

BIOQUEST-AL **Biographic Questionnaire for Alcoholics**

German version: BIFA-AL - Biographischer Fragebogen fuer Alkoholabhaengige
[PSYNDEX Tests-Dok.-Nr. 9003264]

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Test Concept

Theoretical Background

The overall theoretical background is based on a conception of Buehler published in Buehler (1986a, 1986b, 1986c, 1986d, 1986e). The categories and the items were selected according to their relevance to alcoholism as represented in the scientific literature and as acquired by personal experience in the treatment of alcoholics.

In biography there is an influence of two opposing factors: one causes an increase in vulnerability, the other an improvement in coping strategies. These two factors are aimed at by the selection of the items.

Biographical inventories necessarily overlap the realm of personality inventories and of tests for motivation analysis or questionnaires on interests.

Test Procedure

The questionnaire consists of three scales (interval scaling) with 38 items (total):

Scale 1, named "Neuroticism", is characterised by depressivity, rumination, lability of mood, emotional disturbances, despair, hopelessness, anxiety concerning the future, resignation, anxiety concerning failure and insufficiency, low self-esteem, impression of uselessness, and isolation.

Scale 2, named "Unfavourable versus favourable primary socialisation", is characterised by either rejection of the inharmonious (parental) home, severe manner of up-bringing, of socialisation and of education, little support by parents or by educators, or by trustworthiness of parents or educators and harmonious (parental) home.

Scale 3, named "Orientation and motivation", is characterised by conventional achievement motivation, unspecific motivation, purposiveness, resolution, orientation to the future, planning of life, social contact, cooperation, self-esteem, ego strength, ego syntonia.

Interpretation Mode

Paper and pencil test with dichotomous, "forced choice" categories for answer: "yes" (score 1) and "no" (score 0).

The raw score for each scale is obtained by placing a scoring template on the answer sheet. The Xs which show through the template are counted and the total entered in the proper cell at the bottom of the answer sheet.

Items

N01 Sometimes I feel as if I had come to a dead end.

P01 I have always had the feeling that my parents have inwardly rejected me.

001 Much of what I plan to do I really carry out.

All Items

The affirmation of the items yields one score except the items with an asterisk (*): here the negation yields one score.

S = selectivity

D = difficulty (relative frequency of positive answers)

R = reliability or correlation of the item to the factor

Scale 1 Neuroticism	S	D	R
N01 Sometimes I feel as if I had come to a dead end.	.647	.660	.710
N02 My mood changes quickly without any apparent reason.	.550	.455	.603
N03 I often have a feeling of indifference and inner emptiness.	.575	.494	.623
N04 I spend more time preparing to live than I do actually living.	.492	.486	.527
N05 I am always afraid of being embarrassed.	.544	.531	.577
N06 I am often afraid that I won't be able to achieve the goals I have set for myself.	.630	.572	.687
N07 Sometimes I am plagued by the idea that I am not up to the demands which life places on me.	.648	.623	.722
N08 Although I am basically a happy person, things often become too much and too difficult for me.	.559	.637	.631
N09 I often write things down to be done which I should really do immediately.	.498	.677	.571
N10 Everyday life is often so grey and empty that I find myself day-dreaming	.567	.513	.606

about a better, more pleasant world			
N11 I often find myself just sitting around and dosing off.	.519	.469	.585
N12 My view of the future is more determined by my fears, wishes and hopes than by the facts.	.632	.635	.682
N13 My plans often seem to me to be so difficult that I abandon them later.	.592	.574	.652
N14 I often feel miserable and depressed.	.649	.584	.710
N15 My physical and mental capabilities are very variable.	.545	.632	.591
Scale 2 Unfavourable versus favourable primary socialisation	S	D	R
P01 I have always had the feeling that my parents have inwardly rejected me.	.677	.234	.684
P02 I have occasionally had the feeling that I really don't belong in my family.	.650	.367	.667
P03 At home I was often punished for things I didn't do.	.570	.262	.576
*P04 I have seldom had quarrels with members of my family.	.488	.581	.704
P05 I have often had the feeling that there was, so to speak, a wall between me and my parents.	.691	.404	.592
P06 My father always found fault with me about something or other.	.536	.241	.587
*P07 My parents were there for me when I had problems.	.610	.539	.678
P08 It often happened that my parents shamed me in front of other children and youngsters.	.577	.229	.451
P09 I didn't feel good at home because we didn't have a good family life.	.660	.374	.503
*P10 I had a quite trusting relationship with my parents.	.646	.544	.493
P11 My mother found it difficult to forgive me when I was the cause of trouble.	.470	.348	.645
P12 My parents quarrel more than others.	.528	.265	.685
Scale 3 Orientation and motivation	S	D	R
001 Much of what I plan to do I really carry out.	.531	.676	.601
002 I have got the strength and capability of mastering my life.	.614	.607	.726
003 With regard to my goal in life I feel certain and determined.	.608	.533	.683
004 I am very successful at following something attentively.	.467	.739	.517
005 For the most part I have got a positive attitude toward the world.	.469	.770	.527
006 I really feel that I can well cope with life's difficulties.	.645	.607	.726
007 In the ups and downs of life I manage well.	.624	.656	.700
008 I have got persistence when it comes to achieving a set goal.	.539	.634	.631
009 I am thoroughly satisfied with the prospects which life offers me.	.475	.600	.558
010 Usually I can summon up enough self-control to reach set goals.	.602	.714	.674
011 I am always clear about my real interests.	.488	.581	.576

