The Team Confrontation Method

Design, grounding and testing


Peter Zomer
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De Team Konfrontatie Methode
Ontwerp, fundering en testen
(met een samenvatting in het Nederlands)

een wetenschappelijke proeve op het gebied van de Sociale Wetenschappen

Proefschrift

ter verkrijging van de graad van doctor
aan de Radboud Universiteit Nijmegen
op gezag van de Rector Magnificus prof. dr. C.W.P.M. Blom,
volgens besluit van het College van Decanen
in het openbaar te verdedigen op 24 april 2006
des namiddags om 3.30 uur precies
door

Wouter Johan Peter Zomer

geboren op 18 oktober 1963
te Zutphen
Promotores:

Prof. dr. H.J.M. Hermans
Prof. dr. P.R.J. Simons, IVLOS, Universiteit Utrecht

Manuscriptcommissie:

Prof. dr. M.A.J. Kompier [voorzitter]
Prof. dr. M.J.R. Schoemaker
Prof. dr. Th. Homan, Open Universiteit Heerlen, Nijenrode Business Universiteit, Breukelen
My previous seven years have been filled with important life-events. My girlfriend Sanja and I bought a house, we got married soon after that, and our children Anne and Milan were born. I switched jobs once, and moreover, started my own firm with my colleague Petri Cornelissen. In the midst of all these emotionally intensive and demanding developments, the making of my dissertation has been time and again like a refreshing bath. I really settled down as soon as I could read, conduct research, analyse data or write about my teams. I enjoyed it so much, that I somehow regret that it is now all over.

Of course, I also want to celebrate the finishing of this project that developed and nurtured my network of colleagues and professional friends. New opportunities will arise, and the world will be even much more fun! It is for this reason that I would like to thank many people in person.

In the first place, I would like to thank my supervisors Hubert Hermans and Robert-Jan Simons. Hubert for his direct inspiration, his wonderful books and ideas, and his being an example to me of how psychology can be conducted by a scientist in close cooperation with practitioners. Robert-Jan equally well for his academic vitality; he showed me the way among specialists and texts, and the meetings with him and his students, including myself, under his supervision have been unforgettably inspiring.

I also want to thank many others. My colleague student Sanne Akkerman, who gave me high quality, well-founded feedback on my text during the very important first stages of its writing, and who has been great company now for at least the last four years. My colleague Rob Groeneveld, who creatively thought along with me when I developed the practical side of the method. My language corrector Caroline Thom, who joyfully corrected the ‘tweaking near perfect English’ of the manuscript. My professional friends Margreet Poulie and David Beatty, who carefully edited the final draft of the text, and have suggested many new interesting ideas to explore. And one of the real experts in the field, Thijs Homan, who offered original and stirring comments on my work.

I especially want to thank my former employers Poul Bakker of Company Coaching and Petri Cornelissen of the Associatie voor Coaching, who sponsored my venture to a considerable extent. Poul and Petri, thanks for putting so much trust in me! Also lots of thanks to my colleagues of Company Coaching, in particular Jaap Kocken, Wietske Postma and Rens Kessener, who showed their interest in the development of the method and contributed their time and effort in it.

Finally, I want to express my gratitude to all team members of the teams that used the TCM in the different stages of its development, and thus helped building it up to the current level. Thank you for using this ‘unprecedented’ method and adopting a constructive attitude!
I furthermore would like to thank my professional colleagues Michel Koppenaal, Aaltsje de Jong and Joke van der Ven, who put me on the track of these teams, for their interest and always cooperative attitude. And my friend Edwin Poppe, who commented on my ideas and research in an early stage of it. He showed me that they were doable in the way that I had projected them.

Last but not least, I want to thank my mother, sister and in-laws for their loyalty and warmth. Above all I thank Sanja. You understood how much I loved doing this whole thing, and have shown patience and enthusiasm precisely on those moments that I needed your support.

Thank you all, you have been great company. Thus, freely after Wenger, a whole community obtains this doctorate. I owe you.
Starting point: CONCEPTS DERIVED FROM:

- Hermans, Valuation Theory (VT): valuation, affect
- Hermans, Dialogical Self theory (DS): internal position, external position, voice
- Weick, ‘Sensemaking’ theory: notions of (collective) meaning-making, cause maps

**Chapter 1**

CONCEPTS FOR ASSESSMENT

- Collective valuation
- Collective affect
- Collective voice
- Deviant voice
- System diagram

**Chapter 2**

CONCEPTS FOR IMPROVEMENT

- Pattern breaching
- Lever deviant voice
- Collective valuation system reorganisation

**Chapter 4**

DESIGN FOR IMPROVEMENT

- (Design) requirements
- Design parameters
- Design choices
- Functional propositions

**Chapter 5**

MEASURES FOR ASSESSMENT

- Mean r(i)
- Mean r(g)
- Sum of scores
- Euclidian distance
- 2d voice diagram
- Group cohesion

**Grounding**

**Design**
**Chapter 5**

**CONSTRUCT VALIDATION**

Construct validation:
Testing the validity of the developed measures

**Chapter 11**

Judgement of the quality of the method

**Chapters 6 - 10**

**FUNCTIONAL VALIDATION**

Functional validation:
Testing the working of the method (functional propositions)

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INTRODUCTION

0.1 Background

What is the current state of the team development profession? It is first and all a thriving business. Teams (i.e., groups that work jointly on a task) are widely seen as the key to learning organisations [see for instance Senge, 1990], and many organisations ask facilitators from the fields of business consultancy or human resources development to help building their teams and foster ‘team learning’. Team development is a popular practice.

However, something seems to be a shade out of balance about the way practitioners in this field operate. It concerns the academic input to the practice: the methods and interventions that facilitators design to help teams develop, are mostly very much of an eclectic nature. They design on the spot, intuitively adjusting to the characteristics of the team they face, drawing on the practical knowledge they have been building up for themselves during their professional career. It is, of course, necessary that practitioners of team development rely on their specialism in the field and remain flexibly reflective in finding unique solutions to complex problems [see Schön, 1983, 1987]; after all, prudent practitioners make most roads lead to Rome. But their design-on-the-spot is usually of a mainly pragmatic or artistic nature. Now design can be done in a pragmatic or artistic manner, but these are just two of the possible ways (Visscher-Voerman, Gustafson & Plomp, 1999). Pragmatic design is concerned with, in every new case, the shaping of a design product (here: a programme of interventions) that is useful and effective for the users at hand; artistic design follows the subjective judgement of the practitioner as a connoisseur of the field. These ways of designing can prove to be very well fitting in the context, yet they do not make use of an instrumental rationality. Instrumental design does: it produces design products that meet pre-specified standards, and tries to establish clear relationships between goals, processes and outcomes. It can make use of a theoretical framework for doing this in a conceptually consistent way. The design is done systematically, rationally and logically, through thorough analysis of needs and problem, resulting in a specification of the solution. The advantage of this approach is that the designed interventions can prove their worth across situations, relatively independent on the specificities of practitioner and user; success becomes less a matter of wise conduct or coincidence, and much of the time that is otherwise needed to design a new solution is spared.

In team development, there are not many such instrumental designs available (for an overview, see Appendix 1 on current methods). This is to some extent disadvantageous. Firstly, formal knowledge about which interventions lead to which effect and why is often not

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1 There are several methods for team development available. Most are directed to a higher awareness about what is going on in the team; such higher awareness is generated by a conceptually based protocol and indirectly urges the team members to change their situation. Examples: SYMLOG and Gestalt. Other methods contain elements that directly urge team members towards new behaviour, such as negotiating better about mutual expectations, or learning jointly about the quality of the common interaction. Examples: RAT and Process Consultation.
available. Interventions retain too much of a ‘black box’ character, and their working will largely remain a matter of trial and error. Second, in an eclectic practice, the knowledge of practitioners stays mainly personal and is not easily shared. Practitioners, believing that they better stick to their own style and repertoire, can be like lonesome creatures, living on desert islands and doing their own thing. They could probably share much more if they shared a language of accepted concepts. Even though eclectically designing practitioners may naturally add their share to the development of the practice, it is our contention that an instrumentally designed method for team development is desirable. It could bring a conceptual framework that makes the exchange of knowledge easier, and it could offer a basis for joint methodical advance by trying and testing a method and developing it further. Thus, practical knowledge would be grounded in theoretical knowledge, and theoretical knowledge would be developed further with practical knowledge.

Now, for the design of a method for team development, we may have a reference point in the field of individual self-investigation and development. The Self-Confrontation Method (SCM; Hermans & Hermans-Jansen, 1995) is a tried and tested instrument that is grounded in theory, namely the Valuation Theory (VT) and the theory of the Dialogical Self (DS). It is a recognisable backbone of tools and interventions that has in the course of history been enriched with others (such as the Personal Position Repertoire – PPR) based on the same theoretical grounding. This theoretical grounding has two advantages. First, a theoretical basis offers a view on development which can serve as a basis for selecting potentially adequate from potentially inadequate interventions directed toward improvement. Second, when a method is iteratively designed and tested, the theoretical basis serves as a continuous benchmark for developing it further, and practical feedback from the application of the method serves as input for theoretical advance. In the case of the SCM, scientists and practitioners are actually cooperating in the parallel extension and refinement of tool and theory. There are various other reasons why the SCM can serve as a reference point. It may be that the fields of individual development and team development are more or less in line, for teams consist of individuals; the SCM offers concepts and tools for the assessment and improvement of individual functioning that may turn out to be translatable to the collective level of functioning. Furthermore, the author’s direct experience with the SCM makes it more likely that practical arguments are taken into consideration when grafting a method for team development upon the SCM. Moreover, the author enjoys good access to and practical experience in the field of team development. For a further treatment of VT / DS and SCM / PPR, see sections 1.3 and 2.2.

This study is concerned with the question how Valuation Theory and the theory of the Dialogical Self can be used for the design of a practical method for team development. In answering this question, two perspectives are helpful. The first perspective is theoretical / empirical. How can VT / DS be transposed from the individual level to the group level? The second perspective is practical: how can the SCM / PPR be translated into a tool that is useable on the group level?
0.2 Purpose and audience

Our purpose is to design a Team Confrontation Method (TCM) for assessing and improving collective and individual functioning in teams. It should be grounded in theory and empirically tested. Why is it important to link individual and collective functioning empirically? We think that there is no functional collective without a flourishing individuality of team members, and vice versa. If we can show empirically when we deal with collective experience in the team and when with (deviant) individual experience, then we can develop measures for assessment that serve process promotion in the team, i.e. serve as leverages for improvement of collective and individual functioning. By empirically detecting them, we may give deviancies a voice and collectivities a name.

The design of a method is of interest to practitioners / team facilitators and scientists alike: the tool will have a grounding in theory and therefore a recognisable conceptual framework (serving practitioners), as well as a practical functionality with a potential empirical input for theory development (serving scientists). Thus, method as well as theory can be advanced in mutual cooperation between practitioners and scientists.

The grounding of the method in theory is directly of interest to scientists (though indirectly to practitioners as well). We will offer an empirically tested, conceptual link between individual and collective functioning. Between these two levels, within VT and DS, such connection was not yet made. We use data to show how this connection can be made. The empirical basis found for our assessment procedures gives the thesis a special theoretical relevance.

That the method be suitable for process promotion (toward improvement) is mainly in the interest of practitioners. They will be interested in the design and empirical testing of its functionalities, reported in this study. We will show how the method performs in practice according to its conceived functions. This will be done in some detail through case studies, so that practitioners may get a feel of what the method is like, which interventions have what aim and effect and how particular questions of team development, commonly posed by clients, are addressed.

This study can, of course, also be of interest to the clients of practitioners. In the way of working that is prevalent in the TCM, an active role in the form of an investigative attitude is demanded from team members. Improvement in collective and individual functioning is greatly their own responsibility and not solely that of the practitioner. They will not be able to sit back on their haunches when they buy a TCM intervention; a reading of this study will potentially give them a deep insight in the why’s and how’s of the method and the related expectations about their own role when using it.

Finally, scientists as well as practitioners may find our methodological approaches interesting, when they aspire to conduct research work in the interface of theory and practice. This study is carried out with methodologies of different kinds, methodologies that have proven useful in this interface. Design methodology is concerned with the development of design knowledge, occupying the middle ground between descriptive theory and actual application [Van Aken, 1998]. Design knowledge is systematically obtained through the reflective cycle, in which design choices are tested and, if proven, generalised to technological rules or prescriptions valid for a class of cases (in contrast with the well-known empirical cycle; for
further detail see chapters 3 and 4). There is something else that is in our view of great importance to a methodology on the interface of theory and practice. We attribute a researcher role not only to scientists, but also to practitioners and their clients. It is our view that the investigation of practice is not solely reserved for scientists. In different ways, practitioners as well as clients should be regarded as researchers of their own practice. We will especially demonstrate how scientist and practitioner, as well as practitioner and client [team members] can cooperate methodically in their strivings for insight and process promotion.

When will we have succeeded in our purpose? The method should be designed with the following requirements in mind.

1. The TCM should have functional validity. This means that the method be effective (producing the results it is designed for), efficient (do this in a way that saves time and resources), accessible and usable (using the language and experiences of many different types of teams, without becoming too complex in their eyes). The method is functionally valid when it is evaluated according to these standards in a satisfying way, so that it has proven valid for use.

2. The method should make use of a conceptual framework that is satisfactorily grounded in theory. This is done when the construct validity of the new concepts that extend VT and DS to the group level is demonstrated. VT and DS offer opportunities for interventions with a high impact for change. Grounding the method not only means a proper use of the concepts that are central to it, but also combining them in an optimal way, i.e. as constructively as possible for the conceived functions of the method. This again is a matter of functional validity.

0.3 Preview of the study

The research focus of this study is the assessment and improvement of collective and individual functioning in teams. We want to get a grasp of the way teams as a whole and their team members as individuals function in terms of VT / DS, how team members and their facilitator can assess this functioning, and how processes of improvement can be promoted by the facilitator and the team. More specifically, our focus of research is the process of fostering a joint investigation, by team members and their facilitator, into the collective and individual functioning of the team, and the process of improving this functioning. This formulation is taken as a stepping stone for the outline of this book.

Part I essentially prepares for the assessment instruments by transposing VT / DS to the group level. What conceptual structures could be grafted upon these theories in order to address important phenomena in team development? Furthermore, what should our assessment instruments be sensitive to? The construction of the designed instrument should serve the predetermined, functional goal of promoting team development. Emphasis on particular concepts will serve this goal, by way of offering a focus for team investigation and a conceptual format for the construction of assessment instruments. As a result, these instruments are made fit for our purpose of team development. Thus, the method is theoretically grounded. Chapter 1 is about assessing collective and individual functioning: it explores the comprehensive theory on collective and individual functioning and determines what assess-
ment is advisable in this matter. In this chapter, the concepts of collective valuation, collective affect and collective voice are identified. Chapter 2 is about improving collective and individual functioning: it explores our position on advisable roads to improvement. Thus, the theoretical basis for interventions aiming for improvement is given, and the concepts of deviant voice, pattern breaching, lever deviant voice and collective valuation system reorganisation are identified. Chapter 3 is about conducting a joint investigation: it distinguishes different roles of the people involved in the process of investigation. In line with that, the roles of the researcher in this thesis are specified and the choice of research methods that match with our intentions (being mainly design methodology, case study and action research) is illuminated.

Part II shows how the method is designed and empirically validated. In Chapter 4 we explore design methodology in order to find the way to properly set up our design; we then fix the functions of the method, list the corresponding design variables, and the main design choices that constitute the make-up of our method. Chapter 5 offers the validation of the developed concepts collective valuation, collective affect and collective and deviant voice. Research has been carried out to account for the construct validity of these concepts and for developing the tools (questionnaires) for assessment; relevant data are shown. Chapter 6 introduces the research questions that are to determine the functional validation of the designed method; these research questions are guiding the case studies that follow in the next chapters. Thus, chapters 7 to 10 offer the functional validation of the TCM and illuminate its application in different settings. The case studies show among other things: how a communality in experience (assessed collective affect) blocks team development (chapter 7); how a deviant voice fosters improvement (chapter 8); which important incidents influence improvement (chapter 9); and how different stages of conflict in a team are addressed with the method (chapter 10). Finally, Chapter 11 discusses the findings across the case studies: we offer some general conclusions on the functional validity of the method, discuss some shortcomings of it, and estimate the value of the reported research work.

The study is provided with appendices containing descriptions of other existing methods for team development (Appendix 1), an overview of the protocol of the TCM (Appendix 2), the questionnaires used in the TCM (Appendix 3), and hints for the facilitator who wants to use the method (Appendix 4).
PART I

THEORETICAL AND METHODOLOGICAL BASIS FOR THE METHOD
CHAPTER 1

A theoretical basis for the assessment of collective and individual functioning in teams

1.1 Introduction

How can Valuation Theory (VT) and the theory of the Dialogical Self (DS) be used for our purpose, the design of a practical method for team development? This question is guiding the first two chapters of this book. VT and DS have a conceptual framework which is significant for our purpose, yet they are addressing the individual functioning and development of people in their daily lives, not the functioning of work groups or teams. Could the conceptual framework of VT and DS be transposed from the individual level to the collective level? We would thus have at our disposal the concepts needed for assessing the quality of the functioning of a team, so as to see what is going on in it and know in what ways its teamwork could be better.

In the first chapter we propose to extend the concepts that are central to the VT and DS, valuation, affect and voice, to the level of collective functioning. The concepts of collective valuation, collective affect and collective voice are defined and grounded. We had the need to inspect other theories for this: theories that address the character of collective functioning. We selected a few authors with a similar way of thinking to Hermans and his colleagues, who offer relevant insights on groups and teams. The most important of them is Weick, who treats organising the daily work experience as a sensemaking activity by collectives of people. Here, it is explained how people in a group jointly act, think and feel.

In this chapter, we essentially describe what our practical method for team development should assess, and we offer the theoretical grounding for this. In the next chapter, we focus on how the method should stimulate the improvement of collective functioning in teams and what theories offer the grounding for that. It is because of this focus on improvement that we will, in chapter two, describe in more detail the Self Confrontation Method (SCM) and Personal Position Repertoire (PPR) as methods meant for stimulating this improvement. In chapter one, we focus on assessment and therefore almost exclusively on the theories behind the methods: VT and DS. After all, these theories offer the conceptual framework which is the basis for assessment in both methods.

The subtitle of this chapter, 'Theoretical basis for the assessment of collective and individual functioning in teams', requires some additional explanation, since it includes the term 'individual functioning'. For the quality of collective functioning, it is of central importance that the quality of individual functioning is stimulated and concentrated on, and not solely that of the collective. Especially in chapter two, we will devote ample attention to this, when we address the importance of deviance for good quality collective functioning in teams.
In chapter one, this topic is not yet treated, but since it is a very relevant aspect of our view, we decided to already here include the term ‘individual functioning’ in the title.

Section 1.2 describes VT and DS and their central concepts valuation, affect and voice. It is also briefly describes how these concepts are measured in SCM and PPR. This gives us a starting point for our exploration of the literature on collective functioning in section 1.3. Here, we gather important insights of authors on the peculiarities of this collective functioning, and we collect propositions of aspects of collective functioning as an input and justification for the conceptual extension of valuation, affect and voice to the collective level. If these concepts are to be extended, what theoretical insights should we take into account? In section 1.4 finally, we offer the definitions of collective voice, collective valuation and collective affect as concepts of collective functioning. Also the Weickian system diagram is introduced. These concepts all serve as a basis for assessment in our new method; the assessment measures are then further developed and validated in chapter 5.

1.2 Valuation, affect and voice: concepts for assessing individual functioning

Which concepts from Valuation Theory (VT) and the theory on the Dialogical Self (DS) are taken for the assessment of the individual functioning and development of people in their daily lives? How do these concepts hang together? This section offers an introduction to VT and DS and their central concepts of valuation, affect and voice. We will extend these concepts to the collective level of functioning later on in this chapter.

VT (Hermans & Hermans-Jansen, 1995) accounts for the role of stories in people's lives, in particular: self-stories. Like other authors (e.g., Sarbin, 1986; Bruner, 1986; McAdams, 1993), Hermans stresses the importance of individual life stories for growth and development of the person, and for sorting out personal problems. As a typical theory of narrative psychology, VT brings together knowledge and insights about the psychological aspects of storytelling.

Stories belong to the intrinsic character of humans as intentional beings (Bruner, 1986, 1990). They are fuelled by the intentions a person brings to a situation: whenever he succeeds in his projects or is frustrated, he produces the elements of story. A story essentially obeys to a simple structure: a certain expectation is breached, a crisis is born; the protagonist then “adventurously” redresses the balance and a renewed harmony settles in. Together with this, a story is usually rich in affective overtones, demonstrating the intensity of involvement that an intentional being typically experiences when he confronts a situation.

It is the frequent repetition of certain story-types, with typical themes and plots, that characterises a personal biography. During long episodes of his life, the person tends to always bring the same stories to his experience, so as to give meaning and structure to it. The interpretations of events in his life, as well as the ways in which he affectively experiences these events, become predictable for him through his unique life stories. Thus, personal life stories contain the meaningful bits and pieces that help the person survive in a complex world. His stories help him understand the world, much to his advantage or sometimes also to his disadvantage: he can imprison himself in a negative interpretation of what happens to
him, creating a self-fulfilling prophecy (for an example, see pages 29-31 in this chapter). In principle however, he is not governed by this life story; there remains always a possibility to open up the story by his own choice and start retelling it another way. The reality of a person’s free will is pre-assumed.

The life story accounts for the identity of a person. Hermans & Hermans-Jansen (1995) have studied extensively the motivational structure of stories, and built their Valuation Theory onto it. VT is rooted in the metaphor of the person as motivated storyteller, who has a story to tell about his or her life. In doing this, the person gives special significance to particular events, which he values, i.e. have a special meaning for him. If so, such events can be called valuations. The valuations of a person hang together in a valuation system that is uniquely different from that of other persons. The structure of this system changes over time, depending on the nature of the person-situation interactions (see Table 1.1 for an example of a few valuations worded by one person). In this way, VT attends much to personal context in its understanding of individual functioning.

<table>
<thead>
<tr>
<th>Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I consider it important to constantly learn new things, to be challenged intellectually, to be mentally on the move.</td>
</tr>
<tr>
<td>Mama was a very sweet woman, who spoiled me, and with whom I felt very safe.</td>
</tr>
<tr>
<td>I enjoyed supporting someone and then perceiving how this made things go better.</td>
</tr>
<tr>
<td>I am fed up with Hugo because of his inconsistent and dominant behaviour lately. It makes me insecure.</td>
</tr>
<tr>
<td>I hurt Eric. This made it more difficult to end the relationship.</td>
</tr>
<tr>
<td>I dislike large groups, because I do not have an overall view of the situation. I drown in a group. I disappear. I feel very little and insignificant (e.g. at birthday parties, a market, concert, etc.)</td>
</tr>
</tbody>
</table>

In VT, it is supposed that basic motives influence the organisation of a valuation system. In these basic motives S and O, man’s most fundamental intentions are represented. The Self-motive of self-enhancement (self-protection, self-expansion: agency) and the Other-motive of contact and union (with something or someone else: communion) are the two fundamental motives that are expressed in an ever-changing mix in a person’s stories. It is supposed that each valuation has an affective connotation; this affective modality, i.e. pattern of affects, is characteristic of the specific valuation. In this affective component of the valuation, the basic motives S and O are latently represented. When the S-motive is working, it is noticeable through affects like pride or self-esteem; the O-motive reveals itself through affects like care and intimacy. Its affective modality colors the valuation strongly. Thus, a valuation has a manifest cognitive component, which is depicted in the wording of the valuation; and a latent motivational component, which is discernable through the affective modality of the valuation (see Figure 1.1 for a graphical representation of this). In sum, whenever we speak of valuations,
we can say that they are meaning-laden, with basic motives colouring the person’s experience of them through affects; the basic motives drive the affective component of a valuation. The Self Confrontation Method (SCM; see section 2.2) is an instrument designed for the collection and assessment of these valuations and their affective tones, and for process promotion [improvement] based on the assessment. Self-investigators use the SCM for developing themselves.

In sum, the person brings a story to different situations, thus connecting events in a meaningful plot. But this can be further refined. The situations may be experienced by the person through the lens of this story or another, depending on the perspective he takes. The theory of the Dialogical Self (DS) sheds more light on this, for it shows how different voices in one and the same person can each tell different story-versions about the same situations\(^1\).

Following William James’s distinction between \(I\) and \(Me\), Hermans & Kempen (1993) propose the conception of the \(I\) as an author and different \(Me\)’s as observed actors in the self-narrative. First of all, the \(I\) is assumed to tell stories about himself as actor (the \(Me\) — i.e., a part of the self, a role, relevant in a particular story in which the specific \(Me\) is the one who is told about by the \(I\)). But it is more than that; the \(I\) is able to ‘live in a multiplicity of worlds with each world having its own author telling a story relatively independent of the authors of the other worlds’ (Hermans & Kempen, 1993, p.46). Several authors are supposed to be able to enter into dialogue, agreeing or disagreeing with each other. Thus, the \(I\) is not an overarching power organising the constituents of the \(Me\), but a decentralised multiplicity of relatively autonomous \(I\)-positions, telling their stories about their respective \(Me\)’s as actors. As Hermans & Kempen put it, ‘the \(I\) moves, in an imaginal space, from the one to the other position, from which different or even contrasting views of the world are possible’ (ibid., p.47). If a self proves to be highly dialogical, it has innovative power:

‘In this open and dynamic conception of the self, transactional relationships between the different \(I\)-positions may lead to the emergence of meanings that are not given at one of the available positions’ (Hermans & Kempen, 1993, p.47).

Hermans (2001a) distinguishes internal and external \(I\)-positions. Internal positions are felt as

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\(^1\) In fact, DS is no single theory with this name, but a cluster of theories with a similar view. Here, we take as a starting point the variant as spelled out by Hermans (Hermans, 2001a).
part of the self (e.g., I as a boss, I as an ambitious worker, I as business-like, I as cooperative), whereas external positions are felt as part of the environment (e.g., my colleague John, the team, my father). External positions refer to significant others who are relevant to (some of) the internal positions (e.g., my colleague Paul becomes important to me because I have the project in mind of which I am the project leader). Internal positions become relevant from their relation with external positions, e.g. I feel a boss in relation to my team. As can be concluded from this, the dialogical self, with its “polyphony” of internal and external I-positions, is intrinsically extended to the environment. It ‘(...) responds to those domains in the environment that are perceived as “mine” (e.g., my friend, my opponent, my place of birth)’ (Hermans, 2001a).

Each position, internal as well as external, is endowed with a voice, so that it can take part in a dialogue between positions, and dialogical relationships between them can be established. In other words, ‘(...) the individual is involved in an active process of positioning in which co-operations and competitions between positions develop in a particular situation’ (ibid.). In fact, the person will be able to make typical valuations from each position. Moreover, since during dialogue new positions often result from the combination of old ones, new valuations will potentially be produced by new positions in the multivoiced self. This process of positioning and repositioning may result in the clarification and further development of a valuation system.

Hermans makes connections between concepts and insights from DS and VT, proposing that particular voices tell particular stories and account for particular valuations, and that different versions of stories and different valuations are told by voices who occupy different positions in the self. See Figure 1.2 for a graphical representation of the way the concepts of voice, story, valuation, affect and basic motives hang together.

The Personal Position Repertoire (PPR; see section 2.2) is an instrument designed for the collection and assessment of internal and external I-positions and the way they are organised or clustered. Like the SCM, the PPR generates insight in the self and its constitution, and stimulates self-development based on the assessment.
1.3 Extending the assessment to the collective level

Valuation, affect and voice are central concepts in VT and DS, but they only account for functioning on the individual level. Could the functioning of people be similarly described when they function in a team, as a collective? Does storytelling play a role in it? In this section, we inspect relevant literature on collective functioning. We will collect from it propositions of (aspects of) collective functioning that apply to teams, and take these as an input and justification for the conceptual extension of valuation, affect and voice to the collective level. Eventually, we will deal with the actual proposed extension in the following paragraph. Before we will do all this, we will clarify our view on teams as the focal point for the study of collective functioning in this thesis.

The definition of ‘team’

What do we talk about when we talk about teams? Briefly, a team is a group jointly working on a task, or a set of tasks. In their review of the team effectiveness literature, Guzzo & Dickson (1996) offered the following definition of a ‘work group’, being

‘made up of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g. community, organization) and who perform tasks that affect others (such as customers or co-workers).’ (p.308-309)

Furthermore, many authors (e.g. Friedlander, 1987; Katzenbach & Smith, 1993; Quinn et al., 1990) stress the importance of the presence of a common objective, for the achievement of it the team members need each other’s complementary skills. They assemble regularly, often on a daily basis. They divide tasks in order to realise their goal, and they work towards it interdependently. Moreover, they can be held accountable as a collective entity for success or failure. In connection with all this, the issue of mutual commitment becomes paramount. Finally, a team is usually considered to be of a limited number of members, i.e. 2 to maximum 25. An average size team would probably include approximately 4 to 10 members.

Practically, it should be stressed here that the label ‘team’ is often used in a somewhat normative way. The joint performance of the team is subject to evaluation, not only by outsiders but also by the team members themselves. Suppose that the functioning of the team is unsatisfactory; team members might attribute this to the perceived fact that they haven’t performed as a ‘real team’. Guzzo & Dickson (1996) observe that for many, “team” connotes more than “group” (p. 309), referring to the viewpoint of Katzenbach & Smith that groups become teams when they develop a sense of shared commitment and strive for synergy among members.

2 It should be stressed that in more recent sources (e.g., Weick, 2001) groups are also referred to as teams when they gather in more or less once-only make-ups, such as flight crews or operation teams in a hospital.
Teamwork is not only task-oriented, but also a matter of identification, involvement and belonging. The label “group” seems too neutral and descriptive to include this, whereas at the same time, according to Guzzo & Dickson, this label predominates in the research literature. However, they emphasize that the wider field of literature on group topics (e.g. group dynamics) remains of great interest to the study of teams.

The listing of distinctive features of a team, as stated above, allows for the inclusion of a wide range of work group types. Management teams fit the definition, as do project teams, autonomous work groups, cross-functional teams, crews, quality circles and task forces.

In essence, the Team Confrontation Method should be suitable for all of these team types. The teams that do not fit to the definition are the ones that, even when called ‘teams’, are too big, lack a common goal or interdependency between team members. The TCM could leave these forms of co-operation aside in order to focus on teams that fit the definition.

The collective properties of teams

Now that we have a better picture of what teams are, after all being our frame of reference when we try to find cues about collective functioning in the literature, we want to briefly examine the character of collective functioning in teams. In what way is collective functioning different from individual functioning?

Though it is a fact that teams as such don’t think or feel, they often seem to function in accordance with own thoughts and feelings, independent from those of their individual members. This apparent fact has struck, and will strike again, many practitioners starting a career in training and development. Practitioners call this phenomenon “a group’s chemistry”. The popular understanding that teams are ‘more than the sum of its members’, and that the co-operation between team members meets the formula ‘2+2=5’ (or the less optimistic variant: ‘2+2=3’) reflects the same phenomenon. Based on a strong sense of identification, team members unknowingly attribute to their teams collective properties that seem independent of their individual members.

While the definitions given in the section above attribute to the team salient characteristics of collectivity (e.g. a common goal, collective accountability), their wording somehow still seems to miss an essence. The definitions implicitly take the individual as a starting point for analysis. They are produced by social psychologists, who traditionally take the individual as a stepping stone when investigating social phenomena. But according to other schools of thought, social phenomena typically have features that do not refer to the individual level of functioning. The sociologist Norbert Elias suggests the study of collective phenomena through the format of figurational sociology, that views the field of possible actions by human actors as structured by relations of power. The Russian cultural-historical school (a group of psychologists and linguists who have been mainly active in the Soviet-era) has formulated theories of personality development on the level of social relations based on both labour and language. Here, the social-historical phenomena labour and language structure the development of new individual members of society. Collective properties of a community have a strong influence on individual functioning (for further reading, see Burkitt, 1991).

In our study, we focus on the collective as well as individual phenomena that are
connected with teams. We consider collective characteristics of a team as emergent properties of the mutual contact between individual team members. These emergent properties (“a group's chemistry”) manifest themselves only on the collective level of aggregation, which means that they cannot be investigated by study of individual functioning alone. Collective properties can be, among others, language (e.g. the common use of jargon), shared meaning (social evaluations of phenomena) or patterns of behaviour (e.g. the attuning of acts of co-operation). Weick (2001) views ‘collective mind’ as located in connections between behaviours of organisational members; to understand mind is then ‘to be attentive to process, relating and method, as well as to structures and content’ (p.261). Thus, not only the functioning of individuals in mutual engagement is worth studying; also the exclusive properties of what is the upshot of individual team member functioning, collective functioning, are to be studied. Because each team as a collective has its own historical selection of individual members with their own aspirations, thoughts, feelings and behaviour, and its own history of mutual co-operation and relations with the social environment, each team will have its own emerging, unique collective properties. Hence, Weick’s emphasis on process: the language-use, meanings or co-operational patterns in collectives are ever-changing. Like individuals, teams are historically embedded in contingencies.

The role of sensemaking (Weick) in collective functioning

In order to get a better understanding of the collective properties of team functioning, the work of Weick (1979; 1995; 2001) proves to be very helpful. Weick talks mainly about collectives, while Hermans, being a personality psychologist in the first place, talks mainly about individuals. However, a better look on both scholars shows highly interesting similarities. These similarities combined with this one marked difference (focus on collective vs. individual respectively) are what makes Weick very suitable for our purpose of extending our vision of the nature of collective functioning. In the coming section, we will point out the similarities between the conceptual frameworks of the authors; furthermore, we will collect those propositions of collective functioning that are handed to us by Weick for our purpose of finding concepts for collective functioning that are in line with valuation, affect and voice.

Weick maintains that there is no fundamental difference between individuals, teams and organisations, in the sense that they all could be regarded as an organism in action in its own environment. Their similarity is captured by the use of the present participle of a verb, which accounts for their essence: ‘organizing’. By organizing, organisms as well as individuals, teams and organisations are continuously busy attaching meanings to their environments and their own behaviour in it, to make sense of these in order to cope and survive (Weick, 1979, chapter 5).

All of Weick’s work is devoted to the question how actors (individuals as well as collectives) meaningfully associate with their context, i.e. with each other or with their environments. “Sensemaking” is the central concept, which is made up by three different elementary processes: “enactment”, “selection” and “retention”.

- **Sensemaking** is the process of retrospectively attributing meanings to chaotic environments and the acts performed in contact with them. Sensemaking takes place whenever the reality is experienced as equivocal; by means of sensemaking this equivocality is reduced. Through finding the answer to the question ‘What is hap-
pening here?’, a meaningful consensus is built that can survive for a long time if it proves to be adaptive. The sensemaking is conducted socially in the course of mutual interaction, by sensibly interlocking behaviours between or within individuals. Note that this interlocking of behaviours (and not the interlocking of individual people) allows for the emergence of (verbal and co-operative) patterns in a group of people. As soon as the consensually produced meanings are taken for granted, there is a threat of maladaptation to the ever-occurring ecological change, and the existing patterns tend to become obsolete. It will, therefore, often prove to be very productive to reverse current interpretations of phenomena (at which Weick himself excels in his writings), in order to reanimate the sensemaking process.

Ecological changes provide the raw materials for (ever renewed) sensemaking. Organisms (individuals, teams or organisations) are in continuous interaction with their environments, the boundaries between both being gradual and indefinite. In fact, the actor enacts his environment just as the environment acts upon the actor. **Enactment**, the first element of sensemaking, is the active process by which the actor attends to the world and thereby actively, but unconsciously, influences the character of his experience, thus to a certain extent shaping his own world and his typical ways of attaching to it. The process of enactment precedes conscious reflection about the world, it is action preceding interpretation; enactment is unconscious action, that to a considerable extent shapes the situations in which the actor finds himself. Whatever the actor unconsciously does to the world will have a major influence on his own understanding of it, and his actions will always precede the meanings he gives to it: this is the first element of sensemaking, being of an unconscious character.

By **selection**, the second element of sensemaking, certain features of the experienced world are, more or less consciously, combined to a meaningful whole, further narrowing down the equivocality that makes the environment so puzzling to the actor. In this stage of sensemaking, the actor imposes various meaning structures that have proven to be sensible on previous occasions, thus producing reasonable interpretations of what is happening in the situation at hand. These superimposed meaning structures are to be seen as cause maps, i.e. maps of cause-effect relationships between variables (such as interlocked behaviours) that are playing a part in the situation. The cause maps (for an example, see page 30 and Figure 1.4) are built up out of past experience. By imposing a sensible cause map, the actor automatically decides what is most important in a situation, what he should concentrate on and what to leave aside. It offers a basis for sensible action. As Weick (1979) puts it:

‘Rather than select individuals or behaviours, selection processes select schemes of interpretation and specific interpretations. They select schemes of interpretation in the sense that some cause maps repeatedly prove helpful in reducing (equivocality), whereas other maps add to the equivocality. Those maps that are helpful tend to be selected, and those that aren’t helpful tend to be eliminated. In addition, the specific interpretations of the specific equivocal (situation) also are selected and are retained for possible imposition on future situations that look the same.’ (p.131)
Note that ‘helpful’ in this context means: serving the possibilities for the actor to make the situation sensible, so as to decide what to concentrate on. It does not necessarily mean serving the well-being of the actor in a broader sense. Sensemaking proves to be the first need in the battle of survival in a puzzling world, but can in certain cases be very disadvantageous to the actor. A sensible world is not necessarily a paradise, but could also be a self-shaped prison.

The third element of sensemaking, retention, involves the (unconscious) storage of the products of successful sensemaking. The helpful interpretations (consisting of meaningful information, not falsified by the environment) are retained in cause maps of situations, summarising co-variations between labelled portions of the formerly equivocal situation. The retention is for future use, cause maps being fed back to selection and enactment processes in other situations. The maps allow the actor to interpret what goes on in a situation and allow him to express himself and be understood by others. They contain maximally unequivocal meaning, i.e. meaning in its most ‘frozen’ form. It is this stored interpretation scheme that can prove mal-adaptive to ecological change.

Though the character of the three elements of sensemaking suggests a sequence of sensemaking activities (first enactment, then selection, and finally retention), this is not simply the case. Figure 1.3 illustrates how the three sensemaking activities hang together in feedback loops. From retention, two arrows point back towards enactment and selection. This means that memory (retention) informs the attention and actions of the actor (enactment) as well as the interpretation of what he experiences (selection). The model shows a circularity of sensemaking processes but also a simultaneity: in principle all three sensemaking processes are at work at the same time. How the actor acts depends on what he has retained in his memory about his environment; what he retains is dependent on how he sees it; what he sees depends on how he acts.

In essence, organising is not necessarily an attempt to attain some specific goal, but is the process of people jointly attributing sense to their world. Organising is about ‘people spending time by making their views of the world more similar. Through negotiation, they “make” sense, through sensibly interlocking behaviours and jointly performing a governing collective story.
Thus, ‘it is behaviours rather than people that constitute groups’ (Weick, 2001, p.201): members of an organisation only partially include themselves in it, for as much as they find sense in acting cooperatively with others. They do not invest themselves, but only invest some behaviours in the common enterprise.

Weick stresses the fact that there is a relation between the interruption of ongoing projects, sensemaking and emotion. When expectancies are breached, a reason has to be invented (which calls for sensemaking activities), but at the same time the nervous system is aroused. The arousal is of an emotional character, because the perception of it

‘(...) triggers a rudimentary act of sensemaking. It provides a warning that there is some stimulus to which attention must be paid in order to initiate appropriate action. This signal suggests that one’s well-being may be at stake’ (Weick, 1995, p.45).

Thus, ‘past events are reconstructed in the present as explanations [for the current events], not because they look the same but because they feel the same’ (Weick, 1995, p.49, emphasis added). As a description of the common experience of the members of the organisation, this reflects how their joint sensemaking has a strong affective component.

Through these sensemaking processes, the environment changes from potentially enactable into enacted. The senselessness of a puzzling new situation has changed into sense. The situation has become known, for meaningful. To a considerable extent, actors live in a world they have created themselves. Or, as Weick puts it: ‘The enacted environment (...) is treated as an output of organizations, not as an input. (...) People invent rather than discover part of what they think they see’ (Weick, 1979, p. 166).

**Cause maps (Weick) as a superimposed order on experience**

Weick offers some fine illustrations of the sensemaking process. An uncomplicated example shows a self-fulfilling prophecy that Weick labels as enactment. The example is derived from Watzlawick and his associates:

‘Enactment could be described as efferent sensemaking. The modifier efferent means centrifugal or conducted outward. The person’s idea is extended outward, implanted, and then rediscovered as knowledge. The discovery, however, originated in a prior invention by the discoverer. In a crude but literal sense, one could talk about efferent sensemaking as thinking in circles. Action, perception, and sensemaking exist in a circular, tightly coupled relationship that resembles a self-fulfilling prophecy. A self-fulfilling prophecy involves "behavior that brings about in others the reaction to which the behavior would be an appropriate reaction. For instance, a person who acts on the premise that ‘nobody likes me’ will behave in distrusting, stiff, defensive, or aggressive manner to which others are likely to react unsympathetically, thus bearing out his original premise. What is typical about this sequence and makes it a problem of punctuation is that the individual concerned conceives of himself only as reacting to, but not as provoking, those attitudes” (Watzlawick, Beavon and Jackson).’ (Weick, 1979, p. 159)
It is possible here to reconstruct a simple cause map as it is probably applied by the person in the example. Cause maps are products of the selection process and show the logic that is superimposed by the actor on his world. It reveals a superimposed rather than an underlying order. Selection consists of parsing the enacted world into connected punctuations, thus generating a stable, or temporary sense in the actor that he knows and understands his environment.

