

Development and construction of a four-dimensional instrument in working groups

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Abstract— Different styles of communication between members of working groups often result in dynamics that will increase relevant conflicts. This damages interpersonal relations and the productivity of work. How can team developers and conflict consultants identify different styles of communication in working groups and treat conflicts at the earliest sign? The objective of this contribution is the development of an instrument to survey the styles of communication in working groups. It is describing the construction of the instrument and quality control from the theoretical reasoning to the factor analytical reduction of 12 items into 4 scales and to checking the quality of the scales. The result shows an easy to use instrument with a satisfactory quality which can be applied to groups with many members. It allows the members within a group to thoroughly assess the different styles of communication and identify relevant differences. On its basis the differences between the communication styles can be directly broached by the group members, and should the situation arise dealt with constructively. It will be pointed out to more quality exams and optimizations of the instrument.

Keywords—communications, identity, working group, conflict.

I. INTRODUCTION

Team development and conflict moderation with groups in organizations or in public areas have also always to do with interpersonal disturbances and relationship conflicts [11]. Differences in the personality of group members heat these disturbances often and let them escalate occasionally into personal wars. Comments like "He really annoys me with his volatility", "I cannot bear her dominance" or "The lethargy within this group is slowing us down", are not only indicative of factual conflicts in competency, budget distribution or strategic goals but also of different personality of team members. Personality is expressing itself in styles of communication. In this contribution, communication styles are understood as an individual preference for certain forms of communication. In situations, in which one person tends to be reserved and to be taciturn, another one takes the initiative and talks. Different communication styles are indicators, cause and consequences of conflicts in groups. They are usually known late and rarely made into a theme [8]. How can managers, team developers and mediators recognize conflict relevant differences in styles of communication in groups?

To answer this question, this survey deals with an instrument for the systematic assessment of the communicative behavior of team members. Basically, it is assumed that different styles of communication point to tensions between group members. The instrument should deliver empirical information for the decision of group members concerning the topic of relationship conflicts in team development [18] or conflict facilitation [19], it must identify individual preferences for certain forms of communication [5], [8].

This contribution presents (1) some in exemplary form. They lay the theoretical foundation for a rating procedure by which individual styles of communication get described by the combination of four dimensions. Afterward, (2) the development of the rating procedure as such is described, as well as (3) the proof of agreement with the theoretical dimensions, and (4) the quality of measurement of its dimensions ("scales"). In the end, (5) the results will be summarized and the weakness of investigation and instrument will be carved out. Fields and Areas: Concepts for Describing Communicative Behavior.

Some concepts (see below) measure behavior preferences or communication styles, like, e. g., structuring, openness or directness in interpersonal dealings. To that, they fall back on scales with whom they determine the kind and impact of communication styles. Within these scales, similar communicative behaviors will be compiled. These compositions are called behavior dimensions. With that, we strive for meaningful reduction in the variety of human communication. Most concepts that describe communication styles in human groups supply systems that combine two or three dimensions and present them as fields or areas.

II. RESEARCH AND MODEL

A. Continuity versus Change and Closeness versus Distance

Thomann and Schulz von Thun [23] developed the "Riemann-Thomann-Cross" for the clarification of the Two-Person-Conflicts, falling back on Riemann. This concept postulates four motivational tendencies that are true for every person, for whom they also differ: everyone knows the need for closeness and distance in personal interactions, just like the need for continuity and change. However, humans prefer either one or the other attitude. Especially in crisis and conflicts, their own preferences emerge clearly.

The readiness of the partners for accepting the different behaviors drops. The wish grows accordingly that the other should change.

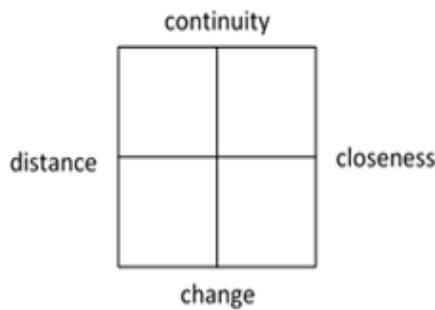


Fig. 1. The Riemann-Thomann-Cross (according to Thomann & Schulz von Thun, 2003).