Administration

Application Time

Time for completing the questionnaire: 10 to 15 minutes.

Instructions

The questionnaire consists of statements concerning your biography.

As everyone has their own opinions about themselves and their lives, there can be no right or wrong answers to these statements.

The test is only useful if you answer sincerely. You may rest assured that the data will be treated confidentially.

Some statements may be difficult to answer. Please always give the correct answer. If you want, you can give additional information on a separate sheet of paper. Don't omit a statement even if it should be difficult to answer.

For each and every statement there are two modes of answering: "yes" and "no". If you want to affirm a statement, you mark the item "yes" and if you want to negate a statement you mark the item "no".

Ψ Test Construction

The BIOQUEST-AL is appropriate for the assessment of the biography of alcoholics and for their clinical classification.

The 255 items for the construction of the questionnaire, answered by 772 Alcoholics, derive from 11 biographical categories. Each category consists out of at least 20 indicators:

1. Situation of the family, familial background, atmosphere in the family, primary socialisation (20 items).
2. Style of up-bringing, of socialisation and of education, support by parents or by educators (21 Items).
3. Imago of father, mother or educators, conjugal community of parents, community of educators (21 Items).
4. Autonomy, independence, responsibility for one's life, self-actualization, communication with others, persistence (24 Items).
5. Motivation, orientation to the future, organization of planning, resolution (22 Items).
6. Reactions to frustration, toleration of frustration, reactions to tension, to anxiety, to stress, to conflicts, self-assertion, self-confidence (23 Items).
7. Attitude to oneself and to one's environment (24 Items).
8. Social relations, conformism (27 Items).
9. Manner of living, orientation to the future, hope, resignation, contentment, joy of life (27 Items).
10. Mood, emotion, affect (24 Items).
11. Self-disclosure, expression of emotions (22 Items).

The 255 Items were analyzed by factor and by cluster analysis. Three factors or dimensions were extracted according to the Scree Test (Cattell, 1966), the curve of differences of eigenvalue and the criterion of Fuertratt (1969) and named: 1. Neuroticism, 2. Primary socialisation and 3. Orientation and unspecific motivation.

Description of the samples:

The data are based on two samples of alcoholics, one with 772 subjects. The samples were taken in several institutions, in:

- 1) Psychiatric hospitals (ca. 53 % of the total sample),
- 2) Hospitals specialized in treating addiction (ca. 38 % of the total sample),
- 3) Institutions for out-patient treatment (ca. 8 % of the total sample).

The sample with 772 subjects was used for the construction of the questionnaire and for exploratory procedures, i.e. for setting up hypotheses.

The second sample, used for confirmation, amounts to 324 subjects.

Dimensions of the questionnaire, homogeneity of the scales, model of scales:

a: Analysis of the dimensions

The dimensions of the scales were analysed by factor analysis, by multidimensional scaling, and by cluster analysis of the items. Out of the data three oblique rotated factors were extracted:

Scale 1: "Neuroticism"; 15 Items.

Scale 2: "Favourable versus unfavourable primary socialisation"; 12 Items.

Scale 3: "Unspecific motivation and orientation to future; 11 Items.

Intercorrelations of the scales:

	Scale 1	Scale 2	Scale 3
Scale 1	1.00		
Scale 2	.35	1.00	
Scale 3	-.62	-.45	1.00

The intercorrelations of the scales are due to influences of subtypes of alcoholics.

