believe a situation or event is under their own control will influence their reward expectancy and behavior. Rotter developed a 23-item scale to assess whether a person has a tendency to think situations and events are under their own control or under the control of external influences. This scale is a forced-choice paradigm in which a person chooses between an internal or external interpretation. Unlike many scales that were developed later, Rotter's scale was not designed to investigate specific domains (e.g. academic domains, health domains etc.) but to give somewhat weak predictability of a person's interpretation across all domains. In other words, while Rotter believed that Locus of Control could vary based on circumstance, he also felt that people could trend toward internality or externality as a personality trait, and his scale was designed to assess this more general situation.

Sample from the Rotter Internal-External Locus of Control Scale:

1.
 - a. Children get into trouble because their parents punish them too much.
 - b. The trouble with most children nowadays is that their parents are too easy with them.
2.
 - a. Many of the unhappy things in people's lives are partly due to bad luck.
 - b. People's misfortunes result from the mistakes they make.
3.
 - a. One of the major reasons why we have wars is because people don't take enough interest in politics.
 - b. There will always be wars, no matter how hard people try to prevent them.
4.
 - a. In the long run people get the respect they deserve in this world.
 - b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5.
 - a. The idea that teachers are unfair to students is nonsense.
 - b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

A sample of Rotter's Internal-External Locus of Control Scale, as found at <http://www.ballarat.edu.au/ard/bssh/psych/RotterLOC.pdf>

The Rotter scale is used extensively and has been validated in many situations, such as for use over time ([Lang & Tiggemann 1981](#)) in high school students ([Zerega et al 1975](#)), and in Chinese samples ([Tong & Wang 2006](#)).

On the other hand, [Borich and Paver \(1974\)](#) suggest that the Rotter scale (as well as other Locus of Control scales) may not be measuring what they claim to be measuring. [Kestenbaum and Hammersla \(1976\)](#) warn that the filler items in the Rotter scale are not necessary and do not deter participants from answering questions in a socially desirable way. They stress that ideally, in a forced choice paradigm, the options should hold equal social desirability, something they claim the Rotter scale fails to do. Hoffmann and Schenk (1985) claim to have made a scale that makes Rotter's scale appear to be "unfit" for use in the measurement of Locus of Control. [Dixon, McKee and McRae \(1976\)](#) suggest that scales for specific domains may be of more use in research than general scales, such as the Rotter scale. [Levenson \(1973\)](#), as well as Reid and Ware (1973) argue against the unidimensionality of the measure, and while Locus of Control is largely regarded today as being a multidimensional construct, Rotter's measure continues to be widely used.

The following is a short list of studies that have used the Rotter Internal-External Locus of Control Scale:

- [Baron and colleagues \(1974\)](#) used the scale to add evidence to the finding that internals respond better to intrinsic (self-discovered) feedback for success while externals responded to extrinsic (verbally administered, in this paradigm) feedback for success.
- [Bozorgi \(2009\)](#), in a study of Iranian students, revealed that Locus of Control did not affect grade point average in this sample.
- [Burgess and Hamblett \(1994\)](#) did not find a significant difference in Locus of Control between smokers, non-smokers, and ex-smokers in their sample. However, when they reran the analysis on only the nurses in their sample they did find a difference in Locus of Control orientation between smokers and non-smokers.
- [Kesici \(2008\)](#) found that internal teachers scored higher for “democratic values” than externals.
- [Breet, Myburgh, and Poggenpoel \(2010\)](#) in a South African sample of boys, determined that internal Locus of Control correlated with lower levels of aggression, while external Locus of Control correlated with higher levels of aggression.
- [Cavaiola and Strohmetz \(2010\)](#) found that internal alcoholics were more receptive to treatment-related information than external alcoholics.
- [Deniz, Tras, and Aydogan \(2009\)](#) found that, in their sample, Locus of Control was influenced by the adaptability and general mood of the participants.
- [Mink and Watts \(1973\)](#) developed a program to shift Locus of Control in students from more external to more internal.

This list is not exhaustive, as the Rotter scale is highly used. A search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, and PsycINFO revealed 2,186 results.

Julian Rotter requested that his scale not be published in this document. However, it can be found online for your review. I personally respect the wishes of the authors discussed. Therefore, I suggest that if you would like to use the scale for a study, obtain permission from the author. Julian Rotter can be reached through Eleanor Coldwell (lindy.coldwell@uconn.edu).

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Levenson IPC Scale

Hanna Levenson (1973)

The Levenson scale was created out of a need to distinguish multiple dimensions within the external side of the Locus of Control continuum. Rather than rating people as simply external, the Levenson scale also investigates whether this externality is attributed to chaos/chance or to powerful others, such as political leaders, parents or God. Thus, the IPC scale distinguishes between three factors:

Internality
Powerful Others
Chance

Levenson claims five important distinctions between her scale and Rotter's scale:

1. The Levenson scale does not employ the forced-choice format of the Rotter scale, and instead uses a Likert-type rating system, which produces cleaner data.
2. The scale asks the participant to interpret their own specific experience, rather than that of the general population.
3. The Levenson scale uses less ambiguous wording.
4. The scale is set up such that items for each different subscale are similar to the questions in the other two subscales. For instance, if an item from the powerful other scale involves leadership, the chance and internal scales will also include an item about the leadership.
5. There is extremely low social desirability bias in the Levenson scale.

This scale was validated by its creator (Levenson 1972), who found that participants who rated high on the C scale shared traits that could not be distinguished by the I or P scales, thus confirming the usefulness of the multidimensional approach. In a follow-up study, [Levenson's \(1973\)](#) data showed that the split of externality into multiple dimensions was justified. Levenson (1974) also conducted a study in which anti-pollution activism was different for those scoring high on the P scale, compared to the C scale. [Loas, Dardennes, Dhee-Perot and others \(1994\)](#) found the scale to be reliable and valid in a study they conducted with a French translation. [Rossier and colleagues \(2002\)](#) also support the validity of the French translation of Leveson's scale.

The Levenson I, P, and C Scales

1. **Whether or not I get to be a leader depends mostly on my ability**
2. **To a great extent my life is controlled by accidental happenings**
3. **I feel like what happens in my life is mostly determined by powerful people**
4. **Whether or not I get in to a car accident depends mostly on how good of a driver I am**
5. **When I make plans, I am almost certain to make them work**
6. **Often there is no chance of protecting my personal interests from bad luck happening**
7. **When I get what I want, it's usually because I am lucky**
8. **Although I might have good ability, I will not be given leadership responsibility without appealing to those positions of power**
9. **How many friends I have depends on how nice a person I am**
10. **I have often found that what is going to happen will happen**
11. **My life is chiefly controlled by powerful others**
12. **Whether or not I get into a car accident is mostly a matter of luck**
13. **People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups**
14. **It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune**
15. **Getting what I want requires pleasing those people above me**

16. Whether or not I get to be leader depends on whether I am lucky enough to be in the right place at the right time
17. If important people were to decide they didn't like me, I probably wouldn't make many friends
18. I can pretty much determine what will happen in my life
19. I am usually able to protect my personal interests
20. Whether or not I get in a car accident depends mostly on the other driver
21. When I get what I want, it is usually because I worked hard for it.
22. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me
23. My life is determined by my own actions
24. It's chiefly a matter of fate whether or not I have few friends or many friends.

The Levenson I, C, and P scales, as found in Lefcourt, H. M. (1981).

Locus of Control is thought by many researchers to be a multidimensional construct. The IPC scale has been adapted into many other scales, such as the [Multidimensional Health Locus of Control Scale](#) and the [Fetal Health Locus of Control Scale](#). It has also been translated into various languages, such as French (see above), Dutch, Chinese, and Persian.

On the other hand, [Riordan \(1981\)](#) administered Levenson's scale and Rotter's scale to South African students, and while Rotter's scale was found useful in this population, the author did not endorse the usefulness of Levenson's scale. Riordan suggests a reevaluation of the usefulness of Levenson's scale, citing that it was changed for the purpose of his study from a Likert-type format to an agree/disagree format. Riordan considers the possibility that this could have altered the usefulness of the scale.

The following is a brief list of studies that have used Levenson's IPC scale:

- [Roddenberry & Renk \(2010\)](#) found higher externality scores (in both the P and C scales) to correlate positively with higher stress levels.
- [Culver and Morgan \(1977\)](#) reported that while there was no significant relationship between reading achievement and Locus of Control using Rotter's scale, reading achievement was negatively correlated with the chance dimension of Levenson's scale.
- [Kelly and colleagues \(1994\)](#) used the scale to determine whether or not the Desired Control Measure was actually measuring Locus of Control.
- [Kneipp and Gadzella \(1990\)](#) found the C and P scales to correlate negatively with creativity.
- Lamanna (2001) discovered in a sample of women that emotional intelligence and internal Locus of Control are positively correlated and both serve as a protective factor against depression.
- In an interesting study, [Kennedy, Lynch and Schwab \(1998\)](#) used the Levenson ICP scale to see if individuals with various mental ailments differed from each other in Locus of Control orientation. They found that, compared to controls, those with social phobia, major depression or mixed anxiety depressive disorder scored higher on the powerful others scale, and those with major depression, panic disorder, social phobia or mixed anxiety depressive disorder scored higher on the chance scale. Individuals with obsessive-compulsive disorder did not differ from controls in the chance or powerful others scale.
- [Stringer and Thompson \(1987\)](#) found Locus of Control to be predictive of parenting style in college students.
- [Galli and Nigro \(1985\)](#) used Levenson's scale to investigate the relationship between anxiety and Locus of Control, and found results similar to those that had been found using Rotter's scale. For males, anxiety and powerful others scale was positively correlated, while anxiety and the internal scale were negatively correlated. For females, anxiety and the powerful others and chance scales were positively correlated, whereas anxiety and the internality scale was negatively correlated.
- [Holder and Levi \(1988\)](#) found both the P and C scales to be linked to higher levels of psychological stress, while the I scale was related to lower levels of psychological stress.

- [Lao \(1978\)](#) administered a Chinese translation of Levenson's scale to Chinese college students and compared their scores to those of American college students. Gender differences as well as correlations between I, C, and P scores and other variables were similar across cultures. Lao suggests that these results may indicate that Levenson's scale measures a "basic psychological dimension" that does not vary across cultures.
- [Brosschot, Gebhardt and Godaert \(1994\)](#) found a Dutch version of the scale to be comparable to the original version in terms of reliability and factor structure. They also determined that those who scored high on the P scale tended to have more passive coping strategies. Psychopathology and lack of social cohesion was associated with a high score on the C scale, and a high score on the I scale was associated with use of coping strategies, expressed anger, and positive outlook.
- In another cross culture study conducted by [Krampen and Wieberg \(1981\)](#), Americans and Germans scored higher on the P scale than Japanese participants, while they did not differ from each other. In addition, Americans scored lower on the C scale than the German and Japanese participants, who did not differ from each other.
- [Ganellen and Blaney \(1984\)](#) found that belief in powerful others directly effects depression, whereas belief in chance interacts with stress to influence depression.

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Reid-Ware Three-Factor Internal-External Scale

David Reid and Edward Ware (1974)

This 45 item scale breaks the Locus of Control construct into three sub-dimensions:

- Social system control (Government, social sway etc., 12 items)
- Fatalism (Luck, chance etc., 12 items)
- Self-control (i.e. ability to control one's own desires and emotions, etc. 8 items)

Reid-Ware Three-Factor Internal-External Scale

Self-control items

(A) Even when there was nothing forcing me, I have found that I will sometimes do things I really did not want to do.

(B) I always feel in control of what I am doing.

(A) Sometimes I impulsively do things which at other times I definitely would not let myself do.

(B) I find that I can keep my impulses in control.

(A) When I put my mind to it I can constrain my emotions.

(B) There are moments when I cannot subdue my emotions and keep them in check.

(A) People cannot always hold back their personal desires: they will behave out of impulse.

(B) If they want to, people can always control their immediate wishes, and not let these motives determine their total behavior.

(A) Although sometimes it is difficult, I can always willfully restrain my immediate behavior.

(B) Something I cannot do is have complete mastery over all my behavioral tendencies.

(A) It is possible for me to behave in a manner very different from the way I would want to behave.

(B) It would be very difficult for me to not have mastery over the way I behave.

(A) Self-regulation of one's behavior is always possible.

(B) I frequently find that when certain things happen to me I cannot restrain my reaction.

(A) When I make my mind up, I can always resist temptation and keep control of my behavior.

(B) Even if I try not to submit, I often find I cannot control myself from some of the enticements in life such as over-eating or drinking.

Social system control items

(A) There will always be wars no matter how hard people try to prevent them.

(B) One of the major reasons why we have wars is because people do not take enough interest in politics.

(A) There are institutions in our society that have considerable control over me.

(B) Little in this world controls me, I usually can do what I decide to do.

(A) If I put my mind to it, I could have an important influence on what a politician does in office.

(B) When I look at it carefully, I realize it is impossible for me to have any really important influence over what politicians do.

(A) As far as the affairs of our country are concerned, most people are the victims of forces they do not control and frequently do not even understand.

(B) By taking part in political and social events the people can directly control much of the country's affairs.

(A) I do not know why politicians make the decisions they do.

(B) It is easy for me to understand why politicians do the things they do.

(A) With enough effort people can wipe out political corruption.

(B) It is difficult (or people to have much control over the things politicians do in office.

(A) By active participation in the appropriate political organizations people can do a lot to keep the cost of living from going higher.

(B) There is very little people can do to keep the cost of living from going higher.

(A) In this world I am affected by social forces which I neither control nor understand.

(B) It is easy for me to avoid and function independently of any social forces that may attempt to have control over me.

(A) Generally speaking, my behavior is not governed by others.

(B) My behavior is frequently determined by other influential people.

(A) People can and should do what they want to do both now and in the future.

(B) There is no point in people planning their lives too far in advance because other groups of people in our society will invariably upset their plans.

(A) The average man can have an influence in government decisions.

(B) This world is run by a few people in power and there is not much the little guy can do about it.

(A) Most people do not understand why politicians behave the way they do.

(B) In the long run people are responsible for bad government on a national as well as on a local level.

Fatalism items

(A) For the average citizen becoming a success is a matter of hard work, luck has little or nothing to do with it.

(B) For the average guy getting a good job depends mainly on being in the right place at the right time.

(A) In my case getting what I want has little or nothing to do with luck.

(B) It is not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

(A) In many situations what happens to people seems to be determined by fate.

(B) People do not realize how much they personally determine their own outcomes.

(A) Most people do not realize the extent to which their lives are controlled by accidental happenings.

(B) For any guy, there is no such thing as luck.

(A) With fate the way it is, many times I feel that I have little influence over the things that happen to me.

(B) It is impossible for me to believe that chance or luck plays an important role in my life.

(A) Many times I feel I might just as well decide what to do by flipping a coin.

(B) In most cases I do not depend on luck when I decide to do something.

(A) In the long run people receive the respect and good outcomes they worked for.

(B) Unfortunately, because of misfortune or bad luck, the average guy's worth often passes unrecognized no matter how hard he tries.

(A) What people get out of life is always a function of how much effort they put into it.

(B) Quite often one finds that what happens to people has no relation to what they do, what happens just happens.

(A) There is no such thing as luck, what happens to me is a result of my own behavior.

(B) Sometimes I do not understand how I can have such poor luck.

(A) Many of the unhappy things in people's lives are at least partly due to bad luck.

(B) People's misfortunes result from the mistakes they make.

(A) My getting a good job or promotion in the future will depend a lot on my getting the right turn of fate.

(B) When I get a good job, it is always a direct result of my own ability and/or motivation.

(A) I often realize that despite my best efforts some outcomes seem to happen as if fate planned it that way.

(B) The misfortunes and successes I have had were the direct result of my own behavior

The Reid-Ware Three-Factor Internal-External Scale, separated into the three factors,
as found as found in Reid & Ware (1974)

Reid and Ware (1974) validated these three factors as distinct and important aspects of the internal-external spectrum in college-aged Introduction to Psychology students. Their work was based on a previous study they had conducted (1973) in which they examined the Rotter scale and determined that it could be broken down into distinct constructs. They also critiqued the scale and called for a different method of investigation, which they produced in their 1974 paper. The Reid and Ware study was loosely replicated in a British neurotic population with similar results ([Fitch 1984](#)).

[Dragutinovich, White and Austin \(1983\)](#) agreed with the three factor model, but argued for a shortened version, which in their study produced clearer results than the full version. [Ross, Kalucy and Morton \(1983\)](#) also present a shortened version that they claim produces more accurate results than the full version.

[Cain \(1994\)](#) altered this scale slightly to measure effects of racism.

