

Assessing therapeutic factors

2nd SPR Research Methods Workshop Berne, 3. - 8. 9. 2007

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overview

- > **Topic of this workshop:**
Assessing therapeutic factors in the therapeutic process
→ (micro)process research
- > **Goals of this workshop:**
 - Get some knowledge about critical issues in process research
 - Make your own experience with process data collection
 - Gain ideas and assistance for your next process project
- > **Organisation of this workshop:**
 - 09:00 - 10:00 *what is process research?* basic issues of process research, practical guidelines for rater training
 - 10:00 - 10:30 break
 - 10:30 - 11:30 *work in small groups:* tutorial 'assessment of a therapeutic factor'
 - 11:30 - 12:30 *Dealing with process data:* reliabilities, process analysis strategies, discussion

What is process research?

- > **Process** = what happens in therapy sessions
- > **Outcome** = changes that occur as a result of therapy

- > **Psychotherapy research:**
 - outcome research
 - process research

- > **Evolution of process research**
 - Electronic recording of therapy sessions (since 1930's!)
allows preservation of process data, can be studied as many times as necessary by many scientists
 - Experiential perspective on the events of therapy
extension of nonparticipant-observers analysis of recordings with rating scales and questionnaires to objectively study the subjective experiences of patients and therapists
 - task analytic method (Rice & Greenberg, 1984)
intensive analysis of therapy sessions in which the markers for therapeutically significant events are defined