There are no intercorrelations of the scales in the subtypes.

b: Homogeneity of the scales

The homogeneity of the scales were assessed by factor analysis and item analysis. Each and every scale was factor-analyzed.

Explanation of the variance by the first eigenvalue of a respective scale:

Scale 1 (neuroticism) : 44.1%
 Scale 2 (primary socialisation) : 42.3%
 Scale 3 (orientation) : 45.4%

The second eigenvalue of the respective scale was lower than 9%.

c: Model of scales

The equivalence of the items was assessed by correlation of the exact factor scores with the scores gained by addition of one point for each positive answer of an item. The correlations were higher than .99.

Correlations of the exact factor scores with the unweighted raw score:

Scale 1 (neuroticism) : .9944
 Scale 2 (primary socialisation) : .9941
 Scale 3 (orientation) : .9906

Pattern Matrix of Factors (OBLIMIN Rotation in SPSS), i.e. correlation of the items to the factor

Item	Factor1	Factor2	Factor3
N01	.74312	.08157	.08841
N02	.54074	.06254	-.05554
N03	.52660	.13984	-.06436
N04	.46876	.05985	-.04791
N05	.55363	-.00325	-.03258
N06	.62414	-.02140	-.10586
N07	.62806	.05126	-.11601
N08	.75465	.02725	.18719
N09	.55247	-.05611	-.05515
N10	.53315	.09639	-.05611
N11	.54280	-.07645	-.10369
N12	.65957	-.01438	-.05380
N13	.52936	-.09181	-.23385
N14	.74709	-.03469	.02820
N15	.56519	.01218	-.03564
P01	-.01820	.72935	.05938
P02	.10828	.60940	-.03142
P03	-.02557	.67978	.16773
P04	.12204	.66960	.02839
P05	-.06280	.60084	-.04563
P06	-.06780	.57595	-.08112
P07	.06470	.62596	-.04671
P08	.08952	.42931	.01721
P09	-.06690	.44925	-.16495
P10	-.01739	.43782	-.11673
P11	.07265	.59794	-.03029
P12	.02849	.61785	-.10151
001	-.13375	-.05512	.49035
002	-.11030	-.06175	.61523
003	-.13932	-.00622	.58285
004	.01247	-.05128	.51079
005	.02686	-.07336	.50887
006	-.10935	.01184	.66140
007	-.07167	-.01910	.63807
008	-.02311	.02498	.63451
009	-.03255	-.04031	.51890
010	.10222	-.03892	.73645
011	-.08388	.03010	.53021

The pattern matrix shows high correlations of the respective item to its factor whereas the correlation to the different factors is very low.

Ψ Criteria

Reliability

	Scale 1 Neuroticism	Scale 2 Primary Socialisation	Scale 3 Orientation
Number of Items	15	12	11
Mean	8.54	4.06	7.12
Standard Deviation	4.73	3.74	3.36
Reliability:			
Cronbachs Alpha	.90	.89	.86
Spearman-Brown (split-half)	.88	.86	.85
Test-Retest	.88	.92	.75

The reliability of the scales is high. The small decrease in the test-retest reliability of scale 3 is remarkable. The interval between test and retest amounts to 4 weeks. The period of time is long enough to prevent an influence of memory on the scores as well as short enough not to prompt a real difference of the scores due to an overall change of the disposition to answer. The small decrease in the reliability of scale 3 in the test-retest condition is caused by slight therapeutic effect even if the data were gained from a sample of Alcoholics Anonymous who met regularly once a week over a period of more than one year with no substantial changes during the interval of the retest. Nevertheless subjects with scores lower than the median on scale 3, i.e. with low capacity of planning, low unspecific motivation, or inadequate orientation to the future got higher scores in the retest, i.e. the capacity of planning, the unspecific motivation and the orientation to the future improved, whereas subjects with scores higher than median on scale 3 did not change their original scores.

Conclusion: The reliability of the scales are high, scale 3 shows a special sensitivity for (therapeutic) changes.

The reliability of the scales were computed for different subgroups too: according to age, to education and to gender. The reliability of the scales in the sub-groups is high.

