

## 5. Psychological Catalysators (pc) in Text- & Complex- Analysis

*Psychologische Katalysatoren (PK)*

Mit einer deutsch Item-Analyse und Reduktion der Fear-Survey-Schedule (FSS III)

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### *Towards a heuristical research method to psychological catalysators (pc) & in text & complex analysis*

Research for psychological Catalysators (pc) can facilitate therapeutic conceptions and group dynamical and pedagogical work.

An empirically experienced psychologist could do assignations (ratings) on each text or complex verbalizations or utterings or observations (e.g. after recorded or written client's actions, e.g. uttered imaginations, dreams, etc.).

Text or complex assignment (per sentence) per response unit number (RUN) follows those psychological dimensions as "appetence" (Gf, good feelings, appetent and nice situations, actions, symbolics), "aversion" (Au, authoritarian, bad feelings, situations, actions, symbolics), "resistance" (Aw, "Abwehr", self-determined situations, actions, symbolics, also e.g. not to come to an appointment with the psychologist), "ambivalence" (Amb, creative intelligent, original ambiguously language in situations, actions, symbolics).

Each sentence (RUN) of a "text" will be assigned to the "hyper dimensions" or single dimensional factors Gf, Au, Aw, Amb, assigned binaryly estimating after appearance, "Yes", by "plus" (+), or after non appearance "No" by "minus" (-), thus, four

configurative observations per RUN to be “rated” by assignments, or signations, by an expecting number of 16 four configured factors, potentially. It is no Cochran test. Those assigned ratings of four-configurations will be treated by chi-square of percentages (sic!) of observed (o %) structures (percentage amount of 4-configurations in the rated “text”), and inferred by equal distributed expectancies (e %) to 16 configurative “factors”,  $\{e = (100 \% : 16) = 6,25 \%\}$ , related to 4-configurations and a degree of freedom as three,  $\{df\ 3 \mid (4 - 1) \rightarrow 3\}$ . Not to over interpret this practitioner’s method, (also appropriate for research in social fields and on park benches), K. W. Laufs, (1975) had taken the decision (developed after German heuristic “Konfigurations-Frequenz-Analyse” on types, KFA, which were only appropriate to numerical  $N \sim 40$  in non percentage chi-square tests) to elaborate an iterative control (e-KFA) to eliminate too many and non-worthy significances by split half column of the 4-configurations, *thus, to check again the data as 2 x 2 configurations in rows by analogous method, yet equally distributed expectancies as 25 %, (e = 100 % : 4 = 25 %).*

Degree of freedom is here one, different to 4-fields’ matrices,  $\{df\ 1 \mid (2 \times 2); (2 - 1) \times (2 - 1) = 1\}$ .

That will mean to calculate a percentage chi-square again, alike to a four field matrix (observed percentages of 4-configurative split half left side and right side after columns, each, two configurative observed percentages minus expected equal distributed percentages, that will say a hundred percent by four makes twenty five percent, those observed times expected in brackets squared again divided by expected percentage), and to compare, or to match the results, (also using chi-square tables).

The “results” of error probabilities (significances) of four-configurations have to be checked again by significances of two configurations:

Do the significances match, (4- and 2- configurative) in rows over a row, significance statement will be practically o.k. for four-configurative type or factor.

If there were lower significances in row comparing, two and four configurations in row, those lower significances “determine” the value of four-configurative factors or types.

If there were “pretty high significances” in four configurations and one of the two split half control two-configurations does not show significance, there won’t be attributed any significance (“not significant”) to that row.

Continuing to check the e-KFA check again by correlating column percentages (rather consistency), and inter correlations of “factors” (types’ selectivities, or “factor loadings”) to a practitioner will do, there can be done further geometrical solutions of tetrachoric correlations, appropriate to percentages of after binary procedures in psychological statistics, describing a co-relation to law of cosinus function, “comfortably” for a practitioner to show up for, in a nomogram. e-KFA turns out a method faster to calculate even in social field than by a computer, and also to rapidly control any factor analysis.

Not to over interpret social data, one could explain interpretatively those heuristically won “factors”, approaching very close results of real factor analyses by this hand calculating method, even in deductive procedures, when rather objective assignments close to already existing theories.

This method appears appropriate, especially to practitioners, who are interested in brief control of factor analyses, therapy heuristics, heuristics of dreams, speeches, literature, poems and also biblical texts, rather objectively to an experienced practitioner and probably interpersonal ratings by more experts, keeping close to theory and science definition of empirical psychology.

What to do with? And why?

The method “pc” (psychological catalysators/ psychological complex analysis) could be seen less systematically at C. G. Jung’s “Amplifikationen” (amplifications, GW 5), yet the Jung word “Amplifikationen” translated as “reinforcement” does not match learning theoretical reinforcement (and rather radio loud-speakers).

