

# **IRRATIONAL BELIEFS AND UNCONDITIONAL SELF-ACCEPTANCE. I. CORRELATIONAL EVIDENCE LINKING TWO KEY FEATURES OF REBT**

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**ABSTRACT:** In a study with 102 non-clinical adults, relationships between measures of irrational beliefs, unconditional self-acceptance, self-esteem and the Big-5 personality dimensions were investigated. As expected, unconditional self-acceptance was highly correlated with self-esteem. In line with key tenets of REBT, individuals who scored highly on unconditional self-acceptance scored low on irrational beliefs even after self-esteem had been partialled out. Unconditional self-acceptance was found to be significantly (negatively) correlated with Neuroticism but not with other Big-5 personality dimensions. Irrational beliefs were found to correlate positively with Neuroticism and negatively with Openness. Factor analysis of the unconditional self-acceptance scale did not show a simple one-dimensional structure. A revised version of the scale comprising those items that did not load on a self-esteem factor produced a purer measure of unconditional self-acceptance that did not correlate significantly with self-esteem. The findings have implications for investigating unconditional self-acceptance in studies of therapeutic outcome.

**KEY WORDS:** Big 5; irrational beliefs; REBT; self-acceptance; self-esteem.

A key aspect of REBT is that people are not disturbed by events *per se* but by the views and beliefs they have of the events (Epictetus, cited in Ellis, 1962). Irrational beliefs are illogical, rigid and inconsistent with reality whereas rational beliefs are logical, flexible and

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consistent with reality. As a consequence of holding irrational beliefs, people develop unhealthy emotions, dysfunctional behaviors and psychological disturbance. By disputing their irrational beliefs, people can acquire more rational and realistic ways of thinking that will produce greater acceptance of the self and greater satisfaction with life (for reviews, see Dryden & Neenan, 2004; Ellis, 1994).

Although a good deal of research has been carried out on irrational beliefs, little work has been done on self-acceptance. One possible reason for this is the lack of a reliable and valid measure of self-acceptance. Although there are plenty of measures of self-esteem (for a review, see Blascovich & Tomaka, 1991), REBT does not consider this to be relevant to self-acceptance. Indeed, according to Ellis, self-esteem is anathema to self-acceptance. Any evaluation of one's self on a global measure of self-worth is unhealthy and dysfunctional. First, it is irrational because there are no objective bases for making global evaluations of one's self. Second, focussing on one's self-esteem will make a person vulnerable to life's little setbacks, rejections or mistakes, so that even people with generally high self-esteem may be predisposed to blow these out of proportion with resultant negative consequences. Third, a concern about self-worth can lead to a preoccupation with comparing oneself with others at the expense of engaging in healthy and productive endeavors and pursuits. It is well known that low self-esteem is associated with psychological dysfunction, such as depression (e.g., Beck, Steer, Epstein, & Brown, 1990), but even high self-esteem can be associated with psychological dysfunction, such as emotional vulnerability to criticism (e.g., Schlenker, Soraci, & McCarthy, 1976) and proneness to violence (e.g., Baumeister, Smart, & Boden, 1996).

Ellis (1977) argued that people should abandon the quest for self-esteem and instead work toward achieving unconditional self-acceptance. They should unconditionally accept themselves whether or not they behave competently or correctly and whether or not others are likely to express approval or respect. Recently, Chamberlain and Haaga (2001a) devised a measure of unconditional self-acceptance (USAQ) consisting of 20 statements reflecting the various philosophical and practical aspects of unconditional self-acceptance distilled from the REBT literature. In non-clinical adult samples, Chamberlain and Haaga (2001a, b) found that unconditional self-acceptance was positively associated with life satisfaction and happiness measures, and negatively associated with anxiety, depression

and depression-proneness. Unfortunately, unconditional self-acceptance was also highly correlated with self-esteem. To overcome this problem, they partialled out self-esteem from the other correlations. When this was done, the significant correlations with depression and life satisfaction/happiness became non-significant. Although the Chamberlain and Haaga measure of unconditional self-acceptance is far from being a “pure” measure, partialling out self-esteem (although a conservative method) is one way of removing a significant amount of impurity.