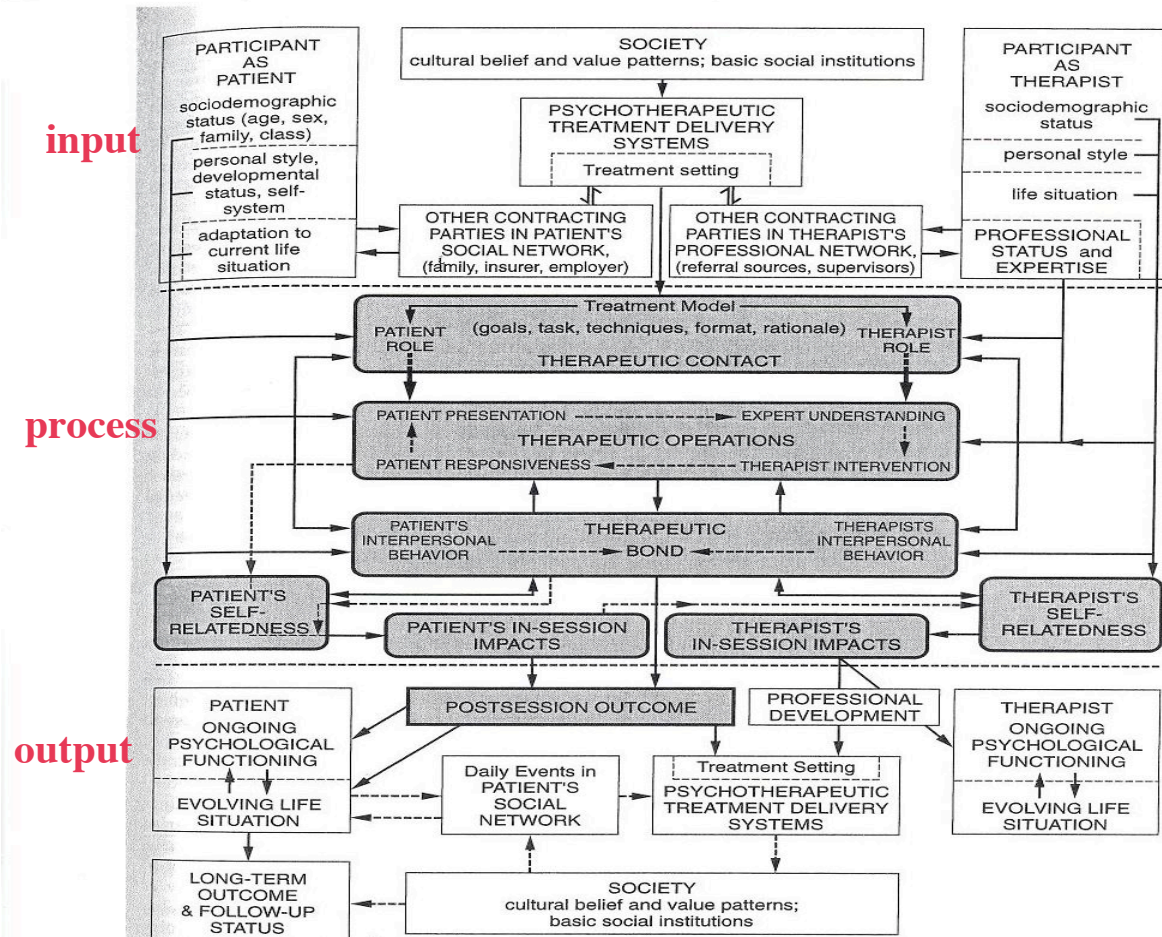
Linking process and outcome

- > Distinction of process and outcome depends on the level of abstraction: what happens in the session (process) leads to immediate session outcome (little o), the course of sessions (process) leads to therapy outcome (big O)

- > Cumulating the knowledge of process and outcome:

The generic model of psychotherapy

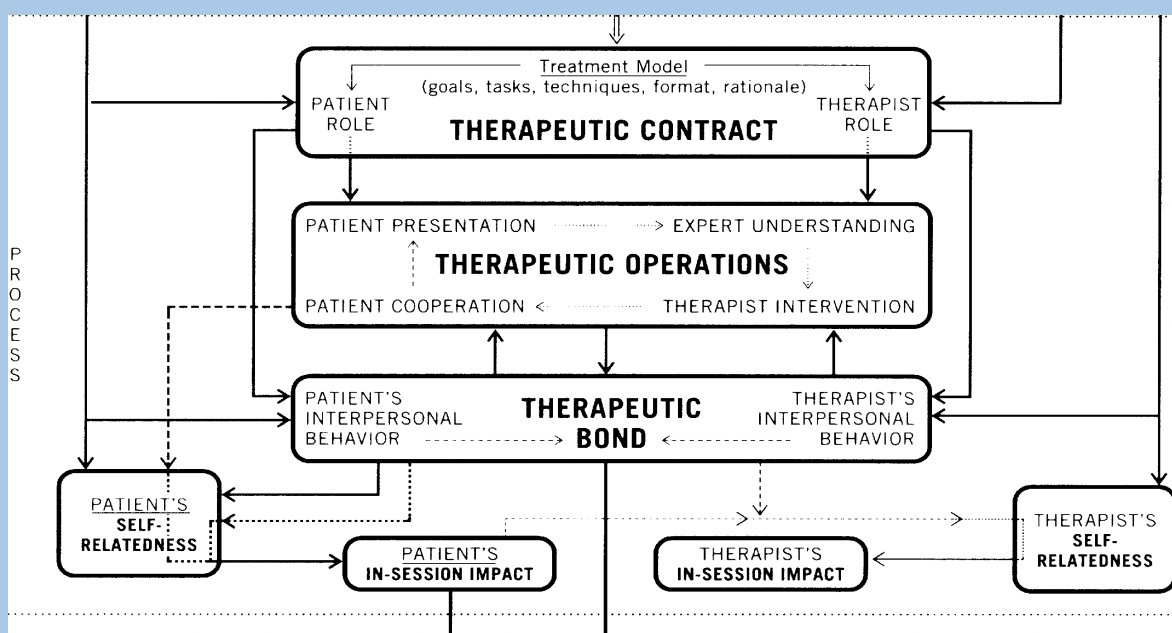
Orlinsky & Howard (1986), Orlinsky, Grawe & Parks (1994), Orlinsky, Ronnestad & Wilutzki (2004)



Generic Model of Psychotherapy : Process Categories

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Most frequently used research strategies

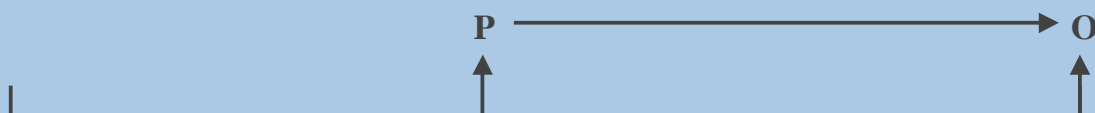
- > **Quantitative process research**
some process phenomena are represented on scales (ordinal, interval) by numbers
advantage: findings can be statistically analysed
disadvantage: numbers may not accurately portray reality
- > **Qualitative process research**
use of open-ended data-gathering techniques, developing categories (nominal data)
advantage: complex or rare clinical phenomena can be studied
disadvantage: only limited statistical analysis possible
- > **What measure shall I use?**
established measure: a.: valid and reliable, comparison with other studies possible; d.: measure might not reflect researcher's exact interest
discovery-oriented, exploratory research design: creation of a measure from the data for a particular study. a.: researcher can discover new information about therapeutic process d.: less valid, no direct comparison with other research findings possible

