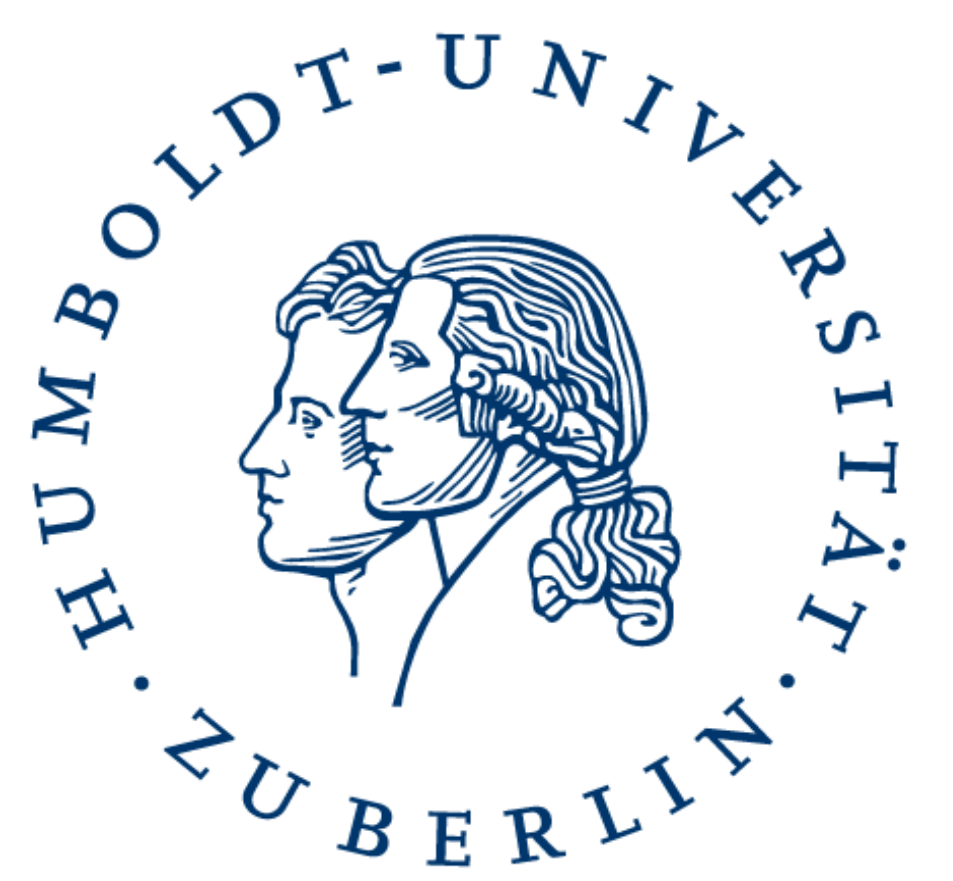


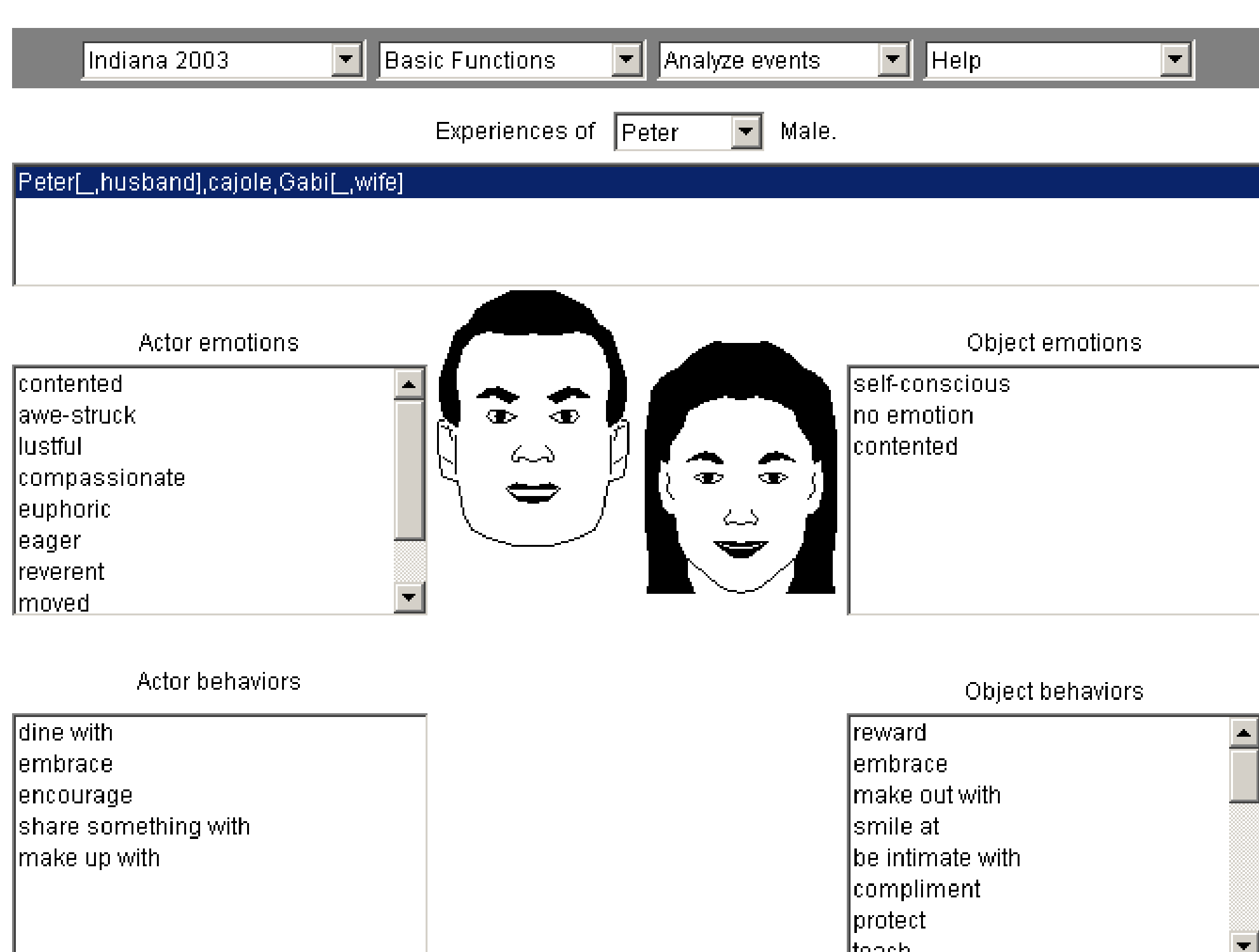
Basic Dimensions of Social Interaction: Affiliation, Power, Activation