‘*Punctuation* involves chopping a stream of experience into event-variables that are labeled, but these labels are rather arbitrary. Once the variables have been named, the individual has not yet completed the sensemaking activities because the events must be grouped in some meaningful way ([connection](#))’ (Weick, 2001, p.190; emphases by the author).

A cause map shows these punctuations and connections. The punctuated variables influence each other, which is shown in the map by connecting arrows. Two basic causal relationships are possible: (1) a positive relation, indicated by a (+) put in the map directly next to the arrow, meaning that a rise in the value or intensity of one variable causes a rise in the value or intensity of the one the arrow is pointing at, and that a decrease in one variable causes another decrease in the other; (2) a negative relation, indicated by a (−), meaning that a rise in the value of one variable causes a decrease in the other, and that a decrease in the one causes a rise in the other. Thus, feedback loops are possible, when chains of cause-effect relationships point back to the original variable. A loop is labelled positive when the loop contains an even number of negative signs; a loop is labelled negative when it contains an odd number of negative signs. Positive loops are, in Weick’s words, ‘deviation-amplifying’ or escalating: a problem gets more and more out of hand until the system is destroyed or some dramatic change occurs. Negative loops are ‘deviation-counteracting’ or stabilising: the variables make each other fluctuate around some middle value, and in this way self-regulation of the system of variables takes place (which can also imply a stagnation of a problematic situation).

The self-fulfilling prophecy described in the example above could now be depicted in a cause map. See Figure 1.4. Here is a positive loop at work (no negative signs), reinforcing the problematic situation of the person. His attribution ‘nobody likes me’, probably derived from his retained past experience, causes a distrustful, defensive, stiff or aggressive attitude that he applies to his social surroundings. The more distrustful he gets, the more unsympathetic the reactions from his fellow men. Finally, when his environment responds unsympathetically to him, his negative attribution about himself and his environment is strengthened. This self-fulfilling prophecy, built on a selected interpersonal logic (his counterparts also obey to it, apparently having the same cause map), could get out of hand because the loop is deviation-amplifying. Only awareness of the cause map governing his current sensemaking could prevent the person from being a victim of this downward spiral. Seeing the cause map is equal to becoming aware of the systemic connections between perceived variables, and opens the possibility to reselect from the enacted environment new variables and connections between them, or even to re-enact the environment by applying a sudden change in actions that asks for new sensemaking. The downward spiral, the negative pattern, is broken.
Weick signals this special role for selection: ‘enactment is pure trial with no judgements of error being made. Perception of error is a selection activity’ (Weick, 1979, p.193). A critical comparison of different possible cause maps is possible in precisely this part of the sense-making process. ‘To make reasonable punctuations is the best that an organization can do when it constructs an enacted environment’ (Weick, 2001, p.195).

Cause maps describe self-fulfilling prophecies, i.e. patterns of mutually attuned (in Weick’s terms: ‘interlocked’) behaviours that tend to be repetitive (through loops) and of a storied nature (‘each time when he …, then she … and they …, then he reacts again by …’). These patterns are typically collective, in the sense that more than one person is needed for a pattern to emerge, and can be associated with stories about what is expected to happen. In Weick’s treatment of ‘collective mind’ (Weick, 2001; see also above, p. 26), patterns (interrelations) of actions are linked to (collective) stories: ‘collective refers to individuals who act as if they are a group; people who act as if they are a group interrelate their actions with more or less care’ (Weick, 2001, p.262), and their ‘… patterns of heedful interrelating in ongoing social processes may be internalized and recapitulated by individuals […] (through) vivid stories’ (ibid., p.268), which ‘… describe failures as well as successes (that) are important for the collective mind because they organize know-how, tacit knowledge, nuance, sequence, multiple causation, means-end relations, and consequences into a memorable plot’ (p.269). For Weick, collective stories tell what is to be expected from the members of the collective, what is a normative, sensible interlocking of their behaviours. Cause maps represent these stories.

Cause maps remind us strongly of another concept: the system diagram, which reflects in principle the same: a mapping of chains of cause-effect relationships that go around in loops. Peter Senge has given a lot of attention to system diagramming (Senge, 1990; Senge, Kleiner, Roberts, Ross & Smith, 1994) in his work on organisational learning. Systems thinking is, according to Senge and his colleagues, a good instrument for problem solving, even better than language. It replaces linear thinking by cybernetic thinking.
The pattern of causal relationships between variables resembles a story or collection of stories, and the other way round, one could infer a systemic pattern from a narrative structure. In our view, the term system diagram reflects more than ‘cause map’ the systemic interrelation between behaviours. Therefore, we prefer this term to the term ‘cause map’, and will further in this study use it as the leading concept for picturing systemic relations between behaviours, as they are mapped by the team in its sensemaking process.

**Similarities between Weick and Hermans; Propositions of collective functioning derived from Weick**

Note that the following similarities between Weick and Hermans are discernible here:

- Weick’s central concept of “sensemaking” as an active process seems similar to the central role Hermans gives to “meaning-making”. In VT, valuations are supposed to be ‘units of meaning’ (Hermans & Hermans-Jansen, 1995, p.1), the building blocks of meaningful stories about the experienced world. ‘The person as a storyteller does not react [mechanically] to stimuli but is oriented to the realization of purposes and goals and is involved in a continuous process of meaning construction’ (ibid., p.9). Also Weick devotes special attention to stories as transmitters of sense.

- Weick’s ecological thinking, in which the boundary between actor and environment is blurred and the actor enacts his environment as much as his environment acts upon him, seems in line with Hermans’s emphasis on contextualism as the proper root metaphor for approaching the essence of the self. ‘There is a constant change in the structure of situations and in the positions occupied by actors who are oriented to the world and toward one another as intentional beings’ (Hermans & Hermans-Jansen, 1995, p.7).

- Weick’s concepts of enactment, selection and retention are mirrored by the emphasis Hermans puts on story-telling and story-plots or themes. There is a dialectic relation between event and plot. Hermans quotes Polkinghorne, arguing that ‘the meaning of a particular event is produced by a recognition of how event and plot interact, each providing form for the other’ (ibid., p.11). As the processes of enactment, selection and retention mutually influence each other, so do likewise the experience of events and the poignancy of a plot. Hermans puts this as follows:

> ‘In order to arrive at a meaningful plot structure, it is necessary to move back and forth between plot and events. According to the principle of “best fit”, a proposed plot structure is compared to the events at hand and is revised accordingly. In this comparative process a particular theme is guiding the selection process of the events and the organization or revision of the plot.’

3 Because the making of a system diagram should be done by the team members themselves, either with or without a facilitator, Senge and his colleagues offer as a service tool the so-called system archetypes, which picture common patterns of problematic collective functioning. Other system thinkers do not use such archetypes, because in this way the unique contingencies of team situations are not sought. And it is just this contextual sensitivity that makes the system diagram appropriate for team learning. In fact, this is also our position: our system diagrams should depict unique patterns of behaviours typical for just this team on this moment. Archetypical diagrams would just even out the unique properties of teams that are so essential.
The theme allows the gathering together of events as interrelated parts of a story. The theme, moreover, functions as a guide for the selection of certain events as relevant and other events as irrelevant. The construction of a guiding theme may even lead to the generation of new events’ (Hermans & Hermans-Jansen, 1995, p.11; emphasis added).

In short, Weick’s actor invents the world through enactment, selection and retention, and thereby actively (though partly unconsciously) influences the character of his experience; likewise, Hermans’s person attends to the world through his story-plots that shape the organization of his experience.

- Weick’s actor stores, through retention, helpful interpretations of his world in (implicit) cause maps; likewise, Hermans's person stores his meaningful interpretations of the world (valuations) in memorable stories, story-themes and story-plots.
- People can become aware of the structure and impact of their cause-maps through selection processes (says Weick), as well as of the structure and impact of their stories through self-investigation (says Hermans).

Are there, apart from the similarities, also differences between both authors’ frameworks? There are a few, though not that large; the differences even further contribute to the choice of Weick’s framework for our purpose.

- Hermans speaks of ‘persons’ or ‘individuals’ who make meanings about their world; Weick speaks more vaguely about ‘actors’ engaged in sensemaking, thus leaving room to an interpretation of the term ‘actor’ in either a collective or individual sense. Precisely this difference gives us the opportunity to use Weick’s framework for an extension of Hermans’s framework toward the collective level of functioning.
- Hermans concentrates on stories as containers of meaning about a person’s life; Weick takes stories mainly as containers of sense that events make to an actor’s world. Weick's frame has work connotations more than Hermans's. Precisely this difference makes Weick very suitable for our focus on work teams.

We therefore conclude that Weick’s conceptual framework is very much akin to that of Hermans, and offers a very suitable grounding for the extension of VT and DS concepts to the collective level. Weick explicitly discusses sensemaking as a collective activity, much more than Hermans does. Weick has a few propositions to offer that account for (aspects of) collective functioning. They are:

- Sensemaking is conducted socially in the course of mutual interaction. This is done by sensitively interlocking behaviours that imply the joint performance of a collective story.
- Joint sensemaking has a strong affective component.
- It is behaviours rather than people that constitute groups.
- Cause maps (or: system diagrams), as describers of superimposed sense by the collective on the world, describe repetitive patterns of interlocked behaviours in a team.
**Collective stories as norms for desired social behaviour**

Not only Weick, but quite a few other authors offer insights into collective functioning that are suitable for us when we want to extend the conceptual framework of VT and DS to the collective level. Especially a focus on the role of collective stories in the collective’s functioning seems promising for us. Based on the following account of some theoretical insights of different authors on this theme, we will list a few propositions of collective functioning, as we did above with Weick. These propositions will be of help to us in the next paragraph when we define the concepts of collective valuation, collective affect and collective voice.

Like personal stories, collective stories provide a much-needed structure for a meaningful comprehension of events. Like individuals, groups or organisations can also be seen as intentional in character. Thus, collective stories can be regarded as fuelled by basic motives, and as affect-laden as well. Collective stories differ from personal life stories in the sense that they depict general expectancies instead of personal idiosyncrasies. The way a certain action ‘should’ unfold or be executed shines through a collective story. There are many ‘group actions that are only possible when each participant has a representation that includes the actions of others and their relations’ (Weick, 2001, p.265). While according to Prawat (1999), language is a device for coordinated group action, and Bakhtin (Morris, 1994) speaks of language as a centripetal force aiming at centralising and unifying meaning, it is apparently more than language alone that performs this coordinating task. Rather, it is a first degree product of language, story, which is responsible for this. Story helps newcomers to a group to quickly adjust to prevailing norms of joint performance. In short, a special type of meaning, namely norms, are transmitted through collective stories (Bruner, 1986).

Collective stories are told by the members of a collective in the name of the collective. Individual team members can experience the same situation in different ways: for instance, as individuals or as members of a group, and tell about this situation from an individual perspective or from the perspective of the group. Some of the voices in the self are (according to DS) of a collective nature, and represent the groups or parts of society that are significant to the individual. George Herbert Mead (1972 [1934]) developed the concept of the ‘generalized other’, which represents the collective in the individual mind. Mead’s train of thought is as follows. The human child makes in its sixth or seventh year an important developmental step: it becomes capable of seeing itself through the eyes of others. The transition is marked in the substitution of play by game. The child initially plays in a spontaneous manner, not bound to rules; but later in its development, it becomes a participant in rule-bound games. For acquiring these rules, the child needs to put itself in the general position of ‘the other’, the social group as a community to which it belongs and where the rules are in operation. This ‘other’ is a general, ‘impersonal’ other, who approves or criticizes the behaviour of the individual child. From a certain moment in childhood on, the individual tries to listen to and be in agreement with this ‘generalized other’, who represents the community. In Mead’s own words (quoted by Burkitt, 1991):

‘(...) social consciousness and self-consciousness is awakened in people, for individuals must become aware of the totality of the activity in the group, and the place of their own self and that of others within it, in order to plan their activities according to their role’ (p.34)
In this respect, a team member hears deep down, next to the other internalised voices of an individual kind, also the voices of a few ‘generalized others’, i.e. voices of subgroups in his team, of the team itself, or voices of social entities within the larger organisation. Thus, individuals in the same group experience and value what their internalised group experiences and values, they internalise meanings developed by the group and retell the collective stories they detect from their internalised group. The voice of the collective heard deep down by each group member shows similarity across group members when they tell similar collective story-versions with a high intercorrelation. The individual is usually not aware of the influence of the group on his story-telling. In short, collective stories come into existence through the internalisation of norms (rules) that are associated with a ‘generalized other’ who represents the group in the self. The result of this internalisation is the collective story, which has different versions but is more or less similar for most of the members of a group.

Action shapes cognition, as Weick says, meaning that stories emerge from the organisation’s enactment of its environment. Out of their joint action, teams build their sensible worlds of common language and stories. This ‘culture’ in the strict sense becomes a forum for social negotiation of new meanings (Bruner, 1986). It should be ever-changing, when it projects for itself a healthy future, and stories should be told, retold and revised all along. The study of stories promises to capture essences of the collective’s culture. As Roth & Kleiner put it: ‘[Stories] expose the organization’s family secrets - morbidly fascinating to the general public and taboo inside the firm.’ (Roth & Kleiner, 1998, p.55). Breaking taboos, bringing ‘the real stories’ into the open and share them, could be shocking as well as instructive. Fortunately, stories are not always a mirror of taboos. As we saw before in our discussion on Weick, they can also reflect functional patterns of co-operation that are taken for granted by many members of the organisation, thus being informative of good practices rather than taboos.

Propositions of aspects of collective functioning derived from the literature on collective stories

This brief review of the literature on collective stories offers us interesting insights into collective functioning. Some of these can well be applied for the desired extension of VT and DS’s conceptual framework to the collective level. These are the propositions of aspects of collective functioning we extract from our reading:

- Norms are transmitted in groups through collective stories; these stories depict general expectancies from the individual member, by the group. (based on Bruner, Weick)
- Collective stories centralise and unify meaning (based on Bakhtin); they coordinate group action. (based on Prawat, Weick)
- Collective stories originate from the internalisation of norms (rules) and are voiced by a ‘generalised other’ who represents the group in the self. (based on Mead)
- The collective story has different versions across group members, yet these versions are more or less similar for most of them (the differences are negligible). (based on Mead)
In Table 1.2 we have listed all the propositions of aspects of collective functioning that we collected in this section. In the next paragraph, we will propose the concepts for collective functioning, in line with VT and DS, based on the propositions that are formulated here.

Table I.2 – Propositions of aspects of collective functioning taken from our review

<table>
<thead>
<tr>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensemaking is conducted socially in the course of mutual interaction. This is done by sensibly interlocking behaviours that imply joint performance of a collective story.</td>
</tr>
<tr>
<td>Joint sensemaking has a strong affective component.</td>
</tr>
<tr>
<td>It is behaviours rather than people that constitute groups.</td>
</tr>
<tr>
<td>Cause maps (or: system diagrams), as describers of superimposed sense by the collective on the world, describe repetitive patterns of interlocked behaviours in a team.</td>
</tr>
<tr>
<td>Collective stories transmit norms in groups: they depict general expectancies from the individual member, by the group.</td>
</tr>
<tr>
<td>Collective stories centralise and unify meaning; they coordinate group action.</td>
</tr>
<tr>
<td>Collective stories originate from the internalisation of norms (rules of conduct) and are voiced by a ‘generalised other’ who represents the group in the self.</td>
</tr>
<tr>
<td>A collective story has different versions across group members, yet these versions are more or less similar.</td>
</tr>
</tbody>
</table>

1.4 Concepts for assessing collective and individual functioning in teams: collective voice, collective valuation, collective affect; system diagram

How could we make use of valuation, affect and voice as concepts on the collective level? In this section, we propose concepts of collective functioning as extensions for the existing conceptual framework of VT and DS, which mainly addresses the functioning of individuals. We will offer the definitions of collective voice, collective valuation and collective affect, and introduce the system diagram. These concepts will all serve as a basis for assessment in our new method; the assessment measures based on these concepts are to be presented and validated in chapter 5.

Overview of the concepts and their interrelations

In our approach to team development, we will extend now the concepts of valuation, affect and voice to the collective level of functioning, so that we may speak of collective valuation, collective affect and collective voice.

In the polyphonic choir of the dialogical self, internalised (individual) voices of significant others are found, as well as the internalised (collective) voices of significant groups. Thus, individuals in the same group experience what their internalised group experiences,
they internalise meanings developed by the group, they retell the story in the name of the group. These collective voices heard deep down by each group-member show similarity between group-members when they tell more or less similar collective story-versions. Their collective voices tell collective stories. How do the voices of real group-members influence each other in the making of collective stories? Individuals mutually attune to each other during the joint execution of a task. Their attunement condenses into norms and, at the same time and in accordance with these, into group-typical words, meanings and stories. From the common functioning during which individual voices are in continuous dialogue, new collective properties emerge, such as collective voices that come into existence next to the existing voices of the team members. This emergence happens chaotically and unpredictably. Like a dialogical self, a dialogical group narrates its own history through different individual and collective versions.

Mature groups or sub-units of groups, being mutually highly attuned, can be expected to show a high level of collectivity, in the sense that their own collective voices and collective stories have developed. A key objective in our research will be, later on in this study, finding out whether such collectivity is measurable by means of Hermans’ assessment instruments that he developed for individual experience. We propose that collective stories can be represented by collective valuations, and that people experience agency (S-motive) and communion (O-motive) as fundamental drives not only as an individual, but also in the name of the group; and that these basic motives are expressed in collective stories. Following these assumptions, collective affect is the affective component of a collective valuation in which the basic motives are latently represented: each collective valuation has an affective modality or pattern of affects that characterises the specific valuation. A team member can experience affect in the name of the team.

In sum, collective voices belong to the team or to subgroups in the team, of which the individual is a part. Collective voices can be heard and expressed potentially by anyone in the team. They tell collective stories. From these stories collective valuations can be derived, which are coloured by and owe part of their meaning to collective affect. As we shall see, this collective affect is the point of contact for assessment.

We approach collective functioning as the process of co-operation between team members, more specifically as the interlocking of their behaviours; this process has a tendency to condense in repetitive patterns. Such repetitive patterns may offer the team members a certain predictability in meaning and conduct, but can also become a strain to them. They are then limited by the patterns of co-operation that they expect, and not open to adaptation to a changing environment, even if that would be necessary. System diagrams, or cause maps, depict how the team members’ behaviours hang together in a system that tends to repeat itself in loops. For the assessment of the organisation of the collective functioning of teams, system diagrams promise to produce relevant insights, since they describe how the character of the team is constituted of typical patterns of behaviours of its members, rather than (personality types of its) members.

Below, we will one by one discuss these concepts in further detail.
Collective voice

As stated above, it is possible that individuals can experience the same situation from different perspectives: for instance, as individuals or as members of a group. Cooper (1999) reminds us of the fact that everyone, now and then, in daily life says: “this part of me says this, while another part says the opposite”, suggesting that we all experience the pluralistic aspect of our self. Through DS, this phenomenon becomes comprehensible. The self is seen as multi-voiced, producing different stories and meanings about the experienced reality that can be contradictory to each other, but can also enlarge the flexibility of the self in coping with daily life. The voices in this ‘polyphony’ can be of various kinds. Collective voices (e.g., the voices of groups in individuals) are always part of it. The voices relate to each other in a dialogical way, and the quality of their dialogue can vary: some dominant voices may subdue others that become more submissive. We will elaborate on this below.

Some of the voices in the self are of a collective nature, and represent the groups or parts of society that are significant to the individual. Mead’s concept of the ‘generalized other’ (Mead, 1972 [1934]) is basic to our understanding of collective voice. This generalized other represents a significant group in the self, and voices collective stories that represent internalised norms (or rules) of the collective. Hermans & Kempen (1993) were the first to propose that Mead’s generalized other be reformulated as a collective voice. They defined a collective voice as being expressed in the name of a larger social whole: ‘As a collective voice, the individual speaks the words of the group, social class, or society to which the individual belongs and reflects the unity of the group, class or society’ (Hermans & Kempen, 1993, p.114). Collective voices belong to groups and subgroups of which the individual is a part, and where he plays his part. Collective voices can be heard and expressed potentially by anyone in the team.

The collective stories imply the collective values of the group and culture to which it belongs. Mature groups or sub-units of groups, being mutually attuned, can be expected to show a high level of collectivity, in the sense that their own collective voices and collective stories have developed. According to Hermans (2001a), a central feature of collective voices and their collective stories is that they organise and constrain the meaning systems emerging from dialogical relationships. They may even suppress the meaning system of an individual, although the individual may ‘fight back’ in order to be heard. In general, team members do not construct meanings in a free space with equal opportunities to express their personal views. Collective stories, often ‘ventriloquated’ by dominant members of the team and by collective voices deep down in the individual’s self, have power over them.

Collective valuation

As well as individuals evaluate their experiences affectively (which is explained by Hermans in the light of VT), so do groups. Members of groups (and especially teams) often share more or less the same aspirations, and therefore share experiences too; they experience events in the same affective way, experience them more or less as one, in the sense that they put meanings on these events as group members. It is Weick’s contention that sensemaking (with an
emotional attribute) is done jointly by members of an organisation in the face of events happening to it. After all, he regards sensemaking as a necessarily social activity. The sensemaking processes take place through negotiation of meanings.

The definition of collective valuation has three aspects: [1] A collective valuation is an emergent property of preceding reciprocal contact between the voices in a team. [2] Collective valuations unify meaning: they reflect meaningful events or situations as experienced by the group or team, and emerge and fade through continuous negotiation and renegotiation by the team members. [3] Collective valuations have a normative character: they are a reflection of the fact that groups expect their members to believe in them, and act accordingly. In this sense, they coordinate group action. A collective valuation is a unit of meaning just as individual valuations; like these, it has a cognitive component (e.g., the description of a meaningful event or norm) and an affective component (for collective affect, see further below).

A related term, collective value, differs from collective valuation. Hermans & Hermans-Jansen (1995) put the concept of collective value into the context of VT, maintaining that collective values are global interpretative schemas that give order to our daily existence and direction to behaviour:

‘One cannot imagine two individuals communicating about their personal valuations without some basic set of shared meanings. (...) Collective values organize, restrict, and evolve personal valuations. However, at times a personal evaluation can initiate or change a group value. (...) Valuation is a process of participating in the values expressed in the collective tales of the community and at the same time reworking them and even adding to them. Such a cyclic relation not only prevents group values from becoming too rigid but also prevents an individualistic or purely private conception or valuation. This suggests that a valuation should not be understood as an inner representation of something in the world, but as a reconstruction of socially defined reality by the individual’ (Hermans & Hermans-Jansen, 1995, p.20).

While a value is a global schema for interpretation, a valuation is the result of interpreting a concrete situation or event by using the values given in the community as a reference; a value is applicable across situations, while a valuation is constrained to a specific situational context in which an individual or group finds itself. However, there is also a similarity between collective value and collective valuation: both are reflected in collective stories.

Collective valuations are valuations in the above-stated sense, yet it is to individual valuations that the term valuation is most applicable. It is the unique contextual experience that is best caught in the individual valuation; a collective valuation has less unique properties, for it is experienced by more individuals at the same time. In a group, the individual experiences of the group members as individuals will differ more than the experiences of the group members as group members. It is, therefore, not always necessary or even fitting to formulate a collective valuation in the situational terms of time and space; on the average, formulations of collective valuations will be of a more general form, like in that of a normative sentence. And then collective values, having universal claims, will not be stated in situational terms at all. Thus, the difference between individual valuation, collective valuation and collective value is a difference in degree. They are all reflected in stories, but vary in universality.
Collective affect

Groups as well as individuals are intentional and therefore an affective component is part of their experience. We define collective affect as the affective tones that members of a group share when jointly experiencing a situation as group members. Collective affect is the affective component of a collective valuation. The question now is, in what way and to what extent the feelings of individual group members are shared, and whether it is possible to share the same feelings, or more precisely: to share a ‘group feeling’ about a certain event.

Behavioural variations become comprehensible and manageable by members of a collective because the culture decisively influences the affective connotations of them; the behaviour of oneself and others calls across individuals for the same patterns of feelings that are associated with it. Apparently, as behaviours are concerted, likewise feelings are. They can be of the same kind, or fitting in the same affective pattern; and this is all embedded in the process of participation.

Yet, individuals in groups do not automatically ‘feel along’. After all, they often take part in many different groups at the same time, and are never participating with their whole personalities, as Weick observes when he uses the term ‘partial inclusion’ (see page 29). Though team members might experience more or less the same affective patterns when they feel committed to their team, it is unlikely that they have exactly the same feelings. For instance, as a team member they probably will not feel always the same intensity of anger or powerlessness as their fellows, but they will share to a certain extent the same intensity of the category ‘negative feeling’. In other words, they will share the same affective modality in experiencing a situation.

For the group members as individuals, their affective experience will usually be more various: they will not automatically share the same affective modality, let alone experience the same feeling, whether or not in the same intensity. Individual feelings differ from ‘group feelings’ in this respect: that they are divergent. ‘Group feelings’, i.e. feelings experienced by group members as members of the group, are more or less convergent. In the case of a ‘group feeling’, the affective modalities attributed in a certain context by the group members to their group correspond.

Principles for the assessment of multivoicedness in teams

Is the multivoicedness in teams equally assessable? The metaphor of the ‘polyphony of the self’, indicating that the self is multivoiced and dialogical by nature, seems to be derived from phenomena that are normally recognisable at the collective level. It would therefore be quite natural to expect polyphony also in teams. Different voices would resound in a team and would talk to each other. But would these voices simply be connected to real persons, i.e. to the team members one by one? We think not, because it would mean that individuals be univocal, while in the theory of the Dialogical Self they are multivoiced. We propose that teams owe their multivoicedness to the multivoicedness of the individual team members, which means that an I-position does in a team not coincide with an individual person as whole. After all, I could discern several positions in my boss, or in myself. Furthermore, the multi-
voicedness of individual team members may overlap, different individuals speaking with more or less the same inner voice, thus producing a collective voice. The multivoicedness of individuals may also produce voices that are not shared, these voices being deviant.

In teams, certain voices could also prove to be roles. Hermans (2001b) distinguishes between 'social positions' and 'personal positions', the first being governed by societal prescriptions and expectations (e.g., father, employee, chairman), and the second receiving their form from the particular ways in which individual people organise their own lives, sometimes in opposition or protest to societal expectations (e.g., listener, destructive person, materialistic person). The social positions in particular qualify for roles. It can be expected that social positions are relatively more present in teams, since teams are collectives aimed at the realisation of a shared objective, implying that team members are prescribed or expected to contribute in a certain way. But most probably personal positions will also be present, because team members all bring their own personal history and private interests to the common work. Some personal positions might ‘fit’ to a social position, while others might not, or even contradict. The ones that do not fit are potentially deviant, the ones that do have a chance to be a collectively shared position, or: a collective voice.

It is our aim to statistically demonstrate the collectivity of a voice that is — across members — found to be present in a team. Insight into the multivoicedness might help the team as much as it does individuals at process promotion toward improvement. The PPR is an instrument especially designed to do this for the sake of individual self development. In line with this instrument, a ‘PPR-collective’ is to be developed for collective team development. It needs to measure the prominence of a voice and the overlap across members on a voice, so as to give insight in the collectivity of it. The question whether a voice is collective could be answered by such an assessment instrument. In chapter 5 we will present the assessment instrument in detail and account for the construct validity of it.

System diagram

A system diagram is a representation of the collectively perceived patterns of cooperation between team members and between the team and its environment. It is behaviours rather than people that constitute teams. The system diagram is just like a Weickian cause map; a set of variables (here: interlocked behaviours) linked together by cause-effect relationships that show circular loops of these relationships. The difference between a system diagram and a cause map is in our case mainly the name. The term system diagram seems more adequate for us, since it stresses the centrality of systems thinking in our approach; after all, by the cause map / system diagram the complex system of relations between behaviours becomes understandable and a systemic intervention can be prepared in order to change the situation and remove its problematic character. From this respect, the term cause map seems too neutral to us.

The system diagram gives insight into the conscious or unconscious expectations of the team about what is happening to it. A team's collective story is reflected in it: by drawing the system diagram, patterns of meanings become visible and the systemic coherence of the team's perceptions and behaviours understandable. Thus, awareness is generated of the
complex and subtle ways in which an enacted situation hangs together. To team members, the ultimate cause of a problematic situation seems often untraceable. The system diagram is an expression of the same thing: it usually contains no indication of an ultimate cause, but just a pattern of causal relationships that feed back into one another. If one did not view the problem from a systemic perspective, it would be quite likely that ‘the cause’ of the problem be falsely tracked and the problem only temporarily solved. Other, neglected causes would still be in force, and the problem would return. It could even be the case that the more we tried to achieve a certain solution, the more we undermined our chances for solving the problem. Systems thinking offers a holistic view. Through generating alternative system diagrams, the team would in principle be able to fundamentally renew its relations to the environment, because the alternative maps redirect the team members’ attention and behaviour.

In short, systems thinking and system diagramming ‘give insight through a holistic, creative interpretation and transformation. Plausible systemic explanations of issues and dilemmas can be developed as well as optional courses of action’ (Flood, 1999).

1.5 Summary

In this chapter, we developed concepts for the collective functioning of team members, in order to become able to assess the quality of this functioning through our projected new method for team development. We did this by extending an existing conceptual framework for individual functioning that seemed relevant and promising for our purpose. We introduced Valuation Theory (VT) and the theory of the Dialogical Self (DS) and their central concepts valuation, affect and voice; these concepts only address the functioning of individuals and not that of collectives like teams. Therefore, after briefly defining what a team is and what makes up its collective properties, we inspected relevant literature on collective functioning. The work of Karl Weick proved especially helpful to us for making an extension of the VT / DS framework. His view on sensemaking as the way through which collectives organise their world is reminiscent of Hermans’s view on meaning-making as the way through which individuals structure their world. Weick, and some other authors, lent us some propositions of collective functioning that describe essences of what happens in collectives like teams when they function in their world. These propositions (e.g., ‘it is behaviours rather than people that constitute groups’) serve as a basis for the conceptual extension of the VT / DS framework to the collective level. The newly developed conceptual framework contains the concepts collective voice, collective valuation, collective affect and system diagram. These concepts hold a common notion of ‘meaning’ or ‘sense’ as central for the quality of the team’s functioning. Teams are governed by their collective stories that imply sensible norms on how to co-operate mutually and with the environment, and on how to feel and think about particular events that happen to the team. Collective voices produce collective stories, collective valuations are units of meaning that originate from these collective stories, and collective affects hang together with the collective valuations.
It is sensible behaviours rather than people that constitute a team; in the system diagram the patterns of these behaviours are represented: a mapping of the way a team typically works, either counterproductively or not. The new conceptual framework is useable for developing measures for assessment; such assessment can help the team and its facilitator in seeing what is going on in the team, in order to improve and go for better teamwork. Concepts of collective improvement are developed in chapter two.
CHAPTER 2

A theoretical basis for the improvement of collective and individual functioning in teams

2.1 Introduction

Which concepts from Valuation Theory (VT) and the theory of the Dialogical Self (DS) can be adapted to be useable in the design of a team development method? VT and DS do have a consistent conceptual framework for improvement available, but this is exclusively addressing individual development, and not that of groups or teams. Could we translate these concepts of VT and DS to the collective level? If so, we would be able to make use of suitable concepts for improving the functioning of a team, and ultimately help better teamwork develop.

In the second chapter we propose to extend the central concepts on improvement of VT and DS, valuation system reorganisation and multivoicedness, to the collective level of functioning. We will introduce the concepts of collective valuation system reorganisation, deviant voice and pattern breaching, and dialogue by defining them and grounding them into theory. For this, inspection of the relevant literature on collective functioning was necessary, as it was for chapter one. Once again we selected the authors with a similar way of thinking as Hermans and colleagues, and used their ideas for the extension of the VT and DS conceptual framework.

In this chapter, we focus on the way our method should stimulate the improvement of collective and individual functioning in teams. We supposed that methods for team development would have an explicit theory on how improvement takes place. However, we found that most of the methods that are currently available offer only an implicit lever for improvement: they seem to assume that an assessment of the team’s reality and the resulting awareness among team members is sufficient for it (see Appendix I on current methods for team development). We think that our method will gain additional power if we offer an explicit lever for improvement, which is grounded into theory. The Self Confrontation Method (SCM) and the Personal Position Repertoire (PPR) are methods for development on the individual level and grounded on VT / DS, and also offer explicit levers for improvement. Thus, they can serve as a benchmark for our method, as are VT and DS our conceptual starting point.

Section 2.2 describes in detail both intervention methods for individual development, SCM and PPR, and the concepts for improvement that are handed to them by VT and DS. In section 2.3 we review the relevant literature on collective functioning in order to find important insights that can help us determine suitable concepts for improvement on the collective level. If the concepts used for improvement by SCM and PPR are to be extended, what theoretical insights should we take into account. Finally, in section 2.4, we offer the definitions of deviant voice and pattern breaching, dialogue, and collective valuation system reorganisation as concepts of collective improvement. These concepts serve as a basis for
facilitating improvement in our new method; the corresponding interventions are designed in chapter 4 and validated in chapter 6 et seq., and the corresponding measures for assessing improvement are further developed and validated in chapter 5.

2.2 Valuation system reorganisation and multivoicedness: concepts for individual improvement

Which concepts from Valuation Theory (VT) and the theory of the Dialogical Self (DS) are taken for the improvement of the individual functioning of self-investigators? How is this improvement methodically fostered? This section offers an introduction to the Self Confrontation Method (SCM) and Personal Position Repertoire (PPR) as methods for individual development which are grounded in VT and DS. We will introduce the VT and DS concepts of valuation system reorganisation and multivoicedness which SCM and PPR use for fostering and measuring improvement. We will extend these concepts to the collective level of functioning later on in this chapter.

The Self Confrontation Method

The Self Confrontation Method (SCM) is a tool for enhancing individual development through an alternation of self-reflection and the promotion of change: 'the SCM is devised to increase insight into the specific content and organization of the client's valuation system and to stimulate its further development' (Hermans & Hermans-Jansen, 1995). Its conceptual framework is directly rooted in VT. Below, we will describe the SCM in detail, so as to give a picture of the concepts it makes use of, and the way it promotes the process for improvement of individual functioning. For our description, we owe a lot to Van Geel (2000), who managed to offer a concise overview of the SCM.

As an instrument for self-investigation and self-development, the SCM is intended to produce not only concrete results of improved functioning, but also practice in the art of self-reflection. A personal life story has to be told by a person to a listener. Person (e.g. a client seeking counsel) and listener (mostly a psychologist) are both investigators, the person from the perspective of his own understanding of himself and the psychologist from the perspective of VT. The SCM serves as a methodical procedure that organises the communication between them, and directs their attention toward projected change. After all, the question “What does my world look like?” will often lead to “What do I want with it?”

The procedure consists of three phases, each with a specific function: “Investigation 1” (meant for telling and assessing the story), “Validation/invalidation” (active process promotion) and “Investigation 2” (retelling the story and evaluating the changes in it). For a schematic representation, see Figure 2.1. The phases hang together in a cycle, the so-called I-V-I cycle.

The reader will also recognize the VT and DS concepts that were introduced in chapter 1. These concepts are being assessed in the SCM and PPR; to facilitate recognition by the reader, these concepts are italicized in the now following clarification of both methods.
indicating that after each investigation another round of validating/invalidating can take place, and after this again another investigation. Thus, reflection and action can keep on alternating. We will discuss now each phase more in-depth.

In the first phase, after determining the leading question (e.g., “How can I find a better work-life balance?”) that should focus the self-investigation, the client starts collecting valuations from his life story with the aid of the psychologist. Valuations are assessed through the formulation of short sentences depicting an event located in time and space as it was experienced by the narrator. They are elicited by a standard of stimulating questions (Hermans & Hermans-Jansen, 1995) varying from “Was there in the past any person, experience or circumstance that greatly influenced your life?” to “Is there anything in your present existence that is of major importance to you?” or “Which person particularly arouses antagonistic feelings in you?” and “What is the main thing in your life from which you derive great enjoyment?”. These questions usually trigger a tale, from which relevant valuations can be derived. The relevance of the valuations is dependent on the person’s leading question for the investigation.

After the interview, which may take several hours and produces a number of 20 to 40 valuations, the person is requested to score affect levels in connection to each of the valuations. He fills in a matrix, of which the rows consist of the valuations and the columns each represent an affect term (typically of a list of 24, containing four scales: 4 S-affects, 4 O-affects, 8 P-affects and 8 N-affects, S standing for “S-motive for self-enhancement”, O for “O-motive for contact and union”, P for “Positive” (affects) and N for “Negative” (affects); see

Figure 2.1 – The three phases (IVI) in a self-investigation according to the SCM (based on Hermans & Hermans-Jansen, 1995, p.32)
Table 2.1 for an overview of these 24 affects). The last two rows contain two added valuations concerning General Feeling ("How do you feel in general recently?") and Ideal Feeling ("How would you ideally like to feel?"). Reading the valuation, the person is expected to indicate the affect intensity on a six-point scale, ranging from 0 ("I don't experience this feeling at all") to 5 ("I experience it very strongly"). For each valuation this results in a typical affect profile, the so-called ‘affect modality’, which is a quantified pattern of affects that is connected to a valuation. These affect modalities are then processed with the aid of a computer programme, in order to find similarities among valuations on the latent level of the valuation system, by means of the Pearson’s correlation coefficient. Next to this, mean affect scores as well as sum scores on the S, O, P and N scales are calculated. For an illustration of this, see Table 2.2 for a representation of a few valuations together with their calculated affect modalities.

Table 2.1 – The list of 24 affects as a tool for assessing affect modalities; derived from Van Geel (2000).
S: affect terms expressing self-enhancement; O: affect terms expressing contact and union; P: positive affects; N: negative affects

<table>
<thead>
<tr>
<th>Affect</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Joy (P)</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Powerlessness (N)</td>
<td></td>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>3. Self-esteem (S)</td>
<td></td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>4. Anxiety (N)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Happiness (P)</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Strength (S)</td>
<td>I</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>7. Shame (N)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Enjoyment (P)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Caring (O)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Involvement (O)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Self-alienation (N)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Solidarity (O)</td>
<td></td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Guilt (N)</td>
<td>I</td>
<td></td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>14. Self-confidence (S)</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Loneliness (N)</td>
<td></td>
<td>I</td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>16. Trust (P)</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Inferiority (N)</td>
<td></td>
<td>I</td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>18. Warmth (O)</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Security (P)</td>
<td>I</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>20. Anger (N)</td>
<td>I</td>
<td>I</td>
<td></td>
<td>I</td>
</tr>
<tr>
<td>21. Pride (S)</td>
<td></td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>22. Energy (P)</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>23. Inner calm (P)</td>
<td>I</td>
<td></td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>24. Freedom (P)</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
</tbody>
</table>

Table 2.2 – Some valuations and their affect modalities, represented by the sum scores per affect category. S: sum score of the four affect terms expressing self-enhancement; O: sum score of the four affect terms expressing contact and union; P: sum score of the eight positive affects; N: sum score of the eight negative affects. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. Derived from Hermans & Hermans-Jansen, 1995, p.56

<table>
<thead>
<tr>
<th>Valuation</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My parents have always treated us as equals. They always tried to</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>keep me stimulated. I could always talk very well with my parents.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. After high school I never managed to build up a group of friends; I</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>felt left out and stuck between two worlds.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I tried to be what I was supposed to be at my work and lost all my</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>self-confidence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Everything that I've tried has failed, due to either circumstances or</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Wendy is a good friend.</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>6. Bodily complaints: Every time I find that I have a problem, my body</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>signals it in one way or another.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I want to do something myself that I enjoy, something that is useful.</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>General feeling</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Ideal feeling</td>
<td>14</td>
<td>19</td>
<td>19</td>
<td>2</td>
</tr>
</tbody>
</table>
The main activity in analysing the calculated results is to identify one or more guiding themes in the valuation system. With the so-called ‘modality analysis’ the similarity in affective experience (as measured by affect modalities) between pairs of valuations is traced through inspection of the height of the correlations, and articulated by the person in a sentence that depicts this similarity in words. A high correlation between the modalities of two valuations is potentially significant and interpretable, for the concerned valuations apparently show resemblance in their affective connotations, and are therefore likely to reflect a common underlying theme. Valuations that may at first sight be very different (e.g., they are situated in a different time-space configuration), may prove connected on a deeper level of experience. Through the modality analysis, a self-investigator traces and articulates one or more guiding themes that are central to his current experience. Thus, he develops a better insight into the organisation of his valuation system and the themes and plots that govern it. See Table 2.3 for an illustration of a modality analysis. Through this increased self-knowledge, he may sooner recognise new events that happen to him as having a potentially stimulating or changing influence on the system (Hermans & Hermans-Jansen, 1995). A theme can also be named by inclusion and interpretation of the other results from the assessment, e.g. the hierarchy of affects applicable to the valuation system as a whole, or the amount of valuations from a certain type.

