

SUMMARY

Two current and competing temperament-oriented personality models have been proposed by Tellegen et al (1994) and Cloninger et al. (1993). Tellegen's model of personality was developed using an iterative, exploratory factor analytic approach (Tellegen & Waller, 1994). The model, operationalized in the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982), encompasses 11 primary traits: cheerfulness (Wellbeing), dominance (Social Potency), Achievement, affiliation (Social Closeness), general anxiousness (Stress Reaction), Alienation, Aggression, impulsivity (Control), stimulation-seeking (Harm avoidance), conservatism (Traditionalism), and imaginativeness (Absorption). These primary traits converge into 3 higher-order, orthogonal temperament dimensions: Positive Emotionality (PEM), Negative Emotionality (NEM), and Constraint (CON).

In contrast, Cloninger, Svrakic, and Przybeck (1993) outline a general psychobiological model of personality composed of four temperament traits and three character dimensions. Cloninger's proposed structure of personality was derived primarily from genetic studies of personality in humans and neurobiological studies of the functional organization of brain networks underlying classical and operant learning responses to simple appetitive and aversive stimuli in humans and mammals. Temperament traits are defined in terms of their genetic structure. Character dimensions are defined in terms of aspects of self-concept described in humanistic, transpersonal, and developmental psychology.

The current study had two main objectives. First, the relationships between Tellegen's primary and higher order factors and Cloninger's temperament traits and character dimensions was examined. Second, a simplified language version of the short MPQ, appropriate for youths and lower education samples, was evaluated.

To achieve these objectives, we administered a short form of Cloninger's Temperament and Character Inventory (TCI-125) and either a 155-item short form of Tellegen's Multidimensional Personality Questionnaire (MPS) or the newly constructed "easy reading" version of this same questionnaire (MPE), to two samples of undergraduate psychology students (Ns = 157 and 168, respectively) at Florida State University. Basic demographic information was also collected from these samples.

Two components of the relationship between Tellegen's personality inventory and Cloninger's temperament and character indices were investigated. First, Pearson's r correlations among the scales from these two measures were computed, permitting an assessment of how constructs from each measure related conceptually to the other. In addition, regression analyses were performed to determine the degree to which scales from one inventory could account for variance in the other.

Scales from the MPS accounted for a sizable proportion of the variability in the individual scales of the TCI. Multiple R 's exceeded .70 for all TCI scales except Self Transcendence (multiple R =.60), with an average multiple R of .72 across all seven scales. The TCI factors, on the other hand, accounted for significantly less variance in both the MPS primary scales (multiple R s ranged from .36 to .75 with an average of .56), and the higher-order factors (multiple R 's of .69, .68, and .59 respectively for PEM, NEM, and CON).

Validation evidence for the easy version of the short MPQ (MPE) was obtained in three ways. First, comparable descriptive statistics (means and standard deviations) for primary scales and higher order factors were observed across both forms. Further evidence was obtained by comparing factor structures derived by principal components analyses on the primary scales from the two forms of the MPQ. As in the original MPQ, both the short and easy versions yielded 3 higher order factors, PEM, NEM, and CON. In addition, examination of component matrices of these higher order factors revealed similar patterns of primary scale loadings across the two versions. Finally, using the TCI as an external criterion, patterns of correlations between the temperament and character indices of the TCI and the MPQ primary scales are similar across the two forms of the MPQ.

In conclusion, an abbreviated version of Tellegen's MPQ predicted to a high degree the TCI factors. The reverse was also true, although to a lesser extent. The reduced ability of the TCI to predict MPQ scales may reflect differences in the level of analysis provided by the TCI factors and the primary scales of the MPQ. Finally, a simplified reading version of the MPQ was presented and demonstrated to produce scores comparable to the standard short form.