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A review of the diverse research on the dimensions of behavior, personality, non-verbal and verbal communication, and feelings reveals a basic similarity in the detected three dimensions of affiliation (or communion, warmth, evaluation, etc.), power (or agency, dominance, competence, potency, etc.), and activation (or arousal, action readiness, affect intensity, etc.). In some areas, some authors see only two of these dimensions as sufficient, and the exact localization of the dimensions is controversial, but a thorough review (Scholl, 2007) confirms that there are most probably these three dimensions in these five research areas. The uncertainty about the exact number, location, and meaning can be reduced by deducing the same dimensions from the basic logic of human exchange, i.e. from game or interdependence theory (Kelley, 1979). Affiliation and power are the principal modes of coordination among humans; non-verbal expressions signal which mode or mixture of modes is coming up, whether it will be accepted, or whether the kind of coordination still has to be worked out. An activation dimension completes the affiliation and power dimensions signaling the urgency of the respective individual agendas and the intensity of the upcoming reactions. These three dimensions are interpreted as an evolutionary development, based on a feeling-expression-reception-understanding connection which enables fruitful communication and coordination between human actors who are selfish *and* social animals. These three dimensions form a culturally invariant socio-emotional space, as can be seen from Affect Control Theory (see below), based on the semantic differential, which allows individuals to seek and find affective consistency in that three-dimensional world.

Affect Control Theory: Language-Based Computer Simulation of Social Interaction



Affect Control Theory (ACT; Heise, 2007) states that people control social interactions by striving to maintain feelings about the situation. The theory is based on mathematical models of language-based impression formation. Osgood's semantic differential is used for measuring the affective meaning of social identities, actions, emotions, and personality traits on three dimensions of Evaluation (\sim Affiliation), Potency (\sim Power), and Activation. Sets of regression equations model the change of affect as the result of social actions described in short subject-verb-object sentences.

A German-language model of ACT has recently been developed at Humboldt in cooperation with David Heise, Indiana University. The ACT equation system has been developed along with an affective dictionary containing the 1,100 German words most frequently used for describing social interaction (Schröder, in prep.). The model was implemented into Heise's software INTERACT that allows one to simulate of social interaction and emotion. The validity of German INTERACT simulations has been examined in a series of experiments that involved realistic social interaction (Schröder & Scholl, subm.).

The Interpersonal Adjective List (Jacobs & Scholl, 2005)

The organization of variables in the interpersonal domain is adequately represented by a *circumplex* with the basic dimensions of power and affiliation. In such an interpersonal circumplex all the variables are distributed along the periphery of a circle with constant gaps between neighbouring variables. The *Interpersonal Adjective List* (IAL; Jacobs & Scholl, 2005) operationalizes the interpersonal circumplex and assesses interpersonal styles or traits. The IAL consists of eight scales, each including eight interpersonal adjective markers. A recent study with $N = 1127$ participants confirmed the circumplex structure underlying the IAL at exploratory and confirmatory levels of analysis (Jacobs, 2008; for item examples and a PCA-plot of the IAL-scales see figure 1). Furthermore, in a series of studies the IAL served as a valuable tool for construct validation, for modelling the relationship between interpersonal traits and peer status, and for investigating similarity and interpersonal complementarity in close personal relationships (Jacobs, 2008). Taken together, the IAL is one of the best operationalizations of interpersonal circumplex concepts in the German language that can be used in various research contexts.