Process of change

(Bastine, Fiedler & Kommer)

Process research typ A

- Goal:** predicting therapy outcome by process variables
- Strategy:** measuring process at some point and relate it to outcome
- Assumptions:**
- The therapeutic process is consistent
 - process variables are stable
 - relation between p and o is unidirectional



Process of change

(Bastine, Fiedler & Kommer)

Process research typ B

- Goal:** describing and explaining
- Strategy:** studying complex events in their context
- Assumptions:**
- The therapeutic process is inconsistent
 - process variables are instable
 - relation between p and o is bidirectional



Current trends in process research

- > Study process variables in their context to learn more about their meaning
- > Study process multidimensional on different levels of meaning (speaking turn, episode, theme, ...)
- > Create microtheories and test them empirically
- > Distinguish common and unique principles of change disorder specific analysis of process - outcome findings

Dimensions of Process Measures

Process measures can be described along diverse dimensions:

- > **Focus of evaluation (who is studied?)**
client (individual, family, group), therapist, therapist-client relationship, supervisor, therapist-supervisor relationship
- > **Aspect of process (what is studied?)**
overt behaviors (e.g. therapist techniques, client behaviors)
covert experiences (e.g. therapist intentions, client reactions)
thematic content, topic (e.g. dream, homework assignment)
style: The manner in which the speaker talks or behaves
quality: Skillfulness or competence of the speaker's talk
- > **Theoretical basis**
atheoretical, psychodynamic, humanistic, behavioral
- > **Perspective of evaluation (who is providing the data?)**
client, therapist, supervisor, judge (nonparticipant observer)
- > **Unit studied**
Microprocess units (words, phrases, speaking turn, thought)
Macroprocess units (time segments, event, session, stage, treatment)

Dimensions of Process Measures ff

- > **Type of measurement**
interval scale, nominal categories, Q-sorts
- > **Level of inference**
noninferential (e.g. head nods) vs inferential (e.g. interpretation of client's motives)
- > **Stimulus material**
participant (client, therapist), live observer (supervisor, judge), transcript, audiotape, dvd

Example: Patient's post session questionnaire
(Regli & Grawe in prep.)

Focus: client

Aspect of process: covert experience

Theoretical basis: atheoretical

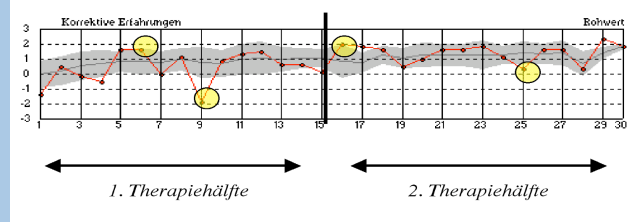
Perspective of evaluation: client

Unit studied: session

Type of measure: (-3) - (-2) - (-1) - (0) - (1) - (2) - (3)

Level of inference: middle (e.g. social desirability)

Stimulus material: participant



Items des Faktors *Korrektive Erfahrung*

- Ich habe das Gefühl, dass ich mich selbst und meine Probleme besser verstehe. (2)
- Heute ist mir klarer geworden, weshalb ich gegenüber bestimmten Menschen gerade so und nicht anders reagiere. (8)
- Ich glaube, dass ich mich jetzt besser so verhalten kann, wie ich möchte. (13)
- Ich fühle mich jetzt Situationen besser gewachsen, denen ich mich bisher nicht gewachsen gefühlt habe. (25)
- Heute sind mir Zusammenhänge klar geworden, die ich bisher nicht gesehen habe. (33)
- Ich sehe nach dieser Stunde bestimmte Dinge in neuem Licht. (44)

Switching to Christophs presentation

Consistency-Theory Micro-Process Analysis (CMP, Gassmann 2002)

Focus: client, therapist, client-therapist-relationship

Aspect of process overt behaviors, covert experience, thematic content, style, quality