OBJECTIVES

1. To introduce substantially shortened version (MPS: 155 items) of Tellegen's Multidimensional Personality Questionnaire which retains all of the properties of the full 276 item measure.
 2. To examine relationships between Tellegen's primary traits and higher order factors from the MPS and Cloninger's temperament traits and character dimensions from the short form of the Temperament and Character Inventory (TCS).
 3. To conduct an initial validation of an "easy reading" version (MPE) of the short form of the MPQ which is appropriate for administration to youths and lower education samples.
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SAMPLE

The sample consisted of 325 undergraduate introductory psychology students at Florida State University.

All participants completed the short form of the Temperament and Character Inventory (TCS) and provided basic demographic information. Approximately one half of the sample (n=157) also completed the standard short form of the MPQ. The other half of the sample (n=168) completed a new "easy reading" version of the short MPQ.

An additional 389 students completed the full (276 item) MPQ. This sample allowed for an independent validation of the functioning of the short form of the MPQ in a college population.

MEASURES

Multidimensional Personality Questionnaire

11 Primary trait scales

- ◇ Well Being
- ◇ Social Potency
- ◇ Achievement
- ◇ Social Closeness
- ◇ Stress Reaction
- ◇ Alienation
- ◇ Aggression
- ◇ Control
- ◇ Harm Avoidance
- ◇ Traditionalism
- ◇ Absorption

3 Higher order factors

- ◇ Positive Emotionality
- ◇ Negative Emotionality
- ◇ Constraint

Temperament and Character Inventory

4 Temperament scales

- ◇ Harm Avoidance
- ◇ Novelty Seeking
- ◇ Reward Dependence
- ◇ Persistence

3 Character Scales

- ◇ Self-Directedness
 - ◇ Cooperativeness
 - ◇ Self-Transcendence
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MULTIDIMENSIONAL PERSONALITY QUESTIONNAIRE SHORT FORM

Development of the Short Form

The development of the short form of the MPQ is the product of a continuing collaboration between our laboratory and Auke Tellegen. The actual development of this short form was completed as a separate project from the work presented here. However, a summary of the performance of short form within a college sample is presented to facilitate interpretation of the current results.