Table 2.3 – Modality analysis: an inspection of the correlations of a (pivot) valuation with the other valuations. It gives insight into the organisation of the valuation system (theme). Derived from Hermans & Hermans-Jansen, 1995, p.56

<table>
<thead>
<tr>
<th>Valuation</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
<th>Correlations with Valuation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My parents have always treated us as equals. They always tried to keep me stimulated. I could always talk very well with my parents.</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>4</td>
<td>-.59</td>
</tr>
<tr>
<td>2. After high school I never managed to build up a group of friends; I felt left out and stuck between two worlds.</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>.76</td>
</tr>
<tr>
<td>3. I tried to be what I was supposed to be at my work and lost all my self-confidence.</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>4. Everything that I’ve tried has failed, due to either circumstances or myself.</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>.94</td>
</tr>
<tr>
<td>5. Wendy is a good friend.</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>-.18</td>
</tr>
<tr>
<td>6. Bodily complaints: Every time I find that I have a problem, my body signals it in one way or another.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>.67</td>
</tr>
<tr>
<td>7. I want to do something myself that I enjoy, something that is useful.</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>.00</td>
</tr>
<tr>
<td>General feeling</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>17</td>
<td>.81</td>
</tr>
<tr>
<td>Ideal feeling</td>
<td>14</td>
<td>19</td>
<td>19</td>
<td>2</td>
<td>-.86</td>
</tr>
</tbody>
</table>
While constructing one’s personal story with an experienced listener, the person is usually also inclined to explore alternative ways of behaviour or experience. Especially when the reason for the self-investigation (as laid down in the leading question for the self-investigation) is a problematic situation, the next phase comes in well. This second phase of validation/invalidation is meant for actively invalidating the ‘old’ story and its theme that governs (a part of) the person’s functioning to his disadvantage, and validating new story-versions that are more helpful for the person when interpreting his world. In other words, he works at valuation system reorganisation. As explained before, existing plots and themes tend to be repeated by the storyteller in real life, when he enacts them in his environment. He will mostly exert resistance to a change of plot, even when this plot is disadvantageous to him. With the aid of the psychologist, the individual is now invited to explore alternative ways of behaviour or experience. The essence in this process is: new experiences are to change the plot. In the psychotherapeutic (or coaching) setting, when person and psychologist see each other regularly, new behaviours that call for a new plot can be gradually and carefully planned for and experimented with. The change of plot follows three phases: attending - creating - anchoring. The aim of this stepwise process is to gradually become open to situations and interpretations that contradict the ‘old’ plot (the attending phase); to experiment with new behaviours that contradict the old plot (the creating phase); and to get used to and practise the new behaviours and a gradually emerging new story-plot (the anchoring phase). In each phase the psychologist can support the self-investigator with appropriate interventions and assignments that fit the current phase. For instance, in the attending phase the person can be asked to keep a diary of experiences that falsify his plot; in the creating phase he may try out a few new behaviours, gradually rising in degree of difficulty; in the anchoring phase he may get the assignment to repeat a new behaviour as much as possible and keep track of it.

It remains up to the self-investigator whether he recognises new events as a potential stimulus for change. The quality of self-reflection in the phases before this is a very significant factor for inducing such openness. Naturally, the person will exert resistance to a change of plot, and it is only due to the more or less conscious planning of attending, creating or anchoring exercises that he becomes able to breach former patterns. This does not always succeed automatically:

'It is possible that (…) the new valuations are not anchored well enough in the valuation system. When no integration has been achieved, more practice is needed or additional self-exploration is required’

The third phase consists of a new self-investigation with an evaluating function. The person alters the valuations from his former investigation that have become invalid and irrelevant, in accordance with new experiences or new interpretations of the same experiences. The resulting renewed valuation system is again explored with respect to the valuations’ affective meanings. Thus, different qualitative valuations and different quantitative affective patterns will show. The valuation system proves itself to be reorganised. The person can now evaluate whether this change is in accordance with what he wished for, looking back to the leading question he started his first investigation with.
In short, the SCM consists of a sequence of phases or steps toward self-development. The modality analysis is the most central step in this sequence, because it leads to deepened self-knowledge about the organisation of the valuation system. The themes and plots, coming forth from the modality analysis and that guide the individual's functioning, can then be altered by conscious intervention in the validation/invalidation phase, by selecting well-designed steps toward improvement, along the lines of attending — creating — anchoring. Thus, a beneficent reorganisation of the valuation system is gradually enhanced.

It is the use of the multivoicedness concept that stimulates positive change even more. The PPR is the device that is specially meant for measuring this multivoicedness, and can be supplementary to the SCM when striving for process promotion toward improvement. Below we will explain how this is done.

**The Personal Position Repertoire**

The Personal Position Repertoire (PPR) is a tool for the assessment of the multivoicedness of the self. Since multivoicedness is an important lever for improvement, the assessment of it with the PPR can serve process promotion well. The aim of the SCM is not only to study the content and organisation of valuations but also to stimulate the valuation process toward the direction of increased flexibility (Hermans & Hermans-Jansen, 1995). A way of enhancing such flexibility is the promotion of dialogue between the different voices within the self.

Flexibility of the valuation system is to be conceived of as the possibility of 'flexible movement between different valuations within one system and flexible movement between different systems as associated with different [I-]positions' (Hermans & Hermans-Jansen, 1995, p.196). Psychologically healthy, stable individuals are able to move from one type of valuation to another, depending on the immediate situation; unstable individuals are inclined to rigidly stick to the same type of valuation, no matter what the character of the situation be. This type of dissociation can be overcome by stimulating dialogue between different I-positions in the self. The self is regarded as multivoiced, as consisting of many I-positions or voices, each of them owning different versions of the self-narrative and each of them associated with different subsets of the valuation system (for an introduction to the concept of voice, central to DS, see paragraph 1.2). When the person is able to switch between I-positions and valuations, he is likely to flexibly respond to what a given situation requires (i.e., from what perspective he should approach it) and to successfully cope with a change of circumstances.

The PPR (Hermans, 2001b) is an aid for developing dialogical relationships between I-positions. It assesses the workings of the person's inner voices / I-positions in addition to the analysis of his valuation system. An individual position repertoire typically holds a high number of positions. The assessment of this multivoicedness gives the self-investigator insight into the prominence of the positions and the ways in which they hang together. It may turn out that certain voices dominate, while others are subdued; and that certain types or subsets of valuations are overrepresented in the valuation system, with adverse consequences for the individual's functioning. A more active involvement and use of the subdued voices in the individual's internal dialogue would then produce other ways of perceiving and behaving. Important new valuations would enter the system and important old ones be deleted.
Alternatively, voices of the same prominence but formerly dissociated, could be brought back into dialogue, so that their dialogue produce new insights and experiences.

The active inclusion of I-positions in the person’s inner dialogue helps to change themes and plots in the self-narrative and improve individual functioning. When a dialogue between voices is being carried out, the contradictions and discrepancies between voices have constructive and even innovative potential (Hermans & Kempen, 1993). Formerly subdued, or deviant voices prove to be a very good lever for change, and dialogues between formerly dissociated voices as well. They produce the new valuations that are so much needed to accompany old ones; in this way, change is forwarded, flexibility increased, and the individual's personal stability enhanced.

Here follows an example of a voice that produced a breakthrough in an individual's functioning (Hermans, 2001b). It was traced with the PPR and developed toward a stronger position in the dialogue with other voices in the position repertoire. Nancy's self-investigation with the SCM did not result in significant change and her problems were continuing, when her therapist decided to suggest that she examine her position repertoire and work further from there. Nancy discovered with the aid of the PPR that her internal I-position of the Child came forward in relationships in which she felt faithful, jealous and in need of recognition. She found this dominant I-position to be spoiling her life by being angry with herself and protesting against her excessive dependence on other people in her environment. During therapy, another I-position, the Independent, was stimulated in close correspondence with her everyday life so that it finally became stronger than the Child. Nancy started to produce different valuations, thus reorganizing her valuation system from the influence of a voice that formerly had been subordinate in her position repertoire. Hermans reports that this did not mean that the Child disappeared; rather, it stayed on the background, ready to return. Therefore,

‘The innovation of Nancy’s self was not in the disappearance of the child position and in the introduction of the independent one, but rather in the reorganization of her repertoire as a whole.’ (Hermans, 2001b, p.)

It is the relative dominance and subordination of inner voices, and the way these voices correlate in different situations with different significant others, that determines the degree of novelty amounting to a breakthrough such as in Nancy's life. The Independent was made stronger by concentrating on those situations and people that stimulated this voice, and/or neglected the voice of the Child. The way of working as it is described here has a major advantage: a person can tell a story from one perspective and from another; the resulting one-sided self-narratives that are found can be very clarifying for the self investigator. The PPR is an aid for developing dialogical relationships between I-positions, so that the 'I' can change positions more flexibly, according to what circumstances require.

An individual position repertoire typically holds a high variety of internal and external positions. The PPR taps from this repertoire by (1) offering a number of standard positions in order to provide with sufficient variation (e.g., I as a father, I as a professional, I as an idealist, respectively My wife, My colleague X, My friend Y), but then asking the person to extend this standard list with positions fitting to him personally, (2) juxtaposing the
thus identified internal and external positions in a matrix, and (3) inviting the person to estimate the extent to which in his experience a particular internal position comes forward (in either a positive or a negative way) in relation to a particular external position. An example of such a matrix is given in Table 2.4.

Table 2.4 – The PPR-tool: matrix for assessing the position repertoire of a person. Instruction: Concentrate on the first position in the row; indicate on a 0-9 scale the extent to which the internal position comes forward in relation to the external position (0= not at all, 1= very little, 3= to some extent, 5= quite a lot, 7=much, 9=very much). The result is a matrix of internal positions [rows] and external positions [columns] with the prominence ratings (extent of coming forward) in the entries. The sum of rows and sum of columns is not included in the questionnaire, but is to be calculated by the facilitator after completion by the self-investigator. Possible positions are inserted by the author as an example. Based on Hermans (2001b)

<table>
<thead>
<tr>
<th>Internal position</th>
<th>External position</th>
<th>Child</th>
<th>Partner</th>
<th>Sister</th>
<th>Father</th>
<th>Mother</th>
<th>Colleague</th>
<th>Sum (overall prominence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-as-listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as-vulnerable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as-free man</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as-faithful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as-warm person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-as...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Sum (overall prominence)]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this illustration, the rows represent internal positions and the columns external positions. Concentrating on each position in turn, the person indicates on a 0-5 scale the degree of coming forward (0 = ‘not at all’, 1 = ‘very little’, 2 = ‘to some extent’, 3 = ‘quite a lot’, 4 = ‘much’ and 5 = ‘very much’). Thus, in the entries of the matrix appear prominence ratings of internal and external I-positions.

This procedure allows for quantitative analysis of position patterns, so that the communality and differences of the several positions can be compared within an individual. As Hermans notes, quantitative outcomes are not to be seen as fixed results but as invitations to a discussion between person and psychologist, during which the results are to be interpreted.

The prominence ratings in the entries of the matrix can be added up for each position, rendering prominence scores for each internal and external I-position. Voices can thus be ranked according to relative dominance. The more important an internal I-position is in a person’s life, the more it is evoked in the contact with significant others, represented by the external positions. And the more important a significant other is in the life of the person, the more internal positions are evoked in the contact with this person. Furthermore, the mutual correlations between internal or external positions (correlating rows with rows, and...
columns with columns) show their functional equivalence (or absence of it) in the sense that they evoke the same pattern of external respectively internal positions. These voices can be said to ‘colour’ each other, or be regarded as a ‘shadow position’ to another, since they are evoked by the same range of external or internal positions. In sum, the person can discover through the PPR whether a certain I-position is predominant and whether this position is opposed to or connected with other positions. Thus, the organisation of his multivoiced self can be analysed in order to enhance the reorganisation of it.

2.3 Extending the improvement to the collective level

Valuation system reorganisation and multivoicedness are central concepts in VT and DS, and are being applied in the two intervention methods SCM and PPR that were described in the previous section. Yet, both concepts only account for individual functioning. In what respect is change in teams different from individual change? What are the characteristics of processes of collective change? In this section, we inspect relevant literature on collective functioning. We will collect from it propositions of aspects of collective improvement that apply to teams, and take these as an input and justification for the conceptual extension of valuation system reorganisation and multivoicedness to the collective level. Finally, we will deal with the actual proposed extension of the conceptual framework in the following section. Before we do this, we will clarify our view on team effectiveness as the focal point for the study of collective improvement in this thesis.

**Effectiveness of collective functioning in teams**

To what standard should we compare the quality of collective improvement when it takes place? This question can be approached from the outside, objectively, with an outer standard; it can also be judged with an inner standard: if the team members subjectively feel there is improvement, then this should be sufficient. An inner standard would correspond with the previously introduced methods. Yet, inner standards for team effectiveness that are unique for a team, are nowhere explicitly advocated. For orientation, Hackman (1987) offers an outer standard that distinguishes three criteria for team effectiveness:

1. The productive output of the work group should meet or exceed the performance standards of the people who receive and/or review the output.
2. The social processes used in carrying out the work should maintain or enhance the capability of members to work together on subsequent team tasks.
3. The group experience should, on balance, satisfy rather than frustrate the personal needs of group members.

Hackman states that the ‘inclusion of social and personal criteria in a definition of effectiveness is a departure from tradition. Yet the criteria require neither extraordinary accomplishment nor exemplary social processes’ (Hackman, 1987, p.323). His standard is not solely based on plain output or performance criteria, but contains subjective elements.
It is likely that the sensemaking processes in teams are governed by implicit standards of effectiveness. These standards will probably influence the selection (as a sensemaking) process of many teams, determining which meaning is taken as valid and which is not. Standards will vary between and within teams in quality and intensity and are never universal. From this viewpoint, subjective, inner standards that are owned by the team and are unique to the team compared to other teams, offer a better measure for effectiveness and the judgement as to whether improvement has succeeded than outer standards. Yet, the standards given by Hackman seem universal enough to apply, and acceptable to most teams and team members. Moreover, they potentially protect a team’s evaluation against a self-indulgent bias. It is obvious that the result of team development (improvement of collective and individual functioning) should always be tested against certain criteria of team effectiveness. The outer standard selected here is probably well suited for this end; however, we stress the central importance of taking the subjective, inner standard of the team members into account.

Reorganisation of experience

Is the reorganisation of meanings given to daily experience possible on a collective level? Hermans’s person is capable of self-induced change by a more or less conscious process of reorganisation of his valuation system, as we saw above. Likewise, Weick’s actor (which can be also a team) is able to consciously combine, through selection, certain features of a situation to a meaningful whole and is thereby capable of reinventing his world (see also section 1.3). For Weick, organising is not necessarily an attempt to attain some specific goal, but is the process of people together attributing sense to their environment. It is about people (here: team members) spending time by negotiating their views of the world toward a higher degree of similarity. While carrying out this negotiation, they interlock their behaviours in a more and more sensible way. Organisation, and reorganisation of meaning systems is for Weick necessarily a social process.

Reorganisation of a disadvantageous way of cooperating would be carried out jointly: awareness of the cause map governing their current sensemaking prevents the Weickian actor (the team) from being victim to a self-fulfilling prophecy. Seeing the cause map is equal to becoming aware of the systemic connections between perceived variables, and opens up the possibility to reselect from the enacted environment new variables and connections between them, or even to re-enact his environment by applying a sudden change in actions that asks for new sensemaking. Thus, collective meanings could be changed collectively by a conscious and active reorganisation of the meaning system.

Weick offers another insight into the nature of improvement. It is best realised by force of deliberately ‘blind’ action, i.e. action from which the consequences cannot be fully calculated [in fact, they can never be]. Strangely, in case of problems it is better to act chaotically than to do nothing new in an orderly manner. Inaction is a failure to enact, and it is through enactment that new sensemaking starts off. It is better to boldly test untested predictions than avoid such tests. And it is precisely this avoidance of testing that happens so much among managers:
'(...) the enormous amount of talk, socializing, consensus-building, and vicarious learning that goes on among managers often results in pluralistic ignorance about the environment. Stunted enactment is the reason. Each person watches someone else avoid certain procedures, goals, activities, sentences, and pastimes and concludes that this avoidance is motivated by "real" noxiants in the environment. The observer profits from that "lesson" by himself then avoiding those acts and their presumed consequences. As this sequence of events continues to be repeated, managers conclude that they know more and more about something that none of them has actually experienced firsthand. This impression of knowing becomes strengthened because everyone seems to be seeing and avoiding the same things. And if everyone seems to agree on something, then it must exist and be true. If people want to change their environment, they need to change themselves and their actions - not someone else. Repeated failures of organizations to solve their problems are partially explained by their failure to understand their own prominence in their own environments. Problems that never get solved, never get solved because managers keep tinkering with everything but what they do.' (Weick, 1979, p.151-152)

Based on this, there are a few propositions to make that account for (aspects of) collective improvement.

- (Re)organisation of collective meaning is team members spending time by negotiating their views of the world toward a higher degree of similarity (based on Weick)
- A team can better act chaotically than to orderly do nothing new, so that new sensemaking needs to take place. Thus, collective meanings can be changed collectively by a process of consciously and actively reorganising the meaning system. (based on Weick)

**Deviant voice as a power for change**

William James, as early as 1890, pointed at the strength of collectivities, influencing our ‘social selves’, or in our terms, the collective voices we hear deep down:

'What may be called ‘club-opinion’ is one of the very strongest forces in life. The thief must not steal from other thieves; the gambler must pay his gambling debts, though he pays no other debts in the world. The code of honor of fashionable society has throughout history been full of permissions as well as of vetoes, the only reason for following either of which is that we best serve one of our own social selves.' (James, 1983 [1890], p.283)

Mead's distinction of the *I* and *Me* as different phases of the self (a distinction different from James's distinction between I and Me, see page 22) places the conventions of the generalised other in the *Me*, while preserving a special innovative power to the *I*.

'The "I" is the response of the organism to the attitudes of the others; the "me" is the organized set of attitudes of others which one himself assumes. The attitudes of the others constitute the organized "me", and then one reacts toward that as an "I". (Mead, 1972 [1934], p. 175)
The *Me* of Mead is the internalised, ‘generalized other’ (see also section 1.3, page 34-35), who represents a significant group in the self, and who voices its collective stories; and through these its norms and rules of conduct. His *I* is the individual initiative of the self, his free will, his personal authenticity. People like artists or scientists in their discovery, whilst behaving as outsiders to the community, introduce an originality that is not represented in the *Me*. Their *I* almost impulsively takes action that cannot be calculated, is unpredictable by fellow members of the community, but contributes to a reconstruction of society. ‘The *I* is the response of the individual to the attitude of the community as this appears in his own experience. His response to that organized attitude in turn changes it’ (quoted by Hermans & Kempen, 1993, p.109). This individual response to a community that limits individual behaviour by its norms implicit in collective stories, helps to renew, more than that: is necessary for renewing the community’s make-up.

It is for a work group or team of major importance that its individual members are in principle capable of independent behaviour towards the group, or in other words, deviant voices should get the opportunity to express themselves against or in dialogue with the collective voices that voice the group’s regulating collective stories. Mead suggests that individual initiative is the only force able to bring a group into development, because the generalized others and associated norms of the group may indeed stabilise it, but at the same time forget to take into account potentially changing circumstances in the environment, so that, without notice, the group losess contact with it. Charles Morris, in his introduction to Mead (1972 [1934]), holds that society has, through the innovative actions of *I*s, ‘provided a technique for its own transformation’, and ‘under the penalty of stagnation, society cannot but be grateful for the changes which the moral act of the creative *I* introduces upon the social stage’ (p. xxvi). This quite probably applies as well to the group or team, the smallest form of ‘society’. Other authors have produced very similar thoughts. Dewey viewed the individual as ‘a reconstructive centre of society’ (Morris, 1972, p. xxv), while he admitted that the larger discourse community is the final arbiter of the truthfulness or validity of an idea (Prawat, 1999). The same dilemma between predetermination and agency was faced by Vygotsky with his principle of spontaneity, in which individual creativity stands out against historical determinism (Bruner, 1987). And Bakhtin’s Rabelaisian concept of ‘carnival’ as a centrifugal force of laughter and parody, representing freedom in the face of ‘behavioural ideology’ and the centripetal force of language which aims at centralising and unifying meaning, stood also for this innovative power which is so much needed by society (Morris, 1994).

However, deviant individual knowledge, such as a new insight or unpopular view, often does not receive the attention it deserves (Akkerman, 2000). In general, collective mind (in the sense of Weick, see page 26) precedes the individual mind, meaning that individuals are not only heavily influenced by the group, but are imbued with it. Especially in groups led by groupthink (see e.g., Pennington, 2002), the members’ individual beliefs and behaviours are shaped according to the beliefs that are shared. As a consequence, people tend to accept existing institutions, procedures and embedded knowledge as legitimate, certain and natural.

Societal development, and group development, is to be seen as a power struggle between collective mainstream thinking and individual deviance. For a deviant minority, it proves to be very much possible to influence a majority. The successful minority or deviant
shows a consistent behaviour style. One is not perceived by the majority as dogmatic or rigid but instead working with good arguments and some evidence, and profits from a supportive context like parallel social trends that strengthen its case. While the majority produces conformity through normative social influence, a minority typically asserts informational influence, in the sense that it expends a lot of cognitive effort and systematic thought when presenting its view (Pennington, 2002). It remains uncertain that the deviant minority succeeds. In a study of Grünfeld and Fan, group members rotating among groups (potential deviants, comparatively less influenced by the prevailing norms of one group) showed to have greater integrative complexity (thoughtful comparisons and alternatives) but less influence in the group, and were not able to affect the thinking of the others (quoted by Akkerman, 2000).

Yet, what stays in the air, is the same as with individuals: collective stories do not have final power over a group. An individual deviant in a collective will try to shape and react to what he faces and make an active effort to influence the conduct of others; 'there is a complex mixture of proaction and reaction, and this complexity is commonplace in sense-making' (Weick, 1995, p.23). Collective stories suggest norms that strongly, but ever only partially govern the behaviour of the members of the collective.

A few propositions of collective improvement are coming to us through the review of the literature on deviance:

- Individual initiative is the only force to bring a team into development (based on Mead)
- A minority in a team typically asserts informational influence (based on Pennington)
- Team development is to be seen as a power struggle between collective mainstream thinking and individual deviance (based on different authors)

Dialogue as a way toward insight and improvement

How could the influence of the deviant individual approach to the team's world be used in a productive way? After all, not all deviant thinking is purely constructive or politically wise, and team development is not simply a matter of the collective starting to implement all of the deviant's suggestions. What is true and advisable remains to be seen and a matter of investigation.

The concept of dialogue comes in useful here. 'Team learning' is fostered by dialogue, as many authors put it. 'Dialogue is communication when people suspend their views and enter into deep listening, in the sense that the listener visits and explores mental models of other team members' (Flood, 1999, p.25) and 'dialogue is the collective way of opening up judgements and assumptions' (Bohm, 1996, p. 46). Unlike disputatious conversation techniques like discussion and debate, dialogue is not concerned with winning, but directed toward exploration of other views and mutual understanding (Senge, 1990). Dialogue is usually slow and seems very undetermined to the average work group member, for it only offers a slowly emerging conclusion on an unpredictable moment. It therefore requires much patience, or even endurance, of the participants; but it pays back well in the sense that con-
sensus is reached fairly often (Bohm, 1996). Moreover, when a dialogue between voices is being carried out, the contradictions and discrepancies between voices have constructive and even innovative potential (Hermans & Kempen, 1993). And according to Bakhtin, it is in the dialogic border zones that new trends and new disciplines usually originate (Morris, 1994).

Dialogue requires of its practitioners a spirit of exploration and inquiry, and openness to self-examination. Or in Bohm’s words, it requires sensitivity of ‘what is happening inside of you or what is happening in the group’ (Bohm, 1996, p.39). Dialogue is about being open to others’ moods and views, and the sensitivity needed for this is blocked by a defence of the own assumptions and opinions. Dialogue is about looking at assumptions. ‘If the individual can hold all of the meanings together in his own mind, he has the attitude of the dialogue’ (ibid., p29). Through dialogue it becomes possible to integrate seemingly irreconcilable truths into one generally recognisable truth; one that is not necessarily a poor compromise. In the end, dialogue produces the exploration of boundaries and possibilities (Letiche, 2001, p.20).

An essential feature of dialogue is also the relatively chaotic character of it. In day-to-day linear thinking, needed for swift operations, interpersonal cooperation is supposed to be straightforwardly oriented toward realising objectives in as short a time as possible. In team learning, even in enlightened organisations where it is immediately linked to the daily operation, interpersonal dialogue should endure the existing confusion between different points of view.

‘What is called for, is a deep and intense awareness, going beyond the imagery and intellectual analysis of our confused process of thought, and capable of penetrating to the contradictory presuppositions and states of feeling in which the confusion originates (Bohm, 1996, p.67).’

This is highly reminiscent of Hermans’s emphasis on the importance of the affective element of a valuation, as a gate toward insight into deeper layers of experience. In a different way, it is also reminiscent of Weick’s stress on the necessity to hold out in the face of equivocality, in order to avoid premature sensemaking. The total crediting of assumptions should be avoided, as should be total discrediting, being another form of total crediting and leading to the same disorganising processes, since in such cases sensemaking comes to an end. The understanding of doubt as a form of partially discrediting unequivocal information while partially crediting it is central to the process of sound organising, which means that in organisations doubt (or, in other words, the beneficent activity of postponing judgement) should be enhanced (Weick, 1979). Of course, this could be done through dialogue.

In order to stimulate team development, it is necessary that ‘[…] people be ready to give serious attention to a paradoxical pattern that has come to dominate their thinking and feeling’ (Bohm, 1996, p.65). Such paradoxical patterns of apparent, yet flawed adaptation are omnipresent. Dialogue could offer a remedy, as Bohm observes: ‘Many worlds are possible, it all depends on (collective) representation. […] The real change is the change of collective representation’ (ibid., p.60). Insight into this collective representation can, for instance, be offered through the use of system diagrams, which depict the perceived patterns of cooperation between team members and between the team and its environment. Since identity
involves the maintenance of a recurring set of relations (Morgan, 1987), the change of patterns will always partly entail a change of identity. Therefore, it is important to understand collective identity from a wider perspective and involve the culture's periphery of deviant thinking and behaving, since it is in diversity that lies the opportunity for maintaining flexibility and resilience and the search for basic continuities that support adaptation, including learning how to learn from change and cultural disparity (Bateson, 2000). It pays to mobilise deviant valuations and involve deviant voices actively in the dialogue of the group. It also pays to publicly test assumptions that are brought to the fore during dialogue, assumptions from collective and deviant voices alike, in order to make sure that a system diagram be data-driven instead of made up of sheer beliefs. Collective stories should be analysed and confronted with deviant counter-stories, otherwise a simplification of reality would prevail. Deviancy is the trigger for development. Dialogue would invite deviancy to make a constructive contribution. Interactions between group members could then become openings for new ideas and opportunities for accommodating them (Hatch, 1999).

A dialogue has always asymmetrical features, in the sense that some voices dominate over others. Some speakers have a certain privilege in being able to take initiatives and display their view. Hermans stresses that 'the notion of social power or dominance is an intrinsic feature of dialogical processes and, moreover, closely associated with the position a person occupies in a particular institution'. He continues: 'As such, dominance is an indispensable concept for the analysis of cultural processes' (Hermans, 2001). Also Wenger (1998) regards power as inherent in every community, and as a factor not necessarily good or bad. Power is used to negotiate our social enterprises, and is a condition for the possibility of socially organised action.

It is important to note that dialogical relationships contribute to the individual's identification with the community and its enterprises, and at the same time stay open to the renegotiation of the community's identity and its directions. If the dialogue does not produce this, it effectively changes into monologue, when dominant voices overrule and neutralise opposition. Therefore, the initiative of individuals who propose to renegotiate meanings is of major importance to the quality of dialogue in a team.

Finally, a successful dialogue is able to produce 'good collective stories', i.e. stories that stay fit to the changing situations a group or organisation finds itself in. As long as stories remain flexible to change, that is, that they allow themselves to be retold, they do their work well.

'A good story, like a workable cause map, shows patterns that may already exist in the puzzles an actor now faces, or patterns that could be created anew in the interest of more order and sense in the future. The stories are templates. (...) They explain. And they energize' (Weick, 1995, p.61).

Team members act in the real, but also in the fictitious presence of their fellow members. The word 'collective' refers to individuals who act as if they are a group, and people who act as if they are a group interrelate their actions with more or less care. Norms are central here, and norms are transmitted through collective stories. Individual actions are shaped by them and are meaningless apart from them. Stories, like norms, are needed by the team to hold
out. And more than that: good stories are needed by the team to be adaptive. They stimulate to explore, open up secretive possibilities, and make the listener sensitive to situational change. Such stories are what McAdams (1993) calls ‘generative’: they integrate the tellers of the story and their listeners into society, so that they are ‘able and willing to promote, nurture and guide the next generation to the survival, enhancement, or progressive development of the human enterprise’ (McAdams, 1993, p.112-113).

These are the propositions of aspects of collective improvement we extract from our reading on the topic of dialogue (and deviance inclusively) on the previous pages:

• Public inquiry and joint exploration of unshared views through dialogue is central to the success of team development. (based on Senge)
• When a dialogue between voices is being carried out, the contradictions and discrepancies between voices have constructive and even innovative potential. (based on Hermans)
• It is in the dialogic border zones that new trends and new disciplines usually originate. (based on Bakhtin)
• Deviancy is the trigger for development. Dialogue invites deviancy to make a constructive contribution. (based on Hatch)
• The total crediting of assumptions should be avoided by teams, as should be total discrediting, being another form of total crediting and leading to the same disorganising processes, since in such cases sensemaking comes to an end. (based on Weick)
• It is in diversity that lies for teams the opportunity for maintaining flexibility and resilience and the search for basic continuities that support adaptation, including learning how to learn from change and cultural disparity. (based on Bateson)
• In dialogue, some voices dominate over others. (based on Hermans, Wenger)
• Good dialogue produces good collective stories that explain as well as energize, and are generative for next generations of team members. (based on Weick, McAdams)

The possibility of improvement led by the team itself

Can change and improvement be initialised by a team itself? Would every team not essentially stay indifferent to its own mistakes and cherish its own blind spots? After all, teams may psychologically benefit from an imperfect situation, for instance by remaining able to protect their resources, stick to their habits, or keep the mutual peace. Along this line of reasoning it is Kets de Vries who warns against organisational self-diagnosis, since collective neuroses are hard to overcome (Bissonette & Mills, 2002). It seems that only the famous and very improbable act of Baron von Munchhausen (who was pulling himself from the mire by his own hair) would be able to save such organisations. Also Gersick (1988, 1991) stresses the danger of a too optimistic stance toward change: not every change is worth the label, and many so-called changes would not survive the critical judgement of neutral outsiders (see also the appendix on current methods of team development). Friedlander (1987) reminds us of the fact that change is only change when not only the internal relations in a group are tackled, but also the external ones with the outer world. Moreover, in psychotherapy as well
as in management science it is common knowledge that change and improvement is often followed by a relapse into old patterns of functioning.

It is very well possible that irrationality prevails and teams do not want to improve in the face of facts that prove their ineffectiveness. Often, such irrationality is due to power issues governing the team’s processes of cooperation; for instance, a powerful individual could determine the meanings that are of central importance for the team’s functioning, simultaneously suppressing other meanings suggested by less powerful individuals. Collective functioning could be seriously threatened, even if many team members were fully aware of the situation and its consequences. In essence, it ultimately requires the power of reason to overcome irrationality. Basically, teams should strive for the Habermasian ‘ideal speech situation’ in which everything, including possible power games, is subject to joint reflection.

Teams can also be urged to be reasonable by their facilitator, who is skilled in asking reasonable, confronting questions. Remember that a fruitful validation/invalidation process in the SCM owes its success partly to a psychologist who helps the self-investigator reflect on his psychological functioning, gathering deeper insights about it than he had before, so that he reasonably, consciously and deliberately can start on his way toward improvement. When there is a threat of relapse, there is always the psychologist, to help him avoid it by finding new meanings to his situation.

The rationality and reasonableness of facing a situation as it is, is illustrated by Hermans:

‘When a person has constructed a story in which life events are ordered, he or she simultaneously develops a tendency to consolidate the story and a concomitant resistance to change it. The construction of a story is a way of organizing one’s interaction with the world, and once this organization has been achieved, a person finds his or her identity in the particular story. Of course, there may be events that are incompatible with one’s own self-narrative. In that case there are two ways to protect one’s story against events that could undermine it. First, it is possible to simply avoid particular events so that they cannot have a correcting influence on the story. (...) Second, a person being confronted with (such) an event (...) is always capable of interpreting or reinterpreting the event in such a way that it fits into the existing story and further corroborates it. (...) People are, in fact, more concerned with validating than with invalidating their view of themselves and the world. (...) Therefore, a systematic strategy is needed for realizing a transition from assessment [telling the plot] to change [revising the plot]. (...) In the dialectical relationship between plot and events, new events may or may not change the plot. When new events are systematically avoided or made to fit into the existing system by reinterpretation, the events, no matter how new or deviant they may be, do not have any changing influence at all. New events only have a stimulating or changing influence on the system when they are recognized as potential sources of increased self-knowledge and self-development’ (Hermans & Hermans-Jansen, p.47-48, comments added).

Note that the recognition of this promising prospect permits the person to reasonably decide to select a new plot that allows for new experiences, or vice versa, opens himself up to new experiences, thereby changing the plot of his narrative. Likewise, Weick’s actor is to apply a conscious selection process, which resembles the process of the productive retelling of stories. Such a deliberate decision is also expected from a team.
Fortunately, not only change-resistant teams, but also change-prone teams exist. A connection could be made to Vygotsky's concept of the Zone of Proximal Development (ZPD) [Mercer, 2000] which is about the individual differences between children in their capacity to use a teacher's instruction for making steps in their development, some of them being able to make relatively big steps, others only small ones or none. Of course no single actor could do the impossible and change himself into somebody else by changing everything, including his identity. Behavioural and identity change will always be relative; there is a natural limit to change. This applies to individual, but also to collective actors: Mercer extends Vygotsky's concept into the so-called Intermental Development Zone (IDZ):

'Like Vygotsky's original idea of the ZPD, the concept of an IDZ still focuses attention on how a learner progresses under guidance in an activity, but in a way which is more clearly related to the variable contributions of both teacher and learner. The IDZ is a continuing event of contextualized joint activity, whose quality is dependent on the existing knowledge, capabilities and motivations of both the learner and the teacher’ (Mercer, 2000, p.141).

Sets of co-operators in a learning process toward realised change will vary in their pace of progress. Their achievement is a joint one; likewise, all together team members and facilitator jointly contribute to a process of improvement and learning. Success depends on the quality of their interaction, or as Mercer calls it: on their inter-thinking, or as we call it: their dialogue.

The process of self development as well as that of team development, will always presuppose a simultaneity of stability and change, as Hermans & Hermans-Jansen (1995) observe. The quality of dialogue in the team, permitting space for the expression of deviant voices (I's) in the face of collective voices (Me's), will determine whether the team will develop itself decisively or not.

Some insights taken from the former reading can be reformulated on the following propositions of collective improvement:

• It ultimately requires a well-informed, rational deliberation of the team members as investigators of their situation to improve it in spite of their own possible unreasonableness. (based on Weick, Hermans)
• Possible improvement is always limited and dependent on the unique properties (like knowledge, capabilities, motivations) of the team. (based on Vygotsky, Mercer)
• Successful improvement depends on the quality of the team members' interthinking. (based on Mercer)
• The process of team development presupposes a simultaneity of stability and change. (based on Hermans)

In Table 2.5 we have listed all the propositions of aspects of collective improvement that we collected in this section. In the next section, we will propose the concepts for collective improvement, in line with VT and DS, based on the propositions that are formulated here.
2.4 Concepts for improving collective and individual functioning in teams: deviant voice, pattern breaching and valuation system reorganisation

How could we make use of valuation system reorganisation and multivoicedness as concepts on the collective level? In this section, we finally propose concepts of collective improvement as extensions for the existing conceptual framework of VT and DS, which mainly addresses the improvement of individuals. We will offer the definitions of deviant voice, pattern breaching, dialogue and collective valuation system reorganisation. These concepts will all serve as a basis for assessment as well as process interventions in our new method; the assessment measures based on these concepts are to be presented and validated in chapter 5.

Overview of the concepts and their interrelations

In our approach to team development, we will extend now the concepts of valuation system reorganisation and multivoicedness to the collective level of functioning. Our central concepts will be deviant voice, pattern breaching, dialogue and collective valuation system reorganisation. For the improvement of collective and individual functioning in teams, it is necessary to include formerly subdued, deviant voices in the team’s dialogue. Through this, new valuations could enter the team’s valuation system and formerly untried perceptions or
behaviours could be tried out. Thus, the *breaching of a counterproductive pattern* of cooperation would come closer. Here, it remains necessary to make sure that only those new experiences are produced which are in line with the team's needs. Not all deviants whisper wise words.

A *dialogue* between deviant and collective voices in the team can be of help here. Dialogue is in itself likely to be very constructive to the team's development: it produces new insights, especially in those cases where dialogue never takes place. Probably, many teams are poor in conducting dialogues that produce novel ways of thinking and acting, since most of these teams are governed by a pressure for efficiency in operations and short time performance. For collective improvement, it is necessary to stimulate such dialogue, through which the team is stimulated to thoroughly investigate and improve its own collective functioning.

As mentioned above, through the input of deviant voices and dialogue, new valuations enter the team's valuation system, especially when they lead to real changes in patterns of interlocked behaviour. Collective improvement means *collective valuation system reorganisation*. Collective valuations may change, and the individual valuations of team members may change. By conducting a second investigation by the team of its collective valuations, collective affects and collective voice some time *after* the first investigation, we can assess whether this has happened: how the collective valuation system of the team has been reorganised.

Below, we will discuss these concepts in more detail.

**Deviant voice and pattern breaching**

A strong collectivity may be advantageous when the environment is stable and the team effective in it, but it could also be a cause for stagnation in times of change in the team's environment. For the use of a team that wishes to develop, a method for the improvement of collective and individual functioning should lend a sharp ear to deviant voices in the polyphony of the group. We can define a *deviant voice* as being expressed in the face of a *larger social whole*, voicing a viewpoint that runs counter to the current mainstream thinking, feeling and acting in a team. While a collective voice produces collective valuations, a deviant voice in the team produces deviant valuations.

Because the deviant voice is more or less independent of the collective and can be authentic and original, it has the potential power to renew a team's habitual, repetitive patterns of co-operation and the meanings that are associated with them. He will potentially realise this by changing the way meanings are attributed by the team members to the team's world, and will have a reasonable chance to succeed in this when he is able to apply a systematic and logical structure to his view, which is moreover grounded in facts. The collective stories of the team, implying stable patterns of interlocked behaviours can then to a smaller or larger degree be changed. *Pattern breaching is the sudden and decisive breaking of persistent patterns of co-operation, which hang together with the collective stories in the team.* Pattern breaching is initiated by a deviant voice that brings in deviant valuations. The deviant voice is not necessarily linked to one single team member, while all the other members don't share the voice; on the contrary, a deviant voice can be equally dispersed across team members, but remain unheard since the voice is not 'voiced' by anyone of the team members. Maybe, in the back of their minds, they hear the deviant voice speak; but collective pressure
prevent them letting it come out into the open. But the individual mind does not need to be a spineless continuation of the collective. Though collectivities strongly determine the individual's degrees of freedom, there remains room for individual deviation.

The key question that needs to be asked, in every new context again: is the deviant individual essentially able to assert his ambition for improvement in the face of the status quo? Is he really able to challenge the powers of the collective, so that it will indeed be changed? The answer depends probably on the level on which this question is treated. It could be addressed on the level of society as a whole, or on the level of the group or team. On the level of society as a whole, it seems clear that the individual alone would not be powerful enough to change the society's values and norms for the better, even if he would be in the rare position of an influential leader. His success would depend heavily on the sympathy of like-minded other individuals and their willingness to unite into and represent a strong opposition force. On the level of the group or team, the potential influence of a deviant individual would probably be much higher. The smaller a group, the higher individual self-awareness, the higher the sense of personal responsibility and the lower the chance that only a few powerful individuals dominate the group.

Central to this all is the fact that the deviant individual participates in social and ideological conflicts and power struggles that take place in a collective on a given time. The question whether the individual or the collective will prevail remains highly dependent on contextual factors such as power distribution or timing. Taking this as a given, it is of tremendous importance to recognise the essential role that the individual deviant voice potentially plays in collective change, and a method for collective improvement needs to set the conditions for the deviant voice to speak out safely.

We have directed our method to the goal of improving collective and individual functioning in teams. Individual functioning in a team is the process of a team member being involved in cooperation and communication with his co-members. This individual functioning can become problematic when he cannot speak out and make his contribution according to his own free choice. The chance that he can bring out the best of himself is highest when he is invited to stay close to his own preferences. Teams have the inclination to demand conformism and loyalty, and tend to subdue deviant voices, even if that would block progress and change. The individual functioning in teams is promoted by the practice of dialogue.

**Dialogue**

Dialogue is a way of working that can promote innovation and new trends. In its calling for diversity of viewpoints, dialogue enhances the team's flexibility and adaptability to a changing environment. The most powerful rule in dialogue is: the postponement of judgement, or of 'being right'. Team members would never reach a satisfactory level of team development if they stuck to a habitual win or lose attitude when talking over difficult issues facing the team. Common exploration and public inquiry is central to the success of dialogue. It can be done during work, but usually it is exercised in meetings that are specially devoted to it. A TCM meeting should be such an occasion.
We define dialogue as the careful and respectful joint investigation of the common experience, and of the viewpoints of principally each team member. All individual team members have their say, and every contribution is in principle of equal value; in parallel, in dialogue team members take the time to listen to each other and help each other lay bare the meanings hidden behind the words that are so important to them.

