

Cross-Cultural Studies on the Core Psychological Needs (CPNs) and the Schema Model - Contribution to Schema Therapy



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Study Design: Research questions: To what extent it can be assumed ...

1. that there is no significant difference in the relevance of the four CPNs in the lives of the participants. (i.e. Whether the four CPNs are equally relevant across participants) and
2. that there are no cross-cultural differences (i.e., no difference between regions).

A total of 166 people were interviewed: 52 (31.3%) from Central Europe, 55 (33.1%) from West Africa, and 59 from North America (among them 50 [30.1%] grew up in the US, and nine [5.4%] were non-residents or immigrants to the US). The proportion of women was 51.8% (n = 86) and that of men was 48.2% (n = 80). The interviews lasted a total of 1871 minutes.

- 15 participants (9,0%) belonged to Generation Z (Zoomer) (2009/12- 1997 (- 20 years old),
 - 90 (54,2%) to Generation Y (Millennials) 1996 – 1981 (21 - 36 years old),
 - 49 (29,5%) to Generation X (Straddle?) 1980 - 1965 (37 - 52 years old),
 - 8 (4,8%) to Generation (Baby Boomer) 1964 - 1946 (53 - 71 years old), and
 - 3 (1,8%) to Generation Silent (traditionalist) 1945 < (72 or older).
- One participant did not disclose her age.

[B] Qualitative Study

Goal: Advocating for a Critical Overhaul of Schema Conceptualizations
Deductive vs. inductive

- Inductive Approach: one generates codes emerging from the data, working towards constructing a theory.
 - Deductive approach: is theory-driven; one starts with the theory and analyses the data to see how the data coding fits the theory.
- Computer-assisted qualitative data analysis: in line with grounded theory, which integrates the three cycles of coding: initial or focused coding (i.e. open coding), axial coding, and theoretical (i.e. selective) coding.

[A] Quantitative Study

On Question 1: The nonparametric Friedman Test applied:

Need Fulfillment:

Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary	
Total N	156
Test Statistic	7,209 ^a
Degree Of Freedom	3
Asymptotic Sig. (2-sided test)	.052

a. Multiple comparisons are not performed because to overall test retained the null hypothesis of no differences.

p-value of .052, no significant difference

Need Violation

Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary	
Total N	150
Test Statistic	15,541
Degree Of Freedom	3
Asymptotic Sig. (2-sided test)	.001

p-value of .001 a significant difference

Both need fulfillment and violation

Related-Samples Friedman's Two-Way Analysis of Variance by Ranks Summary	
Total N	156
Test Statistic	13,635
Degree Of Freedom	3
Asymptotic Sig. (2-sided test)	.003

P-value of .003, significant difference found

Ratio of attributions to PLEASURE Positive	Ratio of attributions to SELF-ESTEEM Positive	Ratio of attributions to RELATIONSHIP Positive	Ratio of attributions to MASTERY Positive	
Mean	27.91	23.31	25.85	20.54
Median	25.00	25.00	25.00	20.00

Similar means and medians

Ratio of attributions to PLEASURE Negative	Ratio of attributions to SELF-ESTEEM Negative	Ratio of attributions to RELATIONSHIP Negative	Ratio of attributions to MASTERY Negative	
Mean	30.38	27.74	30.33	19.08
Median	0.00	22.50	25.00	0.00

Means do not vary extremely

Ratio of attributions to PLEASURE Positive & Negative	Ratio of attributions to SELF-ESTEEM Positive & Negative	Ratio of attributions to RELATIONSHIP Positive & Negative	Ratio of attributions to MASTERY Positive & Negative	
Mean	25.62	24.87	27.28	20.51
Median	25.00	25.50	28.57	20.00

This difference can be assumed to be small as the means fluctuate only between 20.51 and 27.20

In summary: The question of equivalence (i.e. equality in relevance) of core psychological needs, which might be the basis of the consistency principle in the sense of equilibrium, hereby still remained open, although these data tend to support the assumption of such equivalence.

Regional Differences of the CPN-Items.

On Question 2: Multiple Kruskal-Wallis Tests performed

	PLEASURE POSITIVE				SELF-ESTEEM POSITIVE				RELATIONSHIP POSITIVE				MASTERY POSITIVE			
	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)
Mean	24.45	21.92	38.33	26.01	25.99	17.52	34.1	20.69	22.31	15.43	27.08	19.04				
Median	25.00	25.00	33.33	25.00	25.00	16.67	33.33	18.34	21.43	16.67	25.00	14.29				
Kruskal-Wallis H	9186				6.885				11.750				5.848			
df	2				2				2				2			
p-value ¹⁾	.121				.424				.034*				.645			