Scale 1: Neuroticism		
<i>Variable</i>		
<i>Reliability according education</i>		
Elementary school	.89	
Vocational school	.90	
High school (senior classes)	.93	
College or university	.91	
<i>Reliability according age</i>		
under 20 years	.86	
20-25 years	.87	
26-30 years	.92	
31-35 years	.89	
36-40 years	.90	
41-45 years	.90	
46-50 years	.91	
<i>Reliability according gender</i>		
Alpha	Male	Female
	.89	.91
Scale 2: Primary Socialisation		
<i>Variable</i>		
<i>Reliability according education</i>		
Elementary school	.90	
Vocational school	.85	
High school (senior classes)	.86	
College or university	.87	
<i>Reliability according age</i>		
under 20 years	.58	
20-25 years	.83	
26-30 years	.87	
31-35 years	.88	
36-40 years	.90	
41-45 years	.83	
46-50 years	.84	
<i>Reliability according gender</i>		
Alpha	Male	Female
	.90	.86
Scale 3: Orientation		
<i>Variable</i>		
<i>Reliability according education</i>		
Elementary school	.86	
Vocational school	.88	
High school (senior classes)	.84	
College or university	.83	
<i>Reliability according age</i>		
under 20 years	.89	
20-25 years	.78	
26-30 years	.83	
31-35 years	.86	
36-40 years	.86	
41-45 years	.86	
46-50 years	.81	
<i>Reliability according gender</i>		
Alpha	Male	Female
	.86	.84

The questionnaire was designed for the biographic assessment of alcoholism. In this respect a specific relation to alcoholics may be expected, i.e. the reliability of the scales should be higher than for a different clinical or non-clinical population. Additionally, scales constructed by means of non-alcoholic samples may be less reliable for alcoholics. Unfortunately the reliability of scales which are not specific for alcoholics is not always communicated in published studies on alcoholism.

This seems to be a serious problem as the coefficients of reliability for different clinical or non-clinical samples indicate. The reliability of the scales for non-alcoholics is remarkably less than for alcoholics.

Reliability of the scales for different samples

<i>Samples</i>	<i>Alcoholics Sample</i>	<i>Nonclinical</i>	<i>Depressive</i>	<i>Psychophysiol. Disorders</i>
Neuroticism	.90	.86	.87	.85
Primary socialisation	.89	.76	.67	.74
Orientation	.86	.68	.78	.77
n	772	163	139	136

The checking of the scales by confirmatory factor analysis (procedure LISREL 7) confirmed the results concerning the reliability of the scales for different samples, i.e. that the scales are specific for alcoholics. The goodness-of-fit-coefficients show rates more than 0.9 for the samples of the alcoholics but less than 0.9 for the other samples. The questionnaire is therefore specific for alcoholism.

Goodness-of-fit coefficients for different samples

<i>Samples</i>	<i>Non-clinical</i>	<i>Depressive</i>	<i>Psychophysiol. Disorders</i>
Neuroticism	.90	.84	.74
Primary socialisation	.79	.84	.70
Orientation	.90	.85	.79
n	163	139	136

Validity

Empirical validation of the scales with scales of different questionnaires:

(1) *Giessen-Test (GT): Beckmann and Richter (1981).*

Scale 1 BIOQUEST-AL significant positive correlation ($r = .55$) with scale 4 (Grundstimmung, i.e. basic mood) of GT: high scores for depressive mood versus low scores for hypomanic mood.

Scale 2 BIOQUEST-AL significant negative correlation ($r = -.34$) with scale 1 (Soziale Resonanz, i.e. social resonance) of GT: negative resonance (high scores) versus positive resonance (low scores).

Scale 3 BIOQUEST-AL no correlation with scales of GT.

(2) *Multidimensionaler Persoenlichkeitstest (multidimensional personality test) (MPT): Schmidt (1981).*

Scale 1 BIOQUEST-AL significant positive correlation ($r = .64$) with scale 1 (Ich-Schwaeche, i.e. ego-weakness) of MPT: emotional lability, depression (high scores) versus emotional stability (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .37$) with scale 5 (Antriebsspannung, i.e. drive) of MPT: agitation (high scores) versus harmony (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .50$) with scale 6 (Soziale Zurueckhaltung, i.e. social reserve) of MPT: reserve, restriction (high scores) versus social contact, self-confidence (low scores).

Scale 2 BIOQUEST-AL no correlation with scales of MPT.

Scale 3 BIOQUEST-AL significant negative correlation ($r = -.53$) with scale 6 (Soziale Zurueckhaltung, i.e. social reserve) of MPT: reserve, restriction (high scores) versus social contact, self-confidence (low scores).

(3) *Leistungsmotivationstest* (achievement motivation test) (LMT): *Hermans, Petermann and Zielinsky (1978)*.