In the present study, the relation between irrational beliefs and unconditional self-acceptance was investigated. In addition to the inclusion of self-esteem as a control measure, the study also included measures of the Big-5 personality dimensions (Costa & Widiger, 1994), because these have not been investigated before with respect to either irrational beliefs or unconditional self-acceptance (and also because nowadays it seems *de rigeur* to include these measures in correlational studies involving almost any variables). It was expected that USAQ would be significantly correlated with self-esteem and that scores on measures of irrational beliefs would be negatively correlated with scores on the USAQ even when self-esteem was partialled out. Specific predictions about the correlations of these measures with the Big-5 personality dimensions were not made due to the lack of previous research.

## METHOD

### *Participants and Procedure*

Complete data were obtained from 84 female and 18 male undergraduate students aged 18–40 ( $M = 22.43$ ) who completed a number of questionnaires for course credit in mass-testing sessions.

### *Measures*

Unconditional self-acceptance was measured with the USAQ (Chamberlain & Haaga, 2001a), a questionnaire consisting of 20 statements to which participants respond on a scale from 1 (“almost always untrue”) to 7 (“almost always true”). Nine items are worded such that higher scores represent greater unconditional self-acceptance (e.g., “I avoid comparing myself to others to decide if I am

a worthwhile person”), while 11 items are reverse-scored such that low scores represent greater unconditional self-acceptance (e.g., “I set goals for myself that I hope will prove my worth”). Chamberlain and Haaga report a Cronbach alpha of .72 which is an acceptable level of internal consistency.

Self-esteem was measured with the Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965), a questionnaire consisting of 10 statements to which participants respond on a scale from 1 (“strongly agree”) to 4 (“strongly disagree”). To avoid confusion in the interpretation of results, items were scored so that high scores represented high self-esteem. The Rosenberg scale is the most widely used measure of self-esteem and has been found to have high reliability and internal consistency. For example, Fleming and Courtney (1984) report a Cronbach alpha of .88.

One measure of irrational beliefs was the Irrational Beliefs scale (IBS; Malouff & Schutte, 1986), a questionnaire consisting of 20 statements representing the 10 irrational beliefs described by Ellis and Harper (1961) to which participants respond on a scale from 1 (“strongly disagree”) to 5 (“strongly agree”). Malouff and Schutte report a test–retest reliability of .89 and a Cronbach alpha of .80.

A second measure of irrational beliefs was the Shortened General Attitude and Belief scale (SGABS; Linder, Kirkby, Wertheim & Birch, 1999), a questionnaire consisting of 26 statements to which participants respond on a scale from 1 (“strongly disagree”) to 5 (“strongly agree”). This scale is a short version of Bernard’s (1990) 55-item General Attitude and Belief scale and consists of items measuring need for achievement, need for approval, need for comfort, demand for fairness, self-downing and other-downing. Linder et al. report a test–retest reliability of .91 for total irrationality and Cronbach alphas  $> .79$  for the subscales.

Measures of the Big-5 personality dimensions were obtained using the 10-item short version of the NEO (Gosling, Rentfrow & Swann, 2003) which consists of pairs of adjectives representing each pole of the five personality dimensions (neuroticism, extraversion, openness, agreeableness and conscientiousness) to which participants respond on a scale from 1 (“disagree strongly”) to 7 (“agree strongly”). Gosling et al. report an average test–retest reliability for the scales of .72, and a somewhat low average Cronbach alpha of .55. However, the scales of the 10-item version of the Big-5 correlated on average .77 with the full version of the Big-5 scales.

## RESULTS

Summary descriptive statistics for the various variables are shown in Table 1.