C. G. Jung’s “Amplifikation” (about GW 5) appears just a cognitive, ideal, social or instrumental “mirror”, a kind of presentation of unsystematic re-performance (mirror), by pictures, verbally, or movements, or clients’ utterings, (here pragmatically: actions), yet once more: “amplification” is no reinforcement in learning theoretical sense.

When systematic desensitization (R. Desoille, ~ 1920, 1961, “rêve éveillé dirigé”, RED; J. Wolpe, 1962, “systematic desensitization”, SD) shows psychologically forward effects of reciprocal inhibition, what can be those “pc” (psychological catalysators) to and during reciprocal inhibition?

Author's empirical experience after studies of cases (Laufs, K. W., 2008: "apprentissage interactionnelle", interactive learning, in: K. W. Laufs, 2008, WEB-Site, "Psychologisches Bulletin"), and literature, would systematise a structure avoiding classical neurotic structure (++++) to mirror, yet of aversive-transference (-+++), appropriate to clients' utterings. The structure (-+++), of aversive conflictness appears after author's cases an all over to find structure in effective trainings and therapies [and avoiding to much transference of (++++), classical neurotic performance].

Those systematics after here discussed "pc" could help to analyse, how, and where those, also for hypnotic or imaginative or desensitising procedures to find structures of not (-) performing good feelings, appetite or desire, approach as: (Gf -); of (+) performing actually bad feelings, avoidance, aversion, authoritarianism, as: (Au +); and resistance, defence, ego-strength as: (Aw +); and creative original ambivalence (Amb +). Author's experience shows: {Gf (-) ; Au (+) ; Aw (+) ; Amb (+) ; | (-+++)}, appropriate facilitating reciprocal inhibition, and could be found after assignments of any texts, complexes, actions, and case transcriptions of sessions' verbalizations, (recorded interviews, radio entertainments, etc.).

Some following examples would illustrate the "pc" conception, looking for appropriate aversive (-+++), structures in poems and literature, to possibly apply in company of psychological trainings, and as items for imaginative or hypnotic sessions.

Author's selection at random of the examples had followed a short rating on some poems (after an anthology), and short stories, whether they matched close to reality (R+), or were not so realistic or far from reality (R-).

Those selected (table 1) six poems show together an average of high selectivity on the criteria of "realistic",  $r_{tet} \sim .94^{***}$ .

Tables 1 & 2, show assignments by Gf, Au, Aw, and Amb to the (at random) RUN per sentence after multivariate treatment:

*Recommendation by the author, rather to avoid those (++++), structures of appetite with aversion, thus classical neurotic conflict, for imaginative or hypnotic trainings or sessions because of transference and together with classical neurotic conflicts of clients, and rather to select for reciprocal inhibitions those structures (-+++), of rather aversion conflicts. A factor of transference (-++) does not appear as relevant to imaginative or hypnotic sessions, or to purpose of desensitization by and during reciprocal inhibition.*

Table 1: significant factors of "realistic" German poems (and consistencies)

| Author                  | poem                 | RUN | Gf | Au | Aw | Amb | a-Error   | r tet  |
|-------------------------|----------------------|-----|----|----|----|-----|-----------|--------|
| 1. Droste-Hülshoff, A.: | Knabe im Moor        | 6   | -  | +  | +  | +   | a < 0,001 | .99*** |
| 2. Droste-Hülshoff, A.: | Am Turme             | 4   | +  | +  | +  | +   | a < 0,001 | .99*** |
| 3. Storm, Th.:          | Oktoberlied          | 6   | +  | +  | +  | +   | a < 0,001 | .99*** |
| 4. Fontane, Th.:        | John Maynard         | 10  | +  | +  | +  | +   | a < 0,001 | .79*   |
| 5. Brecht, B.:          | An die Nachgeborenen | 13  | +  | +  | +  | +   | a < 0.001 | .78*   |
| 6. Kästner, E.:         | Sachliche Romanze    | 4   | +  | +  | +  | +   | a < 0,001 | .99*** |

Table 2: significant factors of short stories & consistencies; (-+++): rather to be recommended for sessions by reciprocal inhibition, also in group sessions to read with staff etc.)