A dialogue during an organisational change event will bring out into the open many different interpretations of the situation, and understanding the nature of these interpretations may help to facilitate change in the organisation (Bissonette & Mills, 2002). Even when the variety of views among the members of an organisation or team is relatively low and a collective blindness (groupthink) could be suspected, there is still the possibility that the facilitator adds different viewpoints to their situation, thus making them more prone to change. In short, even though a collective culture is often cumbersome and the change of it progresses very slowly, we think that it is precisely in the possibility of dialogue between individuals and viewpoints that more or less differ that makes organisational or team change possible.

Dialogue is connected to the issue of power. Asymmetries are probably more typical properties of dialogue than are symmetry and equality. Individuals who are strongest or most influential in a group will generally determine the patterns of living and working together and the prevailing meanings connected to it (Weick, 1995); if change is wished for, then it could seem inescapable to bring other individuals to power. Usually, however, this is not necessary, for it is very well possible that prominent and influential group members (e.g., leaders of the group) submit to the practice of a common investigation of the group reality and hand over part of their sensemaking power to the collective. Also the implicit challenge of powerful views connected to the status quo by the facilitator as an outsider could be decisive for provoking change in spite of the given power distribution.

When executed well, a dialogue produces subtle collective stories that are normative and open to different viewpoints at the same time.

Collective valuation system reorganisation

We regard collective experience as to be captured in collective valuations and collective affects, representing the collective valuation system. This system is organised in a specific way that is unique for the team and for a certain moment in time, with different meanings attached to different valuations. Over time, the collective improvement process, according to the same developmental steps as practiced in the SCM: attending — creating — anchoring, reorganises this valuation system. Valuation system reorganisation is the process of new affect modalities (meanings) becoming attached to the valuations that were salient to the team members before, or of totally new valuations entering the system and old ones disappearing. Next to that, it is the change of deviant valuations into collective valuations or vice versa. Like it is done in the SCM, the TCM will assess such changes in the valuation system.

The reorganisation of the valuation system happens through renegotiation of meanings that are attributable to the team's world. This is done by the team members in mutual dialogue or by chaotic joint actions with consequences that call for other meanings than the meanings practised thus far. In this way, the valuation system reorganisation either precedes...
new action patterns or follows them.

Every team has its own ‘intermental development zone’, which implies that its unique collective properties (e.g., patterns of knowledge use, capabilities use, of motivating each other) influence how far improvement and the reorganisation of the collective valuation system can go. The collective properties limit the stretch of collective improvement. But this is perfectly natural. In each process of change, there always needs to be a simultaneity of stability and change. No single team can change for the whole, changing meanings, behaviour patterns as well as the whole identity. Stability provides for the possibility of improvement.

It is our viewpoint that, ultimately, it is the power of reason and conscious deliberation that makes teams capable of change and improvement in spite of the currents of irrationality and power struggles. The role of investigation (as practiced in dialogue) is pivotal.

2.5 Summary

In this chapter we developed concepts for the collective improvement of teams, in order to become able to find levers for stimulating it, and to assess the quality of it. Firstly, we identified the central concepts for improvement in Valuation Theory (VT) and the theory of the Dialogical Self (DS): valuation system reorganisation and multivoicedness. We also described in detail the methods for individual development that are grounded in VT and DS and make use of these concepts: the Self Confrontation Method (SCM) and the Personal Position Repertoire (PPR). However, both methods attend to individual functioning and improvement. Therefore, like in chapter one, we inspected relevant literature on collective functioning in order to find propositions of collective improvement. The work of many different authors proved helpful to us. Their view on, respectively: a team’s effectiveness, the reorganisation of collective experience, deviant voice as a power for change and improvement, dialogue as a way of including these deviant voices in the team’s sensemaking process and having them fertilise it, the role of power differences in a team’s dialogue and the possibility of self-improvement by the team itself, lent us some propositions of collective functioning that describe essences of what happens in collectives like teams when they improve their functioning. These propositions (e.g., ‘deviancy is the trigger for development, dialogue invites deviancy to make a constructive contribution’) serve as a basis for the conceptual extension of the VT/DS framework to the collective level. The newly developed conceptual framework contains the concepts of deviant voice, pattern breaching, dialogue and collective valuation system reorganisation. These concepts hold a common notion of ‘breaching existing counterproductive patterns of collective functioning’ as central for stimulating a team’s improvement. Teams are governed by their collective stories, which imply norms on how to co-operate mutually and with the environment, and on how to feel and think about particular events that happen to the team. It is deviant voices that can start off a breakthrough; it is dialogue that can make their contribution productive; it is a favourable collective valuation system reorganisation that is the final goal. The new conceptual framework is useable for designing interventions within the scope of our projected method, and for developing measures for assessment; such assessment can help the team and its facilitator in seeing what has changed for the better in teamwork.
CHAPTER 3

The cooperative relationship between scientist, practitioner and client in conducting research

3.1 Introduction

The investigation by team members and their facilitator of the team's collective valuation system and corresponding patterns of cooperation is a complex affair that should be handled with proper methodological care. The Team Confrontation Method (TCM), being a method for team development, should do justice to the nature of this investigation process and hand to the investigators the proper methodologies for their research. We therefore have to take the methodological part very seriously when we design the method, its instruments for assessment and interventions for improvement. Chapter three offers an insight into our central methodological viewpoints that lead the design of the TCM. These viewpoints are inspired by the same viewpoints that led the design of the Self Confrontation Method (SCM). They reflect the spirit of the method (SCM as well as TCM): a cooperative attitude of all investigating parties involved in their common project of producing valid and valuable findings.

How can people with very different roles (like that of team member and facilitator) conduct a joint investigation and enrich the investigation process from their differing perspectives? In a certain sense, the investigation which is to be conducted with the TCM is a multi-voiced project. Clients (team members) and practitioners (facilitators) have a different way of interpreting phenomena that they encounter when investigating. Scientists look to the processes in a team from a distinct angle. Each investigator role (or each type of investigator) has a different voice that articulates a different view. It is a matter of working well together, in open dialogue, to make sure that the end result of the process be of value to the research interests of all parties, and represent findings that would not have been there had each of the parties been working independently. The cooperation between or combination of the different investigator roles is the first topic of methodological importance that we address in this chapter.

Once we know that cooperation between different types of investigators is an essential feature of the projected method, then the final design of the method should make it possible. The author of this study did the design, and for this purpose he had to combine the roles of scientist and practitioner. How could this combination of roles be properly handled? The complexity of combining different types of research in one research-project is, of course, not without problems and in different situations one should choose a different investigator role. This is the second methodological topic in this chapter.

When we know that this study was to be conducted from the different angles of scientist and practitioner, what methodologies would be available for our research? After all,
different investigator roles bring different research questions along; and different research questions require the use of different methodologies. In this chapter we will offer also a general overview of the methodologies applied in this study.

Section 3.2 distinguishes between different roles of people involved in the process of investigation and proposes a concerted action between these roles. Section 3.3 specifies the roles the author took in this study and an account of the way he combined them. Section 3.4 illuminates the choice of research methods that were used in this study and how this choice matches with our intentions.

### 3.2 Investigator roles in self- and team-investigation

In what way can team members (client system), their facilitator (practitioner) and the designers of the TCM (scientist and practitioner) work together in the process of investigating a specific team situation and produce findings that are valid as well as valuable? How could a combination of their different perspectives enrich these findings? But before that, why should they actually work together? This paragraph focuses on the why's and how's of a cooperation between and combination of different roles in conducting an investigation into team functioning. Such cooperation is a basic feature of the TCM and essentially reflects the spirit of the method.

**The SCM and its spirit of joint investigation**

The Self Confrontation Method (SCM, see for further detail section 2.2) reflects the same spirit. Central to it is the constructivist nature of the investigations taking place when following the method. The SCM invites a self-investigator to select and interpret a set of valuations that represent units of meaning which he brings to his world. Meanings are attributed subjectively by a person to objects and situations and are context-sensitive; they give insight into the way the person construes his world.

It is the person himself who has the best insight into the sense of these meanings. Therefore, an emphasis on the investigator role and capabilities of the study subjects themselves is of central importance. It is a fundamental tenet of Valuation Theory (VT) that the client function as 'the I who studies the Me in collaboration with the psychologist' (Hermans & Hermans-Jansen, 1995, p.33). With the aid of the SCM, the psychologist assists him at his purpose. When a client expects to receive, on the basis of “test findings”, results or advice from the psychologist, or when he puts all responsibility for “cure” in his hands, he is considered to act in a way contrary to the spirit of the SCM.

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1 As mentioned before in section 1.2, William James (1983 [1890]) distinguished between the 'I' and the 'Me'. The 'I' is equated with the self as subject (or: knower), the 'Me' with the self as object (or: known). Sarbin (1986), following James's thought, distinguishes between the 'I' as the author of a person's life-story and the 'Me' as the actor or different actors playing a role in it. The 'I' decides which 'Me' plays a role in which situation or episode.
This spirit is characterised as follows: 'In order to establish the atmosphere for a productive self-investigation, psychologist and client must work together to create three important attitudes: commitment, cooperation and shared responsibility' (Hermans & Hermans-Jansen, p.34; emphasis added). Commitment here means the determination of especially the client to engage in a deep self-exploration without passively biding his time, having the interest in the advancement of self-knowledge as a goal in itself. Cooperation means the trusting involvement of client and psychologist in a process of dialogue. Finally, shared responsibility means that the client is responsible for the selection, formulation and interpretation of significant meanings in the self-investigation, and for the decision what to do with the results of the investigation, while the psychologist is responsible for the proper use of the method as an aid for the client's explorations. This implies that the psychologist take care of the right application of methodical steps and put, if appropriate, his formal knowledge on universal aspects of human functioning at the client's disposal.

In sum, the SCM invites the client to actively investigate his own reality by methodically attributing meanings to it. The psychologist has a supporting role that is based on his formal training. It is of major importance that client and psychologist work together, each bringing their own expertise to the investigation.

Joint use of the TCM, implying joint investigations of meanings

As it is to be in line with the SCM, the application of the Team Confrontation Method (TCM) in team settings, consisting of unique situations that present real problems to a team, should be done in mutual cooperation, with a shared commitment and responsibility, by the client (team) and the practitioner (facilitator). Team members are not study subjects of the psychologist, but active meaning-makers, and as such, active investigators as well. The providers of the method, practitioner as well as scientist, will have to co-operate with the team in order to produce satisfying results of the investigation.

The investigation by team members into the meanings they typically attribute to their world is of a constructivist character. The TCM fills a need, since according to Crossley (2000), 'we need methods and tools appreciative of the context-sensitivity and interrelations of various dimensions of human experience, as manifest in the use of language and narrative' (p.11). The TCM tool should be fit for the investigation and production of meaning in cases of unique context, and produce knowledge that is valuable for the client team in the first place. It should primarily concentrate on the context of the team's historical functioning and its members, on the meanings their experiences have for them, and on local rather than universal truths. This requires the commitment of the team members to the investigation and its outcome: they cannot wait passively until a researcher from outside has produced his diagnosis; the diagnosis should come from themselves. In producing it, they co-operate with the facilitator as an expert on the assessment procedures as laid down in the tool: they themselves are considered to be experts on their own experience and meanings they attribute to it. Thus, team and facilitator share a responsibility for the quality of the outcome of the investigation and the resulting change process.
In short, the TCM should not judge a team according to universal criteria but make use of data produced by the team members themselves, which are inherently more meaningful (and valuable) to them. At the same time, it is the method that provides a theoretical framework for the collection of relevant data, so as to make sure that the research data produced by the team are not coincidental or random, but valid through their fitting into a conceptual framework, provided by psychological science. The reader has in the first two chapters of this study become acquainted with the conceptual framework that grounds the TCM.

Joint design of the TCM, implying joint research into theory and practice

The method is to be developed by the scientist in cooperation with the practitioner who practices team development. Both bring unique knowledge to the method: the scientist brings theoretical knowledge that provides the conceptual framework; the practitioner brings the practical knowledge of team facilitation that is needed for the design of the method as a tool for intervention. Especially the development of assessment instruments is their shared field of expertise. The scientist knows best what to measure (based on theory) and how to measure it (based on his methodological knowledge); the practitioner knows best why to measure (based on his practical knowledge), and to what ends (based on his knowledge of functionality, of what works in which circumstances).

In this respect it is of special interest to focus on the use of quantitative analysis in the method. This is an indispensable part of the SCM and is to be used in the TCM as well. Scientists look to figures that constitute quantitative patterns as potentially interesting sources for the corroboration of their hypotheses. Practitioners, on the other hand, may look to figures from yet another perspective, that does not usually get much attention in psychological scientist surroundings. It is not so much in the practitioner's interest to prove or reject a scientific hypothesis; it is first and foremost in his interest to use measures as a way to intervene. The assessment here is not meant for generating test findings on the team that should fathom the team as a research subject. In constructivist terms, with the assessment the practitioner stimulates these ‘research subjects’ to actively construe new knowledge about themselves and their world. The assessment delves into the meanings the team members themselves produce, and the assessment results particularly become meaningful upon their own inspection. This opens up the possibility that team members make new connections between meanings, on a deeper level of understanding. The fact that the TCM is to offer instruments for assessment has some important advantages. Firstly, assessment offers a deeper insight into the experience of events, i.e. the meanings team members attribute to these events; secondly, a fluent transition between awareness and action is fostered, for the insights obtained by the assessment of their situation push the team members softly but steadily towards experimenting with new (pattern-breaching) actions. Assessment produces a structured overview of meanings referring to the matters of the team, which gives direction to change. Thus, the use of figures not only has a potential scientific relevance, i.e. to ultimately offer an empirical grounding for a theory; it also has a potential practical relevance in the process of the production of new self- and team-knowledge and using it for improving the team’s situation.
In order to jointly design an intervention instrument, scientist and practitioner are to cooperate in the research that is needed for making the design process possible. This means that the scientist conducts research in the field of theory (in order to derive a conceptual framework that produces the input for the intervention instrument's assessment tools) and methodology (in order to develop the proper form of assessment tools and the procedures for their use); at the same time and in concordance with him, the practitioner conducts research into the workings of the designed intervention instrument, in order to iteratively improve them and, ultimately, improve the design as a whole. Moreover, while working with the instrument, the practitioner produces research findings that may feedback into the process of theory construction which is being conducted by the scientist. Thus, the practitioner's research has a value of its own, as has the scientist's. Each type of researcher stimulates the other and contributes to the quality of the other's work.

This cooperation between scientist and practitioner isn't yet rooted in the tradition of the trade. Psychology as a scientific community has for decades been engaged in a debate on the desirability of systematically including the practical knowledge base of the profession into the formal knowledge base of research. As Hermans & Kempen (1993) already observed, in the conventional Cartesian approach psychological practice itself is assumed not to be in a position to generate valid knowledge. Basic science is regarded as highest in rigor and purity, and practitioners are to be seen as appliers of the knowledge produced by science. Thus, researchers are assigned higher status than practitioners.

This approach is being questioned by a widening circle of academics from psychology as well as related fields (Hoshmand & Polkinghorne, 1992; Belar & Perry, 1992; but also Schön, 1983, 1987; Hope & Sutcliffe, 1998; Jarvis, 1999). They argue that even if psychology, or social sciences in general, could substantiate the claim that social science is able to produce universally valid knowledge, science should open itself up to other than formal (i.e. more contextual) sources of knowledge. After all, they are to make a contribution to society by solving pressing practical problems that do not simply obey to formal rules. This implies that not only results from laboratory research, but also findings in the practitioner's field are relevant; the last probably even more than the first for developing answers to complex real problems. Rather than the rigorous testing of abstract theories, it is systematic reflection in close proximity to action that may result in knowledge that is of direct relevance to the local situation in which the practitioner and the client are at work. The current rationalist epistemology is to be exchanged for a pragmatist epistemology, that resembles the Deweyan replacement of the definition of truth as ‘corresponding with reality’ for the definition ‘successful rules for action’. It is therefore not the sheer application of results of scientific research, but the co-development of useable, practical knowledge in cooperation with scientists that best corresponds with the desired contribution of practitioners to social science. In short, there should be an intensive scientist — practitioner cooperation. And, more than that, as Belar & Perry (1992) report, this cooperation is desired to be much more integrated than it is to-date. The dash in the scientist — practitioner should be replaced with a symbol reflecting the integration and interaction of the two aspects (e.g., scientist ~ practitioner, or scientist x practitioner). Hermans & Kempen translate this programme into a dialogicality between two major voices:
'(….) we consider present-day psychology as a more or less divided institution in which at least two collective voices can be heard, the voice of scientists and the voice of practitioners. As long as there is a scientist-practitioner “split” or “schism”, the active exchange among two groups is seriously limited. As long as there is unilateral relationship between science and practice in which science is considered as superior over practice, the scientific voice dominates the practical voice, with the deplorable effect that – from an epistemological perspective – practitioners cannot contribute from their own perspective and expertise to the practical – scientific process as a whole. Moreover, in a situation of asymmetry that is highly biased to “basic science”, the possibility that the two parties cooperate in the co-construction of psychological reality is seriously limited. After all, the scientist – practitioner split is rooted in a value system that is hierarchically organized (with rational thinking as higher than embodied doing). It is precisely for this reason that the scientist – practitioner split represents one of the most challenging problems to psychology in the future. It requires a change from a decontextualized, analytical approach of psychological reality to a contextual, synthesizing approach’ (Hermans & Kempen, 1993, p.137).

An improved dialogicality between the voice of scientist and practitioner would require ‘a revised conception of the relationship of science and practice, in which there is productive interplay rather than elevation of one form of knowledge above the other’ (Hoshmand & Polkinghorne, 1992, p.63) and imply ‘a greater role of the knowledge of practice in the scientific base of the profession’ (ibid., p.63). That this would most probably also have implications for the epistemological principles guiding this cooperation, seems clear.

In the field of educational science, developments in this respect seem to have been more rapid. At least some academics in this ‘applied science’ (in the terms of conventional thinking) do not regard the distinction between scientist and practitioner as being that sharp. The practitioner is considered to be someone who is able, as much as the scientist, to conduct systematic investigations. For example, Ponte (2002) showed how teachers conduct action research into their own practice, by systematically varying their teaching methods across different classrooms and evaluating the effects. The difference between practitioner and scientist is seen as a difference of degree rather than fundamental. The distinction lies in their focus of research: the practitioner is more interested in the development of instrumental knowledge, as it can be done with the aid of action research or design methodologies; the scientist is more interested in discovering truth instead of actively applying it. And the practitioner is interested in producing knowledge that is meaningful for an immediate and unique context; the scientist is more interested in the development of fundamental knowledge that is valid across situations, i.e. knowledge that is de-contextualised and universal.

A programme for cooperative research: researcher roles

It is important to take the potential of practitioners and their clients for conducting research seriously next to the scientists’, and to see their research outcomes as being as much valuable as those of scientists. They could all three play a different role in the joint production of knowledge:
the scientist produces or provides universal concepts and theories in order to guide the understanding of general features of a situation, as well as the methodology needed for the development of assessment instruments;

* the practitioner produces or provides instruments, interventions, models, tools or rules of thumb that are useful for the understanding and improvement of a unique situation in its context;

* the client produces or provides personal meanings that help his situation improve.

There is a difference of degree between these three if it comes to distance and proximity. The scientist is relatively distant and contemplative; the client is an immediate stakeholder in his situation, a player in a field of forces and, in his natural propensity, relatively non-reflective. The ‘practitioner — researcher’ (Jarvis, 1999) can be a mediator between scientist and client, in the sense that he can afford to be reflective about as much as intervene in the client’s situation and his own role in it. He brings elements of reflection and action to the situation; he may do his (action) research as thoroughly and systematically as a scientist, planning his interventions simultaneously with his research activities.

This has implications for our work to be done in the scope of this thesis. If we want to design a TCM, we should try to be ‘scientist — practitioners’, combining general knowledge from fields like psychology, education and management science with practical knowledge of team development and group dynamics. If we want to use a TCM for team development in the unique situation of a team, we should try to be ‘practitioner — researchers’, combining instrumental knowledge of the method with field knowledge of the team situation, and adding systematic research capabilities to it, by testing new hypotheses that may have come up, with the use of scientific knowledge of universalities if necessary.

The cooperative research programme as it is being unfolded here, is to be arranged without many preceding examples in psychology. In fact, the organisation of the research programme around VT and the SCM is one of the rare usable models for our case. Firstly, a whole community of practice (the ‘Union of SCM Practitioners’) has developed around the use of the SCM in different areas like mental health, education, and work psychology. VT and the theory of the Dialogical Self (DS), ideally contributing to theory development through the production of empirical data when using the method, inspire some practitioners and users of the method to produce dissertations with research findings that anchor new applications of it. Secondly, the developers of theoretical and methodical innovations have joined (in the ‘Valuation Theory and SCM Foundation’) with the aim of preserving and extending the body of knowledge associated with this theory and method, offering educational programmes for aspiring practitioners who want to get hold of the theory and method. Thus, scientists and practitioners work together in the development of theory as well as in the development of practice.

The mutual cooperation between scientist, practitioner and client in research is represented schematically in Figure 3.1. It is useful for our purpose to arrange for an optimal cooperation and dialogue between these three investigator roles.
As can be seen, the example given above about the possible relationships between the scientist, practitioner and client (crystallised in a cooperating Union of practitioners who contribute to science through their work with clients, and a Foundation of scientists who contribute to practice through their work with practitioners) is reflected in the figure. It gives clues as to how to enhance optimal cooperative research.

In order to make the scientist able to develop new concepts, or theoretical or methodical innovations, the practitioner provides him with relevant (quantitative as well as qualitative) data about the use of the method and theory in practice, and the practical experiments he has conducted;

- In order to make the practitioner able to work with the newest devices, the scientist provides him not only with good ideas and concepts, but also with the necessary instruments and hints for using them when intervening in practice (e.g., assessment tools);
- In order to make the client able to change situations that he finds problematic, the practitioner provides him with methods and tools that invite him to bring new meanings to a situation, with different effect on behaviour and/or environment;
- In order to make the practitioner able to revise and improve his instruments or the way he makes use of them, the client provides him with evaluating comments on their effectiveness and efficiency;
- There is not necessarily a sharp boundary between the roles of scientist, practitioner and client; scientist, practitioner and client overlap in their contributions to the research process. This is illustrated by the use of coloured areas in the figure that indicate areas of cooperation.
The practitioner has a central role, having contacts with the scientist and client alike. In his cooperation with the scientist, the practitioner puts an emphasis on the design (or redesign) of the method, hereby providing a starting point for its (further) use; in his cooperation with the client, he puts an emphasis on the use (and adaptation) of the method, hereby providing a starting point for further design steps or even further theory development. The scientist and practitioner in their cooperation are led by issues of methodology, while practitioner and client are led by methods of joint investigation as they have been designed in the cooperation between scientist and practitioner.

The cooperative research is to be shaped in continuous dialogue between the three roles. Integration of the roles can happen by the cooperation of different individuals who each personify a separate role; it can also happen within an individual who tries to combine different roles. The optimal cooperation between the different roles should however not be taken for granted once we have mapped the conditions for it. This is proven by the sporadic occurrence of misunderstandings between the Union and the Foundation in the SCM case: here, ever now and then scientists put higher demands on practice than what practitioners want to comply to; vice versa, many practitioners fail to take the scientific aspect seriously and forget to systematically gather data or report practical experiments. Both parties traditionally set different standards and correspondingly commit themselves to different responsibilities. For example, to the question: "Is a questionnaire of 4 items acceptable if it comes to reliability and validity?", scientists and practitioners would probably give different answers. A very important problem in contemporary psychology is that there is no body of knowledge available on how to shape the dialogue and relationship between scientists and practitioners. This could probably become gradually available if here and there a shift in the epistemological (Cartesian) paradigm took place. On such occasion an agreement about the mutual relationship between the parties involved would become desirable.

Investigators as designers

The TCM is a method that is designed for the practitioner of team development (i.e. the facilitator of team development sessions), in order to use it in cooperation with his clients. As the central user of the method, it is the practitioner who is the main designer of it, with the scientist and client as his assisting co-designers.

The act of design attends to a 'mutandum', i.e. an object that is to be functional in a process of transformation in the physical environment of the object, e.g. pulverising (coffee mill), holding (chair), informing (poster), transporting (lorry) (Van Aken, 1998; Pieters, 1992). Design science is aimed at the development of knowledge that is to be applied in the design of useable 'mutanda'. It wants to prove what works and what not, and tries to generalise toward propositions on what is functionally valid for classes of cases. As a rule, design research is strict, starting with a problem definition, trying to provide insight into the problem, leading to a conclusion on what should be done. Such conclusions can be translated in design principles on which the designed solution is to be based. The scientific additive to this...
is the generalisation of features of the designed solution toward ‘technological rules’ or ‘prescriptions’ that can be applied for solving other problems as well (for an elaboration on design methodology, see section 4.3). In this study, a design is made and design knowledge developed by the practitioner-researcher, assisted by his fellow design researchers, the scientist and client.

All three of the investigator types contribute to design research when developing the TCM. The scientist offers concepts and measures to be used for the team development function of the TCM tool; the client offers evaluations on the functionality of the tool when applied in their case, which are to be used for adjustment of the tool. Finally, the practitioner brings insights in processes of team development and group dynamics, to be used for the make-up and juxtaposition of interventions included in the tool.

In fact, in being co-designers the practitioners, scientists and clients can together bring their unique perspectives to the design process and blend them creatively into an integrated solution. This is what Engeström (2000) calls ‘co-configuration’ of a product or service. He names six criteria as a tentative definition of it: (1) adaptive product or service with a relative long life trajectory; (2) continuous relationship between user, product/service, and producer; (3) ongoing configuration or customization of the product/service; (4) active customer [client] involvement in the ongoing configuration; (5) involvement of multiple collaborating producers; and (6) creative tensions, negotiation, improvisation, and mutual learning in the interactions between the parties involved. As can be seen by this definition, the cooperation between different (researcher) roles may be promising, but not without potential problems.

The quality of inquiry: an investigative attitude

Quite a few educational scientists make a connection between research and learning, when they equate learning with exploring (Mercer, 2000) or with doing research (Ruijters & Simons, under review). In their view, every learner can be seen as someone who conducts research, also a beginner like a new student. This gives a wider perspective on research than traditional science may adhere to. Central to it is the explorative mood of people who engage themselves in a learning situation. Scientist, practitioner as well as client can prove here to be good researchers, for as real learners they can show an investigative attitude. This is an attitude of sustained investigation:

- The practitioner keeps on investigating into his methods of intervention and the consequences of their application, just when the methods do not seem to work (anymore) and demand adaptation;

2 In a broad sense, the three types of investigators could here as well be seen as designers in their own field: the scientist designs an assessment tool in order to use it for further developing his theory; the practitioner designs an intervention method and uses it for offering an approach to practical problem solving; the client designs his meaning system and uses it for solving his problems. We will not follow this line of reasoning any further.
• The scientist keeps on investigating the consistency and appropriateness of his developed conceptual frameworks, by further developing or revising these when empirical findings demand it; and he keeps on investigating into the quality of the assessment tools he developed, just when they do not prove to be valid (anymore) and demand adaptation;
• The client keeps on investigating the meanings a problematic situation has for him, even though a solution to his problems seems far away and dependent on others.

When an investigator meets his limits, and his research premises evidently do not show and promise any progress anymore, he may become weary, stick to his premises and beliefs and stop investigating, although this may be invisible to his peers or even to himself. Although in most cases it would be wise to continue investigating, whether or not along different paths, he stops and looses his investigative mood. An investigative attitude is as much important for the quality of research as the choice of methodologies to be applied in the investigation. Rules that govern a proper choice (e.g., a traditional set of methodological rules provided by science that demand the adherence of practitioners) are necessary, but not sufficient for proper research. The researcher should be prepared to investigate his own assumptions; this goes for scientist, practitioner and client alike.

It is Argyris & Schön (1996) who call for a public inquiry into the employed premises and practical rules of thumb, the own mental models and meaning systems of learners. This happens by engaging in intensive dialogue. What we ask of teams, i.e. investigating the meaning systems they apply to their world, is what we ask of scientists, practitioners and clients in their mutual cooperation: ‘The focus on meaning and interpretation is of extreme importance. It means that we constantly reflect on what is happening in and around us’ (Crossley, 2000).

And thus the scientist, practitioner and client are investigators who learn about their own meaning systems and practice and those of others, either colleagues or non-colleagues. They could do this in an excellent way, hinted to by Maso (1990). For the investigator, the application of a method is only possible by using his power of judgement in a way that is not described by the method itself. The method will often have to be completed or changed depending on the research subject and situation; it will sometimes even have to be neglected or substituted by other approaches. The mutual calibration of research acts and the research situation does not happen solely by means of the intellect; many times, intuition and sensibility will be as much as important. The awareness of the fact that a method is not more than a guideline that has to be adjusted or substituted depending on specific research circumstances, undermines the rhetorical power of the method that convinces so many buyers of its results. In fact, if it comes to the defence of their research approach, the investigators should also account for the acts, choices and decisions that do not necessarily follow on from the chosen method itself. It is precisely in the application, or even in the abandoning of the method that the researcher can and should show his excellence. This means that they should be excellent investigators, not only from a scientific perspective, but also from an ethical and practical perspective:
'It means that these researchers must be aware of and take into account the historical, societal and cultural situation in which they find themselves and in which they come across the phenomenon that they investigate. It means that they should possess, if available, all relevant information about that phenomenon and about the situation in which it is investigated. It also implies that they must have a thorough knowledge of the theoretical and practical aspects that are relevant for the phenomenon and its situation and what they, also following from this, can and must do. It furthermore means that they must realise which influence they exert as an investigator and as a person on the phenomenon, the research situation and the investigation itself, and which influence they themselves undergo here. It means also that, based on this awareness, they must make sure that no damage is done to the investigated subject nor to its situation, nor to themselves, nor to the research process. It implies that they flexibly, adequately and responsibly react to what they find. Finally, it means that they must fully account for the followed procedure, including for what went wrong and what still goes wrong' (Maso, 1990, p.11; author’s translation).

These high demands on the excellent investigator (that may apply to scientist as well as practitioner and client) make sure that it is not so much truth itself that is at stake, but the quality of it. Similar high demands are made by Argyris & Schön (1996) when they describe how action research should take place as should public testing of assumptions brought by stakeholders to their situation. Excellent investigators are researchers that try to conduct sound research, but never wholly succeed in it, and are aware of that. From this point of view, research is something in which the quality of the process rather than the result is what counts. We think that also in the field of developing and practicing the TCM as a method for investigation of real situations, this attitude is recommendable.

3.3 Roles of the author/researcher in this study

If the design of the TCM is to be regarded as a cooperation between three different types of investigators, then what is the role taken by the author of this study? This study tries to tackle a few problems of different character: first, the conceptual transposition of the VT and DS framework from the individual to the collective level; second, the design of a method that fosters the improvement of collective and individual functioning in teams; third, the construct validation of the assessment measures based on the developed conceptual framework; fourth, the functional validation of the designed method. Each problem asks for a different role of the researcher. Briefly put, the transposition of concepts requires the scientist role; the design of the method requires (mainly) the practitioner role; the construct validation of the measures requires the scientist role; and the functional validation of the method requires the practitioner role. In fact, the whole project requires of the author a combination of the scientist and practitioner roles: he should be a 'scientist-practitioner'. How could this combination of roles be properly handled?

As a researcher the author of this study has performed a scientist role as well as a practitioner’s. Below, an explanation is offered on how to understand both roles by focussing on their specificities; and see in which circumstances what role or what mix of roles was most appropriate in the author’s eyes.
The scientist role

As mentioned before, this study essentially takes a constructivist perspective, from where context and meaning are seen as central to the understanding of phenomena and events that happen to team members, and from where the team members themselves are seen as fully fledged investigators of their own situation. They are invited to investigate their own reality by methodically attributing meanings to it. The constructivist way of working has its own scientific standards. It means here that ‘our scientist’ will slightly diverge from the classical Cartesian standard of objective and neutral study, neutral in the sense that the classical researcher will not intervene in the processes the subject is engaged in. Our scientist’s concepts are focussed on improvement, and his measures require meaningful interpretation by the subjects. In short, we are focussed on intervention, in cooperation with practitioners and clients. Our scientific research is to be seen as what Berings, Doornbos & Simons (in progress) call ‘new paradigm research’ as opposed to ‘classical research’ which is of a (neo)positivistic character. According to these authors, new-paradigm researchers do not have final, ultimate criteria for testing truth, but negotiated criteria that can be agreed upon at a certain time and under certain conditions. The adequate investigator roles that fit to this new paradigm can either be the ‘passionate participant’ (whose interpretative methods employ dialogue with investigation participants in order to understand their meanings), the ‘activist’ (whose participatory methods are action-oriented, i.e. joint problem solving in an action research sense) or the ‘reflexivist’ (whose critical methods critically reflect upon the political, cultural, economic, ethnic or gender values that underlie the researchers’ understanding of phenomena). In our new paradigm research, we think the scientist roles of ‘passionate participant’ and ‘activist’ match best with the nature of our research.

Being an academically trained psychologist, the author has in his scientist role conducted research on the possibility of the extension of an existing conceptual framework and the development of new theoretical concepts; and furthermore, research on their applicability: an investigation of the construct validity of the measures based on these concepts, through application of a mix of classical and new paradigm methods.

Traditionally, it is the scientist who brings to the investigation of practice a standard for conducting research. In our case too, it should be scientific standards of rigour and quality that guide practitioner and client alike, controlling the validity of their findings. It should be noted that our scientist has been led by a broadened outlook on such standards, that is to say partly based on ‘new paradigm’. But also new paradigm research applies standards of rigour and quality, as might be concluded upon inspection.

In section 3.4, the reader will find more on the methods and standards applied as matching with the chosen scientist role.

The practitioner role

The practitioner is traditionally seen as someone who applies in practice the research findings that are produced in the laboratory. Such findings are then viewed as being of a higher scientific value than the practitioner’s personal practical experience that he is inclined to use
when approaching unique and complex problems in the field. Scientific research findings are supposed to have universal value, and to be protected against the personal biases of the investigating practitioner.

Schön (1983, 1987), however, regards the practitioner’s contribution to relevant practical knowledge as pivotal. A ‘reflective practitioner’ investigates his practice (i.e. the problem in the field as well as his own approach to it), by consciously experimenting with different approaches to the situation at hand, thus gradually deducing good practices and ruling out bad ones, and producing rules of thumb that can inspire, but never dictate, other reflective practitioners. In Schön’s opinion, the traditional approach of science, as supposed to be of a higher rank than professional practice, is tragically off target: its rigorously achieved knowledge (often brought about in laboratory circumstances) is irrelevant for the unique and complex problems that occur in practice. It will always require a reflective practitioner to account for an informed solution of a practical problem. ‘Scientific’ knowledge is simply not enough.

When we talk about the practitioner role to be taken by the author of this study, we should see it in a way familiar to Schön’s: ‘our practitioner’ is not an obedient applier of irrelevant knowledge (could he be?), but as a practising professional who continuously approaches a case as a unique problem that requires a unique solution, not prescribed by one or another scientific maxim. This means that he is relatively independent of the scientist; he may use the scientist’s input as an inspiration or even as a criterion for his action, but he will always remain open to “non-theoretical” facts so as to be able to creatively respond to them.

This, however, does not mean that he is indifferent to certain research standards of rigour and quality when he conducts his investigations. He will try to apply such standards in the immediate situation. If important, personal bias should be ruled out and objectivity strived for. The quality of his reflection (authentic and sound) is then crucial. In this sense, the practitioner conducts research, by inferring knowledge about the question whether an intervention (or an approach, a concept) works or not.

The author, being trained as a practitioner of team development and teambuilding, has conducted practitioner research on the design of the Team Confrontation Method (TCM); and moreover, on its applicability, by using the method with different teams and evaluating its functional validity. For this, different research methods are applied, which are illuminated in section 3.4.

The scientist – practitioner: a split personality or a tautology?

To be able to bring this concept, design and validity study to a satisfactory conclusion, the author should combine the researcher roles of scientist and practitioner. Above we described our interpretation of these roles; here we dwell upon the combination of both. In what ways would it be necessary and/or possible to combine both roles?

We already clarified in general in which situation a certain role is preferred: the scientist in the case of concept development and construct validity check, the practitioner in the case of design and evaluation of the functional validity. This suggests that the researcher has to divide himself in two, doing one thing in the first type of circumstances and the other in the second. And as Van den Akker (1999) observes,
Part 1 - Theoretical and methodological basis for the method

’a tension can easily arise between designers [practitioners] who are eager to pursue their ideals in creating innovative interventions on the one hand, and researchers [scientists] who tend to critically seek for correctness of decisions and empirical proof of outcomes, on the other hand’ (p.11).

There is a tension between subjective and imaginative involvement and objective and critical distance. Would that not make of us a split personality, where both our researcher sides are dissociated? Then there would be no combination of roles. In one case we would, as a scientist, keep a proficient distance to his subjects, so as to avoid subjective biases and to be able to generalise findings to a level of more or less universal validity; in the other case we would, as a practitioner, be empathic and supportive toward his subjects, so as to be able to work with their meanings and to avoid the aloofness that would block his power to stimulate improvement. We should sometimes also need to bring in our own judgements, meanings, expectations in order to get the subjects going.

In fact, we think a combination of roles is necessary. After all, we have to take into consideration that the character of our study is constructivist. This means that also our scientific activities (concept development and construct validity study) are coloured by ‘new paradigm’: the research that we conduct as a scientist will never be rigorous in the classical sense. There will be elements of practitionership in the scientist’s choices, meaning that he takes into account the subjects’ judgement on the usefulness of concepts and the validity of a construct; and that he takes usability as an important criterion for judging concepts and constructs. The designed techniques that we adopt as a practitioner should be approached with rigorous criticism, and we should judge our findings on the clients’ improvement with care. Here, the distance of the scientist comes in. The tension between scientist and practitioner could thus be used as a productive force that contributes to balanced solutions.

It is in the combination of distance and proximity that both roles are to be united in one person. The researcher should not be enchanted by his own success as a practitioner but stay open to critically checking the effects of his interventions; he should not be standoffish when working with his subjects when he wants them to improve. If we want to conduct constructivist research in our case, then we should combine both roles; as researchers, we are scientist and practitioner at the same time. From that point of view, the scientist — practitioner may even be seen as a tautology. We think the author of this study has been legitimately walking on two legs.

3.4 Research methods applied in this study

Our study has the character of a scientific as well as a practitioner’s approach to team development. We want to do research as a scientist and as a practitioner, and then we also want the clients, who are the people for whose collective and individual development the method is meant, to be active investigators of their situation. What research methods should be applied by the different parties involved? How could we match these methods with the purpose of our study? In section 3.4, we list our choice of research methods that were used in this study. We start with clarifying how we tried to make a choice that matches our intentions.
The scientific research that we apply is not of a classical, ‘Cartesian’ character, as we outlined earlier in this chapter. If it were, what would our research be like? A classical Cartesian researcher develops ‘from without’ a normative standard for the effectiveness of the team. Based on the standard, he builds measurement instruments to assess whether the developed standard were met by the team. In our case, regarding ourselves as constructivist researchers, we intend to give our subjects, the team members, an active role as investigators. And as scientist-practitioners we actually intervene in their processes, so we could not simply distance ourselves from them as our subjects, even if we wanted to. Why should we not, together with them, develop normative standards for team effectiveness ‘from within’? The methods of investigation we have selected match with this intention. In many methods that we apply, the opinions and viewpoints of clients as well as practitioners are important. It is not only the scientist who decides upon the research methods to be used.

Below, the treatment of applied methodologies is kept relatively general, since the operational aspects of the methods will be introduced in further detail in following chapters. This paragraph therefore has the character of an overview and general justification. We will structure our treatment according to the main remaining objectives of our research (the objective of conceptual framework development having been met meanwhile, in the first two chapters), being (1) the design of the TCM, (2) the construct validity check of the method’s measures, and (3) the functional validity check of the method’s design.

Methodology for the design of the TCM

The design of the Team Confrontation Method has been done with reference to design methodology (to which a fine introduction is offered by Van den Akker, 1999), because the methodology is problem-oriented as well as interdisciplinary by nature, and because the application of traditional research methods hardly provides prescriptions with useful solutions to practical problems. After all, our greatest challenge is to cope with the manifold uncertainties of team facilitation. Our research should not concentrate on the question whether the theory yields coherent and accurate predictions, but it should ask whether it works: i.e., whether the theoretical concepts and principles inform practices in productive ways:

‘Designers do appreciate more adequate information to create a solid ground for their choices and more timely feedback to improve their products. Moreover, the professional community of developers [i.e., designers] as a whole would be helped by a growing body of knowledge of theoretically underpinned and empirically tested design principles and methods.’ (Van den Akker, 1999, p.2)

Design methodology is concerned with the systematic shaping of design products [here: the TCM] that meet pre-specified requirements, and the generalisation of the designed solutions to a level on which they are valid for a class of cases, instead of just one. The design is done through thorough problem analysis, resulting in a specification of the solution. This solution should make possible the intended function of the designed object. Design knowledge that is being developed along this way can be checked for its functional validity, which predicts whether a certain proposition of a design works or not, i.e. whether it produces the intended outputs or not.
Design research aims at making practical contributions. In the search for innovative solutions, the interaction with practitioners is essential. A gradual clarification of both the problem and the characteristics of its potential solution is necessary. An iterative process of ‘successive approximation’ of the ‘ideal’ intervention is desirable.

