Therapist's Conversation Skills and Changes in Hand Movement – a microanalytic evaluation on *Motivational Interviewing* training

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Introduction

Motivational Interviewing (MI) is a person-centered, cooperative conversational skill [12]. To become a successful therapist, future therapists undergo an MI training based on role plays and experience-based learning [11].

In professional client-therapist conversations, movement behavior is important for the therapeutic alliance between both [10, 4, 14]. Specific hand movement behaviors correlate with symptom stagnation or improvement and change in time during psychotherapies [5, 13]. For example, *irregular* movements decrease over time during psychodynamic psychotherapies [5].

Video feedback in learning contexts is used to enhance skills [1, 6]. This study aims at detecting fine-grained changes in therapists' hand movement behavior that are sensitive to MI skills training. As the role plays should simulate a patient-therapist interaction, we hypothesize to find similar effects concerning movement behavior, e.g. less *irregular* movements over time.

Methods

Sample:

- 26 sports therapists students (52,94% male), attending a MI training

Data:

- 26 pre- (n = 13) and post-training (n=13) video recordings
- role play therapists (*M* = 22,8 years; *SD* = 4.5)
- role play patients (*M* = 21,9 years; *SD* = 4.9)

Movement behavior analyses:

- 96 (24 x 4) randomized video excerpts
- Two hypothesis-blind independent certified raters
- nonverbal behavior analysis system NEUROGES-ELAN (Activation and Structure, *Figure 1, Figure 2*).

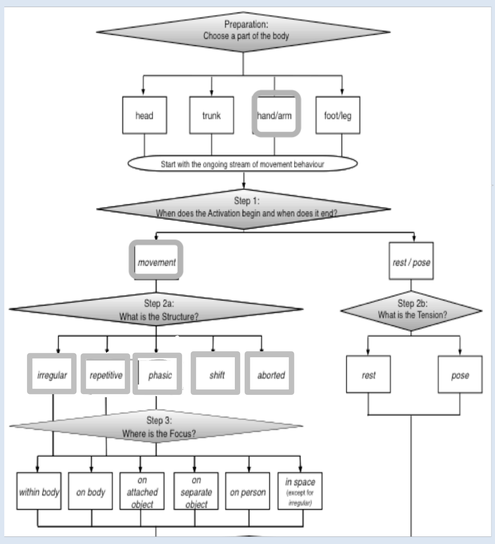

Figure 1. NEUROGES-ELAN algorithm (Module I) for the analysis of movement behavior [7, 8, 9].

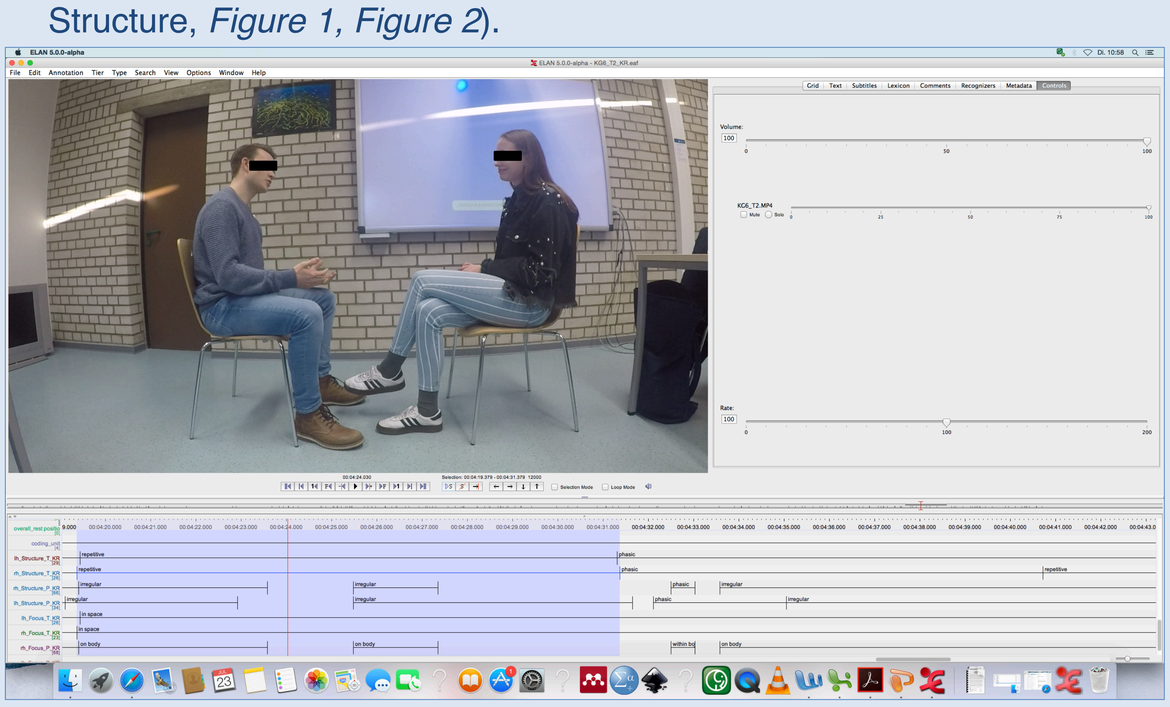

Figure 2. Analysis of hand movement behavior with NEUROGES-ELAN.