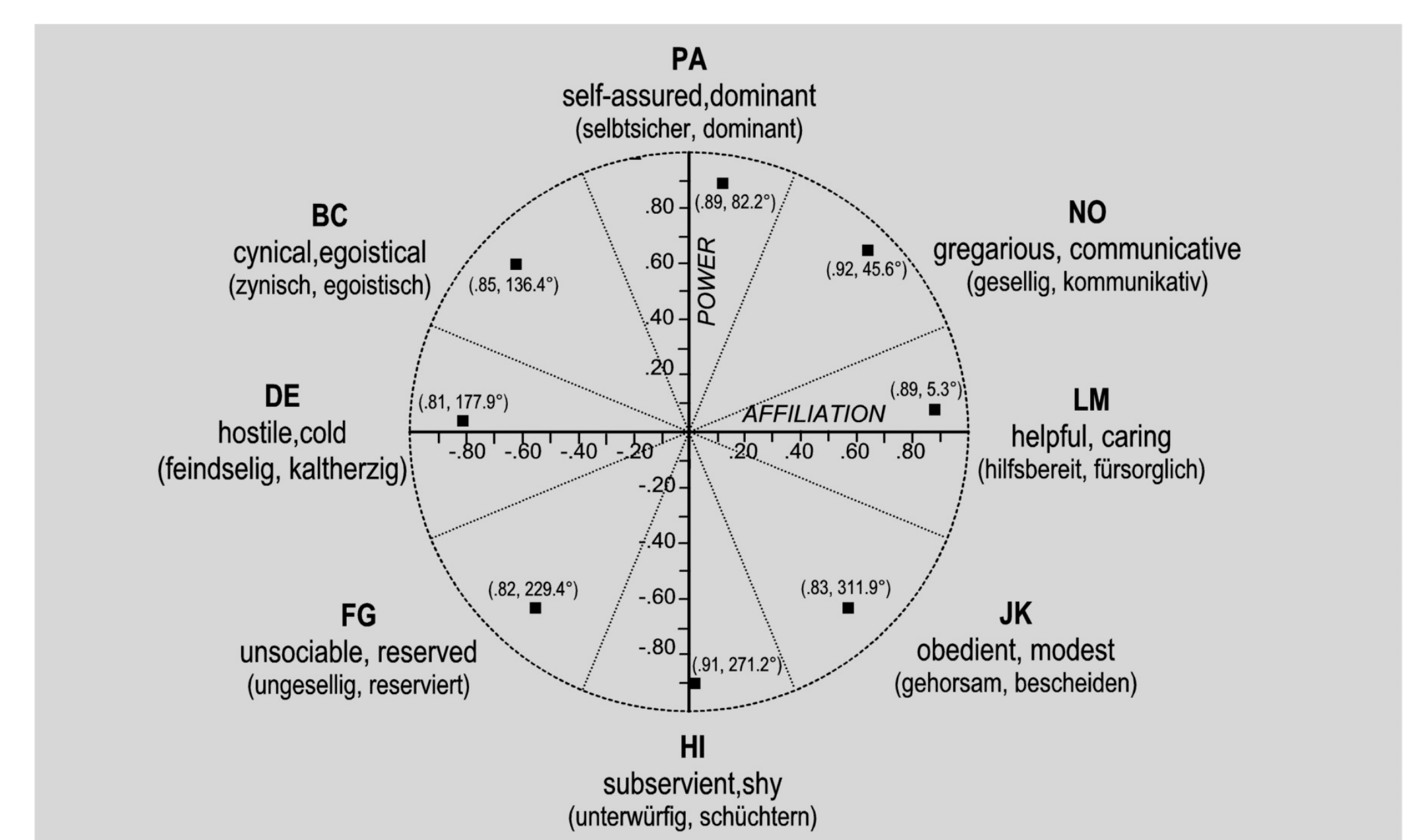


Figure 1: PCA-plot of the IAL-scales ($N = 1127$)
Notes: Vector length and angular placement for each IAL scale are shown in brackets.

The Discussion Coding System

The Discussion Coding System (DCS) aims at coding essential aspects of communication processes in real time or video-supported without much time and effort. This instrument helps researchers to analyze larger samples in an economical manner. Moreover, it facilitates practitioners to quickly diagnose ongoing discussions and to give timely feedback. A trained observer registers who is speaking what (key phrases) to whom and rates the relationship affect on friendly-hostile (affiliation) and dominant-submissive (power) scales. If needed, the third dimension of activation can be added. To come to a more accurate estimation of the relationship affect a specific coding principle was developed. The dimension were operationalized based on non-verbal behavior and on adjective (IAL) ratings. The *principle of double operationalization* means that for rating the relationship affect both kinds of operationalization have to be considered to reach a more precise estimation. Additionally, the function of each statement can be categorized.

DCS follows here the lead of IPA (Bales, 1950) and KONFKOD (Fisch, 1994). In several studies, DCS demonstrated its reliability and validity (Schermuly & Scholl, subm.). Recently, a new training was designed which improves the application and the psychometric properties of DCS once more (Schermuly & Scholl, in prep.). DCS is useful in many different research areas. In organizational psychology and group dynamics for example the observation and analysis of group decision making, leadership-styles, conflict processes, or group formation become possible.

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