The following is a short list of studies that have used the Reid-Ware Three-Factor Internal-External Scale:

- [Sadowski, Davis and Loftus-Vergari \(1979\)](#) investigated death anxiety to reveal that in college students, fatalist males and females with high scores in social control were likely to have increased death anxiety, compared to the rest of the sample.
- [Sadowski and Wenzel \(1982\)](#) reported that externals had greater hostility than internals.
- [Woodward \(1981\)](#) found that internal undergraduates were likely to have greater self-esteem and ego strength. [Sadowski, Woodward, Davis and Elsbury \(1983\)](#) reproduced these same results in another sample.
- [Gilmore and Reid \(1978\)](#) found that internal students typically predicted higher exam scores than externals and were more likely than externals to achieve those higher scores.
- [Hood and colleagues \(1982\)](#) in a comparative study between individuals with anorexia and controls found that the internal-external dimension, rather than being useful at distinguishing anorectics from controls, had useful correlations within the anorectic sample with things such as age, history of disease and comorbid depression.
- [Prager \(1982\)](#) determined that, in a sample of college women (mean age 30), different levels of intimacy (isolate, pre-intimate, pseudo-intimate etc.) correlated with internality on the social system construct, but not on fatalism or self-control.

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Multidimensional Multiattributinal Causality Scale

Herbert M. Lefcourt (1981)

This scale was developed for use in the general population, and measures “affiliation” and “achievement”. The scale consists of items concerning experiences of failure and experiences of success. The scale can also be divided into four sets of attributions

1. Internal/Stable (attributed to skill or ability)
2. Internal/Unstable (attributed to effort and motivation)
3. External/Stable (attributed to context)
4. External/Unstable (attributed to chance or luck)

Because half of the items in this scale deal with internality and half with externality, it can be used to separately measure internality and externality in a person.

The Multidimensional-Multiattributinal Causality Scale

I. ACHIEVEMENT

Ability

The most important ingredient in getting good grades is my academic ability.

I feel that my good grades reflect directly on my academic ability.

When I get good grades, it is because of my academic competence.

If I were to receive low marks it would cause me to question my academic ability.

If I were to fail a course it would probably be because I lacked skill in that area.

If I were to get poor grades I would assume that I lacked ability to succeed in those courses.

Effort

In my case, the good grades I receive are always the direct result of my efforts.

Whenever I receive good grades, it is always because I have studied hard for that course.

I can overcome all obstacles in the path of academic success if I work hard enough.

When I receive a poor grade, I usually feel that the main reason is that I haven't studied enough for that course.

When I fail to do as well as expected in school, it is often due to a lack of effort on my part.

Poor grades inform me that I haven't worked hard enough.

Context

Some of the times that I have gotten a good grade in a course, it was due to the teacher's easy grading scheme.

Some of my good grades may simply reflect that these were easier courses than most.

Sometimes I get good grades only because the course material was easy to learn.

In my experience, once a professor gets the idea you're a poor student, your work is much more likely to receive poor grades than if someone else handed it in.

Often my poorer grades are obtained in courses that the professor has failed to make interesting.

Some low grades I've received seem to me to reflect the fact that some teachers are just stingy with marks.

Luck

Sometimes my success on exams depends on some luck.

I feel that some of my good grades depend to a considerable extent on chance factors, such as having the right questions show up on an exam.

Sometimes I feel that I have to consider myself lucky for the good grades I get.

Some of my lower grades have seemed to be partially due to bad breaks.

My academic low points sometimes make me think I was just unlucky.

Some of my bad grades may have been a function of bad luck, being in the wrong course at the wrong time.

II. AFFILIATION

Ability

It seems to me that getting along with people is a skill.

Having good friends is simply a matter of one's social skill.

It is impossible for me to maintain close relations with people without my tact and patience.

It seems to me that failure to have people like me would show my ignorance in interpersonal relationships.

I feel that people who are often lonely are lacking in social competence.

In my experience, there is a direct connection between the absence of friendship and being socially inept

Effort

Maintaining friendships requires real effort to make them work.

In my case, success at making friends depends on how hard I work at it.

If my marriage were to succeed, it would have to be because I worked at it.

If I did not get along with others, it would tell me that I hadn't put much effort into the pursuit of social goals.

When I hear of a divorce, I suspect that the couple probably did not try enough to make their marriage work.

In my experience, loneliness comes from not trying to be friendly.

Context

My enjoyment of a social occasion is almost entirely dependent on the personalities of the other people who are there.

Some people can make me have a good time even when I don't feel sociable.

To enjoy myself at a party I have to be surrounded by others who know how to have a good time.

No matter what I do, some people just don't like me.

Some people just seem predisposed to dislike me.

It is almost impossible to figure out how I have displeased some people.

Luck

Making friends is a funny business; sometime I have to chalk up my successes to luck.

In my experience, making friends is largely a matter of having the right breaks.

If my marriage were a long, happy one, I'd say that I must just be very lucky.

Often chance events can play a large part in causing rifts between friends.

I find that the absence of friendships is often a matter of not being lucky enough to meet the right people.

Difficulties with my friends often start with chance remarks

The Mutidimensional Multiattributinal Locus of Control Scale as found in [Lefcourt et al \(1979\)](#)

[Lefcourt and colleagues \(1979\)](#) tested their scale on undergraduate students. In their sample they showed that, while the scale did not predict achievement-relevant behavior, it did predict affiliation-relevant behavior. [Powers and Rossman \(1983\)](#) found this scale to be valid in community college students. In a follow-up study [Powers and colleagues \(1985\)](#) provided "partial support" for the validity of the scale in a sample of college students. [Powers \(1985\)](#) also compared this scale with the Mathematics Attribution scale and showed the Multidimensional Multiattributinal scale to correlate with items on the Mathematics Attribution scale that were thought to assess the same construct, thus providing support for the convergent validity of Lefcourt's scale.

[Hamilton and Akhter \(2002\)](#) found the Multidimensional Multiattributinal Causality scale to be an adequate goal-specific measure, but they do not recommend that the scale be used as a general measure.

The following is a brief list of studies that have used to Multidimensional Multiattributinal Causality Scale:

- [Chandler and colleagues \(1981\)](#) showed that, in their sample, university students from four different countries were more likely to attribute achievement internally.

- [Fernandez and Bermudez \(2000\)](#) investigated individuals with imposter syndrome and defensive pessimism behavior. In their sample, those with imposter syndrome scored higher on externality of success attribution.
- Dong and colleagues (2002) showed that, for their sample, those who had been students for longer were more likely to attribute academic failure to external causes. Further, compared to engineering students, humanities students were more likely to attribute affiliation failure to external causes.
- [Kanoy, Wester and Latta \(1990\)](#), in a sample of female students, found those with higher academic achievement to score higher on internality.
- [Wang and colleagues \(2010\)](#) found that those with external attribution were correlated with poorer scores on a Self-Regulated learning scale.

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HEALTH MEASURES

Multidimensional Health Locus of Control

Wallston, Wallston, & DeVellis (1978)

The Multidimensional Health Locus of Control Scale (MHLOC) was designed by Barbara Wallston, Kenneth Wallston and Robert DeVellis. This scale is an 18 item self-report measure intended for use in the general population to assess an individual's belief on what influences health. The scale assesses three fairly independent dimensions:

- **Internal Belief** (My health is influenced by my own choices and behaviors)
- **Chance Belief** (My health is influenced by chance or fate and neither me nor my doctor have much influence on it)
- **Powerful Others Belief** (My health is dependent on the competence of my doctor; my health is dependent on the behavior of family members, etc.)

The Multidimensional Health Locus of Control Scale

Form A

Instructions: Each item below is a belief statement about your medical condition with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you agree or disagree with that statement. The more you agree with a statement, the higher will be the number you circle. The more you disagree with a statement, the lower will be the number you circle. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

		1=STRONGLY DISAGREE (SD)		2=MODERATELY DISAGREE (MD)		3=SLIGHTLY DISAGREE (D)		4=SLIGHTLY AGREE (A)		5=MODERATELY AGREE (MA)		6=STRONGLY AGREE (SA)	
		SD	MD	D	A	MA	SA						
1	If I get sick, it is my own behavior which determines how soon I get well again.	1	2	3	4	5	6						
2	No matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6						
3	Having regular contact with my physician is the best way for me to avoid illness.	1	2	3	4	5	6						
4	Most things that affect my health happen to me by accident.	1	2	3	4	5	6						
5	Whenever I don't feel well, I should consult a medically trained professional.	1	2	3	4	5	6						
6	I am in control of my health.	1	2	3	4	5	6						
7	My family has a lot to do with my becoming sick or staying healthy.	1	2	3	4	5	6						
8	When I get sick, I am to blame.	1	2	3	4	5	6						
9	Luck plays a big part in determining how soon I will recover from an illness.	1	2	3	4	5	6						
10	Health professionals control my health.	1	2	3	4	5	6						
11	My good health is largely a matter of good fortune.	1	2	3	4	5	6						
12	The main thing which affects my health is what I myself do.	1	2	3	4	5	6						

13	If I take care of myself, I can avoid illness.	1	2	3	4	5	6
14	Whenever I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.	1	2	3	4	5	6
15	No matter what I do, I'm likely to get sick.	1	2	3	4	5	6
16	If it's meant to be, I will stay healthy.	1	2	3	4	5	6
17	If I take the right actions, I can stay healthy.	1	2	3	4	5	6
18	Regarding my health, I can only do what my doctor tells me to do.	1	2	3	4	5	6

MHLOC FORM A, as found at <http://www.vanderbilt.edu/nursing/kwallston/mhlcforma.htm>

Form B

Instructions: Each item below is a belief statement about your medical condition with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you agree or disagree with that statement. The more you agree with a statement, the higher will be the number you circle. The more you disagree with a statement, the lower will be the number you circle. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

1=STRONGLY DISAGREE (SD)	4=SLIGHTLY AGREE (A)
2=MODERATELY DISAGREE (MD)	5=MODERATELY AGREE (MA)
3=SLIGHTLY DISAGREE (D)	6=STRONGLY AGREE (SA)

		SD	MD	D	A	MA	SA
1	If I become sick, I have the power to make myself well again.	1	2	3	4	5	6
2	Often I feel that no matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6
3	If I see an excellent doctor regularly, I am less likely to have health problems.	1	2	3	4	5	6
4	It seems that my health is greatly influenced by accidental happenings.	1	2	3	4	5	6
5	I can only maintain my health by consulting health professionals.	1	2	3	4	5	6
6	I am directly responsible for my health.	1	2	3	4	5	6
7	Other people play a big part in whether I stay healthy or become sick.	1	2	3	4	5	6
8	Whatever goes wrong with my health is my own fault.	1	2	3	4	5	6
9	When I am sick, I just have to let nature run its course.	1	2	3	4	5	6
10	Health professionals keep me healthy.	1	2	3	4	5	6
11	When I stay healthy, I'm just plain lucky.	1	2	3	4	5	6
12	My physical well-being depends on how well I take care of myself.	1	2	3	4	5	6
13	When I feel ill, I know it is because I have not been taking care of myself properly.	1	2	3	4	5	6
14	The type of care I receive from other people is what is responsible for how well I recover from an illness.	1	2	3	4	5	6
15	Even when I take care of myself, it's easy to get sick.	1	2	3	4	5	6
16	When I become ill, it's a matter of fate.	1	2	3	4	5	6
17	I can pretty much stay healthy by taking good care of myself.	1	2	3	4	5	6
18	Following doctor's orders to the letter is the best way for me to stay healthy.	1	2	3	4	5	6

The MHLOC scale has replaced the outdated Health Locus of Control Scale (HLOC) designed by [Wallston, Wallston, Kaplan and Maides \(1976\)](#). While the HLOC scale is unidimensional (internal versus external), the MHLOC scale is not, and is therefore thought to be a more accurate measure (see [Wallston, 2005](#) and *Dimensionality* in [Furnham and Steele, 1993](#)). The MHLOC scale has been translated to other languages, including Farsi, Spanish ([Rodriguez-Rosero, Ferriani & Dela Coleta, 2002](#)) and American sign-language ([Athale et al, 2010](#)). It has also been modified by [Wallston, Stein and Smith \(1994\)](#) into an 18 item scale that can be tailored to specific diseases (Form C; [Ubbiali et al, 2008](#)).

Form C

Instructions: Each item below is a belief statement about your medical condition with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you agree or disagree with that statement. The more you agree with a statement, the higher will be the number you circle. The more you disagree with a statement, the lower will be the number you circle. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

		SD	MD	D	A	MA	SA
1	If my condition worsens, it is my own behavior which determines how soon I will feel better again.	1	2	3	4	5	6
2	As to my condition, what will be will be.	1	2	3	4	5	6
3	If I see my doctor regularly, I am less likely to have problems with my condition.	1	2	3	4	5	6
4	Most things that affect my condition happen to me by chance.	1	2	3	4	5	6
5	Whenever my condition worsens, I should consult a medically trained professional.	1	2	3	4	5	6
6	I am directly responsible for my condition getting better or worse.	1	2	3	4	5	6
7	Other people play a big role in whether my condition improves, stays the same, or gets worse.	1	2	3	4	5	6
8	Whatever goes wrong with my condition is my own fault.	1	2	3	4	5	6
9	Luck plays a big part in determining how my condition improves.	1	2	3	4	5	6
10	In order for my condition to improve, it is up to other people to see that the right things happen.	1	2	3	4	5	6
11	Whatever improvement occurs with my condition is largely a matter of good fortune.	1	2	3	4	5	6
12	The main thing which affects my condition is what I myself do.	1	2	3	4	5	6
13	I deserve the credit when my condition improves and the blame when it gets worse.	1	2	3	4	5	6
14	Following doctor's orders to the letter is the best way to keep my condition from getting any worse.	1	2	3	4	5	6
15	If my condition worsens, it's a matter of fate.	1	2	3	4	5	6
16	If I am lucky, my condition will get better.	1	2	3	4	5	6
17	If my condition takes a turn for the worse, it is because I have not been taking proper care of myself.	1	2	3	4	5	6

18	The type of help I receive from other people determines how soon my condition improves.	1	2	3	4	5	6
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MHLOC FORM C, as found at <http://www.vanderbilt.edu/nursing/kwallston/mhlcforma.htm>

The reliability of this scale is reportedly high (see *Health Locus of Control scales* in [Furnham and Steele, 1993](#)). Validity for the scale has been shown in people enrolled for health promotion programs ([Casey, 1992](#)), deaf populations ([Athale et al, 2010](#)), Columbian women ([Rodriguez-Rosero, Ferriani & Dela Coleta, 2002](#)), Caucasian Americans, Filipino Americans and Latino Americans ([Malcarne, Fernandez and Flore, 2005](#)), and AIDS patients ([Ubbiali et al, 2008](#)) as well as other populations.

The MHLOC has been widely used in studies. The following is a brief list of studies that have used this scale, its precursor and/ or Form C for specific diseases:

- [Bailis, D. S., Segall, A. & Chipperfield, J. G. \(2010\)](#) found in a longitudinal study that as people age, they may experience shifts in their Locus of Control orientation.
- [Chen, Action and Jung-Hau \(2010\)](#) investigated how Locus of Control relates to behavior concerning nutrition, with tentative results indicating that a more internal Locus of Control is associated with better nutritional behavior.
- [Knappe, and Pinqart \(2009\)](#) found that high internal health Locus of Control coincides with positive affect in individuals with internal disease, individuals with cancer, and healthy controls who are elderly (60+ years), but this relationship only holds true in cancer patients who have not deteriorated past the point of being able to exert influence on their health.
- [Sengul, Kara and Arda \(2010\)](#) found that externals with chronic lower back pain experienced compromised quality of life compared to internals with chronic lower back pain.
- [Baker, Buchanan and Corson \(2008\)](#) found that those with internal health loci of control experienced greater pain intensity.
- [Haselden, Powell, Drinnan and Carding \(2009\)](#) found differences in Locus of Control based on differing vocal disorders in the sample.
- [Rosno and colleagues \(2008\)](#) used form C to investigate the effects of parental Locus of Control on childhood attendance to treatment for obesity. In their study, higher internal parental Locus of Control coincided with a decreased likelihood of session attendance.