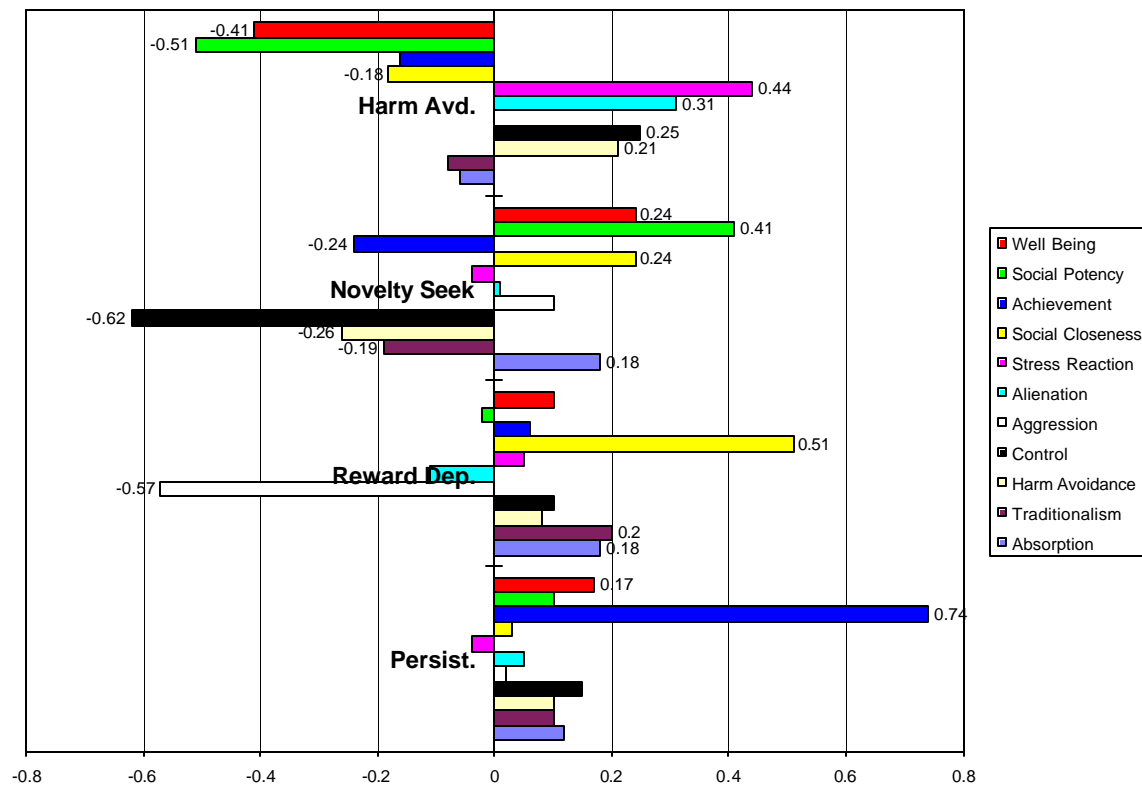
Short Form/Full Measure Correlations

Descriptive statistics for the full and short forms of the MPQ were nearly identical. Moreover, correlations between corresponding scales on the two forms all exceeded 0.90.

Scale Name	Full form	Short form	Correlation between forms
Primary Trait Scales			
Well Being	17.0 (5.6)	17.6 (5.4)	0.95
Social Potency	13.1 (6.3)	12.9 (6.0)	0.95
Achievement	11.5 (5.0)	11.0 (4.7)	0.96
Social Closeness	14.7 (4.6)	15.1 (4.5)	0.96
Stress Reaction	13.1 (5.6)	12.7 (5.8)	0.95
Alienation	5.2 (4.2)	5.2 (4.2)	0.95
Aggression	7.5 (4.6)	7.1 (4.7)	0.96
Control	14.2 (5.4)	14.8 (5.4)	0.93
Harm Avoidance	14.6 (5.8)	14.7 (5.8)	0.94
Traditionalism	17.4 (4.7)	16.7 (4.5)	0.91
Absorption	21.4 (6.8)	20.7 (6.7)	0.92
Higher Order Factors			
Positive Emotionality	73.1 (17.2)	72.8 (16.2)	0.97
Negative Emotionality	51.0 (17.2)	50.6 (17.4)	0.97
Constraint	74.6 (16.9)	73.8 (16.2)	0.96