Theoretical basis consistency theory

Perspective of evaluation judges

Unit studied minute

Type of measure nominal and interval scales

Level of inference depending on scale

Stimulus material dvd recording

<i>perspective</i>	<i>focus</i>	
	patient	therapist
content		
problem activation		
ressource activation		
immediate outcome		

		therapy outcome			
		low (es < 1.0)	moderate (es < 2.0)	high (es > 2.0)	
session outcome	low	18	22	20	60
	high	18	22	20	60
		36	44	40	120

Figure 1. Two factorial design: Factor 1, therapy outcome; Factor 2, session outcome. es = effect size (Cohen's *d*)

therapy outcome

$$es_{\text{inderf}} = \frac{\sum(es_{\text{vlb}}, es_{\text{gas}}, es_{\text{vev}}, es_{\text{patnb}}, es_{\text{thnb}})}{n_{\text{Messmittel}}}$$

Veränderungsfragebogen für Lebensbereiche VLB
(Grawe, 1982, 2002)

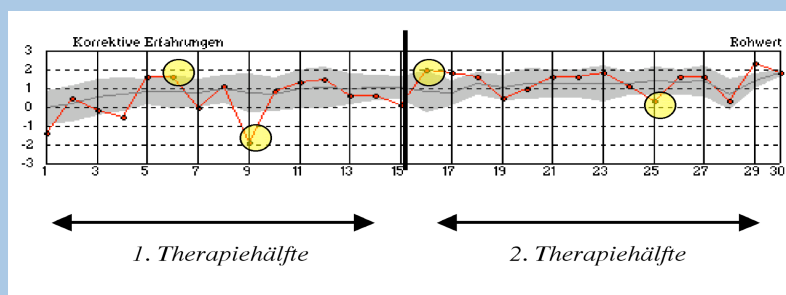
Goal Attainment Scaling GAS
(Kiresuk & Sherman, 1968; Kiresuk & Lund, 1979)

Veränderungsfragebogen des Erlebens und Verhaltens VEV-VW
(Zielke, 1978, Willutzki, 1999)

Patientennachbefragungsbogen (Grawe, unpubl.)

Therapeutennachbefragungsbogen (Grawe, unpubl.)

session outcome



Items des Faktors *Korrektive Erfahrung*

- Ich habe das Gefühl, dass ich mich selbst und meine Probleme besser verstehe. (2)
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sample

diagnosis on axis I and II	number	%
main diagnosis on axis I	30	100
second diagnosis on axis I	14	46.7
third diagnosis on axis I	4	13.3
diagnose on axis II	14	46.7

	M	SD	min	max
global attainment of functioning	62.4	9.3	37.0	85.0
age	32.8	8.8	18.0	55.5
duration of treatment in months	8.1	4.7	2.0	18.0
total of sessions	22.7	12.0	7.0	54.0

gender	N		
	female	male	total
patients	17	13	30
therapists	9	13	22 ¹

- out patients
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- diagnosis on axis I /
DSM-IV:
affective and anxiety
disorders
- high comorbidity

reliabilities

Table 2. Average inter- and intrarater reliabilities in the perspectives of processual problem activation and processual resource activation of the CMP. p.a. = percent agreement; κ = Cohens's kappa

Perspective	p.a.	κ
Processual problem activation		
inter-rater reliability		
focus on patient	70.2	0.50
focus on therapist	87.9	0.45
intrarater reliability		
focus on patient	87.9	0.80
focus on therapist	95.6	0.82
Processual resource activation		
inter-rater reliability		
focus on patient	93.2	0.76
focus on therapist	96.8	0.71
intrarater reliability		
focus on patient	95.2	0.84
focus on therapist	97.7	0.85

results

Question:

In what way differs the processual activation of emotions in successful therapies from unsuccessful therapies?