Author: Somerset Maugham, William

| Short story           | RUN | Gf | Au | Aw | Amb | a-Error   | r tet  |        |
|-----------------------|-----|----|----|----|-----|-----------|--------|--------|
| 1. The Taipan         | 193 | -  | +  | +  | +   | a < 0,001 | .79*** | (-+++) |
| 2. The Consul         | 97  | -  | +  | +  | +   | a < 0,001 | .80*** | (-+++) |
| 3. Man with scar      | 102 | -  | -  | +  | +   | a < 0,001 | .74*** |        |
| 4. In a stange land   | 89  | -  | -  | +  | +   | a < 0,05  | .75*** |        |
| 5. The bum (3 v. 7pp) | 82  | +  | +  | +  | +   | a < 0,001 | .83*** |        |
| 6. The dream          | 111 | -  | +  | +  | +   | a < 0,05  | .75*** | (-+++) |

Reduced FSS III German item-analysis as revision D44 to Fear Survey Schedule (FSS III) after J. Wolpe: German revision by the author to American factor analysis by Landy and Gaupp on FSS III, (Wolpe, J., in: D. Schulte, 1976, German version of FSS III) affirms the American Landy and Gaupp results by application of the above method of e-KFA. Assignments of Gf, Au, Aw, and Amb to each item of German FSS III affirm Landy & Gaupp factors *FI, FII, FIV, FV, and a rest-factor FR*.

Tables 3, 3 a, 3 b, show the American factors and the Gf, Au, Aw, and Amb configurations and percentages per factor of German assignments (clinical psychological ratings), and German factors:

Table 3 American FSS III factors and German assignments of Gf, Au, Aw, Amb configurations:

Factor I (-+++). (43%)\*\*\*, bio-zoological, (43% aversive)

Factor II (-+++). (93%)\*\*\*, social ability and deficiency, (93% aversive)

Factor III (-++). (67%)\*\*\*, "introvert-dreaming", aversive with 17% (-+++)\*;

Factor IV (-+++). (67%)\*\*\*, „aggressive, aversive“

Faktor V (-+++). (72%)\*\*\* "biological and medical", (72% aversive)

German Rest-Factor, RF (-+++). (59%), „uncomfortable and authoritarian“ (total aversiveness).

Even contents validity of German version, over all factors' middle, a general mean factor of high significant aversion conflict items appears (-+++) with > 58% (a < 0,001) for Landy & Gaupp factors, above table confirming them. Coefficient of consistence for author's assignments; r tet ~ .90\*\*\*.

*Table 3 a: Assignments for the items per American factor (F I, II...V, RF, item no. At Landy and Gaupp)*

(-+++). (German aversion factor)  
 F I No. 6, 20, 28, 40, 43, 63.  
 F II No. 12, 16, 19, 39, 47, 53, 56, 59, 62, 65, 71, 72.  
 F III No. 60, 66.  
 F IV No. 1,5,26,35,42,44.  
 F V No. 22, 45, 52, 55b, 58, 61, 64  
 F R No. 9, 10, 15, 29, 30, 31, 36, 51, 57.  
 (+---). (German factor "social learning")  
 Items No. 18, 25a, 25 b, 25 c.  
 Items No. 33, 38, 68b

*Table 3. b: In German language factors to FSS III, (about 97% clearing explanation to and matching with Landy and Gaupp factors)*

A. (++++) ~ 9% (classic neurotically conflict),  
 B. (-+++ ) ~ 58% (aversion-conflict),  
 C. (-+++) ~ 20% („transference“),  
 D. (+---) ~ 9% (social learning)  
 E. (+---) ~ 1% (narcissist conflict of appetence).  
 ~ 58%\*\*\* explanation of Wolpe-Items by German aversion factor (-+++ ) as general factor match  
 apparently the sense of desensitization as reciprocal inhibition.

*Table 4: inter-correlations of all FSS III items in German revisited factors (configurations A, B...E)*

|   |       | A      | B      | C      | D      | E      |
|---|-------|--------|--------|--------|--------|--------|
|   | inf % | 9      | 58     | 20     | 9      | 1      |
|   | sup.% |        |        |        |        |        |
| A | 9     | -      | .42**  | .88*** | .96*** | .99*** |
| B | 58    | .96*** | -      | .93*** | .96*** | .96*** |
| C | 20    | .96*** | .49*** | -      | .96*** | .96*** |
| D | 9     | .96*** | .43**  | .88*** | -      | .96*** |
| E | 1     | .96*** | .41**  | .88*** | .96*** | -      |

The results affirm that high consistent work of Joseph Wolpe and the American factor analysis by Landy and Gaupp.

FSS III in German could be reduced on 44 aversion items (-+++ ) ~ 58%\*\*\*, to work with those items in imaginative sessions, also in groups, an to hierarchize the items after questionnaire marks (c.f. Laufs, K.-W., 1988) by participants.

Table 5: German reduced revision FSS III – D 44

For possibly German applications reduced FSS III Items, no.:

1, 2, 5, 6, 9,  
10, 12, 15, 16, 19,  
20, 22, 26, 28, 29,  
30, 31, 35, 36, 39,  
40, 42, 43, 44, 45, 47,  
51, 52, 53, 55b, 56, 57, 58, 59,  
60, 61, 62, 63, 64, 65, 66, 67,  
71, 72.

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