‘The ultimate aim of design research is not to test whether theory, when applied to practice, is a good predictor of events. The interrelation between theory and practice is more complex and dynamic: is it possible to create a practical and effective intervention for an existing problem or intended change in the real world?’ (ibid., p.8)

But design research also aims at making scientific contributions. It is to produce generalised knowledge, through the generation, articulation and testing of design principles. These principles can be of a substantive nature, referring to characteristics of the intervention (what it should look like), or of a procedural nature (how it should be developed). Thus, design research tries to reduce uncertainty of decision making in designing interventions (Van den Akker, 1999).

Design research activities differ from what is typical for design approaches in professional practices, where the design is more of a pragmatic or artistic nature (Visscher-Voerman, Gustafson & Plomp, 1999; see also our introduction to this thesis, page 13). Van den Akker (1999) lists the differences: (1) the preliminary investigation of the problem and its connotations is more intensive and systematic; (2) the theoretical embedding is done systematically by application of state-of-the-art knowledge in articulating the theoretical rationale for design choices; moreover, after empirical testing findings are fed back into theory formation; (3) empirical testing is being carried out, i.e. the collection of empirical evidence about the practicality and effectiveness (functional validity) of the intervention; (4) much attention is given to documentation, analysis and reflection on the entire design process and its outcomes. It seems clear that our present study fits well to these criteria.

In our design activities, we incorporate the contribution of the clients for which the TCM is intended. When appropriate for design purposes, their evaluations of the functionality of the tool are gathered. Thus, the design can be iteratively developed through adjustment of its features. Furthermore, we incorporate the contribution of scientific investigation: a conceptual framework for collective and individual functioning and improvement in teams, and a set of properly constructed assessment measures are inputs for the design. And of course, we also incorporate the practitioner's contribution: the trade's insights in team processes are used as an input for the arrangement of interventions that makes up the TCM.

In chapter 4, section 4.2, we will extensively dwell upon operational aspects of design methodology. Moreover, we will report there on the actual step-by-step design of the TCM.
Methods for testing construct validity

Construct validity is the extent to which the elements of a measurement tool are representative for the construct that one intends to measure. Within the scope of this study, we have been developing a conceptual framework (see chapters 1 and 2) that consists of three important concepts that are viewed to be central to collective and individual functioning in teams: collective valuation, collective affect and collective voice. For these concepts we have developed partly qualitative, partly quantitative measurement tools; in chapter 5 we will introduce these tools and account for their construct validity. This will be done by deduction from the essentials of the concepts, and by statistical analysis of outcomes produced with the tools at different groups and teams; an additional source of evidence that will be used is the opinion of team members about the comprehensibility of concept and measure and the perceived consistency between the two, as well as the consistency of the measured outcomes with their experience.

In fact, a mix of a classical with a new paradigm method underlines the contention of Berings, Doornbos & Simons (in progress) that methodological approaches derived from different research paradigms start to interbreed. We think this to be a proper choice, because of the (constructivist) nature and intention of our study. Through application of these methods, we will demonstrate that the selected measures do indeed reflect the intended concepts.

Methods for testing functional validity

Functional validity is the extent to which a designed tool functions according to plan, i.e. the extent to which it performs its intended function and produces the results it is designed for. Within the scope of this study, it is the functional validity of the designed TCM that is being tested. This is done extensively, as follows.

First, we will specify the intended main functions and derived sub-functions of the TCM in chapter 4. Second, we will measure, qualitatively (e.g., by use of client evaluations) as well as quantitatively (by use of the developed assessment tools), to what extent these intended functions are met by the method when applied in real teams. As may be concluded upon inspection, we have applied for this test a mix of classical and new paradigm methods like we did for the construct validity test. The findings are presented in case studies, case by case; reports on possible iterations in the design may appear here as well. This is all done in the chapters 6 to 11. Here, the reader will also have ample opportunity to get an integral idea of the qualities of the method, its possibilities and its limits for use.

Within the scope of a single case study, a specific methodology (like ‘the learning history’) will sometimes be introduced in order to address a research question that is appropriate on the given occasion. If so, the method is locally applied and will be discussed only in the chapter of the case study concerned.
3.5 Summary

In this methodological chapter, we proposed a special way of looking at the relationship between scientist, practitioner and client in conducting research, in order to be in agreement with the constructivist character of our project. The relationship should be cooperative. Clients (team members), practitioners (facilitators), as well as scientists (academics) each have a different way of interpreting phenomena that they encounter when investigating; for the production of research results that are meaningful to all three of them, they should work together systematically. This is for the following reasons. In the first place, team members are no study subjects of the psychologist, but active meaning-makers, and as such, active investigators as well. The providers of the TCM, practitioner as well as scientist, will have to cooperate with the team in order to produce satisfying results of the investigation. Thus, the spirit of the SCM is adopted, in the sense that a shared commitment and responsibility for meaningful results lies with the client (team), the practitioner (facilitator) and scientist. In the second place, scientist and practitioner should work together intensively when designing the method. The scientist brings theoretical knowledge that provides the conceptual framework; the practitioner brings the practical knowledge of team facilitation that is needed for the design of the method as a tool for intervention. Especially the development of assessment instruments is their shared field of expertise. An investigative attitude is central to the quality of the research of all three. Scientist, practitioner as well as client can prove to be good investigators by showing that they are essentially prepared to have their employed premises and practical rules of thumb, their own mental models and meaning systems be ‘publicly checked’. This means that not only clients should be open to learning, but also practitioners and scientists. Their practice is to be continuously developed further. The cooperation between or combination of the different researcher roles was the first topic of methodological importance that we addressed in this chapter.

For the design of the TCM, the author had to combine the roles of scientist and practitioner. We explained here the choices made in order to make such combination possible. As a scientist, the author should apply the roles of ‘passionate participant’ and ‘activist’, for they match best with the nature of our research, i.e. doing research on a possible extension of an existing conceptual framework and the development of new theoretical concepts, as well as on their applicability. After all, sensible research results could only be achieved by actively working with teams. As a practitioner, the author should apply a high quality reflection, authentic and sound, through a mentality of continuous and scrupulous attention for the process of applying the method in practice, and an openness to experiment when new challenges come to the fore. In this way, he could do practically-oriented research on the design of the TCM and its application, by using the method with different teams and evaluating its functional validity.

The last question addressed in this chapter was the methodologies to be selected for our research. After all, different investigator roles match with different research questions; and different research questions require the use of different methodologies.
We specified a choice of research methods; the treatment of applied methodologies was kept relatively general, to be elaborated when applied in a case study in one of the following chapters. The chosen methodologies concentrate on: (1) the design of the TCM (with ‘design methodology’), (2) the construct validity check of the method’s measures (mainly by ‘statistical analysis of questionnaire results’), and (3) the functional validity check of the method’s design (with ‘case study research’). Within the scope of a single case study, every now and then another methodology will be introduced in order to help addressing a research question that is appropriate on the given occasion.
PART II

DESIGN AND VALIDATION OF THE METHOD
CHAPTER 4

The design of the method

4.1 Introduction

This chapter concentrates on the construction of the Team Confrontation Method (TCM) as a method for assessing and improving collective and individual functioning in teams. How should we go about the design of a new method? We have used ‘design methodology’ as a benchmark for our design process. Design methodology is an existing and growing body of research methods for practice-based research, and it gives clues on how to plan a fruitful design process with outcomes that are suitable for as many cases as possible.

In order to make it liable to evaluation, we should report our design process in a transparent way. However, a design process is often not transparent at all. It is by nature iterative, or even chaotically iterative, and therefore difficult to grasp, and the design process of the TCM was no exception to it. Because our account would otherwise be unreadable for the lack of linearity of the actual design process and the highly detailed character of it, we chose to report in a mistakenly orderly structure, in which we falsely suggest linearity and focus on main lines.

In section 4.2, we focus on the design solution of the TCM. For the sake of clarity, our report on the design process starts with the presentation of the final design. Such an overall picture of the method’s protocol (its main interventions and their sequence) is helpful as a reference point for the design process described in the subsequent sections. The presented solution is what the design process was ultimately heading for.

In section 4.3, ‘design methodology’ is introduced. Its main notions (e.g., function, requirement, design variable, design choice; prescription) are illuminated and interconnected. Design methodology can serve as a means to judge a proper execution of the design process; indeed we used it as our benchmark here.

In section 4.4, we focus on the design process of the TCM. We introduce the concept of collective learning as the best possible term to describe the method’s projected function. We divide this function (a tool for collective learning) into sub-functions, which are further divided into requirements. This procedure generates a list of aspects that should be integrated in a design solution. Furthermore, we describe which design choices were made in accordance with this checklist. We limit ourselves to the main design choices of our final solution.

The presented design solution should be fit for a class of problems (e.g., ‘problems of team development’) and not just for only one unique problem (e.g., ‘problems in management team X’). Does the designed method perform its function across cases? The answer to this question is produced by the functional validity test that is prepared for in chapter six, carried out in our series of case studies in the chapters seven to ten, and concluded in chapter eleven.
4.2 The frame of the TCM

We start with presenting the designed protocol of the TCM. Its ‘frame’ consists of steps; different interventions are thus put in a coherent sequence. The steps are graphically represented in Figure 4.1. But first we will list the method’s three central design principles.

The first central design principle of the TCM is the use of data. Assessment produces data and prompts the team members to reflect about what is actually going on in their team. The second central design principle is the use of deviant voice for pattern breaching. Improvement is realised through awareness of the importance of certain deviant voices in the mutual cooperation, and bringing them into expression in daily reality. Thus, genuinely new action gets a chance to show itself in the team. After a while these innovations are evaluated. This is the last central design principle: evaluation through the comparison of new data (second investigation) with old (first investigation). In short, reflection and action alternate.

In Figure 4.1, the alternating presence of action and reflection is obvious: in the first meeting a process of systematic reflection starts off, cutting the daily action for a while, and this lasts as long as the second and third meetings. Then, the so-called validation/invalidation trajectory is started, in which planned experiments with deviant voices (and corresponding new behaviour) are carried out for pattern breaching. This is a period of action. After a while, e.g. 6 months, the results of the experiments are evaluated: again a period of reflection.
It is here that the successes of the team in the process of improvement can be reaped. Potentially, the alternation of action and reflection can be continued as long as the team desires.

The TCM contains assessment instruments for self-analysis, by which the team is capable to fathom the joint functioning. During the first meeting, collective valuations are formulated and assessed for the related affects. During the second meeting, the resulting data are interpreted, and the important collective and deviant voices present in the team are named and assessed for their actual collectivity. During the third meeting, the resulting data are interpreted, and the conclusions brought together with those of the former meeting into a system diagram that depicts patterns of cooperation in the team. This leads to the mentioned validation/invalidation trajectory, which is to be evaluated for its effects in the fourth and fifth meeting, through an assessment of alterations in valuation, affect and voice, and interpretation of the resulting data. Please note the similarity of the process with the structure of the SCM: also there is a sequence of assessment, interpretation, and validation of new behaviour.

It should be repeated here that the assessment procedures are not designed to generate ‘test findings’ on the team that should fathom the team as a research-subject. On the contrary, the assessment delves into the meanings that the team members themselves produce. The team members steer their investigation in a meaningful way, so as to make it sensible and useful to everyone involved, while the facilitator guides them through the methodical part of their investigation, at the same time providing them with “wider perspective reflections” (e.g., on universal aspects of team development) that they themselves could probably not make. Team and practitioner are full partners in the investigation of the team’s reality.

4.3 ‘Design methodology’ as a benchmark

In this section, we will explain those features of design methodology that are helpful for our purpose of having it serve as a benchmark for our design process. Design methodology gives clues for gradually and systematically building up a design model. Because the methodology is not yet very well-known (only the regulative cycle of Van Strien (1986) has gained some recognition), it is necessary to further introduce it here.

In section 3.4, we mentioned briefly the field of design science and methodology and underlined that it is problem-oriented and interdisciplinary by nature. Precisely for this reason, it is very much suitable for our aims: we want to offer a designed instrument for the solution of a class of practical problems, namely problems in team development. Moreover, we use inputs from different disciplines, e.g. narrative psychology, education and management science. Design methodology is originally rooted in engineering and technology, and very much geared to the solution of problems and design of tools and instruments. The methodology is very useful for research into practical problems, and is currently emerging in various domains, like education (Pieters, 1992; Van den Akker, 1999), management science (Van Aken, 1998), and psychology (Van Strien, 1986).
Below, we will list the notions of design methodology that are of central importance to us. For this overview we have made use of the review work done by Pieters (1992) and Van Aken (1998). There are two levels of practising design methodology: first, the level of problem solving and designing a solution for a single problem; second, the level of generalisation and the production of knowledge about design principles that is applicable for a class of problems. The first level is about solving the problems of team X with a once-only intervention, the second level about solving problems of team co-operation with a method like the TCM. The first level can be described with the problem solving cycle and its corresponding notions (e.g., function, requirement, design variable, design choice), the second level with the reflective cycle and corresponding notions (e.g., design principle, prescription). The reflective cycle is the one that gives us clues on how to design our method, but it cannot do without the problem-solving cycle, that produces the raw material for the reflective cycle. The reflective cycle can be seen as a counterpart of the classical empirical cycle. The overview presented here is built up around these two levels and accompanying cycles.

The problem solving cycle

Design is problem-driven, and its process can be described with the problem-solving cycle (traditionally known as the regulative cycle; see Van Strien, 1986), which is presented in Figure 4.2. The process starts with preliminary inquiries into a problem: the problem is defined and analysed. Through this problem analysis, the problem is observed in detail and diagnosed. With that, the first phase of the design process, being the problem definition phase, is ended.

As an output of this problem investigation, the designer-researcher determines the function of the instrument that is to be designed. The function of an instrument (or intervention) is derived from the type of transformation that it should prime in its environment, when serving its users. In this function definition phase, the designer investigates the way in which the transformation could take place, or by which principles the function could be performed. The resulting functional description of the device will enable the designer to set a list of requirements as to what sub-functions it should perform.

This list is the input for the design phase, in which firstly, based on the requirements, an overview is produced of design conditions and design variables that are relevant for inclusion in the process of preparing and planning the final solution; in its gradual construction the design variables are combined in a certain way and given a certain value, thus forming the design model or prototype. The design model offers a testable, or tested, solution for the problem, being either an artefact or an intervention. In designing a specific intervention or artefact a professional can choose out of several feasible design models, or adapt a certain design model to his situation, make a certain combination of two or more design models, etc. (Van Aken, 1998). The properties of the design model, as well its settings, have become definite through the making of design choices: the design variables have been given design parameters in order to optimise the functioning of the device. These values of the design variables are chosen in such a way that the function can be performed under the prevailing design conditions. As far as possible, design alternatives for each design parameter are provided. When the prototype is done, it is ready for testing. Here, representatives of the user...
group (e.g., a principal, customer, or the designer in their place) can try its functioning and evaluate it against the requirements. When the prototype has been judged insufficient and not passed its test, a process of revision can start by a process of redefinition. According to the character of test failure and the corresponding nature of the needed revision, it could either be done thoroughly (by redefining and reanalysing the problem) or relatively superficially (by redefining a few design variables or making some alternative design choices, e.g. resetting a design parameter). Through such iterations of successive approximation, the design problem is finally solved by the production of the design solution.

The reflective cycle

Design science has as its mission to develop scientific knowledge to support the design of interventions or artefacts; design science is not concerned with action itself, but with knowledge to be subsequently used in design-based action (Van Aken, 1998). It therefore tries to produce design knowledge which is valid for classes of cases. This process of generalisation is done through the reflective cycle, which is described by Van Aken (1994), and laid down in Figure 4.3 (see next page).
Part II – Design and validation of the method

The process starts with the selection of a class of cases that is to be studied. Out of this class of cases one takes a single problematic case and applies the problem-solving cycle to design a solution for it. After having produced a solution, the researcher reflects on the quality of the design model and the design choices made for putting it together; hereby he can distil design knowledge with potential validity across cases. He can check whether the found design knowledge is valid across cases, simply by selecting another case from the same class of cases that he started with. The reflective cycle is then repeated; the process gives an emerging insight in the validity of the design knowledge specified. Therefore, design knowledge is typically tested in multiple case studies. Thus, in this study, we iteratively designed a model of a TCM and tested its functional validity in case studies.

It is interesting to focus on the process of reflection that takes place here. It is directed at the development of usually heuristic prescriptions of the format: ‘“If you want to design intervention X [for the purpose/function Y in context Z], then you are best advised to give that intervention the characteristics A, B, and C [substantive emphasis], and do that via procedures K, L, and M [procedural emphasis], because of arguments P, Q, and R”’ (Van den Akker, 1999, p.9; original bracketing). These prescriptions, or design principles, are meant to support designers in their task. They are usually of a qualitative nature, and do not operate as a recipe, but must be translated to the situation of application (Van Aken, 1998). Reflection concentrates on the quality of the design choices made, ranging from the choice of design variables to the choice of design parameters in favour of alternatives. Some of the choices turn out to be working well either or not in combination with others; this can, across...
cases, be traced and established by reflection. Thus, a sufficient justification can gradually be provided for the functional validity of a certain prescription or design principle. In our study, examples of such reflection are to be found in chapter eleven, where we try to draw conclusions about the validity of the TCM’s design principles across cases.

The reflective cycle can be compared with the classical empirical cycle (see Figure 4.4).

![Figure 4.4 – The empirical cycle](image)

Our step ‘reflection’ has much in common with the step ‘induction’ from this empirical cycle. The difference between the two cycles is that the empirical cycle is primarily orientated towards detecting patterns in reality and the reflective cycle towards new alternatives for solving problems, and hereby is primarily concerned with a reality that is not yet existent (Van Aken, 1994). Van Aken offers as an illustration an example from the medical profession: through the completion of the empirical cycle researchers try to determine the causes of AIDS; through the completion of the reflective cycle, researchers develop therapies against AIDS.

A prescription or design principle has a systematically tested effectiveness within the context of its intended use. They can often be grounded on scientific knowledge, like it is done with the design of an aircraft wing; the design here makes use of scientific knowledge taken from aerodynamics and mechanics. The design can be done much more effectively and efficiently on the basis of tested and grounded design principles (Van Aken, 1998). The value of the design knowledge will strongly increase when justified by theoretical arguments.
and convincingly backed-up with empirical evidence about the impact of those principles (Van den Akker, 1999). It should be noted here that the make-up of the present study (designing a method in correspondence with design methodology, grounding it on theory and validating it empirically) meets this description of valuable design research.

In sum, design science produces design principles or prescriptions through several completions of the reflective cycle. For the production of such design knowledge, Van den Akker (1999) wants to give us a piece of advice:

'(...) evaluation within development [design] research should not only concentrate on locating shortcomings of the intervention in its current (draft) version, but especially generate suggestions in how to improve those weak points. Richness of information, notably salience and meaningfulness of suggestions in how to make an intervention stronger, is therefore more productive than standardization of methods to collect and analyze data' (Van den Akker, 1999, p.10).

This implies that our case studies should not be too formalised, but offer ‘thick descriptions’ of the situations where the method was applied, so that the designed interventions can be evaluated well in their targeted setting; thus, the method remains open to improvement.

A final remark on the two design methodology cycles should be made. The cycles suggest that a design process is iterative, which is of course correct. Yet, this iterative quality is seldom as regularly circular as the cycles seem to suggest. Designing is rather a chaotic, blurred process of trying out new interventions based on half-explicit assumptions and implicit intuitions, of half-consciously evaluating their outcome on the spot, and of quickly opening up other design options for intervention. This process is full of shortcuts and side-tracks, and very difficult to retrace. It is, however, our opinion that the two design cycles can serve our purpose well as a benchmark. Each designer should be able to give an account of his design process, by showing the major milestones in it1. The two design methodology cycles hand him this opportunity, for the milestones are now prescribed.

In this section, we have offered a general overview of the notions of design methodology that are most central to our aim: the set-up of design research around a method for team development, the TCM. In the next section 4.4, we will focus on the way the TCM was developed, with the benchmark of design methodology in mind.

4.4 The process of designing the TCM: its main design choices

How did we build up the method, and how can we judge this process against the standard of design methodology? We start this section 4.4 by focussing on function as the target of design. After fixing the TCM’s function, we unfold its list of requirements and the connected design variables and design choices.

1 This is exactly what we try to do in this book, though we do not give a literal account of the iterations and irregularities that were part of our design process. Frankly, we wanted our readers to finish the book, instead of getting stuck in a labyrinth of complexities. Indeed, much of a design process remains implicit, even to the designer.
We will thus show that the prescribed steps in a design process were taken. The outcome of the design process, being the combination of design choices into a sensible whole, with the main features of the method juxtaposed, has already been presented in section 4.2. It is there that a testable prototype of the TCM was presented; the testing of this protocol will be reported in the chapters seven to ten of this study.

The function of a device concerns a transformation that it should cause in its immediate environment (see also sections 3.4 and 4.3). Hereby it should always be of use to people, its users. Will the tool be able to ‘transport’ them, to ‘heat the room’ for them, to ‘cure’ them or to ‘enjoy’ them? When fixing a device’s function and designing it, the characteristics of the group of users as well as the device’s usability should be taken into account. After all, the characteristics of the users and the problems they encounter strongly determine the character of the requirements that must be set.

Devices are often not physical but social, so that one could better speak of interventions, i.e. complex patterns of acts arranged in such a sequence that they can serve a certain purpose. With respect to a physical system one can distinguish the physical object from its immaterial model, but for a social system the designed model does not have a (potential) physical counterpart, the model is rather the set of conceptions the users have of it in the context of their social system (Van Aken, 1998). It therefore requires the participation of users in the design process to enable the intervention to meaningfully serve its purpose. In ordinary words, it should be in the users’ language. The problems to be solved are embedded in a complex social context; it will never be wholly certain that the intervention will serve its purpose in it. It is a matter of rapport between the practitioner (in our case: team facilitator) and the client (team) whether the models of reality of both of them will be congruent enough to make the intervention work.

The function of the Team Confrontation Method

For what is the TCM intended? This is the first question to be asked when we start off designing it. As we specified many times before, it is meant for the assessment and improvement of collective and individual functioning in teams. The central word here is ‘improving’, and what it should improve is grossly the team cooperation and its relations with the environment. We think this functional description could be more pointed. The word ‘improving’ is still too passive; after all, like in the SCM, the client is supposed to have an active role as meaning-maker.

Inducing change for improvement requires a conscious intent. The change we desire is not blind, but intentional. It is very hard to bring goal-oriented change to a team when patterns persist in it that no team member seems aware of. To do justice to the conscious character of change that we aim for, it is necessary to introduce the concept of learning, or to be more specific: collective learning. Collective learning, currently in its earliest stage of being conceptualised by researchers like Bereiter, Engeström, and Simons, is a conscious striving for common learning and/or working outcomes by members of a collective (De Laat & Simons, 2003). Note the centrality of the term ‘conscious’ here.
Awareness is very important for team development and the improvement of collective and individual functioning. Awareness will be reduced by factors like an organisation’s urge for system continuity, stability and productivity (Friedlander, 1987). After all, such factors invoke habitual patterns of cooperation in the team with a high economy of thinking and working, for which conscious debate and choice would be disturbing. In such cases, team members prefer mental short-cuts or simple rules of thumb to arrive at a decision quickly and without effort (Pennington, 2002). Team members appreciate the immediate availability and accessibility of information, they use stereotypes for assessing new information or they use initial positions as anchors for further decision making. At best, single loop learning takes place, (an introduction to the concepts of single and double loop learning can be found at Argyris & Schön, 1996; Senge, 1990; Bolhuis & Simons, 1999) meaning that people adjust the given rules of thumb to a problem in order to solve it. What we want here is double loop learning, which is a questioning of the applied rules of thumb and the specification of governing principles. Teams wanting to investigate their counterproductive patterns of cooperation should apply such thorough learning.

We want the TCM to be a tool for collective learning. The transformation in the team that it should prime is that the team members will say, after use, that they have learned jointly, actively (not passively), and thoroughly. We speak of collective learning when the group creates new meanings of the shared reality and/or when it renews its joint action (De Laat, Poell, Simons & Van der Krogt, 2001). The TCM therefore should help its users to actively get a better insight into their situation, and/or start behaving differently in it. These are then the corresponding two sub-functions: (1) stimulating insight and (2) stimulating improvement of behaviour. The two sub-functions are put in terms of a learning result. Therefore there is one sub-function to add. For collective learning, team members must be facilitated, i.e. being stimulated in their process of collective learning. This learning process may be hindered in many different ways (e.g., there is insufficient time for each team member to share his views); the TCM should prevent this. The learning process may also go well in many different ways (e.g., the team members learn by using the concept of deviant voice, and know how to identify and use deviant voices); the TCM should enhance this. Therefore, the third sub-function is: (3) promoting the process of investigation and learning in the team, fitting the team’s current group dynamics.

Translation of sub–functions into a list of requirements, and the addition of design variables and design choices

Now that the three sub-functions are fixed, they can be translated into a list of requirements. In Table 4.1, we have clustered sets of requirements in the first column, around the three sub-functions we specified above. In the second and third column, the corresponding design variables (i.e., factors that fit in with the requirements) and design choices (i.e., assigned values for each of the design variables) are listed. Thus, the reader can view at a single glance what the TCM’s main design features are. Below, we will clarify the requirements and give a brief justification of each of the design choices listed in the Table.
Below, we will clarify for the first sub-function, being “stimulating insight”\(^2\).

1. **Concepts are grounded on an integrated theoretical frame.** This is necessary for reaching a consistency of understanding. The terms being applied in the team process should have logical interrelations in order to potentially make sense to the team members. Moreover, a solid ground of the concepts in existing scientific knowledge helps the team members build confidence that their investigation will be sensible. This design requirement was mirrored by the design variable of an integral theory. In our case, it is obvious that we chose for a combination of different theoretical frameworks: in the first place those of Hermans’s Valuation Theory (VT) and theory of the Dialogical Self (DS). After all, VT and DS not only serve as a source of inspiration for our project, but also provide an intervention model through the Self Confrontation Method (SCM) for self-investigation and development. Alongside, we chose other theoretical frameworks in order to address phenomena on the collective level. The most important is Weick’s theory of sensemaking in organisations. In chapter 1, we have clarified why the theories of Hermans and Weick fit well together: both are constructivist by nature, emphasising the importance of unique subjective experience, context, meaning and stories. The combination of Hermans and Weick provides the TCM with concepts for collective functioning in teams (see next design choice). Moreover, Hermans’s SCM framework provides the TCM with typical sequences of intervention.

2. **Concepts are measurable.** The concepts should be applied to the team situation: team members should be potentially able to find out how their current situation is, in terms of the concepts. This happens through assessment activities.

\(^2\) In the appendix ‘Full Protocol’, we will extend this list with quite a few extra design choices. For readability, we chose not to include them in chapter 4. Yet, they are important for the practitioner and team when applying the method.
As measurable concepts we chose the concepts of collective valuation, collective affect, collective and deviant voice, system diagram, lever deviant voice and pattern breaching, and collective valuation system reorganisation. We developed these concepts in the first two chapters of this study. That these concepts are measurable, and how, will be demonstrated in chapter 5, where a construct validation is offered.

3. Measures are used in interventions. When assessment has taken place, the results should be used for promotion of the team’s process, i.e. in interventions that enhance collective learning. Hermans’s SCM framework provided us with a steps frame for intervention, namely the IVI-cycle (Investigation — Validation/invalidation — Investigation). For the TCM, we chose the same principle: a reflective sequence of a leading question, assessment, interpretation and conclusion [being the first investigation], followed by active steps toward improvement, and evaluation in a brief second investigation.

4. Team members get overview in an understandable, integrated whole (a picture of the team cooperation). Assessment results should be interpreted by the team members, and the final result of assessment and interpretation should be summarised, in order to give the team members insight into their collective situation at a single glance. As a way of bringing the team members’ interpretations together in a meaningful whole, we chose the system diagram, which describes sensible interrelations between phenomena that take place in the team cooperation. The system diagram is clarified in section 1.3, and an introduction on how to produce it is offered in appendix ‘full protocol’, section III-9b, on the production of a system diagram. It provides an overview of patterns of cooperation in the team that is meaningful to the team members, firstly because it is compressed on one page and shows the relevant aspects at a single glance, and secondly because it is to be made by the team members themselves. The system diagram is a tool that makes current feedback loops between relevant team phenomena clear. Moreover, it is easily understandable, yet sophisticated and able to make the team members aware of the character of their cooperation. Finally, it is recommended by quite a few prominent authors (e.g., Weick, 1979; Morgan, 1986; Senge, 1990).

The second sub-function, “stimulating improvement of behaviour” is clarified below:

1. Method contains lever concept for improvement. Once a better insight into the team situation is there, team members are expected to feel an urge to change it. The TCM should provide a concept that could serve as a lever for improvement. As levers for improvement we chose the concepts of deviant voice and pattern breaching. A deviant voice in a team is a voice that can be present more or less in all of the team members but which is usually not made heard in the ‘polyphony’ of the team, and when it is heard, is not taken seriously.

2. Team members know how to foster improvement in their cooperation. Team members should understand this lever concept and know what to do when they let themselves be inspired by it. Here, we chose the principle of working with validating assignments. Once the team members have decided which deviant voice should
be taken as a lever for improvement, they determine when and how this voice should assert its influence on the team cooperation. The validating assignment helps the team to focus its attention, experiments and exercise (cf. the validation/invalidation phases of attending, creating and anchoring) on appropriate and feasible improvement. This means no list of resolutions, but a concise and focussed description of when and how to make the deviant voice heard. Thus, smart (for psychologically appropriate) structure is added to the lever for improvement. Apart from that, the assignment is designed by the team members and facilitator in cooperation; the facilitator brings his knowledge on psychological aspects of change to it; and the team its sense of feasibility, i.e. the estimation of an assignment being challenging, but not too much.

3. Improvement is measurable. It should be possible to assess whether the team has improved its cooperation after some time. This would potentially give the team members an understanding of the results of their learning process. The change measures we chose for our design are the same as the measures for assessing the current situation in the team. It concerns collective affect [affect hierarchies in relation to collective valuations, and the communality of experience measures average r[i] and average r[g]], and collective and deviant voice [voice ranking and voice diagram]. Improvement is measured by comparing the first investigation scores on these measures with those of the second. E.g., the deviant voice will be changed into a more collective voice when the pattern breaching in team cooperation has been more or less successful. Or, positive affects will have increased and negative affects decreased after a successful improvement trajectory.

The first two sub-functions are about the design of the frame of the method; the third, "promoting the process of investigation in the team, fitting the current group dynamics", concerns mainly the proper use of the method. It is addressed below, for only one design choice. Yet, many other design choices were made: they are listed in the appendix 'Full Protocol'. This appendix could offer much practical help to the users of the method, e.g. on how to invite team members to formulate collective valuations and name meaningful voices, how to help them interpret assessment results, etcetera. However, here is the main design choice we want to address in the overview of the current section:

1. Team members are invited to focus their joint investigation. If team members focus their investigation on a learning objective, it is more probable that they will produce a fitting learning output. As a way of focussing the investigation, we copied the principle of the 'leading question' from the SCM. We chose for the specification of a 'question of inquiry' by the team, which should help it focussing its investigations. For instance, when the leading question is concerned with the topic of the work-life balance, then valuations about how the team members are inclined to direct their sales activities are probably a bit off the track and should not be collected. Besides a lens for the investigation, a question of inquiry is also the impetus for finding an answer, to be formulated at the end of the first investigation,
when the improvement phase begins. ‘This is how we could cope with it’, the team members will say, and this enthusiasm can be a stimulus for the change and improvement of joint behaviour.

We have presented in this section a listing of the main design choices that were made for the design of the TCM. It should be noted here that it remains very much possible to make new, different design choices during the execution of a TCM process. After all, the application of a design solution in a social system like a team is highly complex and open to surprises. Probably many other features will be added when it is brought into use on different occasions. Unforeseen demands will be answered, and the TCM design model will develop further.

We have also in this section accounted for the design process of the TCM, by indicating the steps that were roughly taken in order to develop the method. The prescribed milestones of the problem solving cycle were all present in our process. The function of the method was defined, and corresponding requirements and design choices were made. The testing and evaluation of the design model was also included in the process and will be addressed in chapters six to eleven. Though the real design process did not strictly obey to the cycle [and most design processes do not, because of their messy character], it contained the desired milestones.

4.5 Summary

This chapter contains the designed TCM model. It is put forward as an integral whole, as well as in detail by a listing of its main design choices. The design process that led up to this result was checked against and enriched by the benchmark of design methodology. The function of the projected TCM was set; the determination of it is an important milestone in design methodology. Our method should be a tool for assessing and improving collective and individual functioning in teams, or more briefly a tool for collective learning. This function can be subdivided. Linked to the sub-functions of ‘stimulating insight’, ‘stimulating improvement’, and ‘promoting the process of investigation in the team’, we listed the corresponding requirements, design variables and design choices for the TCM. Thus, its protocol was presented in more detail.

It is the set of design choices that is to be tested across cases. The design solution for the TCM should be appropriate for solving a class of problems (in our case, problems of team development) and not just for only one unique problem (such as a problem in a specific management team). It is therefore necessary to do a check on the general usability of our design solution. The list of design choices (out of which the design solution is built up) which is presented in this section serves as the input for this check. The check itself will be carried out in our series of case studies in the chapters 7 to 10; the method of checking will be outlined in chapter 6.
CHAPTER 5

Construct validation: Are the concepts of collective and individual functioning measurable?

5.1 Research questions and method

Introduction

This chapter offers an empirical validation of the concepts collective valuation, collective affect and collective voice. In chapter 1 and 2, we developed these concepts on the basis of existing concepts of individual functioning as used in Valuation Theory (VT) and Hermans's theory of the Dialogical Self (DS). The concepts of individual functioning are made assessable through the Self Confrontation Method (SCM; see Hermans & Hermans-Jansen, 1995) and the Personal Position Repertoire (PPR; Hermans, 2001b); our newly designed Team Confrontation Method (TCM) is to detect the signs of collectivity and deviancy.

Our leading questions for this chapter are therefore: By which measures do we make the new concepts of collective functioning assessable, and How can we demonstrate these measures to have construct validity? In order to answer these questions, relevant research data are brought together and presented systematically.

Construct validity is the extent to which a measurement tool may be taken as representative for the construct that one intends to measure. We will show that our concepts are instrumentally realisable, i.e. 'displayable' through assessment tools, and that the developed assessment tools have construct validity. We do this partly by deduction (thus making it plausible that the assessment tools indeed reflect the pivot concepts), partly by statistical analysis of the data generated by these tools. We have tried the newly developed tools in the context of real groups and teams. Whilst resulting quantitative data helped the intended construct validation, we also collected qualitative data on the comprehensibility of the concepts and measures and the perceived consistency between the two, and on the consistency of the quantitative outcomes with team members' experience. Thus, by triangulation, we compare one source of data (the team member's verbal reports and, sometimes, the facilitator's observations) with the other (questionnaires generating quantitative data), and along this track account for the developed measures' construct validity.

In this section 5.1, we begin with our general research questions and a short description of the methods by which we tried to find an answer. In section 5.2, we focus on the validity of collective valuation and collective affect. The general research questions are narrowed down to hypotheses; these hypotheses then lead our data collection and analysis, and the resulting outcomes are presented and discussed. Thus, the construct validity of the developed measure is made plausible. In section 5.3, we use the same way of working when we focus on the validity of collective voice through the construct validation of its measures.
In section 5.4, we present an overview of the developed assessment measures, based on our investigations reported in the previous two sections. Moreover, we offer the user some hints on how to apply the measures in practice, especially regarding the interpretation of measurement outcomes: the intrinsic, general meaning of certain standard value combinations will be clarified.

Research questions

Our research has focussed on our newly developed concepts of collective functioning in teams. Our intention is to empirically establish these concepts, and simultaneously develop instruments for assessing the occurrence of the phenomena indicated by them. This means that we first need to describe the essence of the concepts, in order to determine what to measure. Therefore, each time in this chapter when we treat a concept, we think over what the concept entails and how this could be translated into a measure. Once we have derived a measure, we try it out and look what data it produces. If the measurement is demonstrating what we expect, then we have an indication of construct validity.

In this chapter, the following research questions are central:

• Can collective valuation and collective affect be empirically demonstrated?
• Can collective and deviant voice be empirically demonstrated?

These research questions will be narrowed down to hypotheses in the sections 5.2 and 5.3 respectively. Moreover, we will present there the relevant research done on these hypotheses.

Method

In order to find an answer to our hypotheses, we used measurement tools and systematic observations in case studies. This means that we, for each concept again, tested the expected correlations in two (or more) different cases. The repetition of the same data patterns was taken as a proof for the existence of phenomena that are reflected by the concept. Thus, the concept was validated and the corresponding measurement tool’s construct validity established. Please note that, one step before, we prepared the construct validation of the tools by deducing them from the essence of the concepts.

The use of a case study format implies that our statistical criterion for accepting a hypothesis is somewhat different from what is common in psychology. We accept proof from only a few measurements, while in psychology the usual number of measurements (cases, respondents) should amount to more than twenty. Yet, as Yin (2003) shows, the proof from case studies, if properly conducted, is as valuable as that of the more traditional methodologies. Since it is not easy to arrange for experiments or correlation studies with twenty or more teams, more or less at the same time, the classical statistical claim ‘N > 20’ would be virtually unfeasible. A substantive argument can be added to this: no single group or team is the same. Contextual factors influence a team situation to such a great extent, that we have to interpret instead of straightforwardly induce what universalities are discernable. The case study methodology fits this demand better than the traditional methodologies that use ques-
tionnaires together with an experimental design, and that, after all, try as much as possible to reduce contextual factors. By contrast, case studies are open to context while providing potentially significant qualitative and quantitative data as much as more traditional methods do.

However, the fact that not ‘N > 20’ but ‘N < 20’ applies for our research, strictly means that our conclusions should remain tentative and can only be made plausible. Essentially, every first falsification should invalidate a conclusion. Yet we may assume that the occurrence of a few significant findings in a certain direction makes it easier accepting a hypothesis as plausible.

5.2 Can collective valuation and collective affect be empirically demonstrated?

The concepts of valuation and affect as indicators of the quality of individual functioning have been amply treated by VT. Our new concepts of collective valuation and collective affect are potentially fit for indicating the quality of collective functioning. As indicated above, the following question now becomes central: Can collective valuation and collective affect be empirically demonstrated? This question can be subdivided into three more specific ones:

• How could we demonstrate collective valuation and collective affect?
• Could we also demonstrate changes of collective valuation and collective affect that are predicted by theory?
• What does an assessment instrument look like that demonstrates the occurrence and change of collective valuation and collective affect?

The first question speaks for itself: it is about the construct validation of our new concepts. The second question is also about construct validation. It looks for the way our measurements produce data on change that are in line with theory. This is important, because explicit attention for change and improvement is an essential feature of the TCM. Then, also the actual occurrence of change should be mirrored by data produced by our assessment instrument. In situations of change, data fluctuations should predictably mean the same thing each time, so that the data could be taken to describe the change.

The third question is about application. Once we have demonstrated the occurrence of expected outcomes, we have obtained a proper measurement tool. The answer to this third question is a description of the tool.

In sum, this section discusses the validity of the concepts collective valuation and collective affect, and deals with the development and construct validation of the corresponding measures of both concepts.

We carried out a few investigations on each of these questions, each time along the same lines. By retracing the essence of the concepts by logical reasoning through something that could more or less be called a ‘thought experiment’ (which will be described soon below), we determined what to measure. Through this we were able to formulate appropriate hypotheses. Were the expected patterns visible in the generated data? If so, the data could be taken
to mean something in relation to the concepts. Moreover, different quantitative values of the parameters used would have different potential meanings, with a potential relevance for the context of a team situation. Below, we will perform the empirical demonstration of the occurrence of collective valuation and collective affect separately from the demonstration of basic forms of change in collective valuation and collective affect.

**Demonstrating collective valuation and collective affect**

The essence of collective valuation and collective affect lies in the communality of experience. When we take team members to have a common experience, we mean that they experience an event grossly in the same way: the event has more or less the same meaning for each of them. Hermans & Hermans-Jansen (1995) describe valuations as units of meaning with an affective component; in line with this, collective valuations may be taken as units of meaning that have their affective component in the form of collective affects or affect patterns. A collectively experienced meaning should show through a collectively formulated valuation that applies to ‘us’ and describes, explicitly or implicitly, a feeling that ‘we’ experience. Moreover, this joint feeling should be statistically visible.

How can we establish the communality of a valuation? How can we recognise a common affective experience, connected to this valuation? If we want to find an answer, we should first do a thought experiment. We may imagine that a team is asked to describe an affect-laden, common experience. The resulting valuation is double-checked with the team members, by asking to what extent they endorse the description. The communality of affect is checked by asking team members to complete an affect questionnaire that collects quantitative information about the strength of certain affects experienced by them in connection with the given valuation. The communality of affect can then be derived from the data: if all affect patterns are alike (or in other words, if the ‘emotional colour’ of the valuation is similar for all team members), the correlations between these affect patterns should be consistently high. Thus, we may deduce that this measurement follows from the concept; its construct validity is potentially plausible.