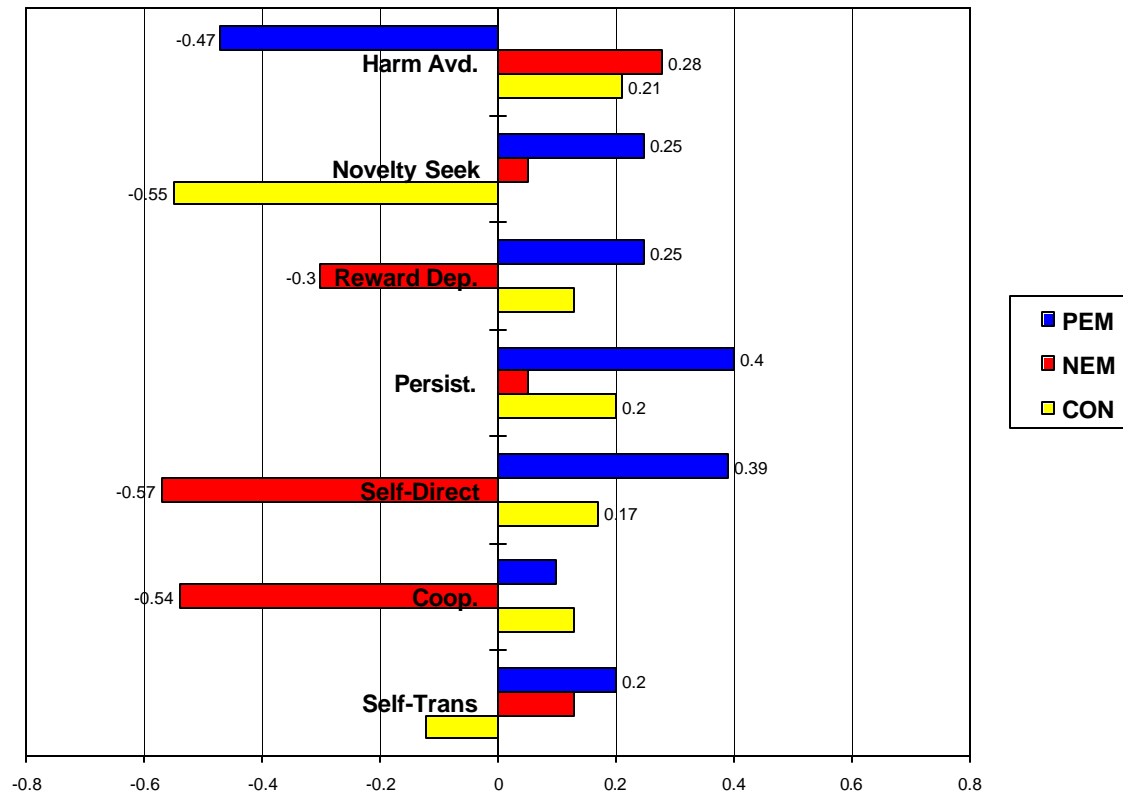
PREDICTING THE TEMPERAMENT AND CHARACTER INVENTORY FROM THE MPS

**Pearson r's between Temperament
and MPS Primary Trait**



**Pearson r's between Character
and MPS Primary Trait**

Pearson r's between all TCS scales and MPS Higher Order Factors



Multiple R's Between individual TCS Scales and MPS scales

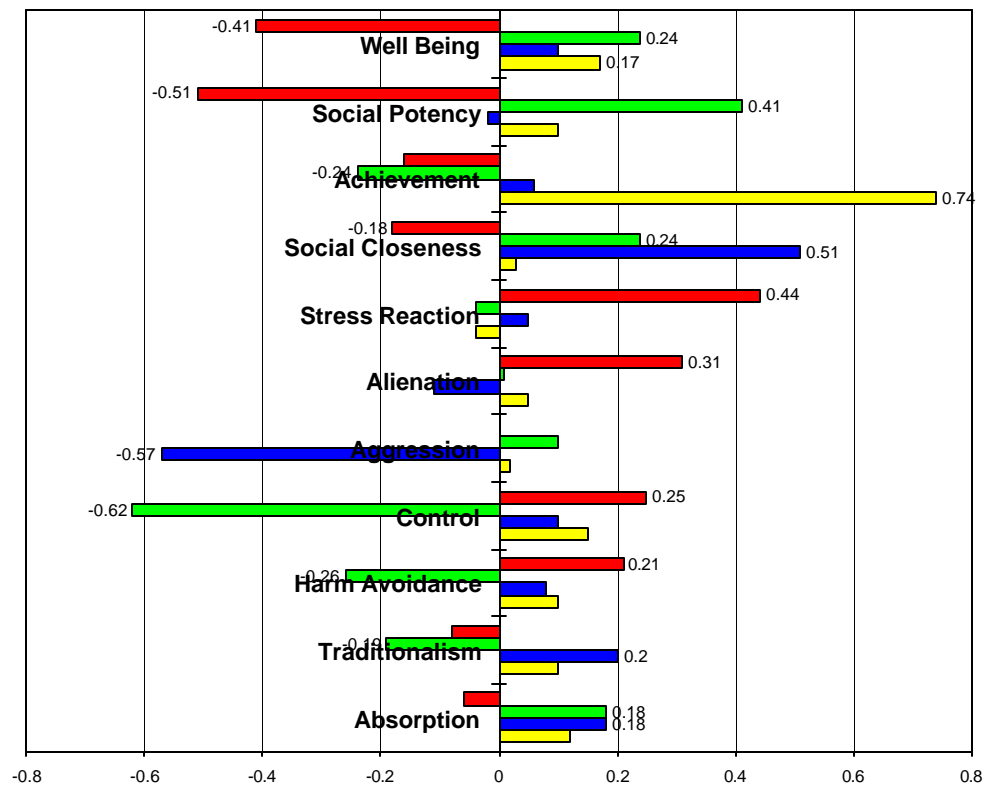
	Novelty Seek	Harm Avd	Reward Dep	Persist	Self Direct	Coop.	Self Trans.
Primary Traits	.737	.748	.769	.764	.746	.705	.595
Higher Order Factors	.596	.582	.397	.463	.699	.558	.262