Scale 1 BIOQUEST-AL significant positive correlation ($r = .45$) with scale F- (Leistungshemmende Pruefungsangst, i.e. achievement inhibiting examination anxiety) of LMT: high achievement inhibiting examination anxiety (high scores).

Scale 2 BIOQUEST-AL no correlation with scales of LMT.

Scale 3 BIOQUEST-AL significant positive correlation ($r = .48$) with scale L2 (Ausdauer und Fleiss, i.e. steadiness and diligence) of LMT: high steadiness and high diligence (high scores).

Scale 3 BIOQUEST-AL significant negative correlation ($r = -.34$) with scale F- (Leistungshemmende Pruefungsangst, i.e. achievement inhibiting examination anxiety) of LMT: high achievement inhibiting examination anxiety (high scores).

Scale 3 BIOQUEST-AL significant positive correlation ($r = .33$) with scale F+ (Leistungsfoerdernde Pruefungsangst, i.e. achievement promoting examination anxiety) of LMT: high achievement promoting examination anxiety (high scores).

(4) *Biographisches Inventar zur Diagnose von Verhaltensstoerungen* (biographic inventory for behavior disorders) (BIV): *Jaeger, Lischer, Muenster, Ritz and Fuchs-Entzminger (1976)*.

Scale 1 BIOQUEST-AL significant positive correlation ($r = .45$) with scale 2 (Ich-Staerke, i.e. ego strength) of BIV: low self-confidence, low domination (high scores) versus self-confidence. domination (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .48$) with scale 3 (Soziale Lage, i.e. social situation) of BIV: unfavourable social situation (high scores) versus favourable social situation (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .72$) with scale 5 (Neurotizismus, i.e. neuroticism) of BIV: emotional instability (high scores) versus emotional stability (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .53$) with scale 6 (Soziale Aktivitaet, i.e. social activity) of BIV: social reserve (high scores) versus sociability (low scores).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .61$) with scale 7 (Psychophysische Konstitution, i.e. psychophysiological nature) of BIV: psychophysiological lability (high scores) versus psychophysiological stability (low scores).

Scale 2 BIOQUEST AL significant positive correlation ($r = .66$) with scale I (Familiaere Situation, i.e. familial situation) of BIV: unfavourable familial situation (high scores) versus favourable familial situation (low scores).

Scale 2 BIOQUEST-AL significant positive correlation ($r = .65$) with scale 4 (Erziehungsverhalten der Eltern, i.e. style of nurturing) of BIV: unfavourable (high scores) versus favourable style of nurturing (low scores).

Scale 3 BIOQUEST-AL significant negative correlation ($r = -.53$) with scale 3 (Soziale Lage, i.e. social situation) of BIV: favourable social situation (high scores) versus unfavourable social situation (low scores).

(5) *Eysenck-Persoenlichkeitsinventar* (Eysenck Personality Inventory) (EPI; *Eggert, 1974*).

Scale 1 BIOQUEST-AL significant positive correlation ($r = .67$) with neuroticism scale of EPI.

Scale 2 BIOQUEST-AL no correlation with EPI scales.

Scale 3 BIOQUEST-AL no correlation with EPI scales.

(6) *Eigenschaftswoerterliste* (Adjective List) (EWL): *Janke and Debus (1978)*.

Scale 1 BIOQUEST-AL significant positive correlation with EWL-scales: "general desactivity" ($r = .58$), "emotional irritation" ($r = .49$), "anxiety" ($r = .67$), and significant negative correlation with "activity for achievement" ($r = -.57$).

Ψ Applications

Diagnostic Scope:

Content: Diagnostic, Typology, Therapy

Primary aim: classification of alcoholics into types

Secondary aim: biographical assessment of adults

Buehler, K.-E., Haltenhof, H., Geyer, S. & Bardeleben, H. (1999). Reliability of biographical data, their relations to personality variables and their influence on life events. *Journal of Affective Disorders*, 53, 67-76.

Buehler, K.-E. & Bardeleben, H. (2008). Heuristic cluster analysis of alcoholics according to biographic and personality Features. *Alcoholism: Research and Theory*, 16 (5), 453-473.

Ψ Evaluation

The mode for refusal of answers to the items is 0, that means the majority of the subjects answer the questionnaire completely, i.e. the compliance for the questionnaire is high.

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Ψ Indexing

Karl-Ernst Buehler/29.01.2013