This is to be checked empirically through two hypotheses, indicated below in italics. The first hypothesis is developed from the following line of reasoning. The communality of affect could be estimated when we ask the team members to attribute an affective pattern to the group, next to their own individual affect pattern. After all, when the group has a strong collective experience at a certain event, the affect patterns attributed to the group could be expected to lie close together, or, statistically, correlate highly. Maybe these patterns would lie even closer together than the individual affect patterns. When the collective experience is strong, the team members could be expected to estimate the affective experience of the group better, even if they individually feel slightly different about the event. Therefore, the first hypothesis should be as follows:

*First hypothesis: If we call the correlation between affect patterns attributed to the group “r(g)” and the correlation between affect patterns experienced by the individual team members “r(i)”, then it may be expected that in case of a collective experience “mean r(g)” is higher than “mean r(i)”.*
The second hypothesis is developed along a similar line of reasoning. Collective valuations could be expected to show more communality in affect patterns than deviant valuations. After all, a collective valuation is shared by most of the team members; their experience would therefore be largely similar, more similar than in the case of a deviant valuation, where the experience is more or less fragmented. This should be proven by the measurement of affect patterns. The second hypothesis should therefore be as follows:

Second hypothesis: If we call the correlation between the team members’ affect patterns “r”, then we may hypothesise that in case of a collective experience the “mean r” is high, higher than in case of a deviant experience, i.e. an experience not shared in the same way by everyone in the team.

These two hypotheses led the following two investigations (‘case 1’ and ‘case 2’). Here we try to find out whether the patterns in research data suggest a cross-case consistency.

Case 1- We asked the nine members of a team of management trainers (selected for its easy access, being a business connection of the author) to share a few common experiences and express these into the form of collective valuations (‘we-sentences’, describing events or episodes that happen, in time and space, to ‘us’, i.e. the group); moreover, we invited them to indicate the strength of their individual affects as well as the affects attributed to the group. They formulated, by intensive interaction, a number of collective valuations, one of them being as follows: “We at X [name of the team] attach much value to a high common support for decisions”. Next, the team-members were asked, in SCM-style, to complete questionnaires on affects (respectively S-, O-, P- and N-affects), one of them with the question ‘Indicate to what extent you experience the feelings with respect to this valuation’ (5= very strongly, 0= not at all experienced) and ‘Indicate now to what extent you think the group experiences this feeling with respect to this valuation’ (5=very strongly, 0= not at all experienced; see also the appendix ‘questionnaires used’).

We processed the data as follows. When individual affect patterns (i) of the team-members are mutually correlated, a correlation matrix (i) is the result; when one does the same for the affect patterns ascribed to the group one obtains a correlation matrix (g). From both matrices we can, via fisher z transformation, distillate a correlation mean, and determine with a t-test the significance of the difference between these two means (mean r {i}; mean r {g}). Thus, the measurement produced the following results (Table 5.1, page 108). The difference between mean r {g} (.52) and mean r {i} (.33) was significant (p<.001). This shows that the estimations of team-members of the affect patterns ‘experienced by the group’ were more clustered than their individually experienced affect patterns. It suggests that our first hypothesis could be accepted: by this measurement, a common affective experience became clear¹.

¹ In case of collective experience, we consider the affect patterns to be alike, not the separate affects. We compared the team members’ scores of separate affects, (i) and (g), with an F-test: (i) and (g) scores generally showed an equally high variance. Moreover, a single affect was usually not equally strong across team members. This is probably partly due to individual response tendency. Therefore, the affect pattern serves as a better basis for assessing collective affect.
Another valuation in this group ("We at X don’t dare to make decisions individually"), without support amongst team members, did not show this difference (mean r[1] = .18, p=.623). This valuation was expressed by one team-member as a challenging statement to the rest of the team, but experienced by most members as a deviant one. The value of mean r[g] at the formerly mentioned collective valuation was significantly higher than its value at this ‘deviant’ valuation (.52 over .22, p<.001). It suggests that we accept the second hypothesis: mean r is higher in cases of collective experience than in cases of deviant experience.

When we give, after this test, the proposition of the first hypothesis some extra thought, we must conclude that though we indeed may take the measured outcome as a sign of collective experience (mean r[g] > mean r[1]), this sign is probably not the only possible indication for a valuation’s collectivity. After all, we can imagine that not only mean r[g], but also mean r[1] be relatively high, to an extent that the difference between both would not be statistically significant anymore. Would in such a case the experience not be collective? Of course it would. Individuals would not only attribute the same feelings to the group, but actually have a similar affective experience individually; the collective experience would be even stronger. As indeed turned out in many other observations, mean r[1] can sometimes be as high as mean r[g]; it can be taken as a just as valid sign of collective experience. The most important element of this investigation lies therefore in the fact that it demonstrated the measured value for mean r, either mean r[g] or mean r[1], to be higher in cases of collective experience than in cases of deviant experience.

One element in this case study deserves more elucidation. We can, by triangulation, further corroborate the construct validity of collective valuation. The endorsement of the valuations by the team members was checked quantitatively by vote. In addition, the investigator had also clear qualitative indications of endorsement: the first, collective, valuation, did not find resistance (verbally as well as nonverbally), while the second valuation was questioned a lot by the colleagues of the individual who proposed it. The team members clearly indicated that the ‘collective’ valuation was ‘about us’, while the other, ‘deviant’ valuation was not.

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2 See also section 5.4 and Table 5.10, where the interpretation of a high value of mean r[1] is amplified.
For some of them it was hard to even connect affects to the deviant valuation, when they were asked to complete the questionnaire. One of the team members indicated that he could not imagine the experience indicated by the deviant sentence, because he could not agree with it, and therefore had confused feelings about it. This suggests that a collective valuation is consistent with collective experience, while a deviant valuation is not.

In Case 2, we investigated whether we could find the same data patterns as presented above; but first we concentrate here on some extra data on endorsement. We asked four members of a team of career counselors to indicate on a 0 – 5 scale to what extent they agreed with the valuations they had jointly produced (0 = I don’t agree at all, 5 = I fully agree). They endorsed the valuations that they had produced as being collective, with an average 3.60; the valuations they had produced as being deviant were only endorsed with an average 2.75. Yet, this difference was not significant. We had anticipated the possibility of such an outcome and made our measurement slightly more sophisticated by asking the team members to indicate, on the same six-point scale, to what degree they thought the group would agree with the valuations. Here, the difference was more marked: the ‘collective’ valuations received an average 3.76, while the ‘deviant’ valuations received an average 2.55. The difference was significant (Mann-Whitney U test, p<.05); moreover, it appeared that the estimate of group agreement was a better indication of collectivity than individual agreement.

The findings described are confirmed by the fact that in our experience (in many other cases next to the two presented here) the valuations formulated as being collective showed a high value of mean \( r(g) \) (generally > .60), indicating that the team members’ affect patterns as attributed to the group correlated high on the average in the case of a collective valuation. The same was often found for mean \( r(i) \) (> .60), indicating that also the team members’ individually experienced affect patterns correlated high on the average. At the same time, the formulated deviant valuations showed a low value of mean \( r(g) \) (generally < .40), and even lower values of mean \( r(i) \). This phenomenon, which appeared across different cases, is a further strengthening of the second hypothesis. It confirms the common experience of collective valuations and relative fragmented experience of deviant valuations. In other words, it is possible to jointly find words for a collective experience, i.e. formulate collective valuations.

Incidentally, a valuation initially marked by the team as a deviant one, can prove collective by measurement (or vice versa: a supposed collective valuation may prove deviant). After all, its mean \( r(i) \) and mean \( r(g) \) could show surprisingly high (or low) values, thus confronting the team with an unexpected communality of experience (or a lack of it). We have consistently found that team members will still endorse such findings by taking them as a credible indication of the collectivity or deviancy of a valuation, in spite of the fact that the findings are contrary to their earlier estimations. In short, they tend to admit that the valuation is indeed collective, or deviant. Moreover, they know how to interpret the valuation meaningfully as a collective or deviant one. Precisely this, the confrontation with and joint interpretation of unexpected findings, is a central asset of the TCM.
What do the data of case 1 and case 2 mean? First, the data are consistent and point to the existence of the phenomena covered by the concepts collective valuation and collective affect. Second, with this investigation we have found measures for the concepts, namely a ‘we-sentence’ (for collective valuation) and mean \( r(i) \) and mean \( r(g) \) (for collective affect). The second hypothesis for which both case studies were performed can be accepted: in case of a collective experience the mean \( r \) is high, higher than in the case of a deviant experience. The first hypothesis should be rejected: mean \( r(g) \) is \textit{not necessarily} higher than mean \( r(i) \) in cases of collective experience, even if it \textit{can} be. Essentially, mean \( r(i) \) also indicates communality of affect: the higher the value of it, the stronger the communality. Admittedly, if mean \( r(g) \) is significantly higher than mean \( r(i) \), then there exists a collective experience even when the team members feel individually different; but if mean \( r(g) \) and mean \( r(i) \) are both high, then there exists also a collective experience, this time one in accordance with the individual team members’ feelings. For collective experience, it is not strictly necessary that mean \( r(g) \) show a higher value than mean \( r(i) \). It is a \textit{high mean r} (either \( r(g) \) or \( r(i) \)) that demonstrates communality in affect, and along with it, a communality of experience.

The patterns in our research data suggest a cross-case consistency; the results reported in these two case studies are illustrative for what we have found in virtually all other cases that we studied. We may assume that the measures mean \( r \), mean \( r(g) \) and mean \( r(i) \) have construct validity, and the concept collective affect through them becomes assessable; we accordingly predict that in future cases the same data patterns will be found.

Finally, from the team members’ ease of working with the concept of collective valuation and the ‘we-sentence’ as its qualitative measure, we may derive that concept as well as measure are comprehensible and clearly perceived as mutually consistent. Concept and measure can therefore be used in teams. This also applies to the concept of collective affect and its measures mean \( r(g) \) and \( r(i) \), though they usually require at first some clarification by the team facilitator.

\textit{Demonstrating change of collective valuation and collective affect}

A further indication of construct validity would be the demonstration that changes in the values of the developed assessment measures predictably reflect changes in really experienced phenomena as referred to by the pivot concepts. Some basic forms of change may be expected in teams; are such changes mirrored by changes in the measures’ values?

Through time, each group or team usually shows some development towards a higher sense of belonging. When a team starts its existence, or when newcomers enter it, quite a few team members feel relatively alone and cautious; during the team’s life-cycle, members become gradually more open to each other, until they ideally find each other blindly for the successful joint performance of a task (see e.g. Tuckman, 1965). Positive feelings and feelings of belongingness go together with it. In fact, this is a rather abstract truth: the unique reality of different teams shows many exceptions. For instance, when there is trouble in the team, e.g. a threat from outside or a conflict, it is likely that the suggested process of development is not fully applicable. However, very often teams develop without too many problems toward a higher communion.
If this basic process of development is applicable to our subject, we may find out that collective valuation and collective affect develop in a way that is consistent with it. During the team’s life-time, collective valuations could be expected to become easier to formulate, i.e. in a more and more specific fashion, because team members tend to know more about each other’s [and common] experience. For the same reason, the colour and intensity of collective affect would probably become clearer. Moreover, the positive feelings (the SCM’s P-category, e.g. security, trust, enjoyment) as well as the feelings of communion (the SCM’s O-category, e.g. solidarity, care, warmth) would become stronger, during the team’s lifetime. We can formalise our hypotheses as follows:

**hypothesis:**

(a) ‘we-sentences’ become easier to formulate during the team’s life-time;
(b) mean r(g) and mean r(i) can be expected to increase;
(c) levels of P- and O-affects can be expected to rise.

We tested the hypotheses about collective valuation (measured by ‘we-sentences’, hypothesis a) and collective affect (measured by mean r{i} and mean r{g}, hypothesis b) partly in combination. After all, collective affect is a component of collective valuation, and indications of the development of collective affect may be taken as indications for the development of collective valuation as well. Both developments reflect a heightened collective experience. We have had some experience with the formulation of collective valuations in totally new groups. We found here that the ‘we-sentences’ are not easily produced, remain at a relatively high level of abstraction, and are somewhat empty and noncommittal, e.g. ‘We are impatient and curious about what the content of this session will be’, or: ‘We knew well what we had to say’. These we-sentences do not yet reflect really felt common experiences that have rooted in the team’s members and repeat themselves ever now and then in different ways, thus mirroring an underlying theme. In older groups, or groups that have developed into teams by finding and performing a common task, such collective valuations are much easier produced. Unfortunately, we do not have systematic evidence that proves this, in the form of two trials of collective valuation formulation, one at the beginning of the team’s life, the other some time later. However, the evidence about collective affect, as it is presented below, might indirectly favour our supposition.

We tested the hypotheses about collective affect (hypotheses b and c) in a series of cases (numbers 3, 4 and 5), each time with a different group of participants in management training.

**Case 3** concerned a group of 8 participants in a leadership course, members of the same organisation but not of the same team. The course consisted of three sessions of several days with each time a period of a month in between two sessions. During these sessions, the cooperation between participants was intensive. We had the opportunity to assess their collective affect at the end of the first day of the programme, and at the end of the last day, 11 weeks later. We asked the group members to indicate on a questionnaire (the same as in cases 1 and 2, see above) the intensity of own feelings about the course (i-affects), and the estimated intensity of the group’s feelings about it (g-affects). In fact, the procedure was mainly identical
with that of case studies 1 and 2. Note, however, that the group was not asked to produce a collective valuation about the course, but just to indicate a general feeling (or better: an affect pattern) about it.

**Case 4** concerned a group of 13 participants in a business orientation course, like those of case 3 members of the same organisation but no direct colleagues. The course consisted of five several day sessions with, each time, a period of a month in between two sessions. Also here, the cooperation between participants was intensive throughout the whole course. In addition, we assessed the group members’ i-affects and g-affects about the course, right at the end of the course’s first day, and at the end of the last day, 17 weeks later.

**Case 5** concerned a group of 20 participants in a business orientation course of five sessions within a period of 17 weeks. Again no direct colleagues, but all working for the same organisation; again an intensive cooperation during the course, again assessment of i- and g-affects at the start and end of the course.

We processed the resulting data as follows. Firstly, we collected the values of r(g) and r(i) in order to estimate the communality of affect; would the mean r(g) and mean r(i) be higher at the end of the courses (hypothesis b)? Secondly, we collected the values of O(g), O(i), P(g), P(i); would the feelings of communion (O) and positive feelings (P) rise during the course (hypothesis c)?

In Table 5.2, the values of mean r(g) and mean r(i) are presented for each case. Each time, the first assessment at the start of a programme and the second assessment at the end of a programme are juxtaposed. The differences were tested for their statistical significance with a t-test; the result of the tests are also indicated here.

<table>
<thead>
<tr>
<th>Case</th>
<th>Mean r(i)</th>
<th>Fisher z start</th>
<th>Mean r(i)</th>
<th>Fisher z end</th>
<th>t-value</th>
<th>Value for mean r (corresponding with mean fisher z value)</th>
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</thead>
<tbody>
<tr>
<td>Case 3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Mean r(i)</td>
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<td>27</td>
<td>1.673</td>
<td>.766</td>
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<tr>
<td></td>
<td>Fisher z end</td>
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<td>.20</td>
<td>27</td>
<td>.799</td>
<td></td>
</tr>
<tr>
<td>Mean r(g)</td>
<td>Fisher z start</td>
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<td>.20</td>
<td>27</td>
<td>5.225**</td>
<td>.782</td>
</tr>
<tr>
<td></td>
<td>Fisher z end</td>
<td>1.260</td>
<td>.21</td>
<td>27</td>
<td>.851</td>
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</table>

<table>
<thead>
<tr>
<th>Case 4</th>
<th>Mean r(i)</th>
<th>Fisher z start</th>
<th>Mean r(i)</th>
<th>Fisher z end</th>
<th>t-value</th>
<th>Value for mean r (corresponding with mean fisher z value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean r(i)</td>
<td>Fisher z start</td>
<td>.726</td>
<td>.262</td>
<td>77</td>
<td>3.949**</td>
<td>.621</td>
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<tr>
<td></td>
<td>Fisher z end</td>
<td>.887</td>
<td>.321</td>
<td>77</td>
<td>.710</td>
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<tr>
<td>Mean r(g)</td>
<td>Fisher z start</td>
<td>.824</td>
<td>.239</td>
<td>77</td>
<td>5.290**</td>
<td>.671</td>
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<tr>
<td></td>
<td>Fisher z end</td>
<td>1.038</td>
<td>.246</td>
<td>77</td>
<td>.769</td>
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<tr>
<th>Case 5</th>
<th>Mean r(i)</th>
<th>Fisher z start</th>
<th>Mean r(i)</th>
<th>Fisher z end</th>
<th>t-value</th>
<th>Value for mean r (corresponding with mean fisher z value)</th>
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<tbody>
<tr>
<td>Mean r(i)</td>
<td>Fisher z start</td>
<td>.785</td>
<td>.328</td>
<td>189</td>
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<td>.556</td>
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<td>.825</td>
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<td>.677</td>
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<tr>
<td>Mean r(g)</td>
<td>Fisher z start</td>
<td>.843</td>
<td>.397</td>
<td>189</td>
<td>(\geq .001)</td>
<td>.567</td>
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<td></td>
<td>Fisher z end</td>
<td>.846</td>
<td>.547</td>
<td>189</td>
<td>.889</td>
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</tr>
</tbody>
</table>

Note – t-test on paired values of pearson correlations (r) between affect pattern scores of group members. In each case study, two matrices of correlations were compared. ** p ≤ .01; * p ≤ .05 (two-tailed).
As can be derived from these findings, the mean $r(i)$ rose in all cases between the first and the second assessment; the mean $r(g)$ however rose in each of the cases more strongly and significantly. The findings are graphically represented in Figures 5.1 to 5.3; it shows that the collective affect becomes stronger as the group exists for longer. After all, the mean $r(g)$ gives evidence of a significant rise in each of the cases.

4 ‘General Feeling’ indicates how a self-investigator feels in general recently (see also section 2.2 at the detailed introduction of the SCM); here: how he or she feels in general about the way the group functioned.

5 In Figure 5.3, the value of mean $r(i)$ is initially higher than the value of mean $r(g)$. This does not mean much: both the values of mean $r(i)$ and mean $r(g)$ rose, and this is precisely what we hypothesised.
The hypothesis (b) that the mean $r(g)$ and the mean $r(i)$ will increase as the group gets older, is confirmed. By indicating a stronger collective affect, the group members showed to have a stronger collective experience (i.e., a better antenna for it) in the course of the programme. In Tables 5.3 and 5.4, the values of $O$ and $P$ are presented for each case. Also here, (i)- and (g)-affects are reported; also here, the differences between the start and the end become clear.

### Table 5.3 – Differences between levels of $O$ affect over time

<table>
<thead>
<tr>
<th>Case</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>$O(i)$</td>
<td>2.44</td>
<td>3.28</td>
</tr>
<tr>
<td></td>
<td>1.03</td>
<td>1.01</td>
</tr>
<tr>
<td>$O(g)$</td>
<td>2.56</td>
<td>3.75</td>
</tr>
<tr>
<td></td>
<td>0.90</td>
<td>0.90</td>
</tr>
</tbody>
</table>

### Table 5.4 – Differences between levels of $P$ affect over time

<table>
<thead>
<tr>
<th>Case</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>$P(i)$</td>
<td>2.89</td>
<td>3.58</td>
</tr>
<tr>
<td></td>
<td>1.02</td>
<td>0.88</td>
</tr>
<tr>
<td>$P(g)$</td>
<td>2.72</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>1.01</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Note – t-test on paired values of $O$ affect scores of group members. In each case study, values at the start and at the end of group sessions were compared. * $p \leq .05$ (one-tailed); ** $p \leq .01$ (one-tailed); *** $p \leq .001$ (one-tailed).
As can be seen in the tables, the differences were again tested with a t-test. A rise of positive feelings (P) was visible in all three cases; a rise of feelings of communion (O) in two of the three. These findings were mirrored by our observations of actual interactions: the members of the different groups gradually expressed more and more feelings of belonging, and the positive spirit in each of the groups increased with each session. The hypothesis (c) that the levels of P- and O-affects will rise, can be accepted.

In the cases 1 to 5, we demonstrated that theoretically expected data patterns were indeed found. The developed assessment measures proved to be able to make the phenomena visible that are indicated by our newly developed concepts. Because of this, we assume that the construct validity of the new concepts is adequate.

Thus, the question that was raised in this section (‘Can we demonstrate collective valuation and collective affect?’) is answered affirmatively. We may define Collective valuation as a ‘We-sentence’ that describes an event experienced by the team as a whole, and additionally shows a high value (>.6) of mean r (either mean r[i] or mean r[g], or both). A Deviant valuation is a valuation that shows low values of both mean r[i] and mean r[g] (<.4).

5.3 Can collective and deviant voice be empirically demonstrated?

The concept of collective voice is not entirely new. It has been treated by Hermans & Kempen as early as 1993, and been described by them as the source of collective stories that epitomise certain collective values. Their analysis, however, stays mainly on the societal level. In our study, collective voice is not inconsistent with this, but it has a more concrete denotation: we regard it as a source of a team’s collective valuations and an indicator of the quality of a team’s collective functioning. Moreover, we have introduced deviant voice as its mirror concept that underlines the importance of deviancy in the face of collectivity, for the sake of a well-functioning team. Briefly, our understanding of collective voice is somewhat more small-scale than that of previous authors, and brings with it an interesting potential for immediate application. This is the reason why we adapted a version of Hermans’s Personal Position Repertoire (PPR; see section 2.2) for use in teams: multivoicedness promised in our theoretical grounding of the TCM to be a major lever for improvement in teams (see sections 2.3 and 2.4), and therefore its measurement should be well grounded too. The PPR adaptation is developed below.

In this section, the question whether collective voice and deviant voice can be empirically demonstrated is central. In line with the previous section, we subdivide it into more specific questions:

- How could we demonstrate collective voice and deviant voice?
- What does an assessment instrument look like that demonstrates the occurrence of collective and deviant voices?

The first question is about construct validation of our newly developed concepts. The second question is about application: it asks for a description of the tool that measures the new concepts.
In sum, this section focuses on the validity of the concepts collective voice and deviant voice, and accounts for the development and construct validation of the corresponding measure. Our new PPR is not meant for assessing multivoicedness within individuals; the new instrument should be used for the assessment of (collective and deviant) voices in teams, in order to foster team development.

As in the previous section, investigations are presented that concentrate on the leading questions. We have tried to recapture the essence of the concepts, so as to determine what to measure, and formulated hypotheses in line with this. Our aim is to demonstrate the expected patterns in the generated data. We will try to empirically demonstrate the occurrence of collective and deviant voices. Change in the communality of voices, that happens through time, is covered later on, in chapters 7 to 9, although we will also examine this matter briefly in this chapter.

**Demonstrating collective voice and deviant voice**

Essentially, a collective voice is used by more (or all) team members at a time, in contact with each other or their environment. When speaking with a collective voice, team members speak as with one tongue, tell more or less the same stories (or, slightly different stories but with the same affective overtones), and radiate the same values and norms. With a collective voice, they mutually attune well. Collective voices are heard well too, in and outside the team, and they sound in contact with most, if not all, team members, who act as eager ‘soundboards’. Some collective voices are a bit weaker, but owe their collectivity to the fact that they consistently sound in the contact with particular team members, e.g. the team leader or a person of specific importance. In contrast, deviant voices are scattered across individuals (i.e., there are few and dispersed speakers and soundboards) and usually subdued in the team, but have the potential to introduce new valuations (e.g., unexpected viewpoints) and thus breach current patterns of cooperation.

For team members, collective voices are consistent with common experience. Generally in the same way, the team members actively experience certain ways of expression and communication (speech genres) that are common in the team, and when their ‘collective voice speaks’, it has more or less the same meaning for each of them. For instance, when they speak like creative persons, they might experience this as very familiar (we-as-creative being a collective voice); when they speak like business people, they might not (we-as-businesslike being potentially a deviant voice).

How could we now establish the communality of a voice? How could we recognise a deviant voice? For finding an answer, we will again do a thought experiment. We may imagine that groups and teams can be asked to describe their collective and deviant voices. The communality of voice is checked by asking team members to complete a PPR-like questionnaire (see section 2.2, the case 6 below and the Appendix 3 on questionnaires used) that collects quantitative information about the voices, treated as internal positions in each of the team members individually (in the rows: ‘speakers’), in contact with each of the other team members (in the columns: ‘soundboards’), here treated as a team member’s external positions. 
The communality of a voice can then be derived from the data: if a voice is collective, then the score patterns of all individuals for one internal position will be more or less alike (or: the functioning of the same voice similar for all team members), and hence the Euclidian distances between these score patterns consistently low. This is an internal consistency measure, indicating the similarity of a voice’s functioning across team members. Imaginary examples are presented in Tables 5.5, 5.6 and 5.7.

Table 5.5 — Fictitious example of voice measurements in a team — I. Rows: speakers; Columns: soundboards. On the right side of the table the calculation of the internal consistency (with the Euclidian distance measure) and the prominence of the voice.

<table>
<thead>
<tr>
<th>(A particular voice, e.g. &quot;The listener&quot;)</th>
<th>Ps 1</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
<th>Prom.</th>
<th>Eucl. Dist.</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person 1</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Person 2</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Person 3</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Person 4</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Sum (overall prominence)</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>108</td>
<td>Av. Eucl. dist.: 0/6=0</td>
<td>Av. Prominence: 108/12=9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.6 — Fictitious example of voice measurements in a team — II. Rows: speakers; Columns: soundboards. On the right side of the table the calculation of the internal consistency (with the Euclidian distance measure) and the prominence of the voice.

<table>
<thead>
<tr>
<th>(A particular voice, e.g. &quot;The rebel&quot;)</th>
<th>Ps 1</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
<th>Prom.</th>
<th>Eucl. Dist.</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Person 2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Person 3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Person 4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sum (overall prominence)</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>Av. Eucl. dist.: 0/6=0</td>
<td>Av. Prominence: 12/12=1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.7 — Fictitious example of voice measurements in a team — III. Rows: speakers; Columns: soundboards. On the right side of the table the calculation of the internal consistency (with the Euclidian distance measure) and the prominence of the voice.

<table>
<thead>
<tr>
<th>(A particular voice, e.g. &quot;The creative&quot;)</th>
<th>Ps 1</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
<th>Prom.</th>
<th>Eucl. Dist.</th>
<th>Ps 2</th>
<th>Ps 3</th>
<th>Ps 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person 1</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Person 2</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Person 3</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Person 4</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Sum (overall prominence)</td>
<td>20</td>
<td>17</td>
<td>13</td>
<td>13</td>
<td>63</td>
<td>Av. Eucl. dist.: 31/6=5.17</td>
<td>Av. Prominence: 63/12=5.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 When discussing his PPR for individual functioning, Hermans (2001b) suggested that collective voices should be included in the repertoire, representing significant groups in the person’s life. In this way, his assessment tool of the individual position repertoire already gave room for collective voices, though only in the external variant (e.g., ‘my colleagues at the marketing department’). In contrast, we explicitly focus on collective voices in the internal variant (e.g., ‘we-as-creative’).
Suppose a team consists of four members, and each of the members rates all the others with the highest score 9 (see Table 5.5), thus indicating that the others bring forward in himself the particular voice in the strongest possible way. If each of the scores in the matrix has the same value (all 9s), then the Euclidian distances between the rows (containing the internal positions of the team members individually) are zero, the minimal value. If each of the scores in the matrix has the same low value, let’s say 1 (see Table 5.6), then the Euclidian distances between the rows remain zero, but the overall volume of the particular voice is significantly lower. Finally, if the scores in the matrix show an irregular pattern (different scores for each internal position in relation to each external position; see Table 5.7), as is the case in most of the teams, then the Euclidian distances between the rows become higher, and higher as the pattern becomes more irregular, which indicates a voice that is scattered in the team.

Moreover, if the voice is collective, then for this one voice all team members’ individual scores should add up to a relatively high number. This is a prominence measure, indicating the sheer volume (or: power) of a voice across team members. In Table 5.5, this prominence is the highest possible (all 9s, the maximum score); in Table 5.6, this prominence is low, even if the internal consistency is the same as in the first example.

Thus, we may deduce that the measurements follow from the concepts of collective and deviant voice; their construct validity is plausible. This is to be checked empirically. The hypotheses were the following.

Hypotheses:
If we call the internal consistency measure ‘Euclidian distance’ and the prominence measure the ‘Sum of all scores’, then we may hypothesise that in case of a collective voice the found Euclidian distance is relatively low, and the found Sum of all scores on a voice relatively high.

For a complete overview of the expected values of Eucl. Distance and Sum of all scores in connection with collective and deviant voice, we refer to Table 5.8.

<table>
<thead>
<tr>
<th>Euclidian Distance (internal consistency)</th>
<th>Sum of all scores (Prominence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatively high</td>
<td>Relatively high</td>
</tr>
<tr>
<td>Relatively high</td>
<td>Relatively low</td>
</tr>
<tr>
<td>Less</td>
<td>Collective</td>
</tr>
<tr>
<td>Collective</td>
<td>Deviant</td>
</tr>
</tbody>
</table>

The following investigation was a single case study that was meant for testing the hypotheses. In many other cases, our findings were similar, like the inspection of the cases of chapters 7 to 10 will prove. Therefore, we think we may assume that the outcomes of case 6 below have cross-case validity.
Case 6 – The same team of management trainers as in case 1 (see above), this time to its full size of 12 members, was asked to complete a modified version of Hermans’s PPR, what we will further call the PPR-c (see also the appendix on questionnaires used). The PPR-c aims at an assessment of the content and organisation of the position repertoire in a collective, in this case a team. We regarded a team-member’s inner voices as internal positions and his (internalised) colleagues in the team as external positions. All members filled the entries of the same matrix (containing the same, pre-agreed internal positions, being the names of the collective voices; and the same external positions, being the names of the team members), more or less in the same way as the current PPR is completed (likewise, the instruction is ‘to what extent does this internal position/voice come forward in contact with this external voice’; somewhat differently, scores range from 0=not at all, 9=very much). Because all respondents used the same matrix, the results on each internal position/voice could be added up across individuals (prominence measure), and individual patterns compared (internal consistency measure), as represented in Figure 5.4.

We expected to find several items (i.e., internal positions/voices) with, across team-members, a high level of prominence (i.e., high value of Sum of scores), this being an indication of communality of voice. And we expected several items to show a high internal consistency (i.e., low value of Euclidian distance) across team members, also an indication of communality of voice. While the prominence measure is calculated straightforwardly (simply summing up and averaging the scores on each voice for all team members), the formula used for the calculation of the internal consistency measure is more complicated. For each particular voice, the scores of all team members are to be put in a matrix $A$, with the rows representing the team members as speakers, and the columns representing the team members as soundboards. Comparing each time two rows of scores (by adding up the differences between each column-
bound pair of cells), the Euclidian distance value between all combinations of score patterns is determined. These distance values are then put in a new matrix $B$, with in the rows as well as in the columns the names of the team members; thus, each cell contains a Euclidian distance value between two members. This matrix $B$ typically has the amount of $x(x-1)/2$ team member combinations. This means that the sum of the Euclidian distance values in all cells of the half matrix is to be divided by this number of member combinations in order to determine an average Euclidian distance value for the whole team. If we furthermore want to make the thus obtained Euclidian distance value comparable for teams of different sizes, we have to consider the fact that the comparison of two rows of scores is differently done in teams with $x$ and $y$ members respectively: after all, in a team of $x$ members two score patterns contain $(x-1)$ comparisons of cells needed for the above described production of the Euclidian distance value between the two patterns. Therefore, the sum of the Euclidian distance values in all cells of the half matrix $B$ should also be divided by this amount of $(x-1)$ members in order to make the outcome of the formula comparable across teams. In sum, the formula for the Euclidian distance value to be used for the comparison of voices for their internal consistency, and for comparison across teams, gets the form of

$$D = \Sigma d / [(x(x-1))/2](x-1),$$

with $D$ being the derived measure of internal consistency, $d$ the Euclidian distance between two speakers of a voice, and $x$ the amount of team members.

In the matrix questionnaire used in our trial, 12 team-members were included in the columns, and (among others) 8 standardized internal positions in the rows. Just as Hermans' PPR, our questionnaire needed some standard positions, in order to introduce a high amount of variation in the positions and thus guarantee a reliable representation of the psyche of a team-member who is immersed in the process of co-operation. The 8 standard positions that we used (I as chairman, I as shaper, I as plant, I as group worker, I as monitor, I as implementer, I as resource investigator, I as caretaker) were based on the team roles of Belbin (for a further description of this approach, see Box 1 in the Appendix I on current methods for team development). We chose these team roles as our standard because they cover well the different ways of co-operating that happen in a team, and, moreover, they are widely known throughout the management world and thus easily recognisable by respondents. We treat every way of co-operating as accompanied by a corresponding internal standard position/voice. Next to the 8 standard positions, also some other internal positions were added to the rows by the team-members themselves. They were asked, as a team, to name a few frequently heard collective voices in the daily co-operation. They selected three voices: I as sparring partner, I as rebel, and I as careless. Thus, the amount of rows in the matrix questionnaire became 11. In order to somewhat align the respondents’ interpretations of the meaning of the 8 standard team roles, a brief description of the roles was added. Also the meaning of the three positions selected by the team was briefly discussed before completion.

7 One pair of cells that is not column-bound, namely the ratings by the two speakers of each other, is also compared and their difference (Euclidian distance) included in the addition.
The questionnaire generated data on the prominence and internal consistency of voices. The assessment results of the internal positions/voices across team-members are shown in the voice rankings of Table 5.9.

As we can see, the internal position/voice of 'sparring partner' selected by the team itself is rated high on prominence, though relatively low on internal consistency. If it comes to prominence, this voice was by far the strongest. Because its internal consistency could be much higher (it was now lowest in ranking), it is not obvious to establish this voice as a collective voice. Only the fact that respondents rated this internal position highly in the contact with colleagues, confirmed the team's own estimate that this would be a collective voice. More or less the same pattern was visible at the voice of 'group worker'. It was prominent, but did not show a high internal consistency. Apparently, different team-members associated more or less differently to this voice: they indicated that they experienced this internal position in the contact with different colleagues, showing that, though strong, the voice was a bit fragmented. This was reflected by the observations of the investigator/facilitator: the team members all behaved like 'group workers', yet everyone in contact with someone else or different subgroups in the team. Finally, the voice of the 'careless' however, though not prominent at all, did show a high internal consistency. This voice could partly be regarded as a collective voice, because the voice apparently owned another quality of collectiveness: it was used by the team members in a similar way, i.e. in contact with the same subgroup of team members, even though the voice was not used often, and therefore not strong. Though often surprising, the voice rankings produced by the assessment were recognised by the team as a reflection of their reality. It seemed to them that the data showed facts for which they thus far had been relatively unaware.

The voice of 'rebel' had both a high value of Euclidian distance and a low value of Sum (Mean) of all scores. This indicates that this voice was not collective, as the team had expected, but, on the contrary, deviant, and a potential lever voice.

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Note — Prominence and internal consistency were rated by a 'mean score' measure and an Euclidian distance measure (D) respectively. A relatively high mean indicates a collective voice; a relatively low D value suggests it as well.

Table 5.9 — Voice rankings in case 6

<table>
<thead>
<tr>
<th>rank</th>
<th>position/voice</th>
<th>Prominence (mean score)</th>
<th>Internal consistency (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>the sparring partner</td>
<td>3.95</td>
<td>2.95</td>
</tr>
<tr>
<td>2</td>
<td>the group worker</td>
<td>3.28</td>
<td>2.64</td>
</tr>
<tr>
<td>3</td>
<td>the caretaker</td>
<td>2.91</td>
<td>2.62</td>
</tr>
<tr>
<td>4</td>
<td>the chairman</td>
<td>2.89</td>
<td>2.65</td>
</tr>
<tr>
<td>5</td>
<td>the monitor</td>
<td>2.74</td>
<td>2.70</td>
</tr>
<tr>
<td>6</td>
<td>the inventor</td>
<td>2.67</td>
<td>2.66</td>
</tr>
<tr>
<td>7</td>
<td>the leader</td>
<td>2.66</td>
<td>2.49</td>
</tr>
<tr>
<td>8</td>
<td>the resource investigator</td>
<td>2.60</td>
<td>2.43</td>
</tr>
<tr>
<td>9</td>
<td>the implementer</td>
<td>2.52</td>
<td>2.43</td>
</tr>
<tr>
<td>10</td>
<td>the rebel</td>
<td>2.24</td>
<td>2.40</td>
</tr>
<tr>
<td>11</td>
<td>the careless</td>
<td>1.62</td>
<td>2.19</td>
</tr>
</tbody>
</table>

The voice of ‘rebel’ had both a high value of Euclidian distance and a low value of Sum (Mean) of all scores. This indicates that this voice was not collective, as the team had expected, but, on the contrary, deviant, and a potential lever voice.

8 Cf. footnote 2 of this chapter: with voices as with valuations, unexpected findings can prove valid.
The voice was weak, almost as weak as the ‘careless’, and did not share the careless’s relatively high internal consistency (its Euclidian distance value being not significantly higher than average). Potentially, this voice could have brought new life in the team, if it had been recognised as a pattern breacher. Our investigation, however, did not go so far as to provoke and observe developments of that sort.

**Voice diagram** – We want to mention here another result of PPR-c data processing that is potentially meaningful to the team members, and can lead to interesting interpretations of the mutual cooperation. The coherence of internal voices in the team can be plotted into a so-called voice diagram with ALSCAL, a calculation programme for Multi Dimensional Scaling (MDS), which is included in the SPSS menu. MDS is a statistical procedure for plotting distances between variables in a two- or more-dimensional solution. We made summations for each of the internal positions/voices brought forward by the team: per voice, the values for every team member in the entries received from the other team members are summated, meaning that each member gets as a total from his colleagues for each internal voice a certain score; the resulting matrix ‘member’ x ‘voice’ can be processed with ALSCAL. The resulting voice diagram, a two-dimensional solution for the distances between voices, is shown in Figure 5.5.

![Voice diagram](image)

*Figure 5.5 – Voice diagram representing the distances between voices in our try-out team of case 6. Analysis by Multi-Dimensional Scaling (ALSCAL); Kruskal s = .108*

With a Kruskal S-stress value of .108 the solution meets the significance criterion of .15 that is usually applied in ALSCAL. More importantly, in this way we can present to the team-members the coherence of the voices in the team: the smaller the distance in the figure between two voices, the more frequently these voices can be expected to be expressed together. A meaningful example: in this team we found the near-accordance of the voices ‘chairman’ and ‘implementer’ 9, suggesting that there was a very practical attitude (that of the ‘implementer’)

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9 Again, for an explanation of these Belbin team roles, see Box 1 in the Appendix 1 on current methods for team development.
among the team-members to meetings or to the co-ordination of work (where the ‘chairman’ had his influence). The team members confirmed that their meetings were not at all strategic or evaluative, but always ad hoc, dealing with daily issues of urgency. Another example: ‘shaper’ and ‘monitor’ were close together, suggesting a high energy and motivation for achievement in close association with a strong objecting voice that could frustrate initiatives taken. And also ‘chairman’ and ‘rebel’ were close, suggesting that team meetings were usually led by rebel questions and remarks slowing down the progress in the meeting. All these findings were potentially meaningful to the team, and in the case team-members indeed recognised most associations between voices as reflecting their daily co-operation.

Another aspect of the voice diagram, that could provoke a meaningful interpretation of the team’s reality, is the fact that the team’s deviant voices are potentially recognisable in it. Deviant voices are localised in the peripheries of the voice cloud. In Figure 5.5, the ‘sparring partner’ is the team’s strongest collective voice (its highest prominence is reflected by the size of its circle, which is largest of all) and can be taken as ‘standing in front’; all other voices then ‘stand behind’ it, first of them being the ‘group worker’ which takes up a central place in the rear as another collective voice, just like the ‘company worker’ and the ‘monitor’. In the periphery are the deviant voices: the ‘careless’ far in the back, the ‘rebel’ a bit less behind but still quite far away, the ‘caretaker’ aside, and the ‘resource investigator’ and the ‘inventor’ likewise relatively aside. Inspecting the diagram, the team members recognised these particulars of the voices as realities in the day-to-day team cooperation. The diagram generated more awareness. In it, the team saw its own fingerprint.

A remark should be made on the interpretability and usability of the generated data. Most results shown in the above tables and figures were highly recognisable and interesting to the team-members of our respondent team. The data ‘told a story’, a recognisable story, that is to say that it was easy for the team-members to start the interpretation of these data by telling what the data describe in their daily co-operation. In this way, the team members constructed new meanings, and their insight was deepened at the same time.

What do the data of case 6 mean? First, the data indicate the occurrence of the phenomena covered by the concepts collective voice and deviant voice. Second, with this investigation we have determined measures for the concepts, namely a ‘Euclidian distance’ (for the internal consistency of a collective voice) and ‘Sum of all scores’ (for the prominence of a collective voice). The hypothesis for which the case study was performed could not satisfactorily be accepted: in case of an acknowledged collective voice the found Euclidian distance should be relatively low, and the found Sum of all scores relatively high. For instance, the voice of the sparring partner should have had a low Euclidian distance value and a high Sum of scores across team members, because it was consistently regarded by the team members as a collective voice. Therefore, we must conclude that more research needs to be done in order to have this hypothesis accepted.

Furthermore, we think that it is not advisable to determine a voice that is high on internal consistency (i.e., with a low value on the measure Euclidian distance) but low on prominence as a collective voice, like in this case 6’s example of the Careless. Though the high internal consistency shows that the voice functions comparably across team members, it is
our experience (corroborated by several team members’ verbal evaluations) that a voice needs prominence before it can be recognised as collective.

Finally, though the team members requested some clarification by the facilitator of the measure ‘Euclidian distance’, the team members easily worked with the concepts of collective voice and deviant voice, and the ‘sum of scores’ as their other qualitative measure. From this, we may derive that concepts as well as measures are comprehensible and perceived by team members as mutually consistent. The developed concepts and measures can be used in teams.