The three figures above depict simple Pearson r correlations between the scales of the TCS and the MPS. Significant correlations are denoted by * indicating the magnitude of the correlation. Examination of these figures provides a decomposition of the TCS scales into MPQ terminology.

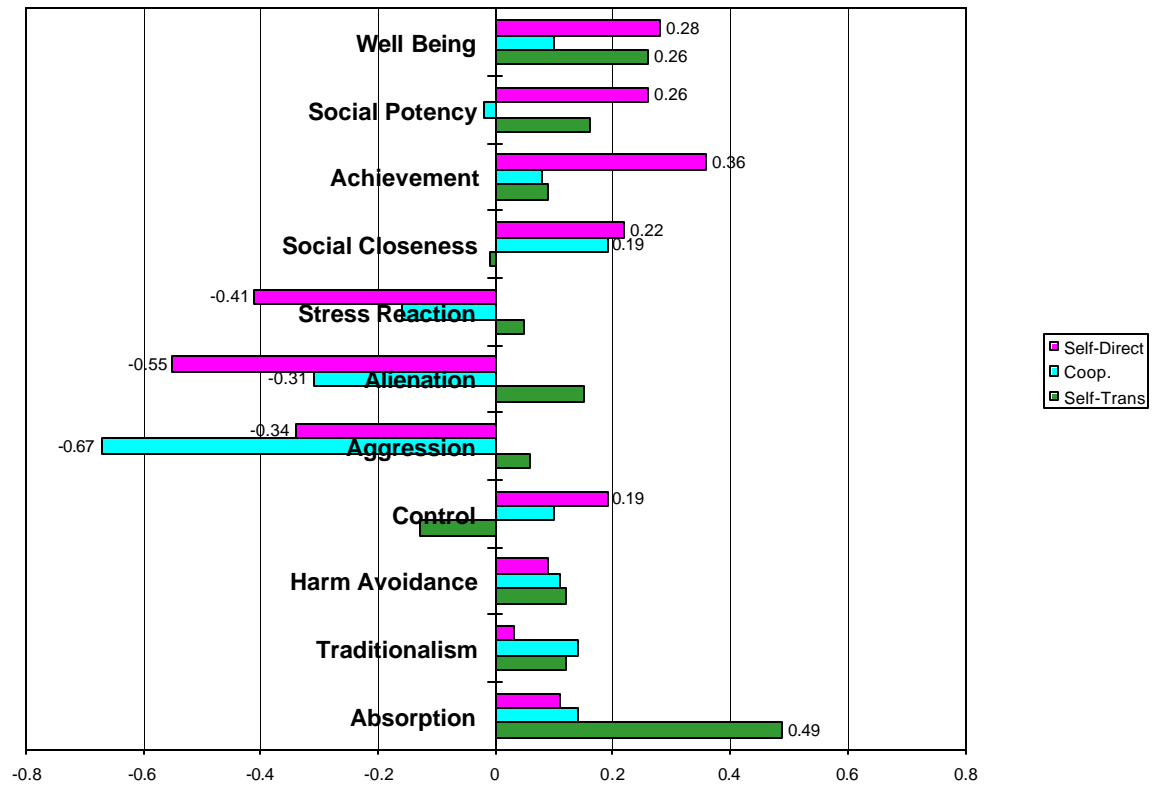
The above table provides the multiple R 's from individual regressions with the TCS scales as dependent variables. Separate regressions were conducted with either MPS primary trait or higher order factors as predictor variables. Utilizing the trait scales as predictors, all multiple R 's were above .7 except for self transcendence (multiple $R = 0.595$), indicating that a sizable portion of the variance in TCS scores can be captured by the MPS trait scales.