Method:

Aggregating data to therapy level

z-transformation

t-test for independent samples

therapy outcome

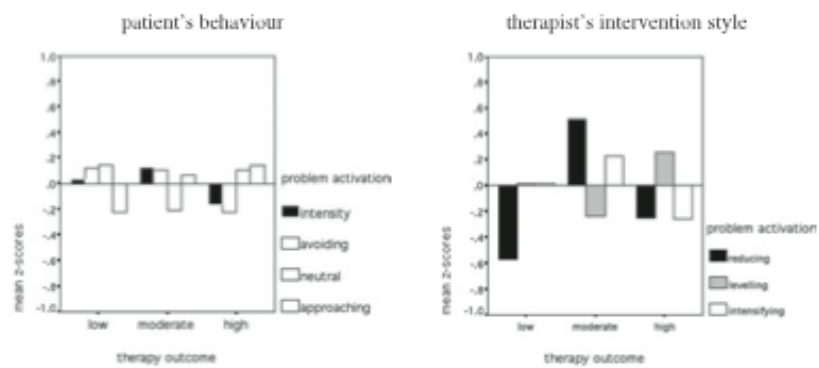
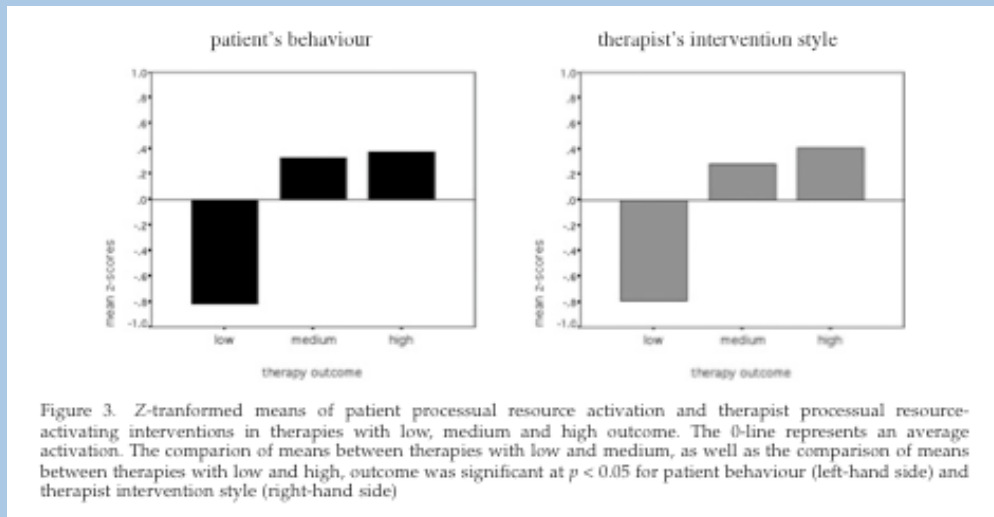


Figure 2. Z-transformed means of patient processual problem activation and therapist processual problem-activating interventions in therapies with low, medium and high outcome. The 0-line represents an average activation. Only the difference between therapist interventions reducing patients emotional involvement in therapies with low compared to medium outcome was significant at $p < 0.05$

therapy outcome



Gassmann & Grawe, 2006

results

- > **Question**
- > *Are there differences in the running off between successful and unsuccessful sessions?*
- > **Method**
- > Comparison of the temporal course of bad sessions of therapies with low outcome with good sessions of therapies with high outcome
- > Transforming minutes to percent
- > Z-transformation
- > Aggregating each percent of the session

session outcome

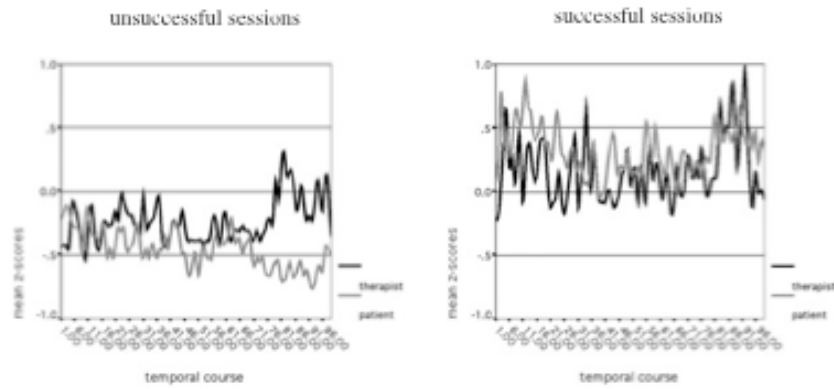


Figure 4. Patient activated resources and therapist resource-activating interventions in the course of unsuccessful (left-hand side) and successful sessions (right-hand side). The 0-line represents an average activation