At the end of this section we may conclude that the central question that was raised (‘Can we demonstrate collective voice and deviant voice?’) is answered affirmatively. We may define Collective voice as a voice that scores relatively high on the prominence measure ‘Sum of all scores’, and Deviant voice as a voice that scores relatively low on this measure. Moreover, a collective voice occupies a central position in the voice diagram, while a deviant voice takes up a more peripheral one. The additionally developed internal consistency measure ‘Euclidian distance’ needs further corroboration.

5.4 Application: the meaning and interpretation of the measures for collective valuation, collective affect and collective and deviant voice

The construct validation process, as reported in the previous sections, has produced some developed and tested measures for our new concepts of collective functioning. A next step is now to focus on how these measures can be used in the context of a team setting. In applying the new measurement tools, we have found that different quantitative values attained by our measurement have different intrinsic meanings, each with a certain relevance for the team. This section will concentrate on the general meaning of the measurement values and their combinations in practice. Thus, the potential user of the TCM (cf. the facilitator) gets ‘global knowledge’ (Hermans & Hermans-Jansen, 1995) about the meanings of certain statistics that are applicable to teams in general. This global knowledge is offered to the team, so that its members can use it in combination with their own ‘local knowledge’ about its particular history.

Collective valuation and collective affect

As measures for collective valuation and collective affect, we respectively use the ‘We-sentence’ (collective valuation) and ‘mean r[i]’ and ‘mean r[g]’ (collective affect). The ‘We-sentence’, describing an event that is experienced by the team as a whole, takes its shape depending on the experiences that team members happen to go through; its formulation is always context-dependent. There is no such thing as We-sentences that are generally valid across teams in comparable situations. After all, the language of team members and its meaning in their culture differs largely across teams, even when their situations seem very much the same in the eyes of an outsider. In their own opinion, they are not. We-sentences should therefore attain a formulation that is specific for the team.
The quantitative values that the collective affect measures ‘mean r(i)’ and ‘mean r(g)’ take can be interpreted for their general quality. Different teams can produce the same value on these measures, meaning the same thing on a global level. On a local level, a certain value combination could then of course receive different interpretations in different teams, as the values are connected to specific valuations [We-sentences] that refer to particulars in the team’s history.

A high value on the mean r measure means that the correlations between team members’ affect patterns with respect to a certain valuation are high on the average, implying that the affective overtones are similar across team members and thus the communality of affect is high. The difference between mean r(i) and mean r(g) can be taken as an indicator for the specific manifestation of collective affect. Across teams, different combinations of mean r(i) and mean r(g) values are possible; these and their meanings are listed in Table 5.10.

Table 5.10 – Mean r(i) and mean r(g): The potential of the different combinations of values for team development

<table>
<thead>
<tr>
<th>Mean r(i) and Mean r(g)</th>
<th>Opportunity</th>
<th>Threat</th>
</tr>
</thead>
<tbody>
<tr>
<td>High mean r(i) and high mean r(g)</td>
<td>“Consciously collective”: “Resolutely collective”</td>
<td>Opportunity: team is very focused threat: team is blind (possibly collectively mistaken)</td>
</tr>
<tr>
<td>Low mean r(i) and high mean r(g)</td>
<td>“Consciously collective”: “Willingly collective”</td>
<td>Opportunity: team members prepared to commit themselves threat: team members not aware of differences</td>
</tr>
<tr>
<td>Low mean r(i) and low mean r(g)</td>
<td>“Deviant”</td>
<td>Opportunity: there is enough room for the team to strive for more collectivity threat: team members differ strongly in estimation of what is going on inside the team</td>
</tr>
<tr>
<td>High mean r(i) and low mean r(g)</td>
<td>“Unconsciously collective”</td>
<td>Opportunity: team members are more aligned than they expect threat: team members do not have an idea of what is going on among them</td>
</tr>
</tbody>
</table>

Note – Possible interpretations of high and low values of mean r(i) and mean r(g) are listed. Each combination is given a special characterisation. Potential meanings are divided in “opportunities” (i.e. meanings that imply some hope) and “threats” (i.e. meanings that imply some warning). An value of .6 or higher is defined as a high value of mean r, while a value of .4 and lower is defined as a low value.

The combination of a high mean r(g) and a significantly lower mean r(i), as reported in case 1 in section 5.2, means that a certain event is affectively experienced in a different way across team members individually (therefore low mean r(i), e.g. < .40), but that these team members at the same time attribute affects similarly when they are asked to estimate what the team feels (high mean r(g), e.g. > .60). Positively put, this indicates a commitment to the team and its common experience, while every member individually is probably aware of the affective cost such commitment brings along (for the team member himself feels differently); negatively put, it indicates that team members attribute something to the team that in fact is
not there when all individual feelings are taken into account, and therefore behave unrealistically. Possibly, they don’t even know about the precise presence and strength of individual feelings. Yet, it is probably this so-called lack of realism that could at times be very powerful, since it means that team members are aligning actively by demonstrating a capacity to feel ‘as the team feels’.

A high value (e.g., $r > .60$) on mean $r(i)$ as well as mean $r(g)$, with no significant difference between both, means that a certain event is affectively experienced in the same way across team members. Positively put, the team is very focussed in its affective experience, making its collective functioning potentially strong, provided that the team’s affective interpretation of events corresponds with the reality in its environment. Negatively put, this combination of values may as well mean that the team is blindly experiencing an event in a collective way: after all, when the value of mean $r(i)$ is equally high as that of mean $r(g)$, the team members themselves are probably ‘blind’ for potentially different interpretations than that of the team as a collective.

A low value (e.g., $r < .40$) on mean $r(i)$ as well as mean $r(g)$, with no significant difference in height between both, means that a certain event is affectively experienced in a different way across team members. The individual feelings differ (low mean $r(i)$), but the attributions of affects to the team too (low mean $r(g)$). One cannot feel collectively, or cannot feel collectively yet, about the experience concerned. Negatively put, team members differ in their estimation of what is going on inside the team. Positively put, they are still able and allowed to differ mutually, and striving for more collectivity remains possible, e.g. when the team is relatively young.

A low value on mean $r(g)$ (e.g., < .40) and a simultaneous high value on mean $r(i)$ (e.g., > .60), especially with a significant difference between both, means that the team members attribute different feelings to the team (low mean $r(g)$), while at the same time they feel individually the same about the event concerned (high mean $r(i)$). Positively put, this means that team members fall in fact more in line with each other than they would have expected. Negatively put, they do not know in the least what is going on in the minds of the others.

Thus, the combinations of values of mean $r(i)$ and mean $r(g)$ as presented in Table 5.10 might be given general interpretations. We have shown above the four basic combinations based on which a meaningful reading of the measurement outcomes can be carried out. However, this is not everything we have available in the TCM as a measure of collective affect. We will present here another measure, which is not newly developed but already existing in the SCM: the affect hierarchy. The TCM version of this affect hierarchy is slightly modified and has somewhat different uses.

Through the use of the affect hierarchy, more information about collective affect in a team becomes available. It concerns a list of feelings ranked according to intensity. We have designed the TCM to typically produce two affect hierarchies in parallel, namely the one concerning feelings experienced in a collective valuation by team members themselves ({i}-affects) and the feelings attributed to the group ({g}-affects). We have here, as an illustration, collected the affect hierarchies belonging to case I of section 5.2. There, the team members were asked to complete a questionnaire with 24 affects that they could connect to the valuation ‘We at [X] attach much value to a high support for decisions’. In the questionnaire, they were
asked to quantitatively indicate the strength of their individual feelings connected to this valuation (i-affects) and that of the feelings they estimated to be present in the team (g-affects). The results of this measurement are presented in Table 5.11.

### Table 5.11 – Affect hierarchies and summations per affect category

<table>
<thead>
<tr>
<th>(i)</th>
<th>mean</th>
<th>SD</th>
<th>(g)</th>
<th>mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. care</td>
<td>3.78</td>
<td>0.92</td>
<td>1. care</td>
<td>3.67</td>
<td>0.47</td>
</tr>
<tr>
<td>2. involvement</td>
<td>3.56</td>
<td>1.07</td>
<td>2. involvement</td>
<td>3.67</td>
<td>1.05</td>
</tr>
<tr>
<td>3. powerlessness</td>
<td>3.44</td>
<td>1.17</td>
<td>3. warmth</td>
<td>3.56</td>
<td>0.50</td>
</tr>
<tr>
<td>4. solidarity</td>
<td>3.22</td>
<td>0.79</td>
<td>4. solidarity</td>
<td>3.44</td>
<td>0.68</td>
</tr>
<tr>
<td>5. self-esteem</td>
<td>3.18</td>
<td>1.20</td>
<td>5/6. self-esteem</td>
<td>3.44</td>
<td>0.83</td>
</tr>
<tr>
<td>6. pride</td>
<td>3.00</td>
<td>1.15</td>
<td>6/7. safety</td>
<td>3.44</td>
<td>0.83</td>
</tr>
<tr>
<td>7/8. freedom</td>
<td>2.78</td>
<td>1.13</td>
<td>7. freedom</td>
<td>3.11</td>
<td>0.74</td>
</tr>
<tr>
<td>7/8. joy</td>
<td>2.78</td>
<td>1.13</td>
<td>&amp; pride</td>
<td>3.11</td>
<td>0.99</td>
</tr>
<tr>
<td>9. warmth</td>
<td>2.67</td>
<td>0.67</td>
<td>9. joy</td>
<td>3.11</td>
<td>1.37</td>
</tr>
<tr>
<td>10. trust</td>
<td>2.67</td>
<td>0.94</td>
<td>10. trust</td>
<td>3.00</td>
<td>0.82</td>
</tr>
<tr>
<td>11. satisfaction</td>
<td>2.56</td>
<td>1.07</td>
<td>11. strength</td>
<td>2.89</td>
<td>1.52</td>
</tr>
<tr>
<td>12. trust</td>
<td>2.44</td>
<td>0.83</td>
<td>12. powerlessness</td>
<td>2.67</td>
<td>0.94</td>
</tr>
<tr>
<td>13. strength</td>
<td>2.44</td>
<td>1.07</td>
<td>13. enjoyment</td>
<td>2.67</td>
<td>1.05</td>
</tr>
<tr>
<td>14. loneliness</td>
<td>2.44</td>
<td>1.26</td>
<td>14. satisfaction</td>
<td>2.67</td>
<td>1.15</td>
</tr>
<tr>
<td>15. self-confidence</td>
<td>2.22</td>
<td>1.03</td>
<td>15. self-confidence</td>
<td>2.56</td>
<td>0.96</td>
</tr>
<tr>
<td>16. enjoyment</td>
<td>2.22</td>
<td>1.23</td>
<td>16. energy</td>
<td>2.56</td>
<td>1.42</td>
</tr>
<tr>
<td>17/18. inner calm</td>
<td>2.11</td>
<td>1.00</td>
<td>17. inner calm</td>
<td>2.22</td>
<td>0.92</td>
</tr>
<tr>
<td>17/18. self alienation</td>
<td>2.11</td>
<td>1.10</td>
<td>18. self-alienation</td>
<td>1.67</td>
<td>1.46</td>
</tr>
<tr>
<td>19. energy</td>
<td>2.00</td>
<td>1.33</td>
<td>19. anger</td>
<td>1.33</td>
<td>1.55</td>
</tr>
<tr>
<td>20. anxiety</td>
<td>2.00</td>
<td>1.56</td>
<td>20. anxiety</td>
<td>1.00</td>
<td>0.82</td>
</tr>
<tr>
<td>21. shame</td>
<td>1.11</td>
<td>1.45</td>
<td>21. loneliness</td>
<td>1.00</td>
<td>1.15</td>
</tr>
<tr>
<td>22. anxiety</td>
<td>1.00</td>
<td>1.25</td>
<td>22. guilt</td>
<td>0.89</td>
<td>1.45</td>
</tr>
<tr>
<td>23. guilt</td>
<td>0.78</td>
<td>1.03</td>
<td>23. inferiority</td>
<td>0.67</td>
<td>0.67</td>
</tr>
<tr>
<td>24. inferiority</td>
<td>0.22</td>
<td>0.42</td>
<td>24. shame</td>
<td>0.11</td>
<td>0.31</td>
</tr>
</tbody>
</table>

### Significant differences (indicated when p<.10)

<table>
<thead>
<tr>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>3.411***</td>
</tr>
</tbody>
</table>
| 8  | 2.404**
| 8  | 2.268**
| 8  | 3.250**

### Summations

|
| (i)-modality (average summations across members per affect category, approx.) | S=11, O=13, P=20, N=13 |
| (g)-modality (average summations across members per affect category, approx.) | S=12, O=14, P=23, N=9 |

### Significant differences per affect category (indicated when p<.10)

<table>
<thead>
<tr>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>2.664***</td>
</tr>
<tr>
<td>35</td>
<td>3.042***</td>
</tr>
</tbody>
</table>

Note – Presented here are data from the team-investigation, offered for interpretation to the team-members. T-test on paired values of affect scores of group members. Differences are singled out only if significant: * p < .10 (two-tailed); ** p < .05 (two-tailed); *** p < .01 (two-tailed).
The affect hierarchies contain many potentially meaningful data, such as on the strength of certain affects (e.g., strongest and weakest P-affect, strongest and weakest N-affect, relative ranking of O-affects in the total list, relative ranking of S-affects in the total list), or the difference between i- and g-variants of the same affect or affect category. Team members are typically offered these assessment results, so as to invite them to make meaningful interpretations.

The example of Table 5.11 may serve as an illustration. Comparing the intensities of the scores in both rankings, some feelings experienced by team members individually were significantly more or significantly less intense than the feelings they reported as experienced by the group. In the case of the feeling of loneliness: this feeling was individually experienced more intensely than the supposed intensity level of the group. Individuals did not seem to ‘hear’ the lonely voice in the team, thinking it was just themselves who experienced this feeling. Actual loneliness was not shared by the team members. Through the feedback of the data, a sharing of such feelings could be started.

The two affect hierarchies contain much more potentially relevant information. For instance, negative feelings (N-category) were individually (‘i’) experienced more strongly than attributed to the team (‘g’), which suggests that team members did expect a lower intensity of negative feelings to be present in the team as they individually experienced. Also their positive feelings (P-category) were in fact individually (‘i’) lower as they thought these to be present in the team (‘g’). Likewise, the affect of warmth was individually weaker than expected in the team. The team was surprised by these data: what everyone for himself had experienced before (i.e., the difference between individual feelings and the collective ‘climate’), suddenly proved to be a common phenomenon in the team. It was as if the team had unmasked its own form of groupthink.

When the figures of Table 5.11 were shown to the group members, they started a conversation about their common experience and the feelings connected to it. This talk about how to interpret the differences found between (i) and (g)-affects gave them a growing sense of overview on what happened within the team. Data in need of interpretation led to dialogue, dialogue to insight. Patterns in common functioning, that would otherwise quite possibly have remained unnoticed by the team as a whole, were discovered. As was already explained in section 3.2, new meanings can be elicited with the use of quantitative data.

10 The significance level employed here was .10. Though this level is different from that which is common in psychology, we chose to use it, for it makes more pairs of i and g with a fair mutual difference available for meaningful interpretation by team members.

11 As in the SCM, modality analyses could be used for gathering a deeper insight into the functioning of the team. A modality analysis can be made by analysing potentially meaningful correlations between (collective) valuations. Correlations between pairs of valuations within an individual valuation system could be ‘averaged’ (through Fisher z-transformation) across team members; thus, we could probably produce potentially interesting data about the communalities in the joint experience of collective valuations. In the form of the TCM presented here, we chose not to include modality analyses for their expected lack of straightforward outcomes.
Collective and deviant voice

For collective and deviant voice, we have used the measures ‘Sum of all scores’ and ‘Euclidian distance’. Collective voice is defined as the voice that scores relatively high on the prominence measure ‘Sum of all scores’; deviant voice is then the voice that scores relatively low on this measure.

The data team members produce on these measures are processed for use within the team in the first place. For comparison across teams, the Sum of scores (and in principle also the Euclidian distance, though it should still be tested to a greater extent) can be easily used, especially for the standard voices related to Belbin’s team roles (see section 5.3). After all, these voices are included in the PPR-c and therefore used in every team again. However, the terms for the team roles get in every team slightly different meanings: thus the outcome of a comparison is never obvious. Moreover, response tendencies may differ between teams, so that equal numbers don’t necessarily mean the same.

Euclidian distance (internal consistency) values should probably be low, in order to be able to speak of a collective voice. A low value can depend on different patterns of scores in a team, as we already showed in the examples of Tables 5.5 and 5.6. As we noted in section 5.3, we do not recommend determining a voice that is high on internal consistency (low Euclidian distance), but low on prominence, as a collective voice. A collective voice needs prominence in the first place.

The Sum of scores measure (prominence) shows a high value when the average score per person per colleague is higher than 6 (maximum 9). A low score does not necessarily mean that we can speak of a deviant voice; this depends on the context of the team situation. Some low scores on prominence just mean that the concerning voice is marginal, and not interesting for the team’s development. Some voices with low scores could however have potential for becoming a lever for change and improvement; the selection of such voices should be done by the team members and their facilitator who should not depend on just the quantitative scores of a voice, but also on their own contextual sensitivity and judgement of what the team’s needs are.

The most reliable results are found when every team-member participates in the investigation. When some of them do not, their information on internal voices will be missing at the assessments. After all, in the daily co-operation the non-participants contribute to the expression of voices. The total picture of voices will therefore be incomplete and the measures of prominence and internal consistency less reliable. Moreover, the list of internal voices may remain incomplete or even invalid. Some team-members may in reality evoke internal voices that are not included in the list; consequently, the team-members’ prominence is under-estimated and also the consistency measure is less reliable.

The data on the unique organisation of voices in the group will be full of relevance for the team-members. As with the data on collective valuation and collective affect, an interpretative dialogue about the meaning of the assessment results can be the start of collective learning.
5.5 Summary

In this chapter, we established the validity of our newly developed concepts collective valuation, collective affect and collective and deviant voice. This was done through case studies, by collection of quantitative and qualitative data. Our leading research objectives were to empirically demonstrate the presence, and change, of phenomena indicated by our new concepts; to derive assessment measures from this demonstration that could be used in the TCM; and to account for their construct validity.

For the assessment of collective valuation, the ‘We-sentence’ was developed as a measure; its construct validity was based on qualitative measurements. For the assessment of collective affect, the ‘mean r[i]’ and ‘mean r[g]’ were developed as measures; both were demonstrated to have construct validity. Finally, for the assessment of collective and deviant voice, the ‘Sum of scores’ and ‘Euclidian distance’ were developed as measures of, respectively, prominence and internal consistency of a voice. These measures were plausibly shown to have construct validity, though the construct validity of the internal consistency measure for collective and deviant voice needs further support.

The chapter was ended with hints for the application of the different measures. Certain outcomes and combinations of outcomes may intrinsically mean something general; based on this knowledge, a meaningful interpretation of data is facilitated.
CHAPTER 6

Functional validation: Preparing a check of the method’s performance - will it stimulate improvement of collective and individual functioning?

6.1 Research questions and method

This chapter is an introduction to the following chapters 7 to 10, where case studies of the application of the Team Confrontation Method in real team settings are presented. Here we will concentrate on the purpose of these case studies: to determine the functional validity of the TCM.

In chapter 4 we reported on the design of the method, and the main design choices that were made here. Do the functional propositions of the design, that immediately follow from these choices, work out well? This will have to be tested. In order to do so, we focus in this section on the research questions that led this testing; and on the research method we chose for finding an answer to these questions. In the next section, we focus on the set-up of the case studies: which research questions are addressed where? Which functional propositions are tested where? And, more generally, in which settings were the case studies conducted?

Functional validity is, as we wrote in chapter 3, the extent to which a designed tool functions according to plan, and to which it produces the results it is designed for. Van den Akker (1999) distinguishes between validity, practicality and effectiveness when he treats the topic of ‘formative evaluation’, i.e. the evaluation of a designed tool or intervention:

‘The basic contribution of formative evaluation is to quality improvement of the intervention under development. Quality, however, is an abstract concept that requires specification. During development [design] processes, the emphasis in criteria for quality usually shifts from validity, to practicality, to effectiveness. Validity refers to the extent that the design of the intervention is based on state-of-the-art knowledge (‘content validity’) and that the various components of the intervention are consistently linked to each other (‘construct validity’). Practicality refers to the extent that users (and other experts) consider the intervention as appealing and usable in ‘normal’ conditions. Effectiveness refers to the extent that the experiences and outcomes with the interventions are consistent with the intended aims.’ (Van den Akker, 1999, p.10)

The term ‘practicality’ could in our view be equated to functional validity in the eyes of clients and practitioners as users of the tool or intervention; the term ‘effectiveness’ to functional validity in the eyes of scientists and practitioners as designers of the tool or intervention. Through the case studies of the following chapters, we aim to address this effectiveness.
Part II - Design and validation of the method

(how well does the designed TCM perform to output standards; does it produce collective learning as intended?) as well as practicality (how well useable and appealing is our method in the eyes of clients and practitioners in their daily work environment?). The practicality and effectiveness check will be done by an inspection of the actual working of the TCM’s functional propositions in the eyes of its users and designers. In section 4.3, we established a set of three functions of the TCM, derived from its projected main function of fostering collective learning. These three functions were: (1) stimulating insight, (2) stimulating improvement of behaviour and (3) promoting a process of investigation and learning in the team that is ‘group dynamically appropriate’, i.e. fitting the group dynamics of the team where the method is used. The three functions were translated into requirements, design variables and design choices. Thus, each function had a set of design choices connected to it (see Table 4.1, and Appendix 2), as solutions for making the TCM work according to plan. Now from every set of requirement – design variable – design choice, a functional proposition could be derived. For instance, when the design variable was ‘understandable concepts’ and the design choice ‘collective valuation, collective affect, collective and deviant voice’ (see Table 4.1), the corresponding functional proposition was: ‘the concepts of collective valuation, collective affect, collective and deviant voice are understandable to team members’, and it is this functional proposition that is fit to be tested in a case study. In Table 6.1, the functional propositions that qualify for testing are listed.

<table>
<thead>
<tr>
<th>Functional propositions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function: stimulating insight</strong></td>
</tr>
<tr>
<td>1. The concepts of collective valuation, collective affect, collective and deviant voice are understandable to team members</td>
</tr>
<tr>
<td>2. These concepts and corresponding measures are meaningfully used in the chosen sequence of intervention steps</td>
</tr>
<tr>
<td>3. The assessment results stimulate meaningful interpretation by the team members</td>
</tr>
<tr>
<td>4. The system diagram brings interpretations together in an understandable, meaningful whole for team members</td>
</tr>
<tr>
<td><strong>Function: stimulating improvement of behaviour</strong></td>
</tr>
<tr>
<td>1. The use of validating assignments from the facilitator makes understandable to team members how new behaviour can / should be validated</td>
</tr>
<tr>
<td>2. The explanation by the facilitator of assessment results in the evaluation phase helps team members in their evaluation of change</td>
</tr>
<tr>
<td>3. The explicit stimulation of an investigating attitude and dialogue between team members helps the process promotion of a team investigation in the TCM</td>
</tr>
<tr>
<td><strong>Function: process promotion in the team fitting the current group dynamics</strong></td>
</tr>
<tr>
<td>1. The formulation of collective and deviant valuations produces meaningful valuations that are illustrative for the actual situation in the team</td>
</tr>
<tr>
<td>2. The naming of collective voices in a free manner by the team produces useful collective voices</td>
</tr>
<tr>
<td>3. The naming of deviant voices through feedback sessions produces useful deviant voices</td>
</tr>
<tr>
<td>4. The accumulation of theme variables by the facilitator based upon conclusions out of interpretations of data is a proper input for building a system diagram</td>
</tr>
<tr>
<td>5. The construction of a system diagram is doable for team members</td>
</tr>
<tr>
<td>6. The determination of a lever deviant voice by team members is helped by placing of the assessed voices in the system diagram</td>
</tr>
<tr>
<td>7. The organisation of the evaluation step in the TCM by two sessions helps team members sufficiently to evaluate change</td>
</tr>
</tbody>
</table>

**Research questions for functional validity**

The following research questions are all concerned with the TCM’s functional validity. They are taken as a starting point for the testing of functional propositions. We firstly present them in overview:
1. Can we see collective learning taking place when applying the TCM?

This research question concerns the method’s main function: that of stimulating collective learning. Can collective learning be demonstrated with the designed method? In accordance with the definition of collective learning in section 4.3, we focus on the increase of insight into matters of team cooperation and the improvement of cooperative behaviour. Generally, the proof of collective learning should be visible in the cases of our study.

The following research questions are of a more specific character, zooming in on the three different sub-functions of the TCM.

2. Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?

This research question is about the method’s first sub-function: that of stimulating insight. The increase of insight that is aimed for concerns insight into matters of team cooperation, i.e. the interpersonal, emergent processes of working together. The designed TCM has the purpose of eliciting new insights among team members, insights that were unexpected before. The systematic use of quantitative data (numbers and figures) is meant to play a central role in such elicitation, as we already addressed before (e.g., see section 3.2, page 3). Thus, the increase of insight into the quality of the mutual cooperation, with the aid of quantitative data, should be visible in our case studies. Hence, it is important to concentrate on testing the functional proposition that particularly concerns this point: ‘the assessment results stimulate meaningful interpretation by the team members’, being the number 3 of the rubric ‘stimulating insight’ of Table 6.1.

3. Can a team foster change by using deviant voice as a lever?

This research question concerns the second sub-function: that of stimulating improvement of behaviour. Change and improvement of the team cooperation concerns the breaching of the repetitive patterns that ‘imprison’ the team and keep it from new adaptations to a changing environment. The designed TCM has the purpose of opening up new opportunities for
adaptive collective behaviour and encouraging team members to collectively seize those opportunities. This is meant to happen by systematically invalidating old meanings and validating new ones. The systematic deployment of the influence of deviant voices on the team’s daily cooperation and dialogue is central in this approach (see section 2.4, page 14-15). Along these lines, the improvement of behaviour of the team members in their mutual cooperation should be made visible in our case studies. Hence, it is important to concentrate on testing two functional propositions in particular that concern this point, namely ‘the determination of a lever deviant voice by team members is helped by placing the assessed voices in the system diagram’ and ‘the use of validating assignments from the facilitator makes understandable to team members how new behaviour can / should be validated’ (being the number 6 of Table 6.1’s rubric ‘process promotion’ and the number 1 of the rubric ‘stimulating improvement of behaviour’).

4. Can we pinpoint important incidents in the process of change that prove the team’s deviancies being in action in the desired way?

This research question concerns the third sub-function of the TCM: that of promoting the process of collective investigation. The question behind it is: Can we show the workings of voices in the process of change? The former functions of stimulating insight and improvement of behaviour are in their essence output-oriented. What happens in between, i.e. before the realisation of the desired outcome, could remain a black box. The current function, that of promoting a process of collective investigation, is clearly a process-oriented function. By using this function explicitly in our design, a black box-character of the important stream of events that produce the intended outcome is avoided. The designed TCM is meant to deliberately influence the way in which the increase of insight and the improvement of behaviour are produced. The workings of collective and deviant voices, once stimulated in the new investigative dialogue of the team, should be made visible in our case studies, because these are central to an appropriate functioning of the tool. Hence, it is important to concentrate on testing the two functional proposition that particularly concern this point, namely ‘the naming of collective voices in a free manner by the team produces useful collective voices’ and ‘the naming of deviant voices through feedback sessions produces useful deviant voices’ (being the numbers 2 and 3 of the rubric ‘process promotion’ of Table 6.1).

5. Can conflicts be solved by following the designed method?

This research question also concerns the third sub-function of the method, that of promoting the process of collective investigation. This issue probably is, in the light of the practice of team development, one of the most important issues to be addressed. Every so often, team development practitioners are only invited to do their thing when teams are immersed in internal conflict. The designed TCM is meant for the stimulation of collective learning by teams in general, not only when there is conflict. However, because conflict is one of the important states a team can be in when the practitioner is invited, it should become clear whether, and how, and under what conditions, the TCM can be used here.
Through case studies, the appropriateness of the TCM for handling conflicts in teams should become visible. Basically, it is the meaningfulness of collective and deviant voices that is here to be tested: do they play a meaningful role during the process of change, also when the team is in conflict? Hence, it is again important to concentrate on testing the two functional proposition that particularly concern this point, namely ‘the naming of collective voices in a free manner by the team produces useful collective voices’ and ‘the naming of deviant voices through feedback sessions produces useful deviant voices’ (being the numbers 2 and 3 of the rubric ‘process promotion’ of Table 6.1).

The research questions focus our attention on the major aspects of the functions that the designed TCM should perform. When the reader looks to Table 6.1 and compare with the above named functional propositions which should be the focus of our investigations, he will conclude that not all functional propositions are explicitly tested. This is correct. Though these functional propositions are of course important as well, they only indirectly touch the issues addressed by the research questions. This means that they will play a less central role in our case descriptions; correspondingly, their testing will at the most be indirectly addressed. Table 6.2 offers the overview of the functional propositions that are explicitly tested.

**Research method**

As done for the construct validation in chapter 5, we will make use of case study methodology (Yin, 2003) for answering the research questions of this chapter. To be more specific, the testing of functional validity will be done through single case studies. According to Yin (2003), a single case ‘can be used to determine whether a theory’s propositions are correct or whether some alternative set of explanations might be more relevant’ (p.40). A single case can in this sense serve as a ‘critical case’, testing a well-formulated theory, in analogy to the critical experiment. Note that, using the terms relevant in this chapter, also functional propositions could be tested for their correctness with a single case study. The single case may also serve as a means for longitudinal studies: ‘The theory of interest would likely specify how certain conditions change over time’ (p.42). Studying the same single case at two or more different points in time would confirm or disconfirm the theory’s predictions.

The best test of assumed propositions would be by replication through multiple case studies. Here, the same propositions are to be proven valid in different cases: if two or more cases are shown to support the same theory, replication may be claimed. In our study of the TCM’s functional validity, multiple cases are not directly, but at the most indirectly applied. Many of the propositions as specified in Table 6.1 will be repeatedly (and, when they play a less central role, often implicitly; these functional propositions are listed in the appendix on the TCM design) tested across the cases of the chapters 7 to 10. Furthermore, we consider successful findings from the single cases as potentially replicable in other settings. After all, a replication should not necessarily take place in the same study.

Finally, there is an extra advantage of presenting single case studies here. According to Yin, a single case study is very much fit for presenting a representative or ‘typical case’.
Yin characterises this as follows:

'Here, the objective is to capture the circumstances and conditions of an everyday or commonplace situation. The case study may represent a typical "project" among many different projects. (...) The lessons learned from these [representative] cases are assumed to be informative about the experiences of the average person or institution' (Yin, 2003, p.41).

All case studies presented in the following chapters are potentially informative for the user, either client or practitioner, who wants to get an integral idea of the TCM's functioning in a real setting. Its qualities, possibilities as well as its limits for use will become clearer through the 'whole picture' that is provided by a case study.

In the case studies, the observations and data are presented as wholes. This means that in the case studies, we will give neither direct and specific answers to the research questions, nor explicit confirmation of functional propositions. This will only be done in chapter II, when our observations are, in mutual coherence, explicitly judged as proof or disproof of the assumed propositions, as they are listed in Table 6.2. All five research questions will then ultimately be answered.

Finally, we will present another research method within the scope of a single case study. It concerns the so-called ‘learning history’ (Roth & Kleiner, 1998). This method is applied especially for research question 4, where subjective judgements are most prominently necessary for finding an answer. The method can be considered as a ‘new paradigm method’ (see pages 80 and 85) that does not have ultimate criteria for testing truth, but negotiated criteria that can be agreed upon at a certain time and under certain conditions (Berings, Doornbos & Simons, in press). The method will not be further introduced here, but only when it is appropriate to do so, meaning in chapter 9.

6.2 Introduction to the cases

Which research questions are answered in which case? In this section, we add to the brief descriptions of each case an account of the way we have limited the scope of the case study reports. The contents of the reports differ, depending on the research questions addressed.

Our selection of case studies presented in the following chapters consists of six cases. In all of these, the TCM was applied fully, with all designed intervention steps. The cases were the following:

1. A management team on the operational level of a chemical factory (chapter 7).
2. A team of career counsellors running their own firm (chapter 8).
3. A management team in a welfare institution (chapter 9).
As it shows, the last of these four chapters contains three cases at once. This is because of our estimate that the treatment of the research issue central to this chapter (conflict) profits from the use of more cases in combination.

At the end of section 6.1, we listed the five central research questions that are leading our investigation of the functional validity of the method. Each of the questions is specifically addressed in ‘its own’ case study:

• The case of chapter 7 deals with the first and the second research questions: ‘Can we see collective learning taking place when applying the TCM?’ and ‘can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?’ The case of the factory management team shows integrally, i.e. from beginning to end, how the TCM is put into use in a concrete team setting. It shows how the team members’ insight into the mutual cooperation increased, and how their collective behaviour became less problematic and more appropriate to the needs of the organisation. The case further shows how and to what extent an investigative attitude was accomplished among team members. Investigation by them of the discrepancy between their collective and individual affect, as shown by the assessment results, helped them to find out that they were blocking their own team development. They schematised the way how they blocked it into a system diagram. Throughout the case study, the process of team change is described and illustrated by data.

• The case of chapter 8 deals with the third research question. ‘Can a team foster change by using deviant voice as a lever?’ The team of career counsellors mapped its co-operative patterns with the use of the TCM; after a few months, they reported change in spite of the fact that no specific experimenting with innovative, pattern-breaching behaviour had taken place. It seemed that the conscious naming of potentially productive deviant voices in the group dialogue was sufficient. Data (quantitative as well as qualitative, such as members’ evaluations) illustrate this; other data that track the changes are shown and discussed.

• The case of chapter 9 concentrates on the fourth research question. ‘Can we pinpoint important incidents in the process of change that prove the team’s deviances being in action in the desired way?’ The team of welfare institute managers did a thorough investigation of the patterns of their mutual co-operation, not only by TCM but also with the subsequent use of the learning history instrument. This instrument was also used in order to closely follow the process of change after the first team-investigation (steps 1-5 of the TCM design) had taken place. The results enrich the picture of the change process that would otherwise have been rather implicit, because the TCM tends to determine changes only in retrospect. Again, relevant data are shown as illustration, and are discussed.
Finally, the three cases of chapter 10 address the fifth research question: ‘Can conflicts be solved by following the designed method?’ The cases deal with different stages of conflict.

- The team of bank managers experienced a brewing conflict. By using the TCM, hopes were high (and intentions were made) for productively making use of the differences in the team. But later on, the differences were heightened and a conflict took form. The conflict was addressed explicitly and then neutralised, so that the initial intentions for pattern breaching as produced in the TCM, could be effectuated. A selection of data illustrates the progress within the team.

- The first team of school teachers experienced a warm conflict. The TCM was used for making the situation clear from a neutral position, in order to propose lever voices that could bring a solution. This was done together with the team members, in spite of initial impatience on their behalf. Furthermore, improvement was reached by extra interventions after the TCM investigation. The case shows how changes took place by producing relevant data.

- The second team of school teachers was more or less stuck in a cold conflict. The TCM was applied for finding patterns of cooperation that would be illustrative for the conflict and at the same time promise opportunities for change. The case shows that it was necessary to use other interventions than the designed ones for producing the solution to the team’s problems, already during the sessions that were intended for TCM application. Data produced in the TCM sessions show the state of the team and how it changed through time.

While all cases are focusing on one of the five research questions, all of these questions are addressed in other cases as well, here and there, though in the treatment often implicitly. For instance, the first research question about collective learning can be answered with the findings of all cases. The other research questions can also be answered by findings of other cases than the case in which they are the central question; for instance, the second research question about the added value of data during the investigation process can as well be answered with the findings of the cases of the welfare institute managers or the first school team. In chapter 11, relevant findings concerning each research question will be collected and discussed in order to produce an answer.

In short, a selection of the formulated functional propositions of Table 6.1 was tested in one or more of the cases. In Table 6.2, a reference is made as to where (in which case study) the proposition concerned was tested.
As will be shown in the case studies, some of the propositions will prove to be univocally valid; others need refining, because they are in some cases rejected, while in others accepted. In chapter 11, we take stock of the results of the functional testing and put forward a final set of functional propositions. Chapter 11 will also produce our answers to the five research questions of section 6.1.

In this chapter, we prepared for the case studies of the following four chapters, in which we functionally validate the Team Confrontation Method. Five leading research questions were formulated; the method for addressing them was clarified; finally, a plan was presented for distributing the tests of functional propositions across the cases. In chapter 7, we will start off with the treatment of the first case, being the most comprehensive and integral description of a TCM application in this study. From this chapter especially, the reader will be able to derive all the basic features of the TCM.
CHAPTER 7

An integral view of the TCM as a tool for stimulating collective learning:
The case of a team in a chemical factory

7.1 Introduction

The Team Confrontation Method is a designed tool for fostering collective learning, as we pointed out in the chapters 4 and 6. The tool, consisting of a protocolled set of interventions, is illustrated in the present chapter by an integral report of its application in a real team setting. This means that we will show, from beginning to end, how the TCM was put into use. Along the way we will try to find an answer to our first two research questions:

1. Can we see collective learning taking place when applying the TCM?
2. Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?

Both research questions were clarified in the previous chapter. The terms ‘counterintuitive’ and ‘unfamiliar’ deserve here some extra attention: they stress the importance of new insights as a motor for collective learning. Does the inspection of the assessment results generate such new insights? Insights that are new, unexpected, counterintuitive, unfamiliar? If yes, then we know that the method helps to facilitate this specific aspect of collective learning. In this chapter, we will give our answers to both research questions an empirical underpinning through the presentation of relevant facts and data. We will furthermore test the actual working of the functional proposition that is linked to the second research question: ‘the assessment results stimulate meaningful interpretation by team members’.

The team of the present case consisted of five foremen (each leading their own shift in a chemical factory), their boss (Donald), his assistant (Henry), a maintenance officer (John) and a quality manager (Carl). Together, these nine people managed their production unit through the years, but lately not without problems. There had been conflicts between different team members. Moreover, Donald, Henry, Carl, relative newcomers to the team and, together with John, were doing day work instead of shift work and were not able to neutralise these conflicts. On the contrary, they were part of it. The foremen reproached them [especially Donald and Carl] for not being able to get anywhere with ‘Brussels’, the headquarters of the company from where quite demanding planning orders flowed into the factory. In the eyes of the shifts, the factory was too often confronted with chaotic turbulence in the daily production process. Production machines had to be readjusted to planning sched-
ules that changed at short notice, and in the disturbance the overdue maintenance of machines and components was often postponed even further. In short, there was much distress in the factory and among team members. The bad atmosphere in the team had been lasting for well over half a year, until the parent company offered support in facing the problems. On the initiative of George, one of the foremen, Michael, working as a trainer/facilitator for the parent company, had a few sessions with the team. Michael arranged for a series of individual talks followed by a common session, which was, on the team's special request, dedicated to operational affairs. Though this session cleared things up a bit, most team members felt that something more should be done: maybe a focus on a deeper level of functioning, because the conflicts were not over. Michael recognised this need by emphasising the necessity of a common reflection on the mutual cooperation. He proposed the Team Confrontation Method: 'in order to be confronted with the team's (deeper) reality'. Michael and the author would be facilitating the team in using it.

This case should make three major attributes of the TCM visible:

• that it increases the team members' insight into mutual cooperation,
• that it helps their behaviour become less problematic and more fit to the needs of the organisation, and
• that it stimulates an investigative attitude among the team members.

The first two attributes concern the issue of collective learning, which is put forward by the first research question. The third attribute is connected to the second research question: after all, we suppose that the method stimulates, by use of quantitative data (numbers and figures), the investigation by the team members themselves of the meanings these data have for each of them. This chapter will indeed prove that a measured discrepancy between their collective and individual affect, as shown by the assessment results, helped the team members to find out how they were blocking their own team development.

This chapter shows the different protocollled steps of the TCM as taken in the context of the present team. It subsequently deals with the way of stimulating an investigative attitude, of increasing insight, and of fostering better-fit behaviour; after all, an investigative attitude is to be considered as the precondition for the process of collective learning. The story is unfolded chronologically; where necessary, relevant data offer illustration, and confirmation, of the found answers to the two research questions.

7.2 Case description

Stimulating an investigative attitude

Part of the culture in this factory was an emphasis on goal-orientedness: team sessions should serve objectives and produce purposeful actions. People had practical expectations, i.e. they wanted useable outcomes of an intervention, and preferably quickly. Hence their insistence on operational affairs as the subject of the group meeting with Michael. Yet, during and after this meeting, they found out that there was still more to it than only operations; hence George's request for a 'somewhat deeper intervention'.
In accordance with this practical and goal-oriented culture, the team members were not so much inclined to talk about each others’ behaviour and feelings. They were rather surly in their communication; they got defensive quickly if someone would continue to ask them questions, they clammed up easily, or marked each other quickly. They did not talk enough with each other or with Donald. Sometimes there were sudden outbursts, followed eventually by some time for talking things over. However, this would usually pay off only temporarily.