If you are interested more information on this scale, or would like to use it in your research, please refer to <http://www.vanderbilt.edu/nursing/kwallston/mhlcscscales.htm>

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Drinking Locus of Control Scale

Keyson and Janda (1972)

The drinking locus of control scale was developed by Keyson and Janda, and validated by Donovan and O'Leary. It is a 25 item scale that seems to correlate with actual drinking behavior. The scale evolved from Rotter's scale. It targets adults and is particularly focused on alcoholics and those who regularly consume alcohol. It was developed to address certain findings, such as that alcoholics drink in efforts to obtain feelings of control in social situations, or that problem drinking is associated with a lack of personal control. In addition, some studies have found personality differences between internal alcoholics and external alcoholics. Rather than using a general or health scale, the Drinking Locus of Control Scale aims to clear up some conflicting conclusions various studies have reached about the relationship between Locus of Control and alcoholism. This scale has been shown by [Donovan and O'Leary \(1978\)](#) to differentiate between alcoholics and non-alcoholics, even when controlling for levels of depression. Rotter's scale could not differentiate between these two groups. [Abbott \(1983\)](#) found the Drinking Locus of Control Scale to be better than Rotter's scale at predicting post-treatment outcomes in alcoholics. Reliability of the scale has also been confirmed by [Yeh, Lee and Hwang \(2008\)](#), who tested a Chinese version of the scale on a sample of treatment-receiving alcoholics in Taiwan. The Chinese version of the scale was also used by Yeh in 2008.

The Drinking Locus of Control Scale

- 1. People drink because circumstances force them to**
- 2. Most people do not realize that drinking problems are influenced by accidental happenings**
- 3. I feel so helpless in some situations that I need a drink**
- 4. Trouble at work or home drives me to drink**
- 5. Without the right breaks one cannot stay sober**
- 6. Many times there are circumstances that force you to drink**
- 7. I get so upset over small arguments that they cause me to drink**
- 8. Staying sober depends mainly on things going right for you**
- 9. When I see a bottle, I cannot resist taking a drink**
- 10. Oftentimes, other people drive one to drink**
- 11. It is impossible for me to resist drinking if I am at a party where others are drinking**
- 12. Those who are successful in quitting drinking are the ones who are just plain lucky**
- 13. I feel powerless to prevent myself from drinking when I am anxious or unhappy**
- 14. I cannot feel good unless I am drinking**
- 15. As far as drinking is concerned, most of us are victims of forces we can neither understand nor control**
- 16. I feel completely helpless when it comes to resisting a drink**
- 17. It is impossible for some people to ever stop drinking**
- 18. It is difficult for alcoholics to have much control over their drinking**
- 19. If someone offers me a drink, I cannot refuse him**
- 20. Sometimes I cannot understand how people can control their drinking**
- 21. Once I start to drink I can't stop**
- 22. I just cannot handle my problems unless I take a drink first**
- 23. Most of the time I can't understand why I continue to drink**
- 24. I have no will power when it comes to drinking**
- 25. Drinking is my favorite form of entertainment**

The drinking Locus of Control Scale, as found in [Donovan and O'Leary \(1978\)](#)

The Drinking Locus of Control Scale has been adapted to focus on eating behavior and smoking behavior ([Ludke & Schneider 1996](#)). This study asserts that all three scales (smoking, eating, and drinking) have high internal consistency. It has also been adapted for use in cocaine abusers ([Oswald, Walker, Reilly and Parker 1992](#))

The following is a short list of studies that have used the Drinking Locus of Control Scale:

- In a sample of individuals apprehended for DUI offenses, [Cavaiola and Strohmetz \(2010\)](#) found internals to be more receptive to counseling and other measures to prevent recurrence of the offense.
- [Yeh \(2008\)](#) found individuals with a heavier dependence on alcohol to score more externally on the Locus of Control scale compared to those with a less severe dependence.
- [Koski-Jannes \(1994\)](#) revealed externals to be more likely to relapse sooner and more severely in the first year following treatment, compared to internals.
- An interesting study by [Clements, York and Rohrer \(1995\)](#) sought to investigate factors that influence externality on the Drinking Locus of Control Scale. For their sample, alcoholics whose parents were also alcoholics were the most external, followed by alcoholics whose parents were not alcoholics, followed by non-alcoholics whose parents were alcoholics followed by controls, who were neither alcoholic, nor the offspring of alcoholics.
 ←EXTERNAL—alcoholic + child of alcoholic—alcoholic—child of alcoholic—control—INTERNAL→
- [Cavaiola and DeSordi \(2000\)](#) found DWI offenders to score more externally on the Drinking Locus of Control Scale than non-offenders.
- [Kivlahan and colleagues \(1983\)](#) showed that in their sample, individuals who reported drinking due to negative emotional states who also relapsed after treatment tended to score externally on the Drinking Locus of Control Scale, whereas those who reported drinking due to physical craving and relapsed tended to score internally on the scale.
- Mesrian (1998) studied pregnant women who drink alcohol, revealing that in this sample externality was associated with alcohol consumption while pregnant.
- [Abbott \(1983\)](#) observed a shift toward internality in patients who successfully responded to alcoholism treatment.
- In effort to see if the “higher power” concept used in Alcoholics Anonymous fostered externality, [Li, Feifer and Strohm \(2000\)](#) compared Locus of Control scores of individuals in Alcoholics Anonymous with the scores of individuals in Self Management and Recovery Training. They revealed the Alcoholics Anonymous sample to score more externally on the Drinking Locus of Control Scale.
- In a similar study, Elkus found Alcoholics Anonymous attendants to be more external than those in Moderation Management.

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Mental Health Locus of Control Scale and the Mental Health Locus of Origin Scale

David J. Hill and Ronald M. Bale (1980)

Both developed by the same researchers, the Mental Health Locus of Control Scale and the Mental Health Locus of Origin scale make an interesting distinction between two similar constructs. The Mental Health Locus of Control Scale was developed to be more specific than a health Locus of Control scale, and thus to have greater predictive power. The scale focuses on the causation for the progression of the disorder. The authors define Mental Health Locus of Control as:

A bipolar construct concerned with belief as to where control lies in the interactions between clients and mental health practitioners; the two poles being internal and external Locus of Control, where internal control represents the perception, on the part of the clients, that therapeutic change is a consequence of their own behavior.

In other words, the hope was to assess the extent to which a therapist is controlling a client and the extent to which the client is a free agent, as a crux in psychotherapy is to find the correct level of influence where positive change is being fostered in a client, but the client remains in control of his or her decisions and behaviors.

This scale consists of 22 items, which are answered using a 6-point Likert-type scale.

The Mental Health Locus of Control Scale

- 1. Psychotherapy is for people who can't make it alone and need someone stronger than themselves to lean on.**
- 2. To recover from a serious mental problem, you must be willing to temporarily surrender all responsibility to an experienced professional.**
- 3. People with psychological problems should play a large part in planning their own treatment.**
- 4. Someone receiving psychiatric help should not make any important decisions without seeking advice.**
- 5. When a psychiatric patient is trying out new behaviors a professional should decide which behaviors s/he should try first.**
- 6. The decision as to when to end psychotherapy should be taken by the patient rather than the therapist.**
- 7. The lives of people with psychological problems are so complicated that it is almost impossible for them to figure out what they should do to make things better.**
- 8. If psychotherapy is like building a house, a good therapist should not only give you the tools but should design the house for you.**
- 9. Psychotherapists should tell their patients how to lead a healthy life instead of waiting to see if they find out for themselves.**
- 10. Patients should try hard to accept their therapist's opinion as to what is right and wrong.**
- 11. When an individual goes to a therapist for help that individual should expect to take most of the responsibility for getting better.**
- 12. In psychotherapy what the therapist thinks is less important than what the client thinks.**
- 13. Most patients leaving a psychiatric hospital should be strictly supervised for some period of time.**
- 14. The goals of psychotherapy should be set by the client rather than the therapist.**
- 15. In group therapy the individuals who benefit the most are almost always those who pay the most attention to group leaders.**
- 16. The mentally ill should not be encouraged to have others take care of their everyday needs**
- 17. If a psychiatric patient feels sure he/she is well enough to stop taking medication, that is what he/she should do.**

18. The aim of anyone who gets into psychotherapy is to seek the advice of an expert and to act on it.
19. As a general rule psychiatrists should feel o.k. about making decisions on behalf of their patients.
20. A good psychotherapist expects clients to decide for themselves what they should do.
21. Going to a professional to discuss your problems is better than talking to friends because the advice of a professional is more valuable.
22. When experiencing psychological problems the person least likely to come up with solutions is oneself.

The Mental Health Locus of Control Scale, as found in [Hill and Bale \(1980\)](#).

The Mental Health Locus of Origin Scale distinguishes between the progression of the disorder and the origin of the disorder, and seeks to investigate a subject's belief in responsibility for the origin of his or her disorder. Rather than falling somewhere between "internal" and "external" the Mental Health Locus of Origin Scale places a person somewhere on the spectrum between "endogenous" (belief in the disorder's origination from within) and "interactional" (belief in the role of environment and social interaction). The authors define Mental Health Locus of Origin as:

A bipolar construct pertaining to beliefs about the etiology of maladaptive behavior. At one end of the dimension ("endogenous") lie beliefs emphasizing genetic and physiological factors. The opposite pole ("interactional") consists of beliefs which focus on the interactions between an individual and the social environment.

This scale is addressing the age-old nature versus nurture dilemma. The idea is that those who see the origin of their mental problems resulting from social influences (nurture) may be more likely to take an active role in resolving the situation while those who see the origins of their distress as resulting from biological origins may be more likely to assume a passive role in terms of treatment.

This scale consists of 20 items, which are answered using a 6-point Likert-type scale.

The Mental Health Locus of Origin Scale

1. Eventually medical science will discover a cure for psychosis.
2. The cause of most psychological problems can be found in the brain.
3. If the children of schizophrenics were raised by normal parents they would probably grow up to be healthy.
4. Mental illness is usually caused by some disease of the nervous system.
5. Some people are born mentally unstable and are almost certain to spend some part of their lives in a mental hospital.
6. Most people suffering from mental illness were born with some kind of psychological deficit.
7. Some people are born depressed and stay that way.
8. Everybody's system has a breaking point and those of mental patients are probably weaker.
9. The mental illness of some people is caused by the separation or divorce of their parents during childhood.
10. Being hot-blooded is the cause of mental illness in some people.
11. More money should be spent on discovering healthy methods of child rearing than determining the biological basis of mental illness.
12. Some people are born with the kind of nervous system that makes it easy for them to become emotionally disturbed.
13. Your choice of friends can have a lot to do with your becoming mentally ill.
14. Although they usually aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.

15. Some people are born with slightly greater capacity than others to commit suicide later in life.
16. Many normal people would become mentally ill if they had to live in very stressful situations.
17. Many health professionals probably underestimate the extent to which brain damage is responsible for mental illness.
18. When a group of people are forced to live under extremely stressful conditions the ones who crack under the strain are likely to be the ones who inherited a psychologically weak disposition.
19. The kind of nervous system you are born with has little to do with whether you become psychotic.
20. The cause of many psychological problems is bad nerves.

The Mental Health Locus of Origin Scale, as found in [Hill and Bale \(1980\)](#)

In the original study, the two scales were presented together, with 34 filler items that were designed to conceal the purpose of the scales. The authors found their scales to be valid ([Hill and Bale 1980](#)). Despite the authors' confidence in the scale, [Thomas \(2009\)](#) did not find any links between Mental Health Locus of Origin orientation and psychological help-seeking behavior in the sample used. Furthermore, a search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar revealed that these scales are not particularly popular in the Locus of Control literature.

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The Alcohol Responsibility Scale

Worell and Timility (1981)

The Alcohol Responsibility Scale seeks to measure the extent to which an individual places the locus of responsibility for problem drinking on the self or on outside forces. The scale consists of 24 items. [Johnson and colleagues \(1991\)](#) found this scale to be comparable to Rotter's scale, with both scales showing alcohol relapse to be associated with an external Locus of Control.

The Alcohol Responsibility Scale:

I more strongly believe that:

- a. I can "make it" if I want to hard enough.
- b. If the cards are "stacked against me", I will never "make it".

- a. I am the victim of bad luck of fate.
- b. I have chosen a poor solution to some of life's problems.

- a. I have learned to become an alcoholic.
- b. Heredity played a major role in my becoming an alcoholic.

- a. My drinking is a "disease".
- b. My drinking is a poor solution to problems in my life.

- a. If I could understand why I got this way, I would be well on my way to becoming cured.
- b. My behavior reflects what I place the most value in—alcohol or family, job, etc.

- a. I am "sick" or "ill".
- b. I am "irresponsible".

- a. I was born to be an alcoholic.
- b. The experiences I have had and how I have reacted to them played a large part in determining whether I would become an alcoholic.

- a. I can be the biggest "con man" in the world.
- b. I am the victim of society and others around me.

- a. I am just no good and I probably never will be.
- b. I can be rehabilitated but only with my help.

- a. If I make up my mind to quit drinking, I can do it.
- b. Without the "right breaks", I don't stand a chance at being sober.

- a. The Service is the main reason why I was forced in to drinking in the first place.
- b. I can choose to refuse a drink even if others expect me to have a drink with them.

- a. What happens to me, as an alcoholic, is up to me.
- b. I don't have very much control over the direction my life takes.

- a. My staying sober involves taking responsibility for my behavior and placing more value on sobriety than on drunkenness.
- b. If I could get the "right breaks" I could kick the habit.

- a. I would give anything to stay sober.
 - b. If I placed more value on staying sober than in drowning my troubles in alcohol, I would stay sober.
-
- a. Other people can drive me to drink.
 - b. I have repeatedly chosen the easy way out of bad situations.
-
- a. I can make the choice not to drink no matter how my parent have treated me.
 - b. My parents don't realize how much they have put me on the road to alcoholism.
-
- a. Physical problems often cause me to drink too much.
 - b. My drinking too much often causes me physical problems.
-
- a. If people understood me better, they would realize that I can't help myself.
 - b. I earn most of the contempt others show towards me.
-
- a. I have made the choice of becoming an alcoholic, not other people.
 - b. If society were different, I wouldn't have had to become an alcoholic.
-
- a. I need a rehabilitation program that will help me.
 - b. I need to take an active part in my own treatment, whenever I seek help.
-
- a. I have given my life over to alcoholism.
 - b. Alcoholism has taken over my life.
-
- a. I certainly get a "raw deal" in life.
 - b. I generally get what I ask for in life.
-
- a. When pressure builds up, I can't keep from drinking.
 - b. Even when things are tough, I am responsible for staying sober.
-
- a. I can control other people with my drinking behavior.
 - b. When I am drunk, I am an easy victim of other people's manipulations.
-
- a. If anyone really cared about me, I wouldn't have to drink.
 - b. If I cared enough about other people, I wouldn't drink.
-
- a. I can't justify my drinking by focusing on a "rough childhood" or a lost marriage.
 - b. A woman is the major cause of my being pushed into alcoholism.
-
- a. I am responsible for choosing my way of life.
 - b. Things that have happened to me have pushed me towards alcoholism.
-
- a. Alcoholism is a behavior problem that only I can change.
 - b. Doctors will soon find a cure for my drinking.
-
- a. I have made the choice to drink or not to drink every day.
 - b. When a way of life, like alcoholism, took over my life it was almost impossible to change.
-
- a. I can't excuse myself for drinking just because I get frustrated by other people.
 - b. When the hospital staff gives me a "bad time," they are driving me to drink.

- a. **My alcoholism was likely caused by my being influenced by other drinkers.**
- b. **I have likely chosen the kind of friends that give me an excuse to drink.**

The Alcoholic Responsibility Scale, as found in Lefcourt (1981).

A Search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar indicates that this scale is not commonly used in the Locus of Control literature.

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Diabetes Locus of Control Scale

Laurie Ferraro, James H. Price, Sharon M. Desmond & Stephen M. Roberts (1987)

This scale has the same three factor format as most of the other scales. It distinguishes between belief in internal control, belief in control by powerful others, and belief in chance. It is intended for use in the adult population, from the age of 18 to 80. The scale uses a six point Likert-type scale.

[Stenstrom and colleagues \(1998\)](#) assessed the psychometric properties of the scale and found them to be acceptable. Recently, this scale was adapted for use in an Iranian population ([Morowatisharifabad et. al. 2010](#)), via translation of the scale into Farsi. Although the scale's validity has been assessed and confirmed by its creators ([1987](#)), this scale remains relatively unpopular, as reflected in searches for "Diabetes Locus of Control Scale" in Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar. Despite the lack of popularity of the scale, the authors assert that in their study, the Diabetes Locus of Control Scale had greater reliability than the Multidimensional Health Locus of Control Scale.

The following is a short list of studies that have used the Diabetes Locus of Control Scale:

- [Ferraro and colleagues \(1987\)](#) found that in a sample of diabetics, those with less education tended to be more external, compared to those who were more educated.
- In an Iranian sample, [Morowatisharifbad and colleagues \(2010\)](#) also found that more education correlated with internality. In addition, they found men to be more internal than women, and women to subscribe more to belief in chance. Finally, they found internals to be more likely to follow to a diabetes regime, while those with a chance Locus of Control showed the lowest tendency for adherence.
- [Stenstrom, Wikby, Andersson and Ryden \(1998\)](#) confirmed in their sample that internals with diabetes have better metabolic control than externals.
- Daniels (2000) studied a sample of Native Americans. In this study, internals displayed better self-management of diabetes, compared to externals.
- Unlike Daniels, [Danks \(2007\)](#) did not find a relationship and Locus of Control and control over ones diabetes. Similarly, [Montague and colleagues \(2005\)](#), in a sample of African American diabetic women, found high levels of glycated hemoglobin (indicative of poor blood sugar regulation), despite the sample's trend toward internality.