PREDICTING THE MULTIDIMENSIONAL PERSONALITY QUESTIONNAIRE FROM THE TCS

**Pearson r's between MPS Primary Trait
and TCS Temperament**



**Pearson r's between MPS Primary Trait
and TCS Character**

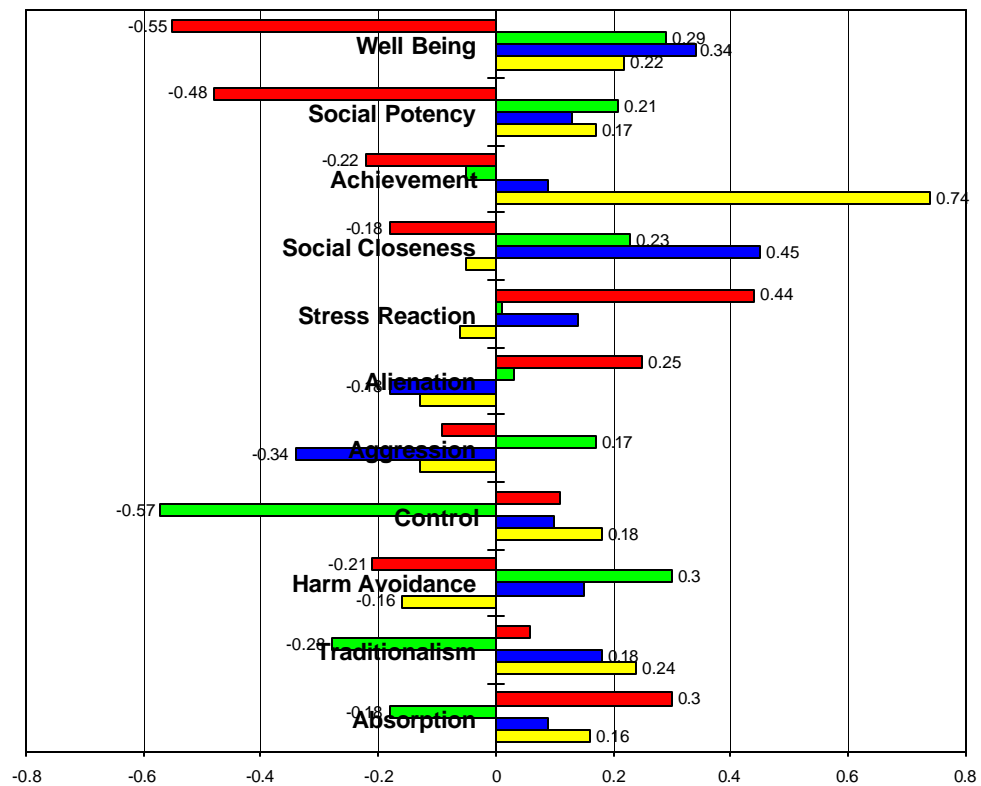


The three figures above depict simple Pearson r correlations between the scales of the MPS and the TCS. The correlations are the same as those reported in the previous figures, however, the axis have been rotated to aid in interpreting the MPS scales in TCS terminology. Again, significant correlations are denoted by indicating the magnitude of the correlation.