In this atmosphere, we as facilitators of the TCM wanted to stimulate an investigative attitude. For finding things out about their cooperation and patterns in it, it is necessary that team members are prepared and willing to delve into the meanings of certain experiences to others. Only then, the unravelling of patterns on a deeper level of collective and individual functioning becomes possible. We did the following in order to stimulate the investigative attitude:

- **We stimulated an atmosphere of trust**. In the beginning of the first session, we offered to those team members who had a pressing private affair on their minds (the loss of a brother, the illness of a father-in-law) an opportunity to speak out and share it. They could use this opportunity voluntarily and prepare for this before the session. The two men that did have issues greatly appreciated this, and the subsequent short conversation about “the other things in life” put the issues of the team into perspective. After this, we gave the word to team leader Donald to officially open the session and give the team ownership of it. He expressed his contentment with the fact that things were improving recently within the team, with respect to not only its performance but also the mutual cooperation. He considered the TCM sessions as an opportunity to further improve the atmosphere in the team. Then, we took some time to personally introduce ourselves, to recount what had become known to us about the team, and check this information. For example, our information about team members apparently having difficulty with talking to each other about conduct, was reacted to by Paul, foreman, with the remark that “everyone is just like he is and acts according to his nature, and thus, quite naturally, responds fiercely when he is talked to”. Paul seemed to express a common feeling in the team that ‘it may all be easily said by those facilitators who argue in favour of tackling each other about something, but that practically this is very difficult because you are faced with your own powerlessness in addressing things constructively’. We responded to this affirmatively that characters are indeed hard to change, but that it is very well possible to change conduct that is unpleasant to others, and that it can help when you hear that from each other. Our manner of responding to this remark, open and sympathetic to his point but communicative about our own at the same time, probably helped to prime a fruitful cooperation between facilitators and team. Thus, we showed that we took their considerations seriously, which is important for building trust.

- **We invited the team members to actively state what was on their minds.** Whenever thoughts are put forward explicitly, they are available for closer investigation. Openness produces the material needed. We stimulated openness and transparency continuously during the TCM sessions by asking question after question; and we
started with it at the beginning of the first meeting by asking them what their expectations of the TCM meetings were. It seemed to us that they were not able to express these expectations very well. They stayed on a general level with remarks of the (rather trivial) type: 'these sessions are certainly important, for we don't have enough time for each other'. Likewise, they were not able to state explicitly what were relevant developments in the team since the last session with Michael: they got stuck with expressions like: 'a lot has improved in the cooperation'. During the course of the TCM trajectory, the team members became gradually better at expressing their thoughts and feelings, since they became used to describing them with lively examples of situations.

*We explained the philosophy and working of the TCM.* For this, we did a short slide presentation, pinpointing a few elements: you are asked to learn as a collective, it is collective effectiveness which is at stake; we will together discover and name negative patterns in the cooperation. We will furthermore stimulate dialogue in the team between the prominent collective voices and the deviant voices that you usually do not dare to use much, because they are not part of the culture. Yet, your team can best learn by listening to them. We will investigate together, with the aid of measurement tools, what is apparently happening below the surface of the team. Thus, we will be able to determine favourable steps for improving collective and individual functioning, better steps than we would have determined without this investigation. The basic philosophy of the TCM is: investigation, by the team, of the team. The team members listened to this with glazed eyes: they apparently still found it rather abstract. We encouraged them by saying: 'you will automatically come across it, be surprised!' Of course, the explanation of the TCM should be clear and lively enough, and here it probably was not.

*We encouraged the team members to set their own standards for investigation.* In the beginning of the second session, just before presenting the first set of assessment results, we asked the team members what they considered to be an investigative attitude. Each team member answered this question for himself and shared this with the others. We wrote the elements of 'their' investigative attitude on the flip chart and included them into the minutes of the meeting, in order to have them available in the 'group memory'. The answers were commonly of the type: 'inquire a lot: how does your colleague experience something?'. Activities like: listening, being open, or building trust, were named most. We reinforced this by linking the elements to the context of the team: 'normally you share not much in the team, for you work in shifts and don't see each other very often; moreover, you have free spirits and are probably not so much interested in what someone else really thinks of something in the first place. This we can do differently from today on, by using the elements of an investigative attitude that you named here'. The team members recognised this and endorsed the meaningfulness of an investigative attitude. During the course of the trajectory, the team members often had great difficulty behaving consistently with their own standard, but we as facilitators reminded them regularly of it, and tried ourselves to set an example of the investigative stance.
After these actions, we did one last but very central thing to start stimulating an investigative attitude. We asked the team members what their question of inquiry should be. We explained that this question would be leading throughout the whole TCM-investigation, and that all activities during the trajectory would serve one goal: to find an answer to it. After ten minutes, the team came up with the following question of inquiry:

'How can we make decisions that are supported by everyone in the team?'

With some facilitation of our side (using the flip chart for sharing optional formulations, or even proposing some, based on what was said), this formulation emerged from a seemingly chaotic discussion. Yet, during the course of the trajectory, the question proved again and again to be relevant, even central to the team's problems that were addressed.

All these actions were taken right at the start of the first session, but repeated throughout the whole TCM-investigation. After all, it is in the spirit of the TCM to keep on stimulating an investigative stance.

**Stimulating insight into the mutual cooperation**

The actions described in the former section took about one hour. After this hour, the actual investigation could start, with the question of inquiry as a starting point. We refer to Figure 4.1. (see page 90) for a schematic representation of the trajectory; in this figure all interventions that make up the designed protocol are put in their mutual sequence. As one can see, the first step for the team toward gaining more insight was to formulate relevant collective and deviant valuations.

The team was divided in three subgroups of members who felt akin. These subgroups (of size four, three and two respectively) were sent away for 30 minutes with the assignment: 'tell each other which events or experiences, that took place a while ago or just recently, are illustrative for the theme addressed by the question of inquiry. What are key events?'. Along with this, instruction was given for the formulation of a valuation: it should be one sentence; it should contain ‘We’ as a subject, explicitly or implicitly; it should be situated in time and space by naming when and where something happened (or happens) to us. Finally, people were told to formulate two collective valuations (with which everyone in the team would probably agree) and one deviant valuation (with which only 'my subgroup' would agree).

The three subgroups came up with roughly the same valuations. The formulations were shared and readjusted, with the aid of the facilitator, in order to have all team members' agreement. The resulting seven (out of nine two pairs were combined) optional valuations were voted for by the team. Some valuations did not pass the test; they were skipped from the list. From the subgroups' deviant valuations only one remained: valuation 1; this valuation was agreed to by the subgroup Donald, Henry, Carl and John (the staff) and disagreed with by the rest (the foremen). The list of valuations is represented in Table 7.1. To the team's four valuations, 'general experience' and 'ideal experience' were added (see section 2.2, page 47).
The four valuations were a fine reflection of the issues that played a role in this team. They all reflect the same theme, as it was also reflected in the question of inquiry: talking at cross-purposes and functioning without real contact (valuation 4), communicating badly (valuation 3), but also pride of the level of self-management (valuation 2) and intentions/attempts to tackle problems fairly (valuation 1).

That these valuations were hitting the mark very well was demonstrated when the formulation of valuation 4 sparked off an intensive discussion between the protagonists of the corresponding event, Carl (quality officer) and Jake (foreman). The discussion got nowhere; it was often indirect, probably out of fear of confrontation, it showed a low level of verbal skill where people expressed themselves undiplomatically, and after it an apparent peace remained, in spite of the unproductive exchange. To the author, this was a first acquaintance with the team’s patterns of communication, and it provided him with material that had the potential for improving his insight into team matters. The patterns would prove to repeat themselves regularly, and be fine material for closer investigation, together with the team, during latter stages of the trajectory.

After the listing of relevant valuations, the team members indicated on a questionnaire their affect levels connected to each of the valuations (see section 2.2 for an introduction to the way of assessing individual and collective affect), individually experienced affects (i), as well as affects attributed to the group (g). Below, Table 7.2 shows the results.

The assessment results were discussed in the first half of the second meeting (see Figure 4.1). Based on the team’s interpretations of these results, the facilitator wrote down conclusions on the flip chart. All these conclusions had the format of one sentence that started with the word ‘Evidently…’ and would address something that was going on in the team on a deeper level of functioning. This could be done by inspection of the affect levels of the valuations; after all, Hermans & Hermans-Jansen (1995) describe the affect level as a latent level of functioning, which lies below the manifest level of interaction. Co-facilitator Michael observed later that the great point scored was the fact that a dialogue about feelings finally came out. Though the team members were not used to a dialogue on such a topic (it was not in their culture, as was illuminated above), they were clearly not scared off, witness the fact that most

<table>
<thead>
<tr>
<th>Valuation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We separate circumstances from persons when talking about work.</td>
<td></td>
</tr>
<tr>
<td>2. When a decision is made by a person, this person feels ownership as well. Example: this person would not give the leadership a call during the night.</td>
<td></td>
</tr>
<tr>
<td>3. The communication among ourselves is not complete.</td>
<td></td>
</tr>
<tr>
<td>4. After initially having excluded the decision to hire the Petroil man, he was hired anyway, even when the foremen had meanwhile thought up an alternative. After some time, the Petroil man was finally deemed too costly.</td>
<td></td>
</tr>
</tbody>
</table>

General Experience (GE)
Ideal Experience (IE)
of them did participate actively in it. Possibly, the use of statistics played a role here: people liked to interpret the figures which they understood quickly. After all, they were technicians with mathematic schooling.

While the formulation of valuations had been potentially insightful to the team members, for it generated a listing of a few important experiences around the theme of group decision making, the inspection of the data was even more insightful. After an explanation by the facilitators of the make-up and potential meanings of the score, the team members started to interpret the data with each other. The facilitators led the talk by asking clarifying questions about the way they felt about the experiences described in the valuations. Each time, the score was the starting point for interpretation.

As appears from Table 7.2, the feelings in general about working in the team are quite positive, while one thinks that the group feels more negative about it (‘general experience’: N(i)=4 while N(g)=9, and P=23 and 21 respectively). In the group prevails a more negative feeling than in team members individually. What does this tell us about the group? — This question was asked, and the team interpreted the data as ‘Evidently, we collectively believe that the atmosphere is negative, while in fact this is not so much the case’. This proved to be a very encouraging insight, as some team members later observed. A lot of other questions were asked about the data, though most of the potential questions were not.
The score of data was so rich, that there was simply not enough time for interpreting all of it. However, the assessment served its purpose, if only because based on it, the facilitators could generate a lot of hypotheses about what could be the case in the team. This could help them in pinpointing questions they could ask to the team members about the way they experienced things.

It should be noted here that we have presented only summated results on affect categories S, O, P and N. This does not mean that levels of separate affects were not discussed and interpreted; they were. So were the data on the collectivity measures mean r[i] and r[g] (see section 5.2 for an introduction to the method of assessing collective experience) that proved to be significantly different, with mean r[i] much higher than mean r[g] (see Table 7.3). This suggests that the daily work is not experienced collectively, because one does not attribute the same feelings to the group (low mean r[g]). Put differently: ‘Evidently, we don’t talk a lot about what feelings drive us, because otherwise the apparent high mean r[i] would have been materialised in a corresponding high mean r[g]’, and: ‘Evidently, we surprisingly feel quite the same about things in general, given the high mean r[i]’.

Thus, interpretations of assessment results produced conclusions about what was ‘evidently’ the case in the team cooperation. This was the basic material for a yet to be made system diagram, that would describe the team’s patterns of cooperation on a deeper level than obvious at first sight. A few ‘Evidently-sentences’ are listed below in Table 7.4. Between brackets follow the theme that we thought to come up in a sentence; these themes are then to be treated as variables in a system diagram, as will later on be illustrated.

<table>
<thead>
<tr>
<th>Valuation</th>
<th>Mean r[i]</th>
<th>Mean r[g]</th>
<th>t-test, p =</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We separate circumstances from persons</td>
<td>.394</td>
<td>.188</td>
<td>n.s.</td>
</tr>
<tr>
<td>2. Persons have ownership</td>
<td>.630</td>
<td>.683</td>
<td>n.s.</td>
</tr>
<tr>
<td>3. Communication not complete</td>
<td>.270</td>
<td>.457</td>
<td>.097</td>
</tr>
<tr>
<td>General feeling</td>
<td>.702</td>
<td>.490</td>
<td>.0008</td>
</tr>
<tr>
<td>Ideal feeling</td>
<td>.944</td>
<td>.906</td>
<td>n.s.</td>
</tr>
</tbody>
</table>
Part II - Design and validation of the method

Table 7.4 – A selection of the Evidently-sentences produced by the team, being the conclusions after interpreting the assessment results on the affect modalities of valuations. Between brackets follows the theme that seemed to be covering the sentence: themes could later on be included in the system diagram. If the word ‘general’ follows between brackets, then no specific theme was applicable; the evidently-sentence just brought context to the team’s understanding of what is going on

<table>
<thead>
<tr>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(after interpretation of assessment results at GE:) Evidently, we take up negative things earlier than positive. [general]</td>
</tr>
<tr>
<td>(GE, val. 3:) Evidently, we collectively believe that the atmosphere is negative, while in fact this is not so much the case. [general]</td>
</tr>
<tr>
<td>(GE:) Evidently, we don’t talk a lot about what feelings drive us. [talking about feelings]</td>
</tr>
<tr>
<td>(GE:) Evidently, we surprisingly feel almost the same about things in general. [general]</td>
</tr>
<tr>
<td>(val. 2:) Evidently, the slowing down of the work speed brings along uncertainty for us personally about the appropriateness of the [self-found] solution. [uncertainty about own solution]</td>
</tr>
<tr>
<td>(val. 2:) Evidently, in our team you never know how colleagues will react to the solution that you found. [uncertainty about own solution]</td>
</tr>
<tr>
<td>(val. 2:) Evidently, we won’t accept afterwards a decision made by a colleague. [criticism towards others]</td>
</tr>
<tr>
<td>(val. 4:) Evidently, in our team discussions are continuously started again. [repeating discussions]</td>
</tr>
<tr>
<td>(val. 4:) Evidently, we take insufficient time for gearing our activities to one another. [time pressure]</td>
</tr>
</tbody>
</table>

In the afternoon of the second session, the material for the next assessment was collected. The multivoicedness in the team was to be mapped, and therefore enough voices should be gathered for inclusion in a PPR-c (for an introduction to this questionnaire, see section 2.2). This was done systematically, by first devoting 30 minutes to an assignment for the team about collective voices, and after this taking a good hour to have the team name its deviant voices.

Potentially collective voices were gathered by having the team members name a few voices that could reasonably and by experience be considered as collective voices of this team. Which voices do you speak with collectively, among yourselves or towards the outer environment? After some staggering, team members found a few voices they considered to be relevant. These voices are listed in Table 7.5.

In the team, the Problem solver meant a voice directed to a swift settlement of daily affairs: team members were good at fighting fires, were able to independently judge the features of a technical problem and solve it, and were inclined to first act and then think. The Flexible was a voice who supports pragmatic compromise in favour of the work’s progress. Team members thought themselves to be well able to adjust to the course of affairs. The One who draws up lists expressed that there were still many things to be settled in the factory.
One drew up lists of work to be finished, but these lists grew to such lengths that no-one would live up to them. The *Critical* was a voice who criticised continuously the solutions of colleagues. Every operational hair was split: the scale tipped here to the negative side.

After this activity, it was time for the team to name its potentially deviant voices. It should again be noted that a deviant voice is essentially not a voice of a concrete person, but a voice not heard very well in the team’s daily cooperation. Thus, a deviant voice can be present, to a different degree, in every team member. Yet, the starting point of collecting those voices that were potentially deviant in the team was through the personal channel: by finding out what everyone’s personal, unique contribution to the team was, even if this contribution tended to be overlooked by colleagues, thus remaining potential rather than actual.

Two subgroups sat together and separately named for every member of their subgroup the unique (deviant) voices they thought this person used in the team. Practically, this implied that one exchanged feedback. The team members liked this exercise, for they felt they could ‘at last’ tell each other, in a constructive way, what they thought of each other’s contribution. The timing of this activity in the protocol is deliberate: when already quite far on the way in the trajectory, people can be expected to be opened up sufficiently for this exchange of feedback. Out of the received feedback (formulated in terms of voices one tended to use in the eyes of others), a team member could choose the deviant voice that he thought to fit him most. In Table 7.5, the list of resulting deviant voices is given.

The *Long term planner* was chosen as his deviant voice by team leader Donald; the *Objective* was chosen by his assistant Henry; the *Maintainer of [external] relations* by quality manager Charles; the *Factory-experienced* by maintenance officer John; the *Enthusiast* by foreman Jake; the *Honest* by foreman Paul; the *Raiser of matters* by foreman George; the *Social one* by foreman Robert and the *One who confronts* by foreman Eric. In fact, this set of voices (deviant as well as collective) could be regarded as a nice finger-print of the team.

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<table>
<thead>
<tr>
<th>Collective voices</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Problem solver</td>
</tr>
<tr>
<td>The Flexible</td>
</tr>
<tr>
<td>The One who Draws up Lists</td>
</tr>
<tr>
<td>The Critical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deviant voices</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Long-term Planner</td>
</tr>
<tr>
<td>The Objective</td>
</tr>
<tr>
<td>Maintainer of Relations</td>
</tr>
<tr>
<td>The Honest</td>
</tr>
<tr>
<td>The Enthusiast</td>
</tr>
<tr>
<td>The Raiser of Matters</td>
</tr>
<tr>
<td>The Social One</td>
</tr>
<tr>
<td>The One who Confronts</td>
</tr>
</tbody>
</table>

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1 This procedure for finding potentially deviant voices is described in further detail in the protocol of Appendix 2, section III-8
The foremen expressing their practical and social voices (very necessary on the shop floor), with the staff expressing organising voices (equally necessary in the managing positions), showed a typical team of a production unit. Yet, the team seemed also unique in its multi-voicedness, with the Critical, the Flexible and the Objective as the most notable voices, for these voices were not obvious in the set.

Though all individuals were proud of the voice they had taken as their own deviant one, the same deviant voices could be part of everyone else as well, as we emphasised at the end of this activity. This was precisely what was measured with the PPR-c questionnaire. At the end of the second meeting, the team members received the form, in which the named collective as well as deviant voices were included for completion. They filled it out and left the facilitators with home work: processing and pre-interpreting the data.

In the morning of the third session, the collection of insight into typical features of the team cooperation was continued with the interpretation of the assessment results on the team’s multi-voicedness. Table 7.6 shows the collectivity measures of the different voices in the team: their prominence and internal consistency.

A few striking elements were apparent in these data. Firstly, the voice of the Social one, initially seen as a deviant voice, proved to be not deviant at all: the measured prominence and internal consistency (see section 5.3) for an introduction to the issues of prominence and internal consistency as measures of collectivity) of this voice were high. This voice proved a collective voice. What did the Social one have to do with this team? Or with the problems in decision making that the team had been experiencing for such a long time? Secondly, the One who draws up lists proved to be not so much a collective voice as one had expected, but rather a not very prominent and fragmented voice. Thirdly, the voices of the Objective and the Honest were most prominent in the team. Fourthly, the voices of the Critical and the Flexible, together with the Social one, were the least fragmented with their high internal consistency. The facilitators sought clarification with the team members about all these issues. The data required interpretation, for they initially showed outcomes that were unexpected and counterintuitive.
Also Figure 7.1 offered interesting material for interpretation. Here, voices are plotted in a two-dimensional space (2d); the smaller the distance between the voices, the more they sound together in the daily cooperation (see section 5.3 for an introduction to this so-called voice diagram, or 2d voice diagram). Voices on the left of the picture were most prominent. What was notable here, was the going together of the Objective and the Honest; of the Raiser of Matters, the One who confronts and the Critical (lower side of the picture); of the Social one and the Enthusiast; and of the Flexible, the Maintainer of relations, and the Problem solver (upper side of the picture). Possibly, the objectivity of team members in their discussions was somehow connected to their honesty; they had a confrontational style when putting issues to the fore; their social feelings triggered their enthusiasm and vice versa (a joy of ‘doing things together’); and their daily work in the factory was coloured by an intention to flexibly respond to relations, their way of solving problems. Of course, this was our facilitator’s hypothesising, partly based on the former acquaintance with the team. It should first be checked with the team members, so that they could interpret it in the spirit of their own experience.

**Figure 7.1 – Voice diagram of the team representing the distances between voices in the team; most prominent voices on the left of the diagram, least prominent voices on the right**

In general, the team members recognised the fingerprint of their team in the assessment results. They admitted that the Social one should actually be considered as a collective voice: though it was not seen as such in the first place, it was not very surprising either; but it was good to realise it. They also recognised that the Objective reflected the willingness of the team members to honestly face their disagreements in operations, until they were solved objectively. They regarded the Critical as indeed a collective voice (confirmed by the assessment results). Again, all interpretations were put into conclusions of the format ‘Evidently ...’; these conclusions were translated into theme-variables to be used in the making of a system diagram.
After they had interpreted the assessment results on multivoicedness, all team members together set out to produce the system diagram as a picture of their repetitive patterns of cooperation ([for brief introductions to systems thinking see section 1.3, pages 31 and 42; for the making of a system diagram, see the Appendix 2 on the protocol, section III-9b). As a start, the facilitators introduced them to the basics of system dynamics and patterns, positive and negative feedback loops and their representation in cause maps or system diagrams. Then, the team members built up, step by step, the diagram that depicted their situation. Within 30 minutes, they had produced a result as shown in Figure 7.2.

![System Diagram](image)

*Figure 7.2 – System diagram of the mutual cooperation in the team* 
(simplified version, based on the diagram drawn by the team)

This system diagram reflected, in their opinion, the patterns of cooperation well. Different loops can be distinguished. These loops were instantly recognisable for the team members, and they could give them names easily. In Figure 7.3, these loops are represented. The first loop was named ‘The Loop of the Old Bags’ and the second ‘The Uncertainty Loop’; both names indicated in their own language the essence of the patterns that hindered them. The ‘old bags loop’ showed that the more one experienced time pressure and tried to flexibly respond to an acute problematic situation, the more criticism they received (‘old bags’), with diminished decisiveness and an increased feeling of time pressure as a consequence. The ‘uncertainty loop’ showed that the more criticism was expressed, the more uncertain the team members felt and the more they were inclined to defend their acts in lengthy discussions; these discussions tended to change their priorities, thus diminishing their decisiveness, which again increased the mutual criticism.
‘This is what we do’, some of them confirmed explicitly. At the end of the process of the first, second and third meeting, the gaining of insight had culminated in an overview of patterns of collective functioning, valid across situations and legitimate in the eyes of the team. Now that the insight of the team members into their patterns of cooperation was enhanced, the process of collective learning could switch over to the stimulation of behaviour change, towards improved, pattern-breaching behaviour.

**Stimulating behavioural improvement**

In the afternoon of the third meeting, the team members sat together to inspect the named loops of repetitive patterns in their cooperation, and connect each loop to one or more voices that enabled the loop to function. These voices should be collective, since it is our contention that collective voices go together with repetitive patterns in groups (see also section 1.4, pages 38 and 41). The team members put names of voices in the loops they considered to be most important: see Figure 7.3 (a and b). Especially the Objective, the Critical and the Flexible were pattern-reinforcing voices.

Next, we asked them to introduce deviant voices in the diagram, which would probably have a pattern-breaching effect, provided that they were properly supported. The team could select these potentially pattern-breaching voices from their own, proven, deviant voices or else from their free imagination. In each loop such potentially pattern-breaching voices were named. The voices of the **Knot-cutter** and the **One who accepts another’s solutions** were invented as opposed to the Critical. The team members thought the first to be an active opponent of the Critical, the second a passive opponent. Finally, they selected the **One who accepts** as a pattern-breacher for the daily work, for they expected, upon second inspection, the Knot-cutter to be a rather pattern-reinforcing voice. After all, this team’s problem was basically that its members wanted to cut knots too quickly, thus enticing others to criticise again.
We asked the team to draw up a shortlist of pattern-breaching intentions, based upon the system diagram. The assignment was to formulate this again and again starting from a lever deviant voice. This had a quite satisfying output (see Table 7.7), though it often tended to relapse into lengthy discussions. The facilitators did their job here in structuring and reminding the team of the importance of ‘Accepting another’s solutions’. After all, the pattern they wanted to breach was right here! Finishing, we emphasised the importance of continuously speaking with the pattern-breaching voice of the One who Accepts, even in situations when the list of intentions was not relevant.

Evaluating the TCM-meetings, most team members said that they found these sessions much more meaningful than the former session half a year ago where the emphasis had been on daily operations. George: ‘now, we could look to ourselves with an eagle’s eye.’ Robert: ‘investigating, that’s what we do insufficiently.’ Eric: ‘acceptance without too much fuss: trust in you colleagues is essential. That is definitely what we have found out.’

There was still a fourth meeting to come, some months later. In this meeting, we would have the opportunity to assess, quantitatively as well as qualitatively, whether the patterns had been effectively breached or not. Would the team members still be aware of the patterns described in the system diagram? Would they have given voice to the One who Accepts? Would a behavioural improvement have been anchored in the team’s cooperation?

In the fourth and last session, three months after the third one, the team members indicated that the work itself had remained as hectic as before, that they still made mistakes in the mutual communication and gearing, but that they responded to this much less vehemently than before. The One who Accepts had become clearly a collective voice in the team, which was confirmed by the reassessment of the team’s multivoicedness (see Table 7.8).

Table 7.7 – A list of intentions of the team members after the TCM investigation. Intentions were based on the voicing of two lever deviant voices (The One who Accepts and The Knot-cutter).

<table>
<thead>
<tr>
<th>Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate an agreement in time and with all people to whom it is of interest.</td>
</tr>
<tr>
<td>And accept the agreement (Voice the One who Accepts!).</td>
</tr>
<tr>
<td>And of course stick to the agreement.</td>
</tr>
<tr>
<td>Every Friday morning in the first meeting 30 to 60 minutes confer SOLELY on ‘big issues’ &amp; inform all absent foremen on the outcome.</td>
</tr>
<tr>
<td>Reporting of the team meetings: minutes secretary checks during the meeting what the agreements are, and fixes them.</td>
</tr>
<tr>
<td>Be more critical on the priorities kept by the shift members.</td>
</tr>
<tr>
<td>Accept each other’s definitions.</td>
</tr>
<tr>
<td>Build solutions gradually.</td>
</tr>
<tr>
<td>Be somewhat milder.</td>
</tr>
</tbody>
</table>

Evaluate the TCM-meetings, most team members said that they found these sessions much more meaningful than the former session half a year ago where the emphasis had been on daily operations. George: ‘now, we could look to ourselves with an eagle’s eye.’ Robert: ‘investigating, that’s what we do insufficiently.’ Eric: ‘acceptance without too much fuss: trust in you colleagues is essential. That is definitely what we have found out.’

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We can see that the voice’s prominence ranks 7, and its internal consistency even ranks 2. The Objective has lowered in prominence, but the Critical has remained as strong as before. From the new 2d-voice diagram, it was clear that it now went together with the Enthusiast. How could this all be interpreted?

The sense of trust in each other had deepened. ‘We don’t always treat each other as forbiddingly as before. We accept an explanation when something goes wrong. Before, I never trusted these explanations’. A colleague, referring to a recent example when miscommunication had occurred: ‘If this had happened before the TCM trajectory, the bombshell would have been dropped. Now, we rather talk with each other, instead of against each other, and respectfully’. Obviously, the One who Accepts had indeed become stronger.

Also the data confirmed that the quality of the communication had changed positively. The reassessment of valuations proved this (see Table 7.9). In this table, two valuations can serve as an illustration. Firstly, the much more positive affective ‘colour’ of valuation 1 (though the increased negative feeling shows that not all was ideal yet, and that the answers were not socially desirable); secondly, the changed formulation of valuation 3, accompanied with a likewise positive affective modality.

---

Table 7.8 – Multivoicedness after three months: the collectivity measures of prominence and internal consistency per voice as assessed for the team. Range of prominence ratings between 0 and 9. Internal consistency of a voice is highest when the consistency measure has the lowest value. The lever deviant of the Knot-cutter was not measured here. To be compared with (the rankings in) Table 7.6: some voices became stronger, others weaker

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
<th>Prom. ranking went up/down</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Honest</td>
<td>5.78</td>
<td>2.13</td>
<td>Up</td>
</tr>
<tr>
<td>The Critical</td>
<td>5.76</td>
<td>1.88</td>
<td>Up</td>
</tr>
<tr>
<td>The Enthusiast</td>
<td>5.68</td>
<td>2.32</td>
<td>Up</td>
</tr>
<tr>
<td>The Raiser of Matters</td>
<td>5.39</td>
<td>2.16</td>
<td>Equal</td>
</tr>
<tr>
<td>The Problem Solver</td>
<td>5.35</td>
<td>2.09</td>
<td>Up</td>
</tr>
<tr>
<td>The Social one</td>
<td>5.33</td>
<td>2.18</td>
<td>Down</td>
</tr>
<tr>
<td>The One who Accepts</td>
<td>5.25</td>
<td>2.01</td>
<td>(new)</td>
</tr>
<tr>
<td>The Maintainer of Relations</td>
<td>5.20</td>
<td>2.12</td>
<td>Up</td>
</tr>
<tr>
<td>The Flexible</td>
<td>5.13</td>
<td>2.31</td>
<td>Down</td>
</tr>
<tr>
<td>The Objective</td>
<td>5.11</td>
<td>2.36</td>
<td>Down</td>
</tr>
<tr>
<td>The Long-term Planner</td>
<td>4.71</td>
<td>2.08</td>
<td>Down</td>
</tr>
<tr>
<td>The One who Confronts</td>
<td>4.68</td>
<td>2.26</td>
<td>Down</td>
</tr>
<tr>
<td>The One who Draws up Lists</td>
<td>4.4</td>
<td>2.22</td>
<td>Equal</td>
</tr>
</tbody>
</table>

Table 7.9 – The changes in the team’s collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used when new affect scores differ significantly from old scores (t test). Italic font is used where (i)-scores differ significantly from (g)-scores (t test)

<table>
<thead>
<tr>
<th>Valuation</th>
<th>[i]</th>
<th>O</th>
<th>P</th>
<th>N</th>
<th>[g]</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (old). We separate circumstances from persons when talking about work.</td>
<td>9</td>
<td>7</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1 (new). We separate better than before circumstances from persons when talking about work.</td>
<td>13</td>
<td>13</td>
<td>24</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>23</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>3 (old). The communication among ourselves is not complete.</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>11</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>3 (new). The communication among ourselves has grown better. Although it is still not perfect, many small things in cooperation have improved.</td>
<td>12</td>
<td>13</td>
<td>22</td>
<td>9</td>
<td>13</td>
<td>13</td>
<td>24</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>
Concerning our question as to whether the question of inquiry of three months before was still current, Paul answered: 'I think that when a certain decision has been made, that we go along with it, in principle. There are no loners'. Eric: 'You take someone else's decision into account, you do your little bit'. And George: 'You don't immediately wipe the floor with a reached agreement'. Obviously, the team's initial question of inquiry had been satisfactorily addressed, which had led to an improvement of the situation.

A consequence was, according to the team members, that they came to work more easily, did not take everything so much to heart anymore, and did not go mad too quickly, even though disturbances kept on taking place. They experienced more support from each other. The counterproductive patterns as described in the system diagram loops had virtually disappeared. In a discussion on a recent negative incident, someone said: 'Of course you can again criticise the whole thing intensely, and before we would indeed have done so, but now I haven't heard much about it'. A colleague summarised: 'Last year we took offence fiercely over such a thing. Now we just stumble just a bit, and go on'.

It struck us, furthermore, that during this evaluation the team leader intervened more than before, when he had been relatively absent in the talks. Due to this, the quality of the discussion increased. He radiated more self-confidence, summarised the discussion regularly, and addressed questions the facilitators had been asking, but were not answered by the team members yet. He also indicated improvements: 'Before, if I sent out an e-mail that was somewhat ambivalent, then it would have invariably been interpreted negatively. Now the reactions are less judging. There is more trust'.

Quite strikingly, the team never used the list of intentions (see again Table 7.7). The team discovered during the evaluations that though they had not looked to this list anymore, they unconsciously had been implementing it. Apparently, the inner voice of the One who Accepts was strong enough across situations. George observed: 'I have become aware that you can only change yourself. You cannot change another. Yet, by changing yourself, doing things slightly differently, you see changes in the behaviour of your colleagues. You can influence them. You influence each other continuously'. The TCM was designed with the assumption that inner (deviant) voices are better levers than lists with intentions (which are made so often at the end of team building interventions), and that an internalised awareness of individuals helps the improvement of the collective. This was confirmed here.

Nine months after the start of the first TCM session, the team met once more with the facilitators. What did the team members remember of the trajectory? Paul: 'The old bag circuit' (being the name of one of the most important loops in the system diagram of Figure 7.3). Eric: 'That we talked a lot and did a little, and that we decided even less.' Donald: 'Now, there is more commitment to decisions'. Henry illustrated this: 'Our decisiveness has increased. We reach agreement earlier. And if not, we continue the discussion bilaterally, which is much more practical, and shows acceptance of the fact that it is not a matter of universal truth to be proven'. Though a lot of elements of the TCM investigation had been erased from their memories, the essences had stayed in the team members' minds.
Answering the research questions

Did the method stimulate the collective and individual functioning of the team members?
In the beginning of this chapter, we set the research questions that we considered central in this case:
1. Can we see collective learning taking place when applying the TCM?
2. Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?

With the illustration of relevant facts and data (see especially the Tables 7.6 and 7.9), we have answered the first research question positively. If we define collective learning as a matter of increased insight and improved behaviour among all team members collectively, this succeeded here with the aid of the method. Firstly, the team as a whole gained a deeper insight into the unique features of the mutual cooperation, as expressed in a number of ‘evidently-sentences’, such as: ‘Evidently, we won’t accept afterwards a decision made by a colleague (mutual criticism)’, and: ‘Evidently, in our team, discussions are continuously started again (repeating discussions)’. These insights pointed at patterns of the mutual cooperation; the insights were laid down in a system diagram (see Figure 7.2), describing the centrality of criticism and repetitive discussions. The collective voices of The Critical and The Objective were found too prominent. Secondly, quite a few team members stated that collective as well as individual functioning had improved with the aid of the TCM intervention. Moreover, the deviant voice of The One who Accepts had taken a clear position among other voices in the team’s multivoicedness. Along with this, counterproductive patterns had been breached, and the previously problematic situation had cleared up.

With respect to the second research question, many examples of surprising outcomes from the assessment were given. The ‘evidently-sentences’ produced after interpreting the data show this. Many features of the mutual cooperation were named here, that otherwise would have been difficult to name by the team members themselves, for example the sentence: ‘Evidently, we collectively believe that the atmosphere is negative, while in fact this is not so much the case.’

The functional proposition, which is closely connected to research question 2, namely ‘the assessment results stimulate meaningful interpretation by team members’, could therefore be accepted.

The TCM stimulated the collective and individual functioning of the team members. Their insight as well as behaviour improved, which can be derived from the measurements that were carried out (Tables 7.8 and 7.9), and the team members indicated that they profited from it collectively as well as individually.
CHAPTER 8

The impact of deviant voices on the process of improvement: The case of a team of career counsellors

8.1 Introduction

This chapter contains a report of a team investigation conducted along the lines of the TCM protocol, but this time with a specific emphasis: behavioural improvement through the use of deviant voices in the team. Whilst the previous chapter gave an integral account of the use of the TCM, the current chapter concentrates on just a part of its application. If collective learning is defined as an increase of insight into the mutual cooperation (improved reflection), accompanied with behavioural change (improved action), it is here that the latter, active side of collective learning is central. The present case is meant to give an answer to the third research question of our study (see also chapter 6 for an overview of research questions):

3. Can a team foster change by using deviant voice as a lever?

This case study will present relevant facts and data. It is the improvement of behaviour of the team members that is to be made visible.

The team of the present study consisted of five career counsellors. Five years ago, four of them (Adrian, Jeannet, Juliet and Mary) had started their career counselling firm; they had all four been colleagues in a bigger firm, before it started reorganising its business, thus presenting to the four colleagues an opportunity for becoming independent. The fifth team member, Eric, joined as a partner one year ago. Adrian and Juliet worked full-time. Jeannet, Eric and Mary worked 20, 16 and 5 hours respectively. Eric had a parallel income through his job as a sports teacher at an institute for higher education.

Clients were to visit the firm’s office for one to three hour sessions with one of the members of the team. The clients were mainly higher educated employees of all kinds of organisations, with a desire to reflect on their working and private life in cases of career stagnation, burn-out or outplacement. They were offered ‘an impulse to start moving again’, as the firm’s website stated.

The team had one major reason for conducting a TCM-investigation. It experienced a falling demand for career counselling trajectories, probably due to economic recession. At the time, customer organisations were busy cutting their costs and apparently postponing investments in HRD-trajectories. Therefore, the team wanted to reflect on its position: how do we survive this period? Or more specific: how do we improve our ways of bringing in new customers and clients?
Can a team foster change by using deviant voice as a lever? The present case illustrates the impact of a deviant voice in breaching counterproductive, repetitive patterns of cooperation in the team. Thus, the team’s adaptation to its environment may become better. The deviant voice with pattern breaching potential is expected to increase in strength (in prominence and/or internal consistency, see section 5.3) during the course of the trajectory, which proves quantitatively from assessments as well as qualitatively from clients’ and/or practitioners’ evaluations. It may also appear from other aspects of improved collective functioning. Finally, our research question will be answered partly with the aid of the testing of its two major corresponding functional propositions of the TCM: ‘the determination of a lever deviant voice by team members is helped by placing the assessed voices in the system diagram’ and ‘the use of validating assignments from the facilitator makes understandable to team members how new behaviour can / should be validated’. These two interventions contribute to the TCM’s overall effectiveness in the stimulation of behavioural improvement.

After mentioning the necessary details on the present team investigation (such as the question of inquiry, some valuations and their affective overtones, some collective and deviant voices), this case study concentrates on the outcome of the trajectory’s first phase: the system diagram in which the team’s gathered insights on the mutual cooperation are brought together. Subsequently, the way of appointing a lever deviant voice is described, as well as the change of the team’s multivoicedness and its valuation system, after a few months. Finally, relevant evaluations of team members and facilitator are presented. Based on these facts and data, an answer will be given to the third research question, being central to this chapter.

8.2 Case description

Context: question of inquiry, valuations, multivoicedness

Starting their investigation, the team members formulated the following question of inquiry:

‘What change is desirable and possible for us to realise, in order to attract more customers and keep our right to exist in the long run [and in such a way that everyone gets his due]?’

In these times of recession, the team obviously did not have the fullest confidence in its own power to generate new work. Quite unanimously, the team members found that some of them were better than others in bringing in new orders or customers. The prevailing pattern was as follows. If ‘too much’ work was generated by a team member, then the remainder was transmitted to a colleague. Nothing here was systematically arranged for, and no agreements had previously been made on it. This ad hoc approach of generating and passing on new work made the team insecure and indecisive. Some team members had the feeling that activities to develop new work should be done more collectively, and they were disturbed by the fact that each team member went his own sweet way. They asked themselves whether they, as a collective, had in fact been good at all at bringing in new work; after all, in the (economically prosperous) past the work had been coming in automatically.
The sentence ‘and in such a way that everyone gets his due’, that was added to the team’s question of inquiry, needs extra clarification. The team’s culture was characterised by a high level of professional freedom. Team members felt fully free to determine for themselves how to practice their trade. Of course, as founders of the firm, they shared the same basic philosophy of working, which was an emphasis on the stimulation of the client’s sense of responsibility; yet, everyone in the team enjoyed a freedom to approach a case differently. Also their ways to relate with different customer organisations, or to give their personal membership of the team an equally personal interpretation (e.g., by choosing to take initiative in equipping the office, or in common activities), were quite different. The team members could be characterised as individually strong and independent. In this light, the adding ‘in such a way that everyone gets his due’ was not surprising. It seemed to suggest that if an answer to the question of inquiry were to be formulated, then only with personal degrees of freedom. As will be illustrated below, this indeed proved to be the case. Freedom turned out to be an important cause for prevailing patterns of cooperation in the team.

A selection of valuations produced by the team is given in Table 8.1. Here, scores of S-, O-, P- and N affect are listed for the feelings of the team members individually (i) and for the feelings they attributed to the group (g).

Table 8.1 – The team’s collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used where (i)-scores differ significantly from (g)-scores (Mann Whitney U-test)

<table>
<thead>
<tr>
<th>Valuation</th>
<th>(i)</th>
<th>(g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>1. We have a tremendous spirit of freedom and don’t want to be patronised, not even by each other!</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>2. We have a tremendous spirit of freedom and don’t want to be patronised. Maybe we have to sacrifice some, in order to survive.</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>3. We are all autonomous entrepreneurs. We are not a team. There is a lack of team spirit.</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>4. We are thorough with respect to content and concentrated on the client’s process.</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>5. We are sometimes too cautious with each other.</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>6. We react very differently now that bringing in new customers proves to be necessary again.</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>7. We are in danger of missing the boat. Stirring things up is necessary!</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

The first valuation stresses the importance the team members gave to the issue of freedom. Here, the affect score of N(i) was significantly higher than N(g), which suggested that team members individually felt more negative about this freedom than they expected such negative
feelings to be present in the group. This corresponds with the doubts they felt about freedom, worded in valuation 2 ('maybe we have to sacrifice some, in order to survive'). Here, they attributed significantly more negative feelings to the group than they had done at valuation 1, which seems to suggest that they expected their team to be reluctant in sacrificing freedom. This suggests the possibility of a self-fulfilling prophecy: the team is expected to like freedom, while its members individually like it less; however, they do not question it because they expect this to be unwelcome; thus, these expectations stay in place, determining the team members’ behaviour. Valuation 3 shows a certain regret about a loss of solidarity with the individual team members (higher A{i} than A{g}, higher N{i} than N{g}). This experience corresponds with the importance the team members attributed to freedom, and their ambivalent feelings about it, of the first two valuations. The team does not show enough cohesiveness here. Yet, cohesiveness is not absent, for valuation 4 words the pride of the team about the quality of the