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The Depression Locus of Control Scale

Laurie Whitman, Sharon Desmond and James Price (1987)

This is a three-factor scale (internal, chance, powerful others) that was designed for use in adolescents. The authors (1987) found the scale to have content, discriminant and construct validity. The authors also found the scale to discriminate between those who are more likely to have frequent depression (and score higher on the chance subscale) and those who are not (and tend to score lower in the chance subscale). However, a search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar indicates that this scale is not commonly used in Locus of Control literature.

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Headache-Specific Locus of Control Scale

Nancy Martin, Kenneth Holroyd and Penzien (1990)

The headache specific Locus of Control scale contains 33 items and targets chronic headache sufferers. Answers are ranked on a Likert-type scale. The validity of this scale is confirmed by the creators ([1990](#)) as well as by VandeCreek and O'Donnell ([1992](#)), who go on to point out that individuals seeking treatment for headaches score differently on this scale compared to individuals with less severe headaches who do not seek treatment. Heckman and colleagues ([2011](#)) state that the scale seems valid for both Caucasian and Black populations. The scale had three factors: belief in internality, belief in control of health care professionals, and belief in chance. The authors of the scale have also created an adolescent version.

Headache-Specific Locus of Control Scale for Adolescents

- 1. Taking medicine as prescribed keeps headaches from getting worse.**
- 2. Doctors keep me from getting headaches.**
- 3. My headaches aren't as bad if doctors take good care of me.**
- 4. I usually get over a headache when I get good medical help.**
- 5. Seeing my doctor regularly is the best way to control my headaches.**
- 6. My doctor's treatment can help my headaches.**
- 7. If I don't have the right medicine, my headaches are a problem.**
- 8. Only my doctor can give me ways to prevent headaches.**
- 9. When I have headaches, I should talk to a doctor.**
- 10. When my doctor makes a mistake I am the one to suffer with headaches.**
- 11. Just seeing my doctor helps my headaches.**
- 12. When I push myself too hard I get headaches.**
- 13. By not becoming stressed out or overly active I can prevent headaches.**
- 14. When I worry I am more likely to have headaches.**
- 15. My actions influence whether I have headaches.**
- 16. My headaches are worse when I'm stressed.**
- 17. I can avoid some headaches if I relax.**
- 18. I can prevent some headaches by avoiding stress.**
- 19. I can prevent some headaches by not getting upset.**
- 20. I am directly responsible for getting some headaches.**
- 21. When I don't take care of myself, I get headaches.**
- 22. My headaches can be worse if I'm too active.**
- 23. When I have a headache, nothing I can do will change it.**
- 24. My headaches are beyond control.**
- 25. I'm likely to get headaches no matter what I do.**
- 26. No matter what I do, I will still have headaches.**
- 27. I am completely at the mercy of my headaches.**
- 28. If a headache is coming I will get it no matter what.**
- 29. I'm just lucky when I don't get headaches.**
- 30. It's a matter of fate whether I get a headache.**
- 31. When I get headaches I have to let nature run its course.**
- 32. Luck plays a big part in how soon my headache ends.**
- 33. My not getting headaches is a matter of good fortune.**

There is a shortened version of the Headache-specific Locus of Control Scale, consisting of only nine items, that targets a Spanish population. According to the authors of the shortened version ([Cano-Garcia, Rodriguez-Franco & Lopez-Jimenez 2010](#)) it is valid and reliable. In addition, there is a Danish version of the scale ([Hansen, Bendtsen & Jensen 2009](#)) which is reportedly comparable to the original American Scale.

The following is a short list of studies that have used the Headache-Specific Locus of Control Scale:

- [Martin, Holroyd and Penzien \(1990\)](#) found belief in chance to be associated with depression, poor coping strategies and greater physical complaints.
- [Stanton and Jull \(2003\)](#) found that those who scored high on belief in powerful others were more likely to benefit from therapy than those scoring high in belief in chance or belief in internal Locus of Control, as determined by reduced frequency of headaches.
- In one sample, internal Locus of Control was associated with headache-specific self-efficacy, as reported by [French and colleagues \(2000\)](#).
- Gonzales (1997) reported higher externality to correlate with a greater reported number of headaches.
- [Allen and colleagues \(2000\)](#) describe that those in their study who underwent a headache-education program had higher quality of life, as well as a more external Locus of Control compared to those who did not receive education.
- [Napolitano \(2007\)](#) reports Locus of Control to be significantly related to effectiveness of migraine treatment.
- [Skomo, Desselle and Berdine \(2006\)](#) observed no difference in Locus of Control orientation between individuals who tended to seek treatment for migraines and those who did not.
- [Seng and Holroyd \(2010\)](#) found a Behavioral Migraine Management program to internalize headache-specific Locus of Control and increase headache self-efficacy in a group of drug treatment-resistant migraine sufferers.

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Spiritual Health Locus of Control Scales

Cheryl L. Holt (2001)

The theory behind these scales is that individuals often rate their health to be in control of a powerful other, specifically God. When creating this scale, the author wished to explore the range of control spiritual individuals felt over their health with specific regard to a higher power. This scale was created to target spiritual African American women. The measure consists of two scales, one that investigates feelings of internal control and one that investigates feelings of external control. Rather than being internal or external, individuals are scored as active (having feelings of personal control over their health) or passive (reliant on God to determine their health). Holt (2001) found the scales to have good construct validity and internal reliability for her sample. The scale was later lengthened and reevaluated ([Holt and Clark 2007](#)). Again, the authors showed the scale to be internally consistent and to have predictive validity. The revised scale showed four factors:

- Spiritual life and faith
- Active Spiritual
- God's grace
- Passive Spiritual

However, a recent article by Debnam and colleagues (in press) suggests that the scale has only two factors (active and passive), and that the research indicating a four-factor structure lacked structural stability due to small sample size.

The Spiritual Health Locus of Control Scales are argued to measure constructs distinct from the health Locus of Control scales ([Holt et. al. 2003](#)).

The Spiritual Health Locus of Control Scale (revised)

For these statements, I would like you to tell me if you strongly agree, agree, neither, disagree, or strongly disagree.

Please listen carefully to each statement because you may agree with some but disagree with others.

- 1. Through my faith in God, I can stay healthy.**
- 2. If I lead a good spiritual life, I will stay healthy.**
- 3. If I stay healthy, it's because I am right with God.**
- 4. Living the way the Lord says I'm supposed to live means I have to take care of myself.**
- 5. Even though I trust God will take care of me, I still need to take care of myself.**
- 6. God gives me the strength to take care of myself.**
- 7. I rely on God to keep me in good health.**
- 8. God works through doctors to heal us.**
- 9. Prayer is the most important thing I do to stay healthy.**
- 10. If I stay well, it is because of the grace of the good Lord.**
- 11. It's ok not to seek medical attention because**
- 12. I feel that God will heal me.**
- 13. There is no point in taking care of myself when it's all up to God anyway.**
- 14. God and I share responsibility for my health.**

Subscales:

Active spiritual: 4 + 5 + 6 + 14 + 1 + 2 + 3 + 7 + 8 + 9 + 10

Passive spiritual: 12+ 13

The revised Spiritual Health Locus of Control Scale, as provided in an email correspondence.

The following is a short list of studies that have used the Spiritual Health Locus of Control Scales:

1. [Holt and colleagues \(2003\)](#) noticed the “active” participants in their group negatively associate with perception of benefits of mammography, compared to the “passive” participants.
2. Holt, C. L., Clark, E. M. & Klem (2007) found that those who score high in the passive dimension have more limited knowledge of mammography compared to the active group.
3. In a sample of highly spiritual obese African American women, [Wells \(2006\)](#) found that the “active” participants were more likely to increase physical activity, lose weight, and lower their BMI compared to the “passive” group after an intervention. This finding is made more interesting when considering that 98% of the sample considered their spirituality to be an integral part of their decision-making process.

Additional information for this scale can be found at www.champhealth.org

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Oral Health Locus of Control Scale

Rosita Brown Long (2007)

The Oral Health Locus of Control was designed by [Long \(2007\)](#) to explore why some individuals maintain good oral hygiene while others neglect regular visits to the dentist. The author suggests that while a health Locus of Control scale may be used to investigate this topic, some findings, such as those that show a positive correlation between internality and smoking behavior, are counterintuitive and therefore it may be beneficial to have a more specific scale. The scale consists of the usual 3 factor structure: internality, powerful others, and chance. It consists of some multiple choice questions, some yes-no questions, and some Likert-type scale ratings.

Oral Health Locus of Control Scale

1. Think about the past year, have you had any of the following?

(check all that apply)

- ... Sensitive Teeth
- ... Loose Teeth
- ... Bleeding Gums
- ... Bad Breath
- ... Swelling Inside Mouth
- ... Sore Jaw
- ... Difficulty Chewing
- ... Burning Sensation in Your Mouth
- ... Tartar Build-up
- ... Toothache
- ... Filling Fell Out
- ... Abscess
- ... Yellowing Teeth
- ... Sore Gums
- ... Dry Mouth
- ... Swollen Face
- ... Difficulty Swallowing
- ... Pain (general area of mouth or jaw)
- ... Dissatisfaction with Appearance of Teeth
- ...Worry about area in mouth or about teeth
- ...Any Other (oral/dental only)

2. Have you EVER had any of the above dental problems at any time during your life? Yes ...No

3. Are you having any of the above problems today? ...Yes ...No

4. Think about the past year, have you done any of the following: [check all that apply].

- ... Looked in the mirror to check an area of your mouth
- ... Took Over-the-Counter pain medicine for an oral health problem
- ... Asked a friend or family member to check an area of your mouth
- ... Talked to a friend or family member about a specific oral health problem
- ... Had increased stress, worry, or anxiety about your gums, teeth, or mouth
- ... Chose soft foods to eat as a substitute to prevent oral pain or discomfort
- ... Got more rest because of a oral health problem
- ... Took medicine prescribed by the Dentist
- ... Carried out self-care the dentist told you to do

... Made a follow-up visit to another medical provider because of a specific oral health problem (e.g., oral surgeon, internal medicine, cardiac specialist)

5. Most days of the past week I did the following: [check all that apply].

... Flossed between my teeth ... Brushed my teeth ... Brushed my tongue ... Used a tooth pick ...
Used Mouthwash ... None of these choices ... Ate hard vegetables or fruits like carrots, pears,
apples, celery, Etc.

6. In the past year, how many times would you estimate you made a dental professional (hygienist or dentist) visit? (check only one box)

... None ... 1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7 ... 8 or more

7. In the past year, how many visits to a dental professional (hygienist or dentist) were only so that you could get sealants, whitening, cleaning, fluoride treatment, or a general checkup? (check only one box)

... None ... 1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7 ... 8 or more

Please check the box that best describes how you feel about each of the statements that follow. (check only one box for each statement)

8. If you don't have your dental health you don't have anything.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

9. There are many things I care about more than my dental health.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

10. Good dental health is only of minor importance in a happy life.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

11. My dental health is highly important compared to other things in my life.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree¹¹⁴

12. When I have a problem with my dental health, I first call the dental office.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

13. If I take care of myself I can avoid problems with my teeth and gums.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

14. If I have a dental problem(s), other than an injury, it will be because of something I've done or not done.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

15. I think good teeth and gums are largely a matter of heredity.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

16. No matter what I do, I'm likely to have dental problems.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

17. If you have bad dental health when you are young, there is little more you can do.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

18. I think just about everybody loses teeth as they get older.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree

- ... Strongly Disagree
19. Dental problems happen because of personal neglect.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
20. I am directly responsible for keeping my teeth and gums healthy.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
21. I control the condition of my teeth and gums.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
22. Regarding my dental health, I do only what the dental professionals tell me to do.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
23. Having regular contact with my dental professionals is the best way for me to avoid dental problems.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
24. My family plays a big part in my dental health recovery.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
25. Dental professionals are responsible for keeping my teeth and gums healthy.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
26. The care I receive from dental professionals is the main reason for how well I recover from dental problems.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
27. Luck probably plays a big part in how soon I recover from my dental problems.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
28. Most things that affect my dental health happen because of luck.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
29. There is a direct connection between going to the dentist and good dental health.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
30. There is little I can do to avoid dental problems.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
31. A lot of things that affect my dental health are out of my control.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
32. How soon I recover from dental problems usually depends on me alone.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
33. Poor dental health is unavoidable.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree

34. Dental health happens mostly because of luck.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
35. Having good dental health can only happen by listening to dental professionals.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
36. My dental health can only be good if I take the right actions myself.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
37. Sometimes I take the advice of family and friends in caring for my teeth and mouth.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
38. I take oral health and disease seriously enough to act on my own knowledge.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
39. Most dental problems can be helped by making visits to the dental office.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
40. If most people in my family have good oral health, it means I should, too.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
41. When I think of oral health problems, I'm just lucky things are not worse.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
42. If I don't visit my oral health provider regularly, then my oral health will probably get worse.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
43. Sometimes I find my own new ways to take better care of my teeth and mouth.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
44. I learned growing up how to take care of my teeth and mouth for good oral health.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
45. My oral health depends solely on the way I take care of myself.
 ... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
46. Dental problems happen in spite of everything I try to do to avoid them.
 Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
47. I make the decision whether to have good oral health or not.
 Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
48. Without the work of dental professionals to care for my teeth and gums, I couldn't have good oral health.
 Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree
 ... Strongly Disagree
49. In this day of modern dentistry, everyone should have good oral health.

Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

50. Some people were just born to have good oral health.

Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

51. If I get sick, it's my own behavior that determines how soon I get well again.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

52. No matter what I do, if I am going to get sick, I will get sick

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

53. Having regular contact with my physician is the best way for me to avoid illness.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

54. Most things that affect my health happen to me by accident.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

55. Whenever I don't feel well, I should consult a medically trained professional.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

56. I am in control of my health.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

57. My family has a lot to do with my becoming sick or staying healthy.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

58. When I get sick, I am to blame.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

59. Luck plays a big part in determining how soon I will recover from an illness.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

60. Health professionals control my health.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

61. My good health is largely a matter of good fortune.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

62. The main thing that affects my health is what I myself do.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

63. If I take care of myself, I can avoid illness.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree
... Strongly Disagree

64. Whenever I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.

... Strongly Agree ... Moderately Agree ...Agree ... Disagree ... Moderately Disagree

... Strongly Disagree

65. No matter what I do, I'm likely to get sick.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree

... Strongly Disagree

66. If it's meant to be, I will stay healthy.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree

... Strongly Disagree

67. If I take the right actions, I can stay healthy.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree

... Strongly Disagree

68. Regarding my health, I can only do what my doctor tells me to do.

... Strongly Agree ... Moderately Agree ... Agree ... Disagree ... Moderately Disagree

... Strongly Disagree

A search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar shows this is not a commonly used measure in Locus of Control Literature.

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AGE-SPECIFIC MEASURES

Bialer-Cromwell Children's Locus of Control Scale

Irv Bialer (1961)

Developed by Irv Bialer, this scale was adapted from scales previously created by Phares (unpublished doctoral dissertation, 1955) and James (Unpublished doctoral dissertation, 1957). Bialer's 23 item scale was the first to measure Locus of Control in children. Bialer (among others) theorized that in order for a child to interpret an event as a success or a failure they must be able to see themselves as responsible for the outcome of that event. This understanding is more complicated than a simple unpleasant versus pleasant interpretation of events, and thus a child with a developed understanding of success and failure may choose to continue an "unpleasant" or "failure" task in hopes of creating a "pleasant" or "success" event. The Bialer-Cromwell Children's Locus of Control Scale was thus created and implemented to see the development of this ability to assume responsibility for an event's outcome, as well as if and how this differs between developmentally normal children and children with mental retardation. In Bialer's [1961](#) study, between group differences were not found. The scale presents a series of yes-or-no questions that can be read to the child.

A Sample from the Bialer-Cromwell Children's Locus of Control Scale

Do you really believe a kid can be whatever he wants to be?

When people are mean to you, could it be because you did something to make them be mean?

When nice things happen to you, is it only good luck?

Do you often feel you get punished when you don't deserve it?

A sample of questions found in the Bialer-Cromwell Locus of Control Scale ([Bialer 1961](#)).