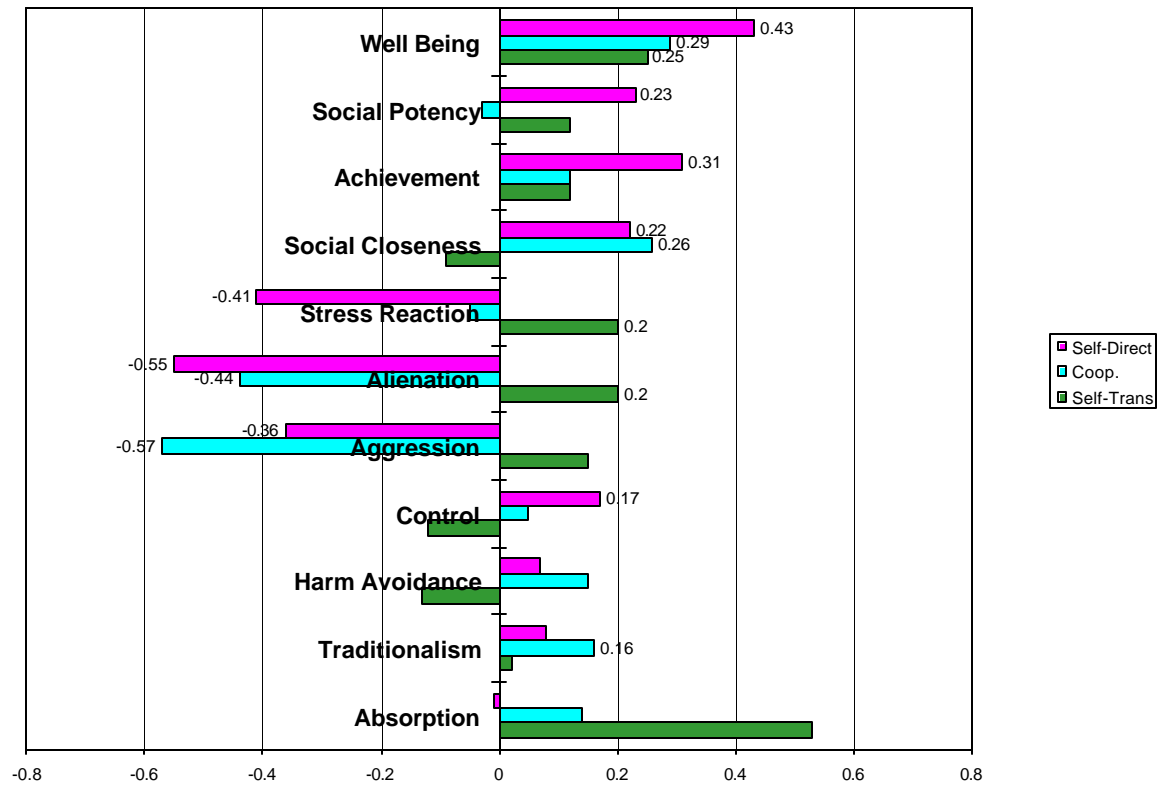
The above table provides the multiple R 's from individual regressions with the MPS scales (both primary and higher order) as dependent variables. Descriptively, the TCS scales capture less variance in the MPS scales than the converse. Specifically, the multiple R 's range from 0.35 to 0.75.

VALIDATION OF THE MPQ (EASY READING VERSION)