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Results

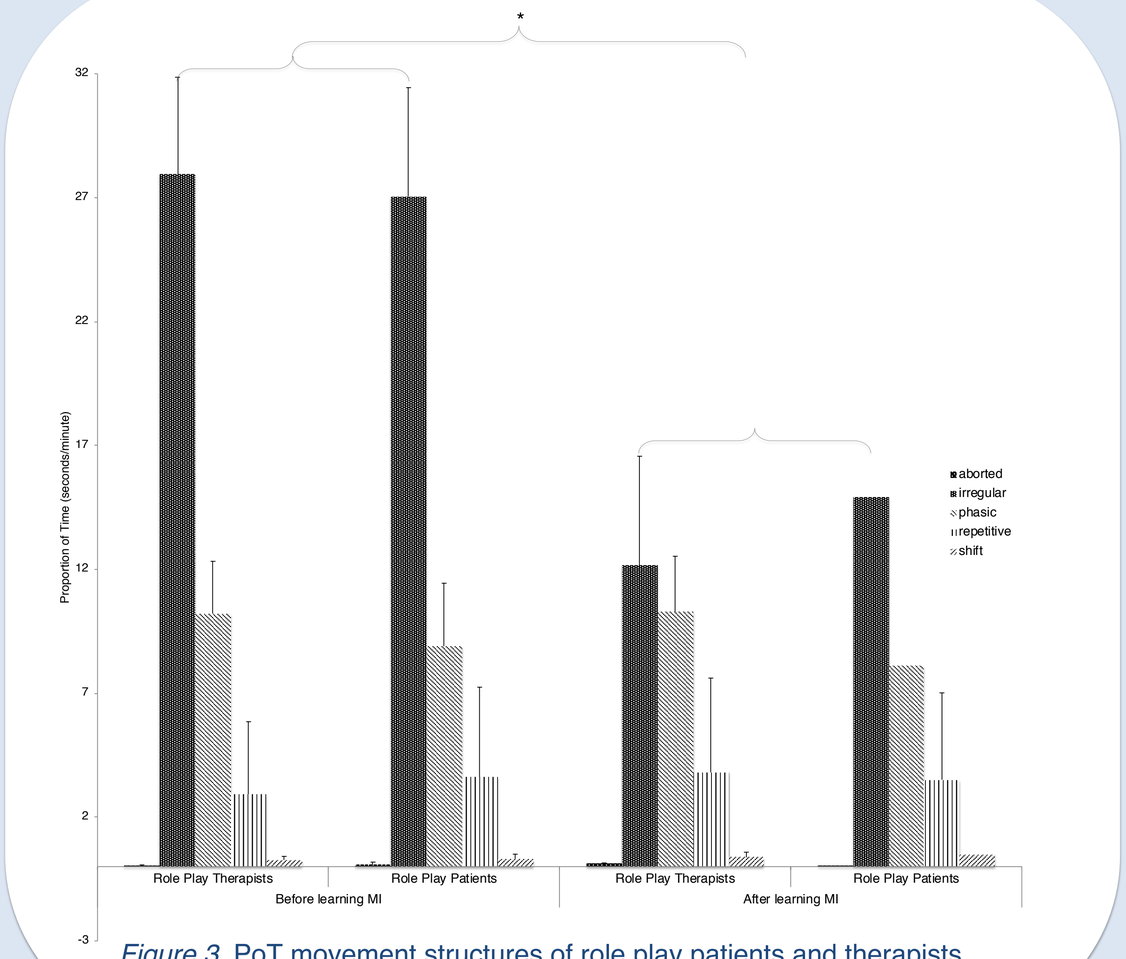

Figure 3. PoT movement structures of role play patients and therapists before and after learning MI.

Repeated Measures-MANOVA

Activation PoT (proportion of time; seconds/minute): We conducted a Repeated Measures-MANOVA (within-dyad factors: hand, time, role). The analysis displayed no significant results for overall hand activation.

Structure PoT (proportion of time; seconds/minute): The analysis revealed a significant univariate effect for time for the *irregular* movement structure, $F(1/9)= 13{,}108$, $p = .006$, *partial* $\eta^2 = 0.593$. Before learning MI, *irregular* movements were displayed with a higher proportion of time (*M* = 27.49, *SD* = 3.32) than after learning MI (*M* = 13.54, *SD* =3.30; see *Figure 3* for further information).

Conclusion

Shorter *irregular* hand movements after MI training

- After MI training, role play therapists' and role play patients' movement behavior changed into shorter *irregular* movement than before the training. *Irregular* movement is associated with self-regulation processes [2]. Successfully acquired professional conversational skills are associated with shorter *irregular* movement and thus probably with improved self-regulation processes or less nervousness during the professional MI setting.
- Furthermore, role play therapists did not differ significantly in their activation from the role play patients' activation level. On nonverbal level, changes in conversation skills are not associated with hypo- or hyperactivity. As role play therapists and role play patients took part in the MI training, there were no significant differences in their nonverbal behavior concerning their roles.
- The results (1) no changes on activation level and (2) shorter *irregular* movements after MI training are comparable to results on the change of movement behavior during psychotherapies. On nonverbal level, role play simulations are thus comparable to patient-therapist conversation settings. As a conclusion, role plays can be an effective way for the training of MI skills.

Contact and Informations NEUROGES-Workshops

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