	PLEASURE NEGATIVE				SELF-ESTEEM NEGATIVE				RELATIONSHIP NEGATIVE				MASTERY NEGATIVE			
	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)
Mean	15.34	27.68	17.32	28.11	23.89	30.80	34.86	24.21	33.45	20.78	20.92	15.10				
Median	0.00	11.59	0.00	25.00	7.15	25.00	25.00	26.79	25.00	16.67	0.00	0.00				
Kruskal-Wallis H	3273				1.493				1.667				2.266			
df	2				2				2				2			
p-value ¹⁾	1.000				1.000				1.000				1.000			

	PLEASURE POS & NEG				SELF-ESTEEM POS & NEG				RELATIONSHIP POS & NEG				MASTERY POS & NEG			
	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)	Austria (Europe)	Nigeria (Africa)	USA (America)	USA (America)
Mean	21.99	26.38	30.22	27.54	24.27	21.51	31.29	23.76	26.51	18.82	23.95	18.83				
Median	23.08	22.22	29.57	27.27	25.00	20.00	30.77	25.00	16.67	25.00	16.67	16.67				
Kruskal-Wallis H	3467				5.232				6.779				4.092			
df	2				2				2				2			
p-value ¹⁾	1.000				.877				.405				1.000			

Remarks: * p-value < .05, ** p-value < .01, *** p-value < .001; 1) >-values Bonferroni corrected

Apart from BONDING POSITIVE no items has shown significant differences between countries. In light of all the results one could assume the concept may be generally viewed as culture-independent with good invariances among countries and thus without huge cultural distortions.

Covid-19 Study: Understanding compliance behavior during Pandemic (740 part.)

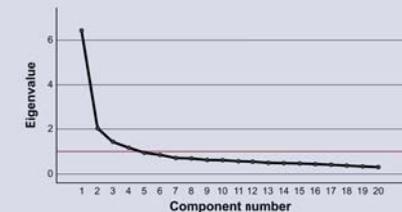
- Relevant to core psychological needs (CPNs):
- To elicit meaningful and valid meta-scale based on the items, we conducted exploratory factor analyses (EFAs). The EFA results "show that the items can be meaningfully grouped following the CPN theory model.
- Further, regarding the variance, each factor explained approximately the same amount, indicating a similar level of importance.

Regression analysis of the effect of CPNs, CBS and concerns on compliance

Dependent Variable	Scale Compliance	R ² = .252	F _(10,84) = 12.840	p < .000***	
Items	Coeff.	SE (HC)	Coeff (Std.)	t	p-Val
(Constant)	1.923	0.248		7.741	.000***
Scale CPN Relationship	0.053	0.046	0.053	1.158	.247
Scale CPN Self-Esteem	0.032	0.045	0.034	0.704	.482
Scale CPN Efficacy	0.116	0.058	0.107	1.988	.047*
Scale CPN Pleasure	0.193	0.051	0.180	3.824	.000***
Scale CBS-Confidence	0.024	0.042	0.027	0.562	.574
Scale CBS-Confrontation	-0.145	0.047	-0.177	-3.531	.000***
Scale CBS-Summary	0.310	0.042	0.309	7.393	.000***
Scale CBS-Diver Attention	0.037	0.037	0.042	1.006	.315
Scale CBS-Environmental Concerns	-0.047	0.034	-0.061	-1.377	.169

Remarks: * p-value < .05, ** p-value < .01, *** p-value < .001; HC=Heteroscedasticity consistent standard errors; Covariates: Age, Gender, Educational level, Country, Savings.

CPN = core psychological need; CBS = coping behavior style



Scree plot of the exploratory factor analysis of core psychological needs, with the eigenvalue of the factor above the Kaiser criterion of 1, denoting four as the optimal number of factors.

Exploratory factor analysis of core psychological needs (CPNs): Rotated component matrix, communalities, and rotation sums of squared loadings.