Support for the validity of this scale comes from Bialer's own study, as well as one conducted by S. Land ([1965](#)) which explored differences in Locus of Control between blind children and those with sight. However, others are less convinced of the validity and value of this scale. Halpin and Ottinger ([1981](#)) argue that the Bialer-Cromwell scale (as well as the Nowicki-Strickland scale) is heavily influenced by the verbal ability of the subject. Although designing a test that does not rely heavily on well-developed verbal ability is a sticky task, it is reasonable to assume that if a test of Locus of Control is heavily influenced by this construct, then the validity of the test is less than perfect. Gorsuch and colleagues ([1972](#)) are also critical of the influence of verbal ability on the scale. They show that although scores are quite reliable for those with normal verbal ability, scores for those without normal verbal ability are unreliable. Shaw and Uhl ([1969](#)) also posit that the Bialer scale has low reliability.

Despite questions of validity and reliability, this scale has been used in a number of studies. Below is a brief list of studies that have used the Bialer-Cromwell Children's Locus of Control Scale:

- [M. Guttentag \(1972\)](#) looked for ethnic differences in Locus of Control in school children, but did not find them.

- [Shaw and Uhl \(1969\)](#) also failed to find ethnic differences in Locus of Control, but did find that ethnicity, socio-economic status (SES), and Locus of Control influenced reading level, and that SES and ethnicity interact to influence Locus of Control. However, as stated above, the authors note the low reliability of the scale and suggest it be revised.
- [Hisama and Hotchkiss \(1971\)](#) found that in children with learning disabilities, those who classified as having high achievement motivation (as measured by their Locus of Control scores) were more successful in proper completion of tasks.
- [Collier and colleagues \(1987\)](#) revealed that gifted students tend to attribute both success and failure to internal sources more often than non-gifted children.
- [Oden \(1971\)](#) did not find a reliable relationship between creativity and Locus of Control. Her results may have been influenced by the creativity scale used as well as the gender of the subject.

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Crandall Intellectual Achievement Responsibility Questionnaire

Virginia Crandall, Walter Katkovski and Vaughn Crandall (1965)

The Crandall Intellectual Achievement Responsibility Questionnaire was developed by Crandall, Katkovski and Crandall to measure academic Locus of Control in children and adolescents. Specifically, this scale is meant to measure children's views on their own influence on reinforcement pertaining to academics and intellectual ability. This scale can be used to determine both where children place responsibility for success and where they place responsibility for failure. This 34 item questionnaire is widely used in educational research.

The Intellectual Achievement Responsibility Scale

- 1. If a teacher passes you to the next grade, would it probably be**
 - a. because she liked you, or**
 - b. because of the work you did?**
- 2. When you do well on a test at school, is it more likely to be**
 - a. because you studied for it, or**
 - b. because the test was especially easy?**
- 3. When you have trouble understanding something in school, is it usually**
 - a. because the teacher didn't explain it clearly, or**
 - b. because you didn't listen carefully?**
- 4. When you read a story and can't remember much of it, is it usually**
 - a. because the story wasn't well written, or**
 - b. because you weren't interested in the story?**
- 5. Suppose your parents say you are doing well in school. Is this likely to happen**
 - a. because your school work is good, or**
 - b. because they are in a good mood?**
- 6. Suppose you did better than usual in a subject at school. Would it probably happen**
 - a. because you tried harder, or**
 - b. because someone helped you?**
- 7. When you lose at a game of cards or checkers, does it usually happen**
 - a. because the other player is good at the game, or**
 - b. because you don't play well?**
- 8. Suppose a person doesn't think you are very bright or clever.**
 - a. can you make him change his mind if you try to, or**
 - b. are there some people who will think you're not very bright no matter what you do?**
- 9. If you solve a puzzle quickly, is it**
 - a. because it wasn't a very hard puzzle, or**
 - b. because you worked on it carefully?**
- 10. If a boy or girl tells you that you are dumb, is it more likely that they say that**
 - a. because they are mad at you, or**
 - b. because what you did really wasn't very bright?**
- 11. Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen**
 - a. because you didn't work hard enough, or**
 - b. because you needed some help, and other people didn't give it to you?**
- 12. When you learn something quickly in school, is it usually**
 - a. because you paid close attention, or**
 - b. because the teacher explained it clearly?**

13. If a teacher says to you, "Your work is fine," is it
 - a. something teachers usually say to encourage pupils, or
 - b. because you did a good job?
14. When you find it hard to work arithmetic or math problems at school, is it
 - a. because you didn't study well enough before you tried them, or
 - b. because the teacher gave problems that were too hard?
15. When you forget something you heard in class, is it
 - a. because the teacher didn't explain it very well, or
 - b. because you didn't try very hard to remember?
16. Suppose you weren't sure about the answer to a question your teacher asked you, but your answer turned out to be right. Is it likely to happen
 - a. because she wasn't as particular as usual, or
 - b. because you gave the best answer you could think of?
17. When you read a story and remember most of it, is it usually
 - a. because you were interested in the story, or
 - b. because the story was well written?
18. If your parents tell you you're acting silly and not thinking clearly, is it more likely to be
 - a. because of something you did, or
 - b. because they happen to be feeling cranky?
19. When you don't do well on a test at school, is it
 - a. because the test was especially hard, or
 - b. because you didn't study for it?
20. When you win at a game of cards or checkers, does it happen
 - a. because you play real well, or
 - b. because the other person doesn't play well?
21. If people think you're bright or clever, is it
 - a. because they happen to like you, or
 - b. because you usually act that way?
22. If a teacher didn't pass you to the next grade, would it probably be
 - a. because she "had it in for you," or
 - b. because your school work wasn't good enough?
23. Suppose you don't do as well as usual in a subject at school. Would this probably happen
 - a. because you weren't as careful as usual, or
 - b. because somebody bothered you and kept you from working?
24. If a boy or girl tells you that you are bright, is it usually
 - a. because you thought up a good idea, or
 - b. because they like you?
25. Suppose you became a famous teacher, scientist or doctor. Do you think this would happen
 - a. because other people helped you when you needed it, or
 - b. because you worked very hard?
26. Suppose your parents say you aren't doing well in your school work. Is this likely to happen more
 - a. because your work isn't very good, or
 - b. because they are feeling cranky?
27. Suppose you are showing a friend how to play a game and he has trouble with it. Would that happen
 - a. because he wasn't able to understand how to play, or
 - b. because you couldn't explain it well?
28. When you find it easy to work arithmetic or math problems at school, is it usually

- a. because the teacher gave you especially easy problems, or
 - b. because you studied your book well before you tried them?
29. When you remember something you heard in class, is it usually
- a. because you tried hard to remember, or
 - b. because the teacher explained it well?
30. If you can't work a puzzle, is it more likely to happen
- a. because you are not especially good at working puzzles, or
 - b. because the instructions weren't written clearly enough?
31. If your parents tell you that you are bright or clever, is it more likely
- a. because they are feeling good, or
 - b. because of something you did?
32. Suppose you are explaining how to play a game to a friend and he learns quickly. Would that happen more often
- a. because you explained it well, or
 - b. because he was able to understand it?
33. Suppose you're not sure about the answer to a question your teacher asks you and the answer you give turns out to be wrong. Is it likely to happen
- a. because she was more particular than usual, or
 - b. because you answered too quickly?
34. If a teacher says to you, "Try to do better," would it be
- a. because this is something she might say to get pupils to try harder, or
 - b. because your work wasn't as good as usual?

Intellectual Achievement Responsibility Questionnaire as found in Crandall, Katkovski & Crandall ([1965](#))

This measure has good internal validity and test-retest reliability (see *Scales for Different Age Groups* in [Furnham & Steele, 1993](#)). Crandall and colleagues ([1965](#)) found this measure to be valid and reliable in American children. They also found this scale to reveal Locus of Control to be influenced by age, gender, family size, ordinal position and intelligence. Locus of Control was not reliably influenced by social class. Reid and Croucher ([1980](#)) found the scale to be reliable and valid in British populations, and suggest that the scale reveals a relationship between Locus of Control and attainment (motivation), as opposed to Locus of Control and intelligence.

An expanded version of this scale has been created to assess children's perceptions of where responsibility lies in the academic and intellectual reinforcement of their peers. This scale simply takes items from the original scale and replaces words that apply to the self (such as you) to apply to others (e.g. someone in your class) ([Barnett & Kaiser, 1977](#)).

If a teacher passes you to the next grade, would it probably be

- a. because she liked you, or
- b. because of the work you did?

Sample question from the original Crandall Intellectual Achievement Responsibility Questionnaire

If a teacher passes someone in your class to the next grade, would it probably be

- a. because she liked that person, or
- b. because of the work that person did?

Sample question from the expanded version of the questionnaire ([Barnett & Kaiser, 1977](#))

Below is a short list of studies that have used the Crandall Intellectual Achievement Responsibility Questionnaire:

- [Barnett and Kaiser \(1977\)](#) found that boys who scored high on externality scored lower on indexes of intelligence and achievement and were more defensive than boys who scored high on internality.
- [Reed \(1970\)](#) found that self-attribution for both success and failure correlates with high motivation for achievement, and that children who are at or above the academic level expected for their grade level tended to self-attribute success.
- [Jones and McGhee \(1972\)](#) used the Intellectual Achievement Responsibility Scale with blind participants. Their study showed that in the sample used, belief in external responsibility for success correlated with high achievement motivation. These results are contrary to other studies.
- [Smith \(1973\)](#) used the scale to assess a computer assisted program for math instruction.
- [Baron and colleagues \(1974\)](#) used the scale to add evidence to the finding that internals respond better to intrinsic (self-discovered) feedback for success while externals responded to extrinsic (verbally administered, in this paradigm) feedback for success.
- Halpin, Halpin and Whiddon (1980) did not find a cultural difference in parental influence on Locus of Control in American Indians and Caucasians.

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Nowicki-Strickland Locus of Control Scales

Bonnie R. Strickland and Steven Nowicki Jr., and M. Duke (1971-1974)

Nowicki, with colleagues Duke and Strickland, created a series of scales beginning with one for children (1971). Nowicki also created a scale for adults (1974(a)), children under 9 (1974(b)), and a scale for seniors (1974(c)). Nowicki and Strickland operated under belief that age-specific scales would produce more predictive and useful results than domain-specific scales (Dixon, McKee and McRae (1976), on the other hand, find domain-specific tests to be more useful).

Nowicki and Duke developed the adult scale (1974) in efforts to address some shortcomings that they had found in the Rotter scale, such as the degree to which it is influenced by the subject's social desirability and reading level. Finch and colleagues (1981) analyzed the adult scale and determined that it measured several different aspects of Locus of Control:

- Ability to protect oneself
- Social power/social importance
- Superstition
- Passivity

Nowicki and Duke developed a scale for preschoolers (1974(b)). This scale closely mimicked the scale for older children, but words and phrasing were altered to apply to younger children (e.g. "Mommy and Daddy" rather than "your parents").

Preschool and Primary Internal-External Control Scale

- 1. Do you believe that you can stop yourself from catching a cold?**
- 2. Do you feel that getting the teacher to like you is very important?**
- 3. Do you have a good luck charm?**
- 4. Are you often blamed for things that just aren't your fault?**
- 5. Will people like you no matter how you act?**
- 6. If you ask for something enough, will you get it?**
- 7. Do you believe that wishing can make good things happen?**
- 8. When a kid your age decides to hit you, is there anything you can do to stop him or her?**
- 9. Can you get friends to do what you want them to do?**
- 10. Do you have a lucky number?**
- 11. Can you get your Mommy and Daddy to do what you want to do instead of what they want to do?**
- 12. Does whether or not Mommy and Daddy like you depend on how you act?**
- 13. Do you always do the right things?**
- 14. When people were mean to you, was it usually for no reason at all?**
- 15. Do you ever say anything that makes somebody else feel bad?**
- 16. When you do something wrong is there little you can do to make it right again?**
- 17. Most of the time do you find it easy to get your own way at home?**
- 18. Do you always wash your hands before every meal?**
- 19. Do you sometimes feel like staying home from school even if you're not sick?**

20. Are most kids just born good at running races?
21. When somebody your age wants to be your enemy, is there anything you can do to make him or her like you?
22. Should your Mommy and Daddy decide what you should do?
23. Is it almost impossible to try to win a game because most of the other kids are just plain better than you are?
24. Do you sometimes tell a little lie?
25. When a person doesn't like you is there anything you can do about it?
26. Are most of the other boys your age stronger than you are?
27. Are you the kind of child who believes that thinking about what you are going to do makes things turn out better?
28. Do you think it's better to be smart than to be lucky?
29. Are you always polite to older people?
30. When another child hits you, is it usually because of something you did?
31. Do you always listen to your parents?
32. Is one of the best ways to handle a problem just not to think about it?
33. Do you ever get angry?
34. Can you make other kids like you?

Preschool and Primary Internal-External Control Scale as found in Nowicki & Duke, [1974](#).

The preschool scale was subject to some scrutiny, as Herzberger and colleagues ([1979](#)) claimed the reliability of the scale was low enough that the scale was not of any use. Nowicki and Duke ([1979](#)) wrote a response paper, arguing for the validity of their measure and citing several reasons why the Herzberger results may have differed from their own. Nowicki and Duke cite, for instance, that in the Herzberger scale the yes-or-no answer format was replaced by a forced choice between a smiling face and a frowning face.

The adult scale is also quite similar to the original scale, but with slight changes that make the questions more relevant to older participants (e.g. "some people" rather than "some kids").

The Adult Nowicki-Strickland Locus of Control Scale

1. Do you believe that most problems will solve themselves if you don't fool with them?
2. Do you believe that you can stop yourself from catching a cold?
3. Are some people just born lucky?
4. Most of the time, do you feel that getting good grades means a great deal to you?
5. Are you often blamed for things that just aren't your fault?
6. Do you believe that if somebody studies hard enough, he or she can pass any subject?
7. Do you feel that most of the time it doesn't pay to try hard because things never turn outright anyway?
8. Do you feel that if things start out well in the morning that it's going to be a great day, no matter what you do?

9. Do you feel that most of the time parents listen to what their children have to say?
10. Do you believe that wishing can make good things happen?
11. When you get criticized, does it usually seem it's for no good reason at all?
12. Most of the time do you find it hard to change a friend's (---mind) opinion?
13. Do you think that cheering, more than luck, helps a team to win?
14. Do you feel that it is nearly impossible to change your parents' mind about anything?
15. Do you believe that your parents should allow you to make most of your own decisions?
16. Do you feel that when you do something wrong there's very little you can do to make it right?
17. Do you believe that most people are just born good at sports?
18. Are most of the other people your age and sex stronger than you are?
19. Do you feel that one of the best ways to handle most problems is just not to think about them?
20. Do you feel that you have a lot of choice in deciding whom your friends are?
21. If you find a four leaf clover, do you believe that it might bring good luck?
22. Do you often feel that whether or not you do your homework has much to do with what kinds of grades you get?
23. Do you feel that when a person your age is angry with you, there's little you can do to stop him or her?
24. Have you ever had a good luck charm?
25. Do you believe that whether or not people like you depends on how you act?
26. Will your parents usually help you if you ask them to?
27. Have you ever felt that when people were angry with you, it was usually for no reason at all?
28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
29. Do you believe that when bad things are going to happen they just are going to happen no matter what you do to try to stop them?
30. Do you think that people can get their own way if they just keep trying?
31. Most of the time, do you find it useless to try to get your own way at home?
32. Do you feel that when good things happen, they happen because of hard work?
33. Do you feel that when somebody your age wants to be your enemy, there's little you can do to change matters?
34. Do you feel that it's easy to get friends to do what you want them to do?
35. Do you usually feel that you have little to say about what you get to eat at home?
36. Do you feel that when someone doesn't like you there's little you can do about it?
37. Do you usually feel that it is almost useless to try in school because most other students are just plain smarter than you are?
38. Are you the kind of person that believes that planning ahead makes things turn out better?
39. Most of the time, do you feel that you have little to say about what your family decides to do?
40. Do you think it's better to be smart than to be lucky?

The Nowicki-Strickland Locus of Control Scale for Adults, as presented in an email correspondence with S. Nowicki

The original children's scale consists of 40 yes-or-no items. The scale was designed for use in children ages 8-16.