These statistics are similar to those published in the literature (USAQ—Chamberlain & Haaga, 2001a, b; RSE—Chamberlain & Haaga, 2001a, b; IBS—Malouff & Schutte, 1986; SGABS—Linder, Kirkby, Wertheim, & Birch, 1999; Big-5—Gosling et al., 2003).

*Intercorrelations among Variables*

Zero-order Pearson correlations among the various variables are shown in Table 2.

As can be seen, USAQ correlated highly positively with RSE ( $r = .59, p < .001$ ) in line with Chamberlain and Haaga's findings. USAQ correlated highly negatively with irrational beliefs (IBS  $r = -.59, p < .001$ ; SGABS  $r = -.67, p < .001$ ) as did RSE. When RSE was partialled out, these correlations remained significant (IBS *partial*  $r = -.51, p < .001$ ; SGABS *partial*  $r = -.55, p < .001$ ). These findings therefore support the underlying thesis of REBT that irrational beliefs are associated with low unconditional self-acceptance. USAQ correlated significantly negatively with Big-5 Neuroticism ( $r = -.46, p < .001$ ) and Conscientiousness ( $r = -.30, p < .01$ ) as did RSE, but when RSE was partialled out, these correlations were no longer significant ( $r = -.18, p = .07$  and  $r = -.08, p = .43$  respectively). The two

**Table 1**

**Descriptive Statistics**

	<i>Mean</i>	<i>SD</i>
Unconditional self-acceptance (USAQ)	88.88	14.41
Self-esteem (RSE)	31.17	5.19
IBS Irrational Beliefs (IBS)	58.81	11.20
SGABS Irrational Beliefs (SGABS)	44.58	11.73
Big-5 Extraversion	6.83	2.95
Big-5 Neuroticism	6.56	2.63
Big-5 Agreeableness	10.39	2.06
Big-5 Conscientiousness	5.99	2.64
Big-5 Openness	10.30	2.11

**Table 2**  
**Zero-Order Pearson Correlations among Variables**

Variables	1	2	3	4	5	6	7	8
1. Unconditional self-acceptance (USAQ)	—	—	—	—	—	—	—	—
2. Self-esteem (RSE)	.59***	—	—	—	—	—	—	—
3. Irrational beliefs (IBS)	-.59***	-.34***	—	—	—	—	—	—
4. Irrational beliefs (SGABS)	-.67***	-.49***	.73***	—	—	—	—	—
5. Big-5 Extraversion	-.13	-.21*	-.02	.08	—	—	—	—
6. Big-5 Neuroticism	-.46***	-.57***	.37***	.38***	.28**	—	—	—
7. Big-5 Agreeableness	.09	.14	-.14	-.05	.08	-.18	—	—
8. Big-5 Conscientiousness	-.30**	-.40***	.20*	.26**	-.14	.26**	-.18	—
9. Big-5 Openness	.16	.11	-.28**	-.22*	-.25**	-.16	.05	.05

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

measures of irrational beliefs (IBS and SGABS) were highly correlated with each other ( $r = .73$ ,  $p < .001$ ). Both measures of irrational belief correlated positively with Neuroticism (IBS  $r = .37$ ,  $p < .001$ ; SGABS  $r = .38$ ,  $p < .001$ ) and Conscientiousness (IBS  $r = .20$ ,  $p < .05$ ; SGABS  $r = .26$ ,  $p < .01$ ), and negatively with Openness (IBS  $r = -.28$ ,  $p < .01$ ; SGABS  $r = -.22$ ,  $p < .05$ ). However, these correlations were significantly reduced when RSE was partialled out and all but disappeared for Conscientiousness (Neuroticism with IBS *partial*  $r = .23$ ,  $p = .02$ ; with SGABS *partial*  $r = .14$ ,  $p = .15$ ; Conscientiousness with IBS *partial*  $r = .07$ ; with SGABS *partial*  $r = .06$ ; Openness with IBS *partial*  $r = -.27$ ,  $p < .01$ ; with SGABS *partial*  $r = -.19$ ,  $p < .06$ ).