The two dimensions continuity versus change and closeness versus distance, generate a two-dimensional field where the communicative partners can localize themselves according to the pole or motive, they feel drawn towards (Fig. 1). With it, the relative proportion of two people in the field can be experienced in contrasting ways, even though both could appear rather similar in comparison to other people. These relative positions can change in a certain crisis situation. However, in no way do the four basic directions deal with unchangeable positions (e.g., the “distance position”) with fixed communication styles. The same person may show in different relationships and situations different behaviors, emotional expressions, and needs despite his/her preference for the special area in the field.

With the Riemann-Thomann-Cross, team developers and mediators can show that different needs are standing behind the communication partners’ conflict and mutual blame for different opinions [23, P.13]. These different needs have to be understood and accepted for finding an acceptable way for all out of the conflict. Once the background motives are made clear to all participants, the mutual understanding – not meaning consent – is getting easier. Admittedly, there is no empirical proof available for this system. It remains a theoretical model.

B. Adaptability and Cohesion

D.H. Olson developed a questionnaire called FACES (Family Adaptability and Cohesion Evaluation Scales) [16]. It describes – without providing motives as in the Riemann-Thomann-Model – communicative behavior in families. The family members assess their communication within the two dimensions. “Adaptability” contains the scale levels chaotic, flexible, structured and rigid. “Cohesion” varies over the steps detached, separated, attached and involved. The two dimensions yield a square field that divides into 16 squares due to the staging of the steps within the dimensions (Fig. 2). The localization of the family interaction within the four inner squares indicates a positive behavior pattern, while the outer 12 squares indicate problematic behavior patterns.

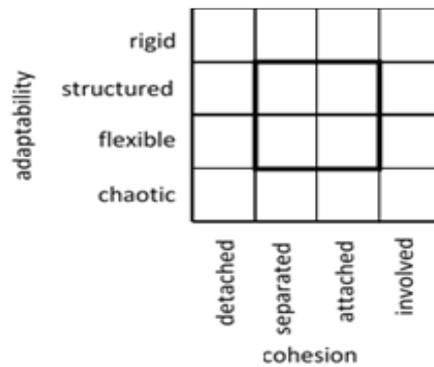


Fig. 2. FACES: The Concept by Olson (2000).

The special idea of a balanced situation between the poles can be clearly recognized. Each of the central poles of the dimensions, for example, flexible and structured within “adaptability” generate a paired contrast that protects in a balanced way from slipping down into the problematic chaotic or rigid behaviors of the outer quadrants. Despite their respective main emphasis, families with flexible and structured behavior patterns are able to display both behavioral styles. Thus, they can balance the different necessities of change and stability. They know that being flexible without the ability to structure may fall into chaos, while structuring without the ability to adjust flexible may freeze their positions. Flashing back to cluster analysis with more than 50 concepts for describing family systems, the research group around Olson leads to another dimension: “Communication” supporting both other dimensions. Olson’s group interprets basic communicative competencies by that. Mostly, it is about the exchange of feelings. This plays a certain role in the family diagnostic and therapy since it contributes to the deeper mutual understanding of family members. So, it is not surprising “that balanced systems tend to have very good communication, whereas unbalanced systems have poor communication” [16, P. 150].

C. Self-Esteem and Communication

The concept by Satir, as well, is about construction and protection and also about disturbance and destruction of human self-esteem. It differentiates four problematic behavior patterns in families: prosecution, appeasement, rationalization and distraction (see Fig. 3). These poles can be seen as built by the problematic exaggeration of the above-mentioned basic needs for distance versus closeness and continuity versus change [19].

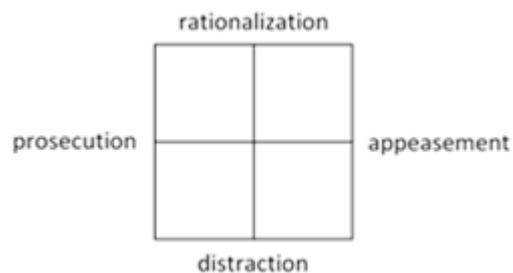


Fig. 3. Problematic Behavior Patterns.