Nowicki-Strickland Locus of Control Scale for Children

- 1. Do you believe that most problems will solve themselves if you just don't fool with them?**
- 2. Do you believe that you can stop yourself from catching a cold?**
- 3. Are some kids just born lucky?**
- 4. Most of the time do you feel that getting good grades means a great deal to you?**
- 5. Are you often blames for things that just aren't your fault?**
- 6. Do you believe that if somebody studies hard enough he or she can pass any subject?**
- 7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?**
- 8. Do you feel that of things start out well in the morning that it's going to be a good day no matter what you do?**
- 9. Do you feel that most of the time parents listen to what their children have to say?**
- 10. Do you believe that wishing can make good things happen?**
- 11. When you get punished does it usually seem it's for no good reason at all?**
- 12. Most of the time do you find it hard to a friend's (mind) opinion?**
- 13. Do you think that cheering more than luck helps a team to win?**
- 14. Do you feel that it's nearly impossible to change your parents mind about anything?**
- 15. Do you believe that your parents should allow you to make most of your decisions?**
- 16. Do you feel that when you do something wrong there's very little you can do to make it right?**
- 17. Do you believe that most kids are just born good at sports?**
- 18. Are most of the other kids your age stronger than you are?**
- 19. Do you feel that one of the best way to handle most problems is just not to think about them?**
- 20. Do you feel that you have a lot of choice in deciding who your friends are?**
- 21. If you find a four leaf clover do you believe that it might bring you good luck?**
- 22. Do you often feel that whether you do your homework has much to do with what kind of grades you get?**
- 23. Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her?**
- 24. Have you ever had a good luck charm?**
- 25. Do you believe that whether or not people like you depends on how you act?**
- 26. Will your parents usually help you if you ask them to?**
- 27. Have you felt that when people were mean to you it was usually for no reason at all?**
- 28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?**
- 29. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?**
- 30. Do you think that kids can get their own way if they just keep trying?**
- 31. Most of the time do you find it useless to try to get your own way at home?**
- 32. Do you feel that when good things happen they happen because of hard work?**

33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
34. Do you feel that it's easy to get friends to do what you want them to?
35. Do you usually feel that you have little to say about what you get to eat at home?
36. Do you feel that when someone doesn't like you there is little you can do about it?
37. Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are?
38. Are you the kind of person who believes planning ahead makes things turn out better?
39. Most of the time, do you feel that you have little to say about what your family decides to do?
40. Do you think it's better to be smart than to be lucky?

Nowicki-Strickland Locus of Control Scale, as found in Nowicki & Strickland ([1971](#))

The validity of this scale has been reported as comparable to Rotter's Internal-External Control Scale, and it is speculated that the Rotter scale and the Nowicki-Strickland scale may be two of the most frequently used Locus of Control measures ([Beretvas et. al. 2008](#)). Strickland and Nowicki ([1971](#)) found their scale to have predictive validity across various ethnicities and socio-economic statuses. It has also been successfully translated to Chinese. ([Li & Lopez 2004](#)).

On the other hand, one study argued that the Nowicki-Strickland scale, as well as many others, had poor validity, both discriminant and convergent ([Borich and Paver 1974](#)).

The following is a short list of studies that have used any of the Nowicki Locus of Control scales discussed above, whether the preschoolers, children, adults, or the elderly scales.

- [Collier and colleagues \(1987\)](#) found that intellectually gifted children tended to be more internal than controls.
- A study published in the [Journal of Collage Admission in 2006](#) used the scale to determine that internal Locus of Control upon entrance to college was predictive of a higher GPA compared to those who were externals when entering college.
- [Li and Chung \(2009\)](#), using the Chinese version of the scale, found that Chinese students with an external Locus of Control had higher anxiety levels just before an exam compared to those with an internal Locus of Control.
- In their study, [Wu and Elliott \(2008\)](#) determined that internals preferred contingent rewards more than externals, who were more likely to prefer chance rewards.
- [Howerton and colleagues \(1992\)](#) collected data that revealed that black males that were at risk for academic failure (as identified by their teachers) tended to be more external than other students.
- [Suzzio & Soon \(2006\)](#) found that individuals who are emotionally supported by their parents were more likely to be internal.
- [Duke and Fenhagen \(1975\)](#) used this scale to confirm their prediction that female delinquents would be more external than female non-delinquent controls.

If you have further questions, or would like to use one of these scales in your research, Steve Nowicki can be reached at snowick@emory.edu

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Stanford Preschool Internal-External Scale

Walter Mischel, Robert Zeiss and Antonette Zeiss (1974)

The Stanford Preschool Internal-External Scale was introduced in 1974, and is intended for use in children aged three to six years. It presents 14 items in a forced-choice format. The scale was created to address several issues the authors felt were not addressed by other Locus of Control scales at the time, such as the bias some preschoolers have to answer the affirmative when asked a yes-or-no question. This scale is divided into positive and negative subscales, and investigates Locus of Control outside the academic realm. For instance, there are questions concerning control over objects as well as peer and parental interaction. In addition, the scale is relatively short, taking into account that a small child's attention span is often more limited than that of someone older.

Stanford Preschool Internal-External Scale

- 1. When you are happy, are you happy**
 - a. because you did something fun, or
 - b. because somebody was nice to you?
- 2. When somebody tells you that you are good, is that**
 - a. because you really have been good, or
 - b. because he is a nice person?
- 3. Do you think I brought you to the surprise room (the experimental room)**
 - a. because you have been good today, or
 - b. because I'm just a nice man (lady)?
- 4. When your mother gives you a cookie, is that**
 - a. because you need a cookie, or
 - b. because she has too many cookies?
- 5. When somebody brings you a present, is that**
 - a. because you are a good girl (boy), or
 - b. because they like to give people presents?
- 6. When you draw a whole picture without breaking your crayon, is that**
 - a. because you were very careful, or
 - b. because it was a good crayon?
- 7. If you had a shiny new penny and lost it, would that be**
 - a. because you dropped it, or
 - b. because there was a hole in your pocket?
- 8. When you are sad and unhappy, are you sad and unhappy**
 - a. because you did something sad, or
 - b. because somebody wasn't very nice to you?
- 9. When you play a game and lose, do you lose**
 - a. because you just didn't play well, or
 - b. because the game was hard?
- 10. When somebody stops playing with you, is that**
 - a. because he doesn't like the way you play, or
 - b. because he is tired?
- 11. When you get a hole in your pants, is that**
 - a. because you tore them, or
 - b. because they wore out?
- 12. If you had a pet turtle and he ran away, do you think that would be**
 - a. because you did something to make him leave, or

- b. because there was a hole in his cage?**
- 13. When you are drawing a picture and your crayon breaks, is that**
- a. because you pushed too hard, or**
- b. because it was a bad crayon?**
- 14. When you can't find one of your toys, is that**
- a. because you lost it, or**
- b. because somebody took it?**

The Stanford Preschool Internal-External Scale, as found in [Mischel, Zeiss & Zeiss \(1974\)](#)

The scale's validity has been confirmed by its developers ([1974](#)), who found it to have high test-retest reliability, as well as to predict behavior. [Chartier, Lankford and Ainley \(1976\)](#) found this scale to be reliable in kindergarteners as well as preschoolers.

On the other hand, [Bachrach and Peterson \(1976\)](#) compared the Stanford Preschool Internal-External Scale, the Bialer Scale for children and one other Locus of Control measure. Of the three, the Bialer scale was found to be the most adequate measure for children.

The following is a brief list of studies that have utilized the Stanford Preschool Internal-External Scale:

- [Burns \(1985\)](#) used the scale to study internal versus external attribution following successful completion of a task. The hypothesis that internal attribution would follow successful task completion was supported.
- [Dollinger and Thelen \(1987\)](#) did not find internal or external attribution to be affected by various reward types in their sample.
- [Henry and colleagues \(1979\)](#) also studied various types of reward feedback, and did not find conclusive evidence that peer versus adult feedback preference was correlated with Locus of Control attribution.
- [Walden and Ramey \(1983\)](#) compared at-risk (for academic failure) students who underwent an intervention program with at-risk students who did not participate in the program, as well as students who were not at risk. They concluded that in their sample, internal Locus of Control predicted better academic performance in all groups except for the at-risk non-intervention group.
- [Reiss and Dyhaldo \(1975\)](#) did not find a correlation between Locus of Control attribution and persistence in a task.
- [Curtis and Schildhaus \(1980\)](#) used the scale to show that most of the children in their sample perceived themselves and their peers to be externally controlled.
- [Kinnison and colleagues \(1988\)](#) also found the majority of their sample of preschoolers to be externally controlled.
- [Medway and Barron \(1977\)](#) found that internals make more successful tutors, but internality versus externality does not affect the success of the tutee.

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Academic Locus of Control Scale

Ashton Trice (1985)

The Academic Locus of Control Scale targets college students. The scale presents 28 items in a true-false format.

[Trice \(1985\)](#) found the scale to correlate with other Locus of Control scales, to predict behavior, and to correlate with achievement motivation. The scale also had high test-retest reliability, as well as non-significant social desirability scores. In a later study, [Trice and colleagues \(1987\)](#) found the scale to predict verbal class participation, study time, and homework completion. [Ibrahim \(1996\)](#) tested the scale outside of the western culture for which it was created. Ibrahim found this scale to be a better predictor of academic performance than Rotter's scale in a sample of Omani participants.

The following is a short list of studies that have used the Academic Locus of Control Scale:

- [Iskender and Akin \(2010\)](#) found externality to be associated with internet addiction, and internality to be associated with social self-efficacy.
- [Hashway and others \(1990\)](#) showed "non-developmental students" to be more internal than "developmental" student in their sample.
- Ogden and Trice (1986) tested freshman at the end of the academic school year. In their study, those who were in academic trouble were much more likely to have an external Locus of Control compared to those who were doing well at the end of their freshman year.
- [Jones and colleagues \(1995\)](#) also found a relationship between Locus of Control and study skills.
- A study by [Onwuegbuzie and Daley \(1998\)](#) showed that those with very good study skills tended to have an internal academic Locus of Control.
- Richardson (1995) found, in a sample of Caribbean students, that internality was more prominent in older students compared to younger students.
- [Janssen and Carton \(1999\)](#) showed that internal students in their samples began work on tasks more promptly than externals, and turned assignments in sooner.
- Skinner (2003) suggests that the Academic Locus of Control scale can be an important tool for counselors working with college-bound students with learning disabilities, as it can be used to monitor Locus of Control and perhaps assist in a shift toward internality.
- Trice conducted two studies ([1987](#); [1989](#)) investigating Locus of Control and college class absenteeism.

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Children's Health Locus of Control Scale

Guy Parcel and Michael Mayer (1987)

This scale was designed for use in children and adolescents. It seeks to measure how much children and adolescents believe their own health-related behaviors will influence their health. This 20 item scale contains an additional 3 practice items and is in a yes-no format. It contains three factors: belief in internality, belief in powerful others, and belief in chance. The original study ([Parcel and Mayer 1987](#)) was conducted on children aged 9-12 years, and the authors found the scale to have adequate reliability, construct validity and internal consistency. [O'Brien, Bush, and Parcel \(1989\)](#) conducted a longitudinal study with over 1,000 participants and found that, despite some poorly worded items, the scale is appropriate for its intended population and is a reliable measure. [Wang \(1997\)](#) also attests to the scale's reliability.

The Children's Health Locus of Control Scale

We would like to learn about different ways children look at their health. Here are some statements about health or illness (sickness). Some of them you will think are true and so you will circle the YES. Some you will think are not true and so you will circle the NO. Even if it is very hard to decide, be sure to circle YES or NO for every statement. Never circle both YES and NO for one statement. There are no right or wrong answers. Be sure to answer the way you really feel and not the way other people might feel.

PRACTICE:

Try the statements below.

Children can get sick.

If you think this is true, circle..... YES

If you think this is not true, circle.....NO

Children never get sick.

If you think this is true, circle..... YES

If you think this is not true, circle NO

Try one more statement for practice.

When I am not sick, I am healthy.....YES NO

NOW DO THE REST OF THE STATEMENTS THE SAME WAY YOU PRACTICED.

Good health comes from being lucky.....YES NO

I can do things to keep from getting sick.....YES NO

Bad luck makes people get sick.....YES NO

I can only do what the doctor tells me to do.....YES NO

If I get sick, it is because getting sick just happens.....YES NO

People who never get sick are just plain lucky.....YES NO

My mother must tell me how to keep from getting sick.....YES NO

Only a doctor or a nurse keeps me from getting sick.....YES NO

When I am sick, I can do things to get better.....YES NO

If I get hurt it is because accidents just happen.....YES NO

I can do many things to fight illness.....YES NO

Only the dentist can take care of my teeth.....YES NO

Other people must tell me how to stay healthy.....YES NO

I always go to the nurse right away if I get hurt at school...YES NO

The teacher must tell me how to keep from having accidents at school.....	YES	NO
I can make many choices about my health.....	YES	NO
Other people must tell me what to do when I feel sick...	YES	NO
Whenever I feel sick I go to see the school nurse right away.....	YES	NO
There are things I can do to have healthy teeth.....	YES	NO
I can do many things to prevent accidents.....	YES	NO

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The Children’s Health Locus of Control Scale, as presented in an email correspondence with Dr. Guy Parcel

[Hearne and Klockars \(1988\)](#) do not recommend use of the Children’s Health Locus of Control Scale, and instead suggest the scale be revised. Their suggestion for revision comes from a series of statistical analyses they performed, which determined several things. For Hearne and Klockar’s data, the scale seemed to be inappropriate for the suggested age group, several items on the scale had extremely low variance and the scale had an inconsistent factor structure.

[Bush and colleagues \(1982\)](#) created a shorter 9-item version of this scale. They report this shortened version to be reliable and comparable to the full scale. This scale was successfully adapted for use on Egyptian children by [Abdel and colleagues \(1999\)](#). However, there are several key differences between the original scale and the Egyptian version. The Egyptian version strays from the yes-no question format of the original, and includes several questions on a five-point Likert-type scale. The researchers changed the question format because of evidence that indicates that a Likert-type format produces more reliable results than a yes-no format. The other key difference between the Egyptian adaption and the original scale is that the Egyptian version was determined to have five rather than three factors:

- Internality
- Chance
- Powerful Others
- Fate
- Self-blame

There is also a Russian version of the scale ([Deaux 1992](#)). Administration of this scale to Russian children resulted in similar patterns as found in American children, which supports the validity of the scale.

The following is a short list of studies that have used the Children’s Health Locus of Control Scale:

- [Burkhart and Rayens \(2005\)](#) found internal Locus of Control to correlate with adherence to a doctor-recommended asthma regimen.
- [Olvera and colleagues \(2001\)](#) studied first generation, low-income Mexican American families, and discovered that a mother’s explanatory style of health related issues may influence her child’s health Locus of Control. Specifically, mothers who explained and rationalized things such as why an asthmatic person would have difficulty running tended to have more internal children than mothers who simply stated that an asthmatic person would have difficulty running without any elaboration.
- High school children with mental retardation as well as high school children with learning disabilities showed a relationship between Locus of Control and health knowledge in a study by [Noland, Riggs and Hall \(1985\)](#). In this study, internality was associated with higher scores on a health knowledge questionnaire for both groups.

- [Griffin and Chen \(2006\)](#) found that internal Locus of Control in asthmatic children was associated with better physiological health in terms of the asthma.
- [Dielman and colleagues \(1984\)](#) suggest that the link between Locus of Control and certain health-related behaviors such as smoking attitudes is not large enough to justify the creation of programs to internalize Locus of Control.
- In a later study, [Dielman and colleagues \(1987\)](#) found a stronger correlation between peer pressure susceptibility and drug use than Locus of Control or self-esteem and drug use.
- [Gross and colleagues \(1985\)](#) found diabetics to exhibit a more internal health Locus of Control than non-diabetics, but diabetics and non-diabetics did not differ in terms of general Locus of Control.
- [Scruggs, Warren, and Levine \(1989\)](#) found no difference in Locus of Control between a sample of diabetic juveniles who received dental health education, and a sample which did not.
- [Wolf and Gaelynn \(2005\)](#) found that, in their sample, hospitalized children who receive art therapy tend to experience a shift in Locus of Control from more external to more internal.
- [Goertzel and Goertzel \(1991\)](#) did not find health Locus of Control to be a useful factor when studying cancer patients. Locus of Control did not correlate with self-concept of anxiety. Instead they suggest using a measure of hopefulness to be a more accurate way to predict patient well-being.
- [O'Brien, Bush and Parcel \(1989\)](#) found internality to increase with age.
- [Wang \(1997\)](#) found Health Locus of Control to correlate with a number of factors, including sex, grade level, birth order and socio-economic status.

If you have further questions, or would like to use this scale in a study of your own, Guy Parcel can be reached at guy.s.parcel@uth.tmc.edu

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PARENTAL MEASURES

Parental Locus of Control Scale

Leslie Campis, Robert Lyman & Steven Prentis-Dunn (1986)

Developed in 1986, this scale targets parents of elementary school-aged children. It reliably measures several factors:

- Parental Efficacy
- Parental Responsibility
- Child Control of Parents' Life
- Parental Belief in Fate/Chance
- Parental Control of Child's Behavior

The developers of this scale aimed to address a proposition by Lefcourt that states the inability for Locus of Control scales to predict behavior is due to the inaccuracy of the measure being used. Further, it is generally thought that construct specific scales are more accurate than general Locus of Control scales. Thus this scale was developed as a more accurate measure for a specific population. The test is a 5-point Likert-type scale with responses ranging from strongly disagree (1) to strongly agree (5).