Gassmann & Grawe, 2006

session outcome

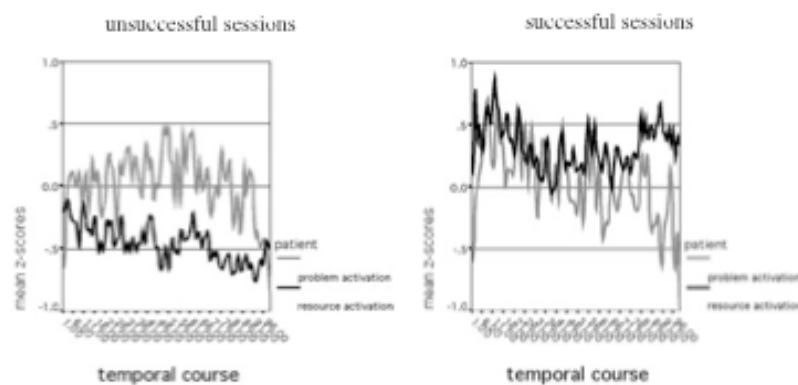


Figure 5. Patient activated problems and patient activated resources in the course of unsuccessful (left-hand side) and successful sessions (right-hand side). The 0-line represents an average activation

Gassmann & Grawe, 2006

results

- > *Question:*
- > *How is the interaction between patient and therapist from one moment (minute) to the next?*
- > *Method:*
- > Crosscorrelations between patient and therapist behavior in bad sessions from therapies with low outcome with good sessions of therapies with high outcome

moment-to-moment

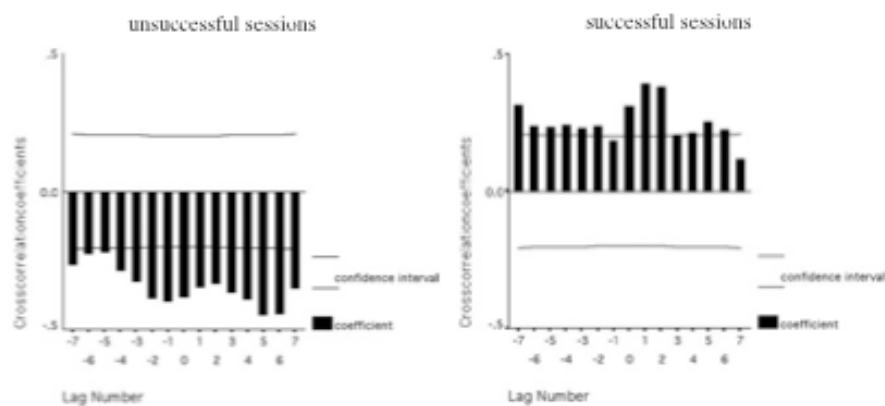
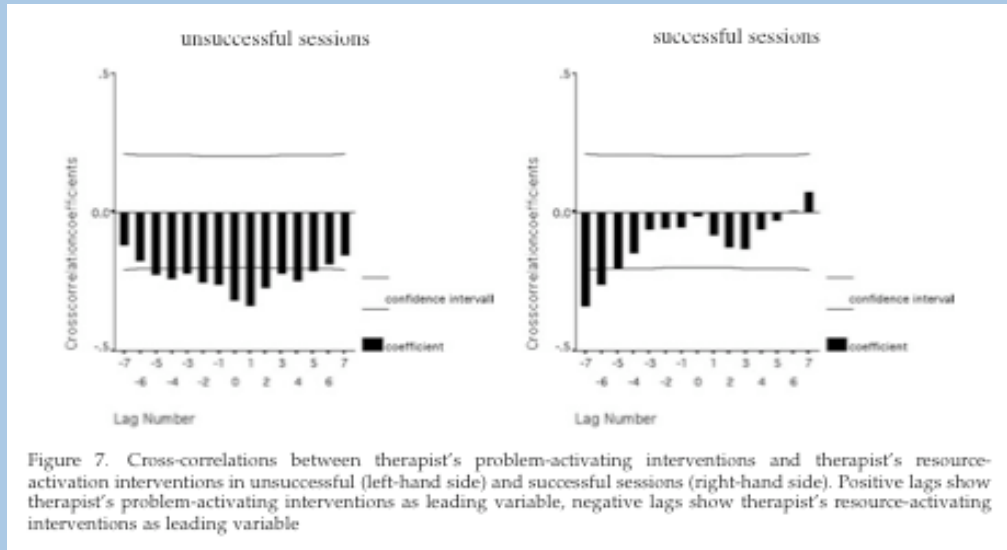