From the emotional perspective, these communication styles are an expression of certain fears and anxieties by

S.D. Gurieva [4], [5]. A prosecuting communication style establishes a clear distance to other people if the person fears a reduction in independence and cannot clearly communicate the need for that. In comparison, the fear to lose the closeness of others can lead to show and communicate only the consenting and harmonizing side, i.e. communicating an appealing attitude. With the rationalizing communication pattern it behaves similarly: the anxiety of the unpredictability of chaos leads to a form of interaction that eliminates the human nuances to control and plan ahead. The distractive interaction pattern betrays the oversized anxiety of standstill or rather hunger for change

D. Guiding and Recognition

Until now, the outlined concepts show two basic dimensions of human behavior, which are described in the following as (1) “task perception”, situated in between structuredness (motivated by the need for stability) and flexibility (change) and (2) “relationship building”, situated in between distance and connectedness (closeness). Another dimension is shown by Tausch and Tausch [22, P. 155] in their educational concept with the description of guiding. In combination with relationship-dimension “recognition versus disdain” it generates a four-field-scheme, where the known Lewin’s behavior types can be localized: democratic, authoritarian and laissez-faire behavior. That defines a third dimension which will be consulted for the structure of the communication spectrum: the extent of the activity in the sense of exerting influence or being passive. The authors undersign the importance of the activity aspect through the particular suggestion of characterizing the human communication styles and characterize this dimension by “engaged activity versus uninterested passivity” [22, P. 166].

E. Dominance and Affection

The interpersonal circular model by Leary was developed in the context of research in psychiatry and is likewise oriented towards the Circumplex Model. Leary describes interpersonal important communication patterns in a circle that is generated by the two main axes “control” (dominant/controlling versus submissive/obsequious) and “affection” (loving/approachable/ versus hostile/aggressive). Affection fits the relationship dimension, control fits the dimension “activity - passivity” by Tausch and Tausch [22], [25]. The basic idea of the circular model states that any communication style can be exaggerated which involve a drifting off into the outer area of the circle while the appropriate communication is found in the inner circle. This idea turns out to be very similar to Olson’s FACES-concept. Horowitz developed Leary’s attempt further and identified the axes with the constructs of agency and communion [12].

F. Task-Relationship Orientation and Taking Influence

The so-called SYMLOG-concept (Systematic Multiple Level Observation of Groups) by Bales and Cohen presents also a third dimension for activity – passivity and call it “dominance versus submissiveness” [1], [2]. This three-dimensional concept offers an inventory method for research in small groups. Its procedure is based on a complex system for the observation of the interaction within group members. It is very costly and often not suitable in

practice. For economic reason the authors developed an additional rating system by which the members of the group assess the other members on the following three dimensions: task perception (goal oriented / control versus emotional / expressive; later acceptance versus non-acceptance of authority, relationship perception (friendly versus unfriendly) and taking influence or rather power (dominance vs. submissiveness). The here presented instrument uses the idea of three dimensions as the SYMLOG approach suggests but has developed slightly different dimensions [26].

Bales and his working group are constructing a room instead of a two-dimensional field. The dimensions are illustrated according to the model of a cube. The team members mutually assess the other members by way of an assessment paper that contains the possible behavior in different shapes. It consists of 26 behavioral items that are assigned to the three dimensions within the room model. Normally, the members of a group will be presented by circles in a field diagram. The field will be presented by the two dimensions “task orientation” and “relationship orientation”. The markings on the dimension “dominance” will be clarified by the size of the personal circles [2].

The outlined dimensions should describe arrangements of communicative behavior, in that the individual communication styles in a group can be presented clearly and economical. That way one can conclude the difference between those participants who contribute to tensions and conflicts in the groups. Several researchers correspondingly indicate two dimensions: task perception and relationship orientation. A third dimension is indicated here and there, but first by Leary [18], Horowitz [12], Tausch and Tausch [22] and Bales [1], [2] for the description of groups: the extent of exertion of influence.

G. Factual Information, Relationship message, Appeal and Self-disclosure

Furthermore, the research group around Olson (2000) plays a part in “communication”, as an exchange of feelings or rather disclosure of oneself [16]. This fourth aspect experiences in the Hamburg approach of human communication [21] an independent meaning. Given the concept of self-disclosure, Schulz von Thun points out that the way we present ourselves is of great importance for successful communication. With that, it is not meant the mere self-representation, but the expression of inner experiences. By the extent of self-disclosure, which is contained in every communicative act, the speaker controls the extent of the insight that s/he gives others to understand her/his inner experience. Mostly, it is about the exchange of feelings. With that, the present study introduces the fourth dimension as an inner experience between emotional control and emotional expression, shortly emotional expression. This dimension is not presenting the extent of the inner felt feelings but particularly only its statement.