Parental Locus of Control Scale

Factor 1: Parental Efficacy

1. What I do has little effect on my child's behavior
2. When something goes wrong between me and my child, there is little I can do to correct it
3. Parents should address problems with their children because ignoring them won't make them go away
4. If your child tantrums no matter what you try, you might as well give up
5. My child usually ends up getting his/her way, so why try
6. No matter how hard a parent tries, some children will never learn to mind
7. I am often able to predict my child's behavior in situations
8. It is not always wise to expect too much from my child because many things turn out to be a matter of good and bad luck anyway
9. When my child gets angry, I can usually deal with him/her if I stay calm
10. When I set expectations for my child, I am almost certain that I can help him/her meet them

Factor 2: Parental Responsibility

11. There is no such thing as good or bad children- just bad parents
12. When my child is well behaved, it is because he/she is responding to my efforts
13. Parents who can't get their children to listen to them don't understand how to get along with their children
14. My child's behavior problems are no one's fault but my own
15. Capable people who fail to become good parents have not followed through on their opportunities
16. Children's behavior problems are often due to the mistakes their parent made
17. Parents whose children make them feel helpless just aren't using the best parenting techniques
18. Most children's behavior problems would not have developed if their parents had better parenting skills
19. I am responsible for my child's behavior
20. The misfortunes and successes I have had as a parent are the direct result of my own behavior

Factor 3: Child Control of Parents' Life

21. My life is chiefly controlled by my child
22. My child does not control my life
23. My child influences the number of friends I have
24. I feel like what happens in my life is mostly determined by my child
25. It is easy for me to avoid and function independently of my child's attempt to have control over me
26. When I make a mistake with my child I am usually able to correct it
27. Even if your child frequently tantrums, a parent should not give up

Factor 4: Parental Belief in Fate/Chance

28. Being a good parent often depends on being lucky enough to have a good child
29. I'm just one of those lucky parents who happened to have a good child
30. I have often found that when it comes to my children, what is going to happen will happen
31. Fate was kind to me- if I had had a bad child I don't know what I would have done
32. Success in dealing with children seems to be more a matter of the child's mood and feelings at the time rather than one's own actions
33. Neither my child nor myself is responsible for his/her behavior
34. In order to have my plans work, I make sure they fit in with the desires of my child
35. Most parents don't realize the extent to which how their children turn out is influenced by accidental happenings
36. Heredity plays a major role in determining a child's personality
37. Without the right breaks one cannot be an effective parent

Factor 5: Parental Control of Child's Behavior

38. I always feel in control when it comes to my child
39. My child's behavior is sometimes more than I can handle
40. Sometimes I feel that my child's behavior is hopeless
41. It is often easier to let my child have his/her way than to put up with a tantrum
42. I find that sometimes my child can get me to do things I really did not want to do
43. My child often behaves in a manner very different from how I want him/her to behave
44. Sometimes when I tired I let my children do things I normally wouldn't
45. Sometimes I feel that I do not have enough control over the direction my child's life is taking
46. I allow my child to get away with things
47. It is not too difficult to change my child's mind about something

The Parental Locus of Control Scale, as found in [Campis, Lyman and Prentis-Dunn \(1986\)](#)

The test was validated by its authors ([Campis, Lyman & Prentis-Dunn, 1986](#)). It was also found reliable by [Hagekull and colleagues \(2001\)](#).

[Lloyd and Hasting \(2009\)](#) found the reliability of the scale to be unacceptable for their study, but after removing certain items from each subscale they reported the shortened version to be acceptable. [Lovejoy and colleagues \(1997\)](#) question the validity of the study, stating their belief that results may also be influenced by response style (tendency to answer questions in a certain way) and current distress of the participant.

The following is a short list of studies that have used the parental Locus of Control scale.

- [Kokkinos and Panayiotou \(2007\)](#) found externality to be linked with less effective parental discipline.
- [Hassal, Rose and McDonald \(2005\)](#) determined that parental Locus of Control was a large influence on parental stress levels for mothers of children with intellectual disabilities.
- [Dias and Troccoli \(1999\)](#) reported Locus of Control to be predictive of the nature of the relationship between mothers and their adolescent children.
- [Moulton and Tuma \(1988\)](#) found mothers of children with behavior problems to have a more external parental Locus of Control, compared to those with relatively well-behaved children.
- [Rydell and Henrickson \(2004\)](#) used the Control of Child subscale to determine that, in their sample, external teachers preferred more authoritarian methods of classroom control whereas internal teachers used a less authoritarian approach.
- [Ortega \(2001\)](#) reported that mothers who felt “culturally connected” tended to have a more internal parental Locus of Control.
- [Laufer \(1993\)](#) suggests that different strategies of supervision could be tailored to different Locus of Control orientations for more effective parenting.

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Fetal Health Locus of Control Scale

Sharon Labs and Sandy Wurtele (1986)

Developed in 1986, the Fetal Health Locus of Control Scale evolved from Levenson's scale and targets pregnant women. Due to the sensitive nature of this measure, specific effort has been made to control for **social desirability** in participants. This scale differs from other health Locus of Control scales in that, rather than investigating Locus of Control for one's own health, the scale examines feeling of control over another's health. The dynamic is made especially interesting because fetal health is so strongly tied to the mother's health behaviors. This scale has three factors:

- Internal control
- Control by health professionals
- Control by God/fate/chance

This scale has been found by the authors ([1986](#)) to be valid and reliable, as well as to be predictive of certain health behaviors during pregnancy such as smoking and caffeine consumption. Spirito and colleagues ([1990](#)) found differences in Locus of Control in overt diabetic pregnant women and gestational diabetic women that were not found using the Multidimensional Health Locus of Control Scale, indicating the possible ability of such a specific scale to pick up subtleties that would be missed by a more general scale.

The Fetal Health Locus of Control Scale

Internal Subscale

- 1. By attending prenatal classes taught by competent health professionals, I can greatly increase the odds of having a healthy, normal baby.**
- 2. My unborn child's health can be seriously affected by my dietary intake during pregnancy.**
- 3. If I get sick during pregnancy, consulting my doctor is the best thing I can do to protect the health of my unborn child.**
- 4. Learning how to care for myself before I become pregnant helps my child to be born healthy.**
- 5. What I do right up to the time that my baby is born can affect my baby's health.**
- 6. Before becoming pregnant, I would learn what specific things I should do and not do during pregnancy in order to have a healthy, normal baby.**

Chance Subscale

- 7. Even if I take excellent care of myself when I am pregnant, fate will determine whether my child will be normal or abnormal.**
- 8. If my baby is unhealthy or abnormal, nature intended it to be that way.**
- 9. No matter what I do when I am pregnant, the laws of nature determine whether or not my child will be normal.**
- 10. God will determine the health of my child.**
- 11. Fate determines the health of my unborn child.**
- 12. Having a miscarriage means to me that my baby was not destined to live.**

Powerful Others Subscale

- 13. My baby will be born healthy only if do everything my doctor tells me to do during pregnancy.**
- 14. The care I receive from health professionals is what is responsible for the health of my unborn baby.**

15. Health professionals are responsible for health of my unborn child.
16. Doctors and nurses are the only ones who are competent to give me advice concerning my behavior during pregnancy.
17. My baby's health is in the hands of health professionals
18. Only qualified health professionals can tell me what I should and should not do when I am pregnant.

The Fetal Health Locus of Control Scale, as found in Labs and Wurtele ([1986](#))

The following is a short list of studies that have used the Fetal Health Locus of Control Scale:

- [Sheih, Broome, and Stump \(2010\)](#) found a relationship between fetal health Locus of Control and information-seeking behavior in English-speaking pregnant women aged 18 and older. Internals were more likely to seek out information on pregnancy than their less-internal counterparts.
- [Bielawska-Batorowicz \(1993\)](#) found the number of elective abortions woman had received prior to the study to be predictive of Locus of Control scores.
- The chance and powerful others subscale were predictive of pregnant women's drinking behavior, while the internality subscale was not, in a study by Rao (1997).
- In a sample of pregnant women in the UK conducted by [Haslam and Lawrence \(2004\)](#), those who smoke were less likely to have an internal fetal health Locus of Control.
- [Haslam, Lawrence and Haefeli \(2003\)](#) found that pregnant women who were planning to breastfeed were more likely to be internals
- [Stewart and Streiner \(1995\)](#) found pregnant smokers to be more likely to have a chance orientation of fetal health Locus of Control, rather than a belief in internality or powerful others.

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Parental Health Belief Scales

B. J. Tinsley and D. R. Holtgrave (1989)

The Parental Health Belief Scales are used to assess the extent to which a parent believes they have control over their child's health. The scale is a 5 point Likert-type. It uses the three factor internality/powerful others/chance model that is found in many other measures.

Parental Health Belief Scale

- My child's good health comes from being lucky.
- There is nothing that I can do to keep my child from getting sick.
- Bad luck makes my child get sick.
- I can only do what the doctor tells me to do for my child.
- Getting sick just happens to children.
- There is nothing I can do to make sure that my child has a healthy appearance.
- Children who never get sick are just plain lucky.
- It is my job as a father/ mother to keep my child from getting sick.
- The government is responsible for the effects of quality of food on my child's health.
- Only a doctor or a nurse keeps my child from getting sick.
- I can make very few choices about my child's health.
- My child's health can improve through self-discipline.
- Accidents just happen to children.
- I can do many things to fight illness in my child.
- Only the dentist can take care of my child's teeth.
- I can teach my child many ways in which to protect their good health.
- The government is responsible for the environmental effects on my child's health.
- Even the most healthy child can be affected by the evil eye or nazar of a jealous person.
- The only way I can make my child stay healthy is to do what other people tell me to do.
- I take my child to the doctor right away if my child gets hurt.
- It will be my child's teachers' job to keep my child from having accidents at school.
- Children who never get sick are blessed by God.
- I can make many choices about my child's health.
- If my child feels sick, I have to wait for other people to tell me what to do.
- Whenever my child feels sick, I take my child to the doctor right away.
- There is nothing I can do the make sure that my child has healthy teeth.
- I can do many things to prevent my child from having accidents
- My child's health can improve through prayer.
- Frequent sickness in children is a sign of being cursed by God or the devil.
- My child's health is affected by living in a bad environment no matter what I do.

The Parental Health Belief Scale, as found in [Paz \(2009\)](#)

[Pachter, Sheehan and Cloutier \(2000\)](#) suggest a five-factor model, rather than the three factor model proposed by the creators. This is based on research done with a Puerto Rican sample. The factors suggested by Pachter and colleagues are

1. Internality
2. Luck
3. Powerful others

4. Professional others
5. Chance

[Erci and Tufekci \(2006\)](#) developed a Turkish version of the scale, and although they reported acceptable reliability and validity, they caution against use of the measure in a Turkish population due to cultural factors.

A search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar shows this is not a commonly used measure in the Locus of Control Literature.

If you have further questions, or would like to use this scale in your research, Barbara Tinsley can be reached at barbara.tinsley@asu.edu

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Furnham Parental Locus of Control Scale

Adrian Furnham (2010)

This scale was developed to measure a person's belief over how much control a parent has over their child. Like other measures, this one is divided into three dimensions: internality, chance, and powerful others. It was designed under the theory that a scale intended for a specific population would have better predictive ability than a more general scale. The measure is relatively lengthy, containing 60 items, which have been sampled from a wide range of other Locus of Control scales, such as Wallston and Wallston's health Locus of Control scale, and Furnham's economic Locus of Control scale. It is a 9-point Likert-type scale, with answer from 1-4 indicating disagreement, 5 indicating uncertainty and 6-9 indicating agreement with the statement.

Furnham Parental Locus of Control Scale:

1. Having well-adjusted has little or nothing to do with chance.
2. Prenatal care and attention is a key factor in having well-adjusted children.
3. Whether or not my children are well-adjusted depends mainly on my ability to look after and teach them.
4. Psychologists can't do very much for uncaring parents.
5. Anyone who can learn a few basic principles about caring parenting can go a long way to prevent their children from becoming poorly adjusted.
6. Poor adjustment in children results from parents' idleness and lack of caring.
7. To a great extent my life is controlled by accidental happenings.
8. Teachers help few poorly-adjusted children.
9. In spite of parents training, a child's values change after he/she starts school.
10. Parental expectations of their children have a direct effect on their achievement.
11. Most parents feel confident that their children will live up to their expectations.
12. Children learn their bad behavior mostly from their friends.
13. The choice of a particular school for children is crucial in ensuring their personal adjustment.
14. Essentially all children are responsible for their own adjustment.
15. Teachers play a vital role in ensuring that a child is well adjusted.
16. A child's poor adjustment usually results from restricted opportunities at school.
17. The school has too much control over the child's development and adjustment.
18. Children help each other to overcome obstacles to their development and adjustment.
19. Children's adjustment is in the hands of God.
20. Irrespective of the amount of good parenting given to children, poor schooling could seriously undermine good work.
21. Other influences, like television, exert more control over children's adjustment than either home or school.
22. It is an impossible task to ensure that one's children are well adjusted.
23. Parents know best what is good for their children.
24. To a great extent parents can control their child's mental and emotional development.
25. Parents have the ability to mold their children's character. 5.94 1.92 67.5 11.9 20.5
26. Children's attitudes reflect those of their parents.
27. When it comes to bringing up children, it is really a hit or miss affair.
28. I feel that children's adjustment is mostly determined by powerful people.
29. There is little one can do to prevent children from going "off the rails."
30. No matter what anybody does, there will always be poorly adjusted children.

31. When I make plans, I am almost certain to make them work.
32. Whether or not people have well-adjusted children is due to luck.
33. People who never have problems with their children are just plain lucky.
34. Often there is no chance of protecting children from bad (The rest of this item is missing from the document)
35. The seriousness of disturbed children is overstated.
36. When it comes to the adjustment of children, there is no such thing as "bad luck."
37. When I get what I want, it's usually because I'm lucky.
38. In the long run, people who take very good care of their children stay happy.
39. Preventing childhood delinquency, truancy, and maladjustment requires good hard work more than anything else.
40. Although I might have ability, I will not become a successful parent without appealing to those in position of power.
41. In the Western world, there is really no such thing as neglected children.
42. Becoming the parent of a happy well-adjusted child has nothing to do with luck.
43. How many friends I have depends on how generous I am.
44. Most people are helped a great deal when they go to an educational psychologist.
45. There is a lot of children's emotional problems that can be very serious indeed.
46. People like myself have little chance of protecting our children when they are in conflict with those from strong pressure groups.
47. Regarding children, there isn't much you can do for yourself when you are poor.
48. Politicians can do very little to prevent childhood neglect.
49. It's not always wise for me to worry too much about my children because many things turn out to be a matter of good or bad fortune.
50. If I have poorly adjusted children, it's usually my own fault.
51. Family security is largely a matter of fortune.
52. Getting what I want for my children requires pleasing those people above me.
53. Whether or not I get to be a parent of a happy child depends on whether I'm lucky enough to be in the right place at the right time.
54. I can pretty much determine what will happen to my children.
55. I am usually able to protect my children's interests.
56. When I get what I want, it's usually because I worked hard for it.
57. My life is determined by my own actions.
58. It is chiefly a matter of fate whether I have adjusted or poorly adjusted children.
59. Only those who have money can possibly afford to become parents of well-adjusted children.
60. Children's adjustment is all in the genes

Furnham Parental Locus of Control Scale, as found in Furnham (2010)

Searches of PsychInfo, PsychArticals, GoogleScholar, Academic Search Premire, Health Source: Nursing/Academic Edition, ERIC and Medline indicate that this scale is not commonly used in Locus of Control literature. However, the scale was created in 2010, and more time is needed to assess its popularity.

If you have further questions, or wish to use this scale in your own study, Adrian Furnham can be reached at a.furnham@ucl.ac.uk

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MISC. MEASURES

Teacher Locus of Control Scale and the Locus of Control Scale for Teachers

Janet S. Rose and Frederick Medway (1981) Taylor, Sadowski and Peacher (1981)

The Teacher Locus of Control Scale and the Locus of Control Scale for Teachers are two distinct measures created by two different groups of researchers. The names are used interchangeably in literature and it becomes difficult to decipher which scale is being used, particularly when relying on the abstracts of the studies. I am presenting these scales together because, for a handful of studies discussed, it is unclear which scale is used. When known, I will be referring to scales using the names of the creators to be as clear as possible.

While Furnham and Steele (1993) indicate that the Rose and Medway scale is quite similar to the Rotter scale, Rose and Medway explain that it is modeled after the Crandall Intellectual Achievement Responsibility Questionnaire. The scale has been shown to predict teacher's classroom behavior. It is specific to elementary school teachers. The test yields two scores: one for instances of success and one for instances of failure. [Rose and Medway \(1981a\)](#) explain that the scale was designed in this way due to research showing that Locus of Control can differ based on the nature of task performance outcome. The scale consists of 28 items: 14 success items and 14 failure items.

A Sample from the Teacher Locus of Control Scale (Rose and Medway)

1. **When the grades of your students improve, it is more likely**
 - a. because you found ways to motivate the students, or
 - b. because the students were trying harder to do well.
2. **Suppose you had difficulties in setting up learning centers for students in your classroom. Would this probably happen**
 - a. because you lacked the appropriate materials, or
 - b. because you didn't spend enough time in developing activities to go into the center?
3. **Suppose your students did not appear to be benefiting from a more individualized method of instruction. The reason for this would probably be**
 - a. because you were having some problems managing this type of instruction, or
 - b. because the students in your class were such that they needed a more traditional approach.
4. **When a student gets a better grade on his report card than he usually gets, is it**
 - a. because the student was putting more effort into his schoolwork, or
 - b. because you found a better way of teaching that student?
5. **If the students in your class becomes disruptive and noisy when you left them alone in the room for five minutes, would this happen**
 - a. because you didn't leave them interesting work to do while you were gone, or
 - b. because the students were more noisy that day than they usually are?
6. **When some of your students fail a math test, is it more likely**
 - a. because they weren't attending the lesson, or
 - b. because you didn't use enough examples to illustrate the concept?
7. **Suppose you were successful at using learning centers with your class of 30 students. Would this occur**
 - a. because you worked hard at it, or
 - b. because your students easily conformed to the new classroom procedure?

8. **When a student pulls his or her grade up from a “C” to a “B” it is more likely**
 - a. **because you came up with an idea to motivate the student, or**
 - b. **because the student was trying harder to do well.**
 9. **Suppose you are teaching a student a particular concept in arithmetic or math and the student has trouble learning it. Would this happen**
 - a. **because the student wasn’t able to understand it, or**
 - b. **because you couldn’t explain it very well?**
 10. **When a student does better in school than he usually does, is it more likely**
 - a. **because the student was trying harder, or**
 - b. **because you tried hard to encourage the student to do better?**
 11. **If you couldn’t keep your class quiet, it would probably be**
 - a. **because the students came to school more rowdy than usual, or**
 - b. **because you were so frustrated that you weren’t able to settle them down?**
- Some items from the Teacher Locus of Control Scale, as found in [Rose and Medway \(1981a\)](#)

The authors found their scale to be internally consistent, and to be a better predictor of teacher behavior than the Rotter scale.

The Taylor, Sadowski and Peacher scale is in a 5 point Likert-type format. It has been reviewed as reliable by [Soh \(1986a\)](#), who found the scale useful in different cultural frameworks. Unfortunately, the original study (Taylor, Sadowski and Peacher, 1981) and the follow-up study (Sadowski et al 1982) are difficult to locate, and a search of Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar does not produce any articles. In fact, these studies existence was ascertained through a review of the references in Soh (1986a and b), rather than through any sort of article database.

The following is a short list of studies that have used the Rose and Medway Teacher Locus of Control Scale:

- [Hall \(1998\)](#) found that predictors of teacher Locus of Control include age, student achievement gain scores, and number of years in the teaching profession.
- [Rose and Medway \(1981b\)](#) observed a tendency for teachers with more internal loci of control to have higher achieving classes.

The following is a short list of studies that use the Taylor, Sadowski and Peacher Locus of Control Scale for Teachers:

- [Soh \(1986b\)](#) determined in a sample of college lecturers and secondary school teachers that Locus of Control mediates stress levels.
- In a later study, [Soh \(1988\)](#) determined the relationship between Locus of Control and teacher stress to be rather weak, considering instead attitudes towards responsibility to be a greater influence on stress levels.
- [Martin and Baldwin \(1996\)](#) found no difference between elementary school and secondary school teachers in terms of Locus of Control.
- [Sadowski, Blackwell and Willard \(1985\)](#) found that internal student teachers tended to have higher ratings from their superiors, compared to external student teachers.

The following is a short list of studies for which it is unclear whether researchers are using the Rose and Medway scale or the Taylor, Sadowski and Peacher scale.

- [Thomson and Handley \(1990\)](#) found positive self-concept to be linked with both high internality for positive events as well as high internality for negative events.
- Agoglia (1998) determined a causal relationship between Locus of Control orientation and attitude formation.
- [Harris and colleagues \(1984\)](#) took the stress construct and broke it down into five subcategories. They found external Locus of Control to be linked to three of these five categories.
- [Halpin, Harris and Halpin \(1895\)](#) reported internality to be linked to lower levels of job stress in teachers.
- [Stanton \(1982\)](#) proposes a program to internalize teacher Locus of Control, and goes on to explain how such a change would be beneficial to the school system.

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Economic Locus of Control Scale

Adrian Furnham (1986)

The Economic Locus of Control Scale is a 40 item measure used to assess an individual's belief in how much control they have over the work and money-related aspects of their lives. The creator reports five factors: Internal Chance, External Chance, Powerful Others, Provider Control and Nature of the Problem. Other researchers (e.g. [Sakalaki, Richardson and Bastotnis 2005](#)) report only four factors. Answers are rated on a seven point Likert-type scale.

The Economic Locus of Control Scale

1. **Becoming rich has little or nothing to do with chance**
2. **Saving and careful investing is a key factor in becoming rich.**
3. **Whether or not I become wealthy depends mostly on my ability.**
4. **Accountants can rarely do very much for people who are poor.**
5. **Anyone can learn a few basic economic principles that can go a long way in preventing poverty.**
6. **To a great extent my life is controlled by accidental happenings.**
7. **People's poverty results from their own idleness.**
8. **Social workers relieve or cure only a few of the financial problems their clients have.**
9. **I feel that my finances are mostly determined by powerful people.**
10. **There is little one can do to prevent poverty.**
11. **No matter what anyone does, there will always be poverty.**
12. **When I make plans I am almost certain to make them work.**
13. **Whether or not people get rich is often a matter of chance.**
14. **People who never become poor are just plain lucky.**
15. **There is no chance of protecting my savings from bad luck happenings.**
16. **The seriousness of poverty is overstated.**
17. **When it comes to wealth, there is no such thing as 'bad luck'.**
18. **When I get what I want, it is usually because I am lucky.**
19. **In the long run, people who take care of their finances stay wealthy.**
20. **Relief from poverty requires good hard work more than anything else.**
21. **Although I might have the ability, I will not become better off without appealing to those in positions of power.**
22. **In the Western world there is no such thing as poverty.**
23. **Becoming rich has nothing to do with luck.**
24. **How many friends I have depends on how generous I am.**
25. **Most people are helped a great deal when they go to an accountant.**
26. **There are a lot of financial problems that can be very serious indeed.**
27. **People like myself have little chance in protecting our personal interests when they are in conflict with those of strong pressure groups.**
28. **Regarding money, there isn't much you can do for yourself when you are poor.**
29. **Politicians can do very little to prevent poverty.**
30. **It's not always wise for me to save because many things turn out to be a matter of good fortune or bad fortune.**
31. **If I become poor, it is usually my own fault.**
32. **Financial security is largely a matter of good fortune.**
33. **Getting what I want financially requires pleasing those people above me.**

34. Whether or not I get to be well-off depends on whether I am lucky enough to be in the right place at the right time.
35. I can pretty much determine what will happen to me financially.
36. I am usually able to protect my personal interests.
37. When I get what I want, it is usually because I worked hard for it.
38. My life is determined by my own actions.
39. It is chiefly a matter of fate whether I become rich or poor.
40. Only those who inherit or win money can possibly become rich.

The Economic Locus of Control Scale, as found in [Van Delen, Van Niekert and Pottas \(1987\)](#)

[Furnham \(1986\)](#) found the measures to be reliable. Furnham also found the chance scale to have the most predictive power, as it was this scale that differentiated between groups distinguished by age, sex and income. A follow-up study by [Van Delen, Van Niekert and Pottas \(1987\)](#) supports its validity in a South African sample. The scale has also been translated in to Greek ([Sakalaki, Richardson and Bastotnis 2005](#)). [Plunkett and Bueher \(2007\)](#) found scores on the Economic Locus of Control Scale correlate with economic-related choice preferences that were not predicted by Rotter's scale.

The following is a short list of studies that have used the Economic Locus of Control Scale:

- [Sakalaki, Kanellaki and Richardson \(2009\)](#) determined that, in their sample, opportunism and Machiavellianism were associated positively with high scores on the chance factor. In addition, opportunism was associated with low scores on the internal subscale.
- [Sakalaki, Richardson and Bastotnis \(2005\)](#) found internal Locus of Control to be associated with increased saving behavior.
- [Heaven \(1989\)](#) showed in a sample of Australians that those with an external economic Locus of Control tended to place more blame for poverty with societal factors, whereas internals tended to place more of the blame with the individuals themselves.
- In another study, [Heaven \(1990\)](#) revealed that individuals with an external economic Locus of Control were more likely to support government spending to reduce unemployment and its negative effects, whereas internals were less likely to be supportive of these options.
- [Heaven and Furnham \(1987\)](#) found that external economic Locus of Control may be associated with prejudice.
- [Busseri and colleagues \(1998\)](#) did not find a relationship between economic Locus of Control and whether or not strategy was used while shopping.
- [Taylor and Colleagues \(1990\)](#) did not produce data in which Economic Locus of Control was related to variables associated with the transition of youth from school to the workforce.
- Consumers with debt problems were more external in a study by [Mewse, Lea and Wrapson \(2010\)](#).

If you have further questions, or wish to use this scale in your own study, Adrian Furnham can be reached at a.furnham@ucl.ac.uk

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Prison Locus of Control Scale

David Pugh (1992)

The Prison Locus of Control Scale was designed for use in an incarcerated population, and asks questions pertaining to a prison environment. Upon the initial assessment (1992), the creator found the scale to be valid and reliable, but suggested revision to improve the psychometric properties of the scale. After some changes to the format and content of the scale were made, Pugh (1994) reanalyzed the measure and found it to have good validity and reliability.

The following is a short list of studies that have used the Prison Locus of Control Scale:

- [Reitzel and Harju \(2000\)](#) found internal prisoners to be less likely to show depression, and external prisoners to be more likely to be depressed.
- Flinton (1998) observed the effects of meditation therapy on prisoners, who in this study experienced a reduction in anxiety and a shift of Locus of Control to a more internal orientation.

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Dag and Hacetepe Locus of Control Scale

Ihsan Dag and Ankara Hacetepe (2002)

This scale was designed to be used in a Turkish population. The authors state that it is an alternative to Rotter's scale, and specific to the Turkish population. It was designed by pooling 80 questions from a number of different scales, administering them to a sample of college students, and then, based on the results, cutting the scale down to 47 items. [Dag and Hacetepe \(2002\)](#) determined their scale to be valid, reliable, and predictive of behavior.

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Dag, I. & Hacetepe, A. (2002). Locus of Control Scale: Scale development, reliability, and validity. *Turk Psikoloji Dergisi*, 17, 77-92.

Traffic Locus of Control Scale

Turker Ozkan and Timo Lajunen (2005)

The traffic Locus of Control scale was developed to investigate possible links between driver Locus of Control and risky or unsafe driving behavior. The measure can be broken down into four attributes:

1. Self
2. Other Drivers
3. Vehicles and the environment
4. Fate

The Traffic Locus of Control Scale

Whether or not I get into car accident depends mostly on shortcomings in my driving skills
Whether or not I get into car accident depends mostly on my own risk-taking while driving
Whether or not I get into car accident depends mostly on shortcomings in other drivers' driving skills
Whether or not I get into car accident depends mostly on other drivers' risk-taking while driving
Whether or not I get into car accident depends mostly on bad luck
Whether or not I get into car accident depends mostly on dangerous roads
Whether or not I get into car accident depends mostly on if I drive often with too high speed
Whether or not I get into car accident depends mostly on if other drivers drive often with too high speed
Whether or not I get into car accident depends mostly on if I drive too close to the car in front
Whether or not I get into car accident depends mostly on if other drivers drive too close to my car
Whether or not I get into car accident depends mostly on fate
Whether or not I get into car accident depends mostly on bad weather or lighting conditions
Whether or not I get into car accident depends mostly on a mechanical failure in the car
Whether or not I get into car accident depends mostly on other drivers driving under influence of alcohol
Whether or not I get into car accident depends mostly on other drivers' dangerous overtaking
Whether or not I get into car accident depends mostly on my own dangerous overtaking
Whether or not I get into car accident depends mostly on coincidence

A search using Academic Search Alumni Edition, Academic Search Complete, ERIC, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, MEDLINE, Mental Measurements Yearbook, PsycARTICLES, PsycCRITIQUES, Psychology and Behavioral Sciences Collection, PsycINFO, and GoogleScholar indicates that this is not a commonly used measure, as only three studies surface.

1. [Ozkan and Lajunen \(2005\)](#) found the 'self', 'other drivers' and 'vehicles and environment' factors to correlate with driving behavior, whereas they did not find any correlations with the 'fate' factor.
2. [Warner, Ozkan and Lajunen \(2010\)](#) were able to predict speeding behavior on a 90 km/hour road using the self and vehicles/environment factors, but not using other factors and not on a road with a slower speed limit.
3. [Ozkan, Lajunen, and Kaistinen](#) found externals to be more interested in using in-vehicle technology than internals.

If you have further questions concerning the scale, or are interested in using it for your own research, the developers can be reached at: ozturker@metu.edu.tr and timo@metu.edu.tr

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Ozkan, T. & Lajunen, T. (2005). Multidimensional traffic Locus of Control scale (T-LOC): Factor structure and relationship to risky driving. *Personality and Individual Differences, 38*, 533-545.

Ozkan, Lajunen, and Kaistinen. Traffic Locus of Control. *Proceedings from the 18th ICTC Workshop*.

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GLOSSARY

Filler Item: In a psychological scale, filler items are items that do not relate to the construct being measured by the scale. The purpose of filler items is generally to mask the intent of the scale so the participant does not alter her answers.

Internal Consistency: In a measure with internal consistency, items that are supposed to measure similar things have similar scores.

Likert-type Scale: Used in surveys to capture the intensities of the participants feelings about statements by having them chose from responses varying from strong agreement to neutral feelings to strong disagreement.

Locus of Control: Where a person believes the primary influence on life or certain events lies. Locus of Control is either internal (I am in control of the events in my life) or external (I am not in control of the events in my life). External Locus of Control is usually subdivided into attribution to chance/fate/luck and attribution to powerful others.

Ordinal Position: Refers to birth order, i.e. whether a child is first born, second born, third born etc.

Self-efficacy: A person's belief in their own level of aptitude.

Significant Relationship (statistical significance): Data is usually considered statistically significant when alpha levels are less than or equal to .05, indicating that there is at most a 5 percent likelihood that the difference or similarity in the groups being compared is due to chance.

Social Learning Theory: Developed by Bandura, this theory suggests that behavior is learned through observation and imitation, and that behaviors are either sustained or impeded depending on if the behavior is rewarded or punished. Reinforcement of a behavior will cause the agent to continue that behavior, whereas punishment of the behavior will cause the agent to discontinue it.

Test Reliability: A reliable scale will produce the same score in the same person under the same circumstances consistently.

Test Validity: A valid scale is a scale that successfully measures the construct that it intends to.

Convergent Validity: A measure with convergent validity produces similar results to other measures meant to quantify the same construct

Discriminant Validity: A measure with discriminant validity produced different results from a measure that is not meant to measure the same construct.

Content Validity: A measure with content validity measures all aspects of the focal construct.

Construct Validity: A measure with construct validity measures what it intends to measure (e.g. a Locus of Control scale that actually measures Locus of Control as opposed to self-esteem or any other concept would have construct validity).

About The Author

My name is Rita Halpert. I was born in Maine, grew up in New Mexico, attended college in New York, was living in Pennsylvania, and just moved to England for graduate study. I received my undergraduate degree at Bard College and have moved on to the University of Oxford for a Masters in Research Psychology. My Locus of Control is the most internal when I am in an academic setting, and I have full confidence that effort will lead to a finer quality of work.

I am happiest when I am in school, studying, or researching. I love investigation, empiricism, and the scientific method.

I also enjoy illustration and making clothes out of bigger clothes.