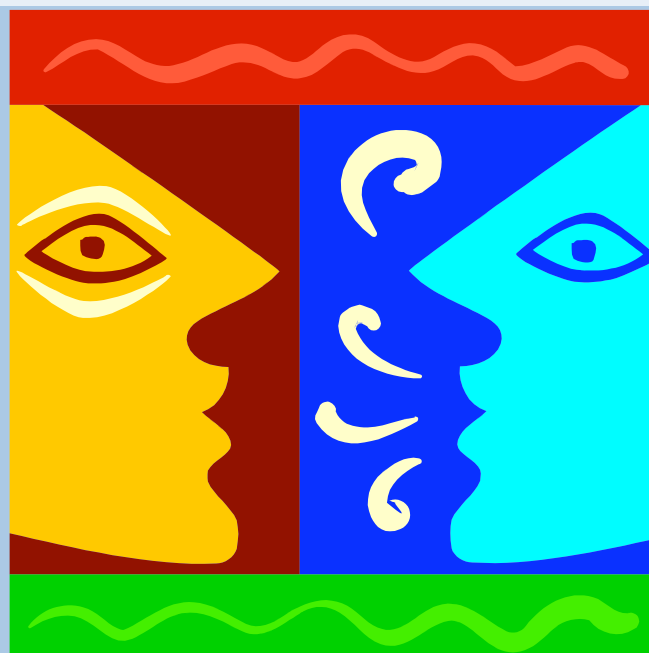
Figure 6. Cross-correlations between patient activated resources and therapist resource-activating interventions in unsuccessful (left-hand side) and successful sessions (right-hand side). Positive lags show patient activated resources as the leading variable; negative lags show the therapist resource-activating interventions as the leading variable

moment-to-moment



Gassmann & Grawe, 2006

Questions & comments



Some influential psychotherapy research literature

- > Bergin, A.E., & Garfield, S. L. (Eds.) (1994). *Handbook of of psychotherapy & behavior change* (4th ed.). New York: John Wiley & Sons.
- > Castonguay, L.G. & Beutler, L.E. (Eds.) (2006). *Principles of therapeutic change that work*. Oxford University Press.
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- > Hubble, M.A., Duncan, B.L. & Miller S. D. (Eds).(1999). *The heart and soul of change*. Washington DC: American Psychological Association Press.
- > Kazdin, A.E. (1998). *Research design in clinical psychology* (3rd ed.). Boston: Allyn & Bacon.
- > Lambert M.J., (Ed.) (2004). Bergin & Garfield's handbook of psychotherapy and behavior change (5th ed.). New York: Wiley.

Some Bernese ,therapeutic factors‘ literature

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- > Flückiger, C., Regli, D., Grawe, K. & Lutz, W. (2007). Differences and similarities between pre-post and retrospective measurings. *Psychotherapy Research*, 17 (3), 359-364.-
- > Flückiger, C., Wüsten, G., E. Frischknecht, K. Grawe & W. Lutz (submitted). Ressourcenpriming – Veränderung der Aufmerksamkeitsfokussierung bei Novizen und erfahrenen Therapeuten.
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- > Gassmann, D., & Grawe, K. (2004). Die Messung intrapersonaler Ressourcen im Therapieprozess: Ergebnisse der Mikroprozessanalyse KMP. *Verhaltenstherapie und psychosoziale Praxis*, 1, 63 - 72.
- > Gassmann, D., & Grawe, K. (2006). General Change Mechanisms: The Relation Between Problem Activation and Resource Activation in Successful and Unsuccessful Therapeutic Interactions. *Journal of Clinical Psychology and Psychotherapy*, 13, pp. 1 – 11..
- > Haug, S., Gabriel, C., Flückiger, C. & Kordy, H. (submitted). Ressourcenaktivierung beim Patienten – Wirksamkeit einer Primingintervention in Internet-Chatgruppen.
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- > Regli, D., Grawe, K., Gassmann, D., & Dick, A. (1998). CIPA - eine Methode zur Verbindung von quantitativer und qualitativer Einzelfallanalyse. *Psychotherapie Psychosomatik Medizinische Psychologie*, 48(7), 243 - 256.