### *Factor Analysis of the USAQ*

Chamberlain and Haaga (2001a, b) did not carry out a factor analysis of the USAQ scale items. This was done with the present data using principal components analyses. A KMO value of .716 for the correlations indicated that the scale-item intercorrelations were good for factoring. Six components had eigenvalues  $> 1$ . However, inspection of the scree plot suggested that either a one-, two- or three-component solution could fit the data. The first component accounted for only 24.8% of the total variance. By comparison, factor analysis of the RSE scale items produced a clear one-component solution with the first component accounting for 44.8% (nearly half) of the

variance. Therefore, it can be concluded that a one-factor solution fits the RSE scale items very well but does not fit the USAQ scale items.

Further analysis was carried out on the USAQ and RSE scale items together to discover which USAQ items are relatively uncontaminated by self-esteem. A KMO value of .777 for the correlations again indicated that the combined USAQ and RSE scale items were good for factoring. Eight components had eigenvalues  $>1$ , but inspection of the scree plot suggested that a two-component solution best fitted the data.

Table 3 shows the loadings of the RSE and USAQ items on the two components after Varimax rotation. All the RSE items loaded highly on component 1 which can therefore be said to represent a self-esteem factor. Of the USAQ items, items 2, 3, 5, 6, 11, 14, 17, 18 and 19 loaded highly on component 1 without loading highly on component 2. These nine items seem to be measuring self-esteem rather than a separate construct such as self-acceptance.

It could be argued that the remaining USAQ items (1, 4, 7, 8, 9, 10, 12, 13, 15, 16, 20) represent a measure of unconditional self-acceptance relatively uncontaminated by self-esteem because they load higher on component 2 than on component 1. However, items 8 and 16 loaded *negatively* on component 2 which suggests some sort of psychometric problem with these two items (“I set goals for myself with the hope that they will make me happy [or happier]” and “I feel that the best part about being praised is that it helps me know what my strengths are”). The nature of this problem is not immediately obvious from their content.

An additional psychometric problem arose from the factor analysis, namely that seven out of the nine items that loaded highly on component 2 were reverse-scored items, whereas only three out of the nine items that loaded highly on component 1 were reverse-scored. Although it is good psychometric practice to have a balanced scale using reverse-scored items, these findings suggest that, in the case of the USAQ, two distinct subscales may have been created.

A revised USAQ score was calculated based on just the remaining nine items (see Table 4). The revised 9-item USAQ scale gave a Cronbach alpha of .68 (compared with .76 for the full 20-item scale) which is very good considering that the revised scale is less than half as long as the original scale. Although the revised USAQ scale correlated significantly ( $r = .40, p < .001$ ) with the original 20-item scale, it did not correlate significantly with the RSE scale ( $r = .18, p > .05$ ).

**Table 3**  
**Rotated Component Matrix for RSE and USAQ Items**

	<i>Component</i>	
	<i>1</i>	<i>2</i>
rse1	.573	.013
rse2	.538	.012
rse3	.736	.022
rse4	.484	-.152
rse5	.637	.026
rse6	.756	.102
rse7	.780	.133
rse8	.378	.341
rse9	.550	.007
rse10	.601	.040
usa1	-.152	.620
usa2	.666	-.142
usa3	.390	.085
usa4	.068	.526
usa5	.783	.081
usa6	.423	.274
usa7	-.021	.605
usa8	-.096	-.618
usa9	.180	.558
usa10	.368	.537
usa11	.525	-.013
usa12	.249	.319
usa13	.060	.414
usa14	.620	.263
usa15	.211	.535
usa16	.161	-.422
usa17	.673	.064
usa18	.619	.129
usa19	.497	.326
usa20	.067	.115

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

<sup>a</sup>Rotation converged in three iterations.