The Hamburg school of communication is integrating the four dimensions of communication in the so-called communication square (see Fig. 4). It subdivides speech acts in four areas: information about facts and relationship messages (“What I think about you and how we stand towards each other” self-disclosure of inner experiences,

most of all on emotions, and appeal with whom the speaker influences his surrounding (“Whatever I may make you do” [21, P.27-29].

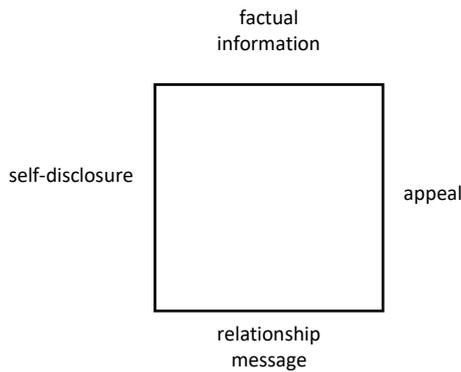


Fig. 4. Anatomy of a Statement: Communication Square by Schulz von Thun.

It is noticeable that these four dimensions reflect roughly the cognitive, social, active, and emotional modalities. They capture the active or calm, distant or connected, controlled or spontaneous, structured or flexible communicative behaviors and their gradual staging. Communication partners communicate within these four dimensions and are able to use absolutely the whole communication area. Preferences for certain areas of the dimensional room show their personal communication style.

The four dimensions and their references to the mentioned concepts are presented in Table 1.

TABLE I. OVERVIEW OF THE DIMENSION OF THE PRESENTED CONCEPTS

	Task Perception	Building Relationship	Activity	Emotional Expression
Thomann & Schulz von Thun (2003)	Continuity versus Change	Closeness versus Distance		
Olson (2000)	Adaptability	Mutual Feelings		Communication of feelings
Satir (1975)	Rationalizing versus Distraction	Accusation versus Appeasement		
Leary (1957)		Affection	Dominance	
Tausch & Tausch (1970)		Recognition	Guiding	
Bales & Cohen (1979)	Task Orientation	Relationship Orientation	Exertion of Influence	
Schulz von Thun (1981)	Factual Information	Relationship Message	Appeal	Self-disclosure

The table displays the basic dimensions of human communication with consideration of the previous presented concepts [17], [18], [19].

- (1) Task perception between structuredness and flexibility.
- (2) Relationship building between individual independence and connection with others.
- (3) Activity between restraint and taking influence.
- (4) Emotional expression between spontaneity and control.

They constitute the theoretical base for the present question: How can communicative behaviors be raised in line with these dimensions and with appropriate expenditure so that differences between the communication styles of group members can be sufficiently objective, consistent and reliable identified?

III. CONCLUSION

Put into practice, team development and conflict discussion should be made more objective in analysis and interpretation of concrete numbers by the use of computers. Some early work on this topic was done by Gewohn [10] who had the intuitive interpretation of an expert with regard to communication style differences in 6 groups with 5-6 group members analyzed by a computer. There were considerable mistakes made in intuitive interpretations. The expert did not always recognize correctly the differences in the four dimensions of the tested communication styles: occasionally, the expert missed subgroups whose members displayed similar communication styles that were quite different between the subgroups [24]. This was the situation, above all, when the dimension of the emotional expression was important. Obviously, human information processing is reaching its limits. Even when some members were situated on quite different far away on three or four dimensions the computer identified this situation better than the expert. The computer identified clearly more contrasting pairs than the expert [27]. Accordingly, there is still a lot more need for investigation and optimization of the instrument. Confidential Help in Orientation instead of Objective Diagnostic.

In practical terms, the instrument to survey the communication styles in working groups should not be understood as objective diagnostic by which an expert of a group certifies from the outside a “disturbed community” and so the company has an indication for team development and conflict moderation. With written assessments of working groups the danger exists that the digital numbers for the judging of staff members or whole departments will be misused, e.g., for impeding on someone’s career, pay-increase or for rumors going around (“the team displays cock-fights, hostile camps, outsiders, etc.”).

It should be no more (but also not less) than a confidentially handled guidance for the conflict work in groups to become aware of possible problems. It serves the sensitivity of conflict consultants and team developers for making directed and at the same time asking open questions to enable the group members to decide themselves whether they experience tensions or conflicts or not. With their

independent decisions a common reconstruction can follow where they themselves compile and put to test new regulations for their communication and co-operation with the help of the team developer or consultant.

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