Item	Factors				Communalities
	1	2	3	4	
Scale CBS-Confidence	0.89	0.78	0.687	0.677	0.512
Scale CBS-Confrontation	0.80	0.590	0.509	0.570	0.522
Scale CBS-Summary	0.71	0.697	0.619	0.519	0.519
Scale CBS-Diver Attention	0.70	0.512	0.444	0.444	0.444
Scale CBS-Environmental Concerns	0.521	0.316	0.316	0.288	0.288
Scale CBS-Confidence	0.50	0.398	0.398	0.398	0.398
Scale CBS-Summary	0.49	0.49	0.49	0.49	0.49
Scale CBS-Diver Attention	0.48	0.48	0.48	0.48	0.48
Scale CBS-Environmental Concerns	0.47	0.47	0.47	0.47	0.47
Scale CBS-Confidence	0.46	0.46	0.46	0.46	0.46
Scale CBS-Summary	0.45	0.45	0.45	0.45	0.45
Scale CBS-Diver Attention	0.44	0.44	0.44	0.44	0.44
Scale CBS-Environmental Concerns	0.43	0.43	0.43	0.43	0.43
Scale CBS-Confidence	0.42	0.42	0.42	0.42	0.42
Scale CBS-Summary	0.41	0.41	0.41	0.41	0.41
Scale CBS-Diver Attention	0.40	0.40	0.40	0.40	0.40
Scale CBS-Environmental Concerns	0.39	0.39	0.39	0.39	0.39
Scale CBS-Confidence	0.38	0.38	0.38	0.38	0.38
Scale CBS-Summary	0.37	0.37	0.37	0.37	0.37
Scale CBS-Diver Attention	0.36	0.36	0.36	0.36	0.36
Scale CBS-Environmental Concerns	0.35	0.35	0.35	0.35	0.35
Scale CBS-Confidence	0.34	0.34	0.34	0.34	0.34
Scale CBS-Summary	0.33	0.33	0.33	0.33	0.33
Scale CBS-Diver Attention	0.32	0.32	0.32	0.32	0.32
Scale CBS-Environmental Concerns	0.31	0.31	0.31	0.31	0.31
Scale CBS-Confidence	0.30	0.30	0.30	0.30	0.30
Scale CBS-Summary	0.29	0.29	0.29	0.29	0.29
Scale CBS-Diver Attention	0.28	0.28	0.28	0.28	0.28
Scale CBS-Environmental Concerns	0.27	0.27	0.27	0.27	0.27
Scale CBS-Confidence	0.26	0.26	0.26	0.26	0.26
Scale CBS-Summary	0.25	0.25	0.25	0.25	0.25
Scale CBS-Diver Attention	0.24	0.24	0.24	0.24	0.24
Scale CBS-Environmental Concerns	0.23	0.23	0.23	0.23	0.23
Scale CBS-Confidence	0.22	0.22	0.22	0.22	0.22
Scale CBS-Summary	0.21	0.21	0.21	0.21	0.21
Scale CBS-Diver Attention	0.20	0.20	0.20	0.20	0.20
Scale CBS-Environmental Concerns	0.19	0.19	0.19	0.19	0.19
Scale CBS-Confidence	0.18	0.18	0.18	0.18	0.18
Scale CBS-Summary	0.17	0.17	0.17	0.17	0.17
Scale CBS-Diver Attention	0.16	0.16	0.16	0.16	0.16
Scale CBS-Environmental Concerns	0.15	0.15	0.15	0.15	0.15
Scale CBS-Confidence	0.14	0.14	0.14	0.14	0.14
Scale CBS-Summary	0.13	0.13	0.13	0.13	0.13
Scale CBS-Diver Attention	0.12	0.12	0.12	0.12	0.12
Scale CBS-Environmental Concerns	0.11	0.11	0.11	0.11	0.11
Scale CBS-Confidence	0.10	0.10	0.10	0.10	0.10
Scale CBS-Summary	0.09	0.09	0.09	0.09	0.09
Scale CBS-Diver Attention	0.08	0.08	0.08	0.08	0.08
Scale CBS-Environmental Concerns	0.07	0.07	0.07	0.07	0.07
Scale CBS-Confidence	0.06	0.06	0.06	0.06	0.06
Scale CBS-Summary	0.05	0.05	0.05	0.05	0.05
Scale CBS-Diver Attention	0.04	0.04	0.04	0.04	0.04
Scale CBS-Environmental Concerns	0.03	0.03	0.03	0.03	0.03
Scale CBS-Confidence	0.02	0.02	0.02	0.02	0.02
Scale CBS-Summary	0.01	0.01	0.01	0.01	0.01
Scale CBS-Diver Attention	0.00	0.00	0.00	0.00	0.00
Scale CBS-Environmental Concerns	0.00	0.00	0.00	0.00	0.00
Scale CBS-Confidence	0.00	0.00	0.00	0.00	0.00
Scale CBS-Summary	0.00	0.00	0.00	0.00	0.00
Scale CBS-Diver Attention	0.00	0.00	0.00	0.00	0.00
Scale CBS-Environmental Concerns	0.00	0.00	0.00	0.00	0.00
Scale CBS-Confidence	0.00	0.00	0.00	0.00	0.00
Scale CBS-Summary	0.00	0.00	0.00	0.00	0.00
Scale CBS-Diver Attention	0.00	0.00	0.00	0.00	0.00
Scale CBS-Environmental Concerns	0.00	0.00	0.00	0.00	0.00
Scale CBS-Confidence	0.00	0.00	0.00	0.00	0.00
Scale CBS-Summary	0.00	0.00	0.00	0.00	0.00
Scale CBS-Diver Attention	0.00	0.00	0.00	0.00	0.00
Scale CBS-Environmental Concerns	0.00	0.00	0.00	0.00	0.00
Scale CBS-Confidence	0.00	0.00	0.00	0.00	0.00
Scale CBS-Summary	0.00	0.00	0.00	0.00	0.00
Scale CBS-Diver Attention	0.00	0.00	0.00	0.00	0.00
Scale CBS-Environmental Concerns	0.00	0.00	0.00	0.00	