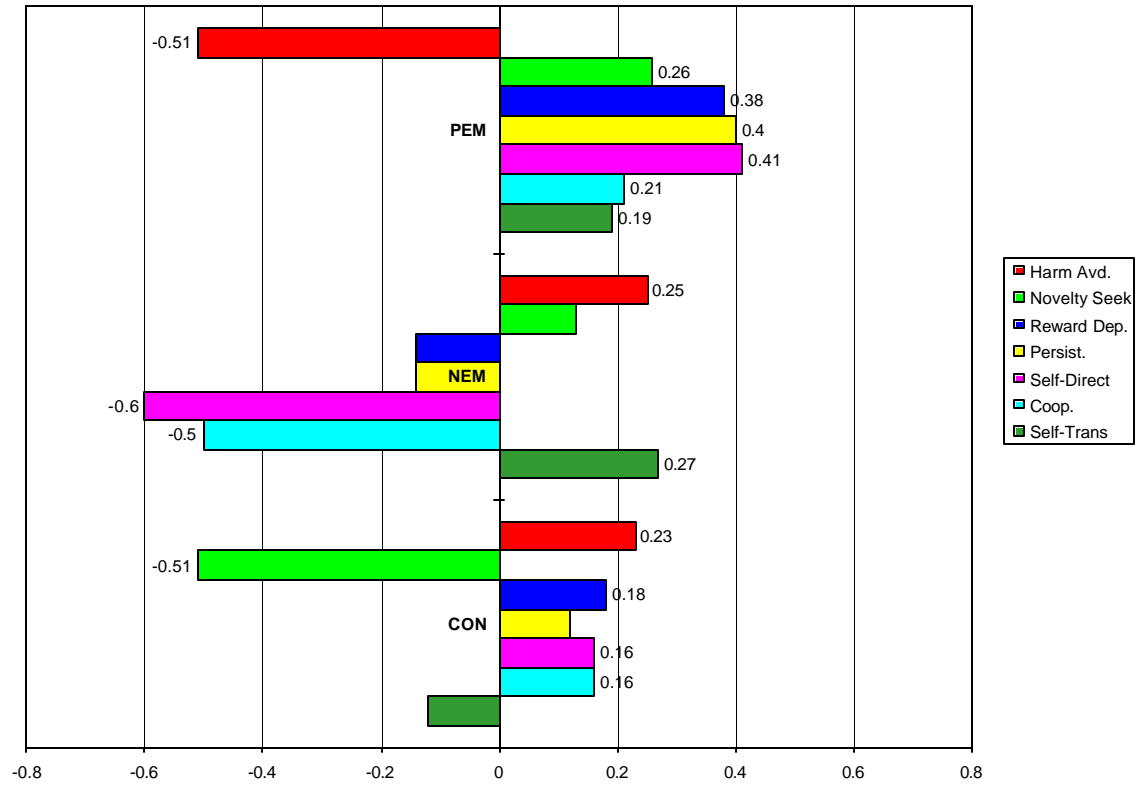
Pearson r's between MPE Primary Trait and TCS Temperament



Pearson r's between MPE Primary Trait and TCS Character



Pearson r's between MPS Higher Order Factors all TCS scales and



Component Matrix for 3 Factor Solution

	PEM	NEM	CON
Well Being	<u>67</u>	-48	04
Social Potency	<u>60</u>	-35	<u>-30</u>
Achievement	<u>65</u>	-06	30
Social Closeness	<u>14</u>	<u>-62</u>	02
Stress Reaction	17	<u>74</u>	17
Alienation	-04	<u>65</u>	-35
Aggression	-02	18	<u>-62</u>
Control	04	02	<u>72</u>
Harm Avoidance	-40	-05	<u>57</u>
Traditionalism	17	15	<u>60</u>
Absorption	<u>68</u>	<u>29</u>	-03

The above figures provide the correlations between the scales of the easy reading MPQ and the TCS. Comparison of this correlations with MPS/TCS correlations reveal similar patterns and magnitudes.

As with the full measure and the standard short form, principal components analysis revealed a 3 factor solution for the MPE. Examination of the component matrix revealed similar factor loadings. The highest loading for each trait scale is highlighted in green. Significant loadings from the three factor solution of the full form are underlined.

CONCLUSIONS

1. A short form of Tellegen's Multidimensional Personality Questionnaire is now available. It is approximately half the length (155 items) of the full measure. However, it produces near identical descriptive statistics. Moreover, the individual scales correlate above 0.9 with the scales from the full measure.
2. Scales from the MPS accounted for a sizable proportion of the variability in the individual scales of the TCS. Multiple R's exceeded .70 for all TCS scales except Self Transcendence (multiple R=.60), with an average multiple R of .72 across all seven scales. A graphical presentation of correlations was provided to translate TCS scales into MPQ terminology.
3. The TCI factors, on the other hand, accounted for significantly less variance in both the MPS primary scales (multiple Rs ranged from .36 to .75 with an average of .56), and the higher-order factors (multiple R's of .69, .68, and .59 respectively for PEM, NEM, and CON).
4. Initial validation of an easy reading version of the short MPQ was also demonstrated. Descriptive statistics and relationships with TCS scales are comparable to the standard short form in a college sample. Moreover, as in the original MPQ, the easy version yielded 3 higher order factors, PEM, NEM, and CON. Examination of the component matrix of these higher order factors revealed similar patterns of primary scale loadings.