Therefore, it could be concluded that the revised scale is a purer measure of unconditional self-acceptance than the original scale. The revised USAQ scale correlated significantly with the IBS ( $r = -.24$ ,

**Table 4****Item Content of the Revised 9-Item USAQ Scale**

<i>Item No.</i>	<i>Item Content</i>
1	Being praised makes me feel more valuable as a person.
4	I feel that some people have more value than others.
7	To feel like a worthwhile person, I must be loved by the people who are important to me.
9	I think that being good at many things makes someone a good person overall.
10	My sense of self-worth depends a lot on how I compare with others.
12	When I receive negative feedback, I often find it hard to be open to what the person is saying to me.
13	I set goals for myself that I hope will prove my worth.
15	I think that people who are successful in what they do are especially worthwhile people.
20	I don't think it is a good idea to judge my worth as a person.

$p < .05$ ) and SGABS ( $r = -.40$ ,  $p < .001$ ) measures of irrational belief. The revised USAQ scale did not correlate significantly with any of the Big-5 personality scales.

## DISCUSSION

Overall, the findings of the present study are clearly in line with predictions. High scores on the irrational beliefs measures were associated with much lower scores on unconditional self-acceptance even when self-esteem was controlled for. This is consistent with the basic tenets of REBT that irrational beliefs lead people to develop unhealthy emotions, dysfunctional behaviors and psychological disturbance, and that, by disputing their irrational beliefs, people can acquire more rational and realistic ways of thinking that result in greater acceptance of the self. However, the present findings were correlational in nature and therefore it cannot be concluded that holding more rational beliefs causes greater unconditional self-acceptance. Indeed, it could well be that accepting oneself unconditionally leads to more rational thinking. To investigate the causal relations between these constructs requires the use of experimental designs.

With respect to the correlations with the Big-5 personality dimensions, it seems plausible that unconditional self-acceptance should be negatively related to Neuroticism: people who accept themselves unconditionally should be more emotionally stable. However, although the zero-order correlation was very high, it dropped to only marginal significance when self-esteem was partialled out. The correlations of irrational beliefs with Neuroticism and Openness were more robust to the partialling out of self-esteem. Given that holding irrational beliefs is associated with absolutist, demanding, and rigid thinking, it might have been expected that the correlations of irrational beliefs with Openness should have been much larger than they were.

Although the USAQ has been shown to have good internal consistency, more research is needed on its psychometric properties, such as test-retest reliability and concurrent and discriminant validity, especially since the factor analysis threw up some unexpected psychometric problems. The revised and shortened version of the USAQ eliminated these problems and seemed to produce a “purer” measure of self-acceptance relatively uncontaminated by self-esteem. However, just as depression and anxiety tend to be co-morbid and “pure” depressives are rare creatures, so unconditional self-acceptance and high self-esteem tend to co-occur naturally in the general population. For example, the RSE item “All in all, I am inclined to feel that I am a failure” could be reasonably included in a scale of unconditional self-acceptance (reverse-scored). Similarly, the USAQ item “I feel worthwhile even if I am not successful in meeting certain goals that are important to me” could be included in a scale of self-esteem.

Thus, people who accept themselves unconditionally may still find themselves sometimes making positive comparisons of their worth with other people’s worth. Although partialling out self-esteem in analyses of USAQ correlations may be a rather crude method for dealing with self-esteem, using a “factor purity” approach to remove scale items with a high self-esteem component may not necessarily be a better method since it could result in the removal of important facets of self-acceptance.

It remains to be seen what practical role unconditional self-acceptance plays in the outcomes of REBT and other therapies. If it plays as central a role as that accorded by Ellis, then just as self-esteem had a task force set up to promote it (California Task Force to Promote Self-Esteem and Personal and Social Responsibility; Mecca,

Smelser, & Vasconcellos, 1989), so unconditional self-acceptance may one day have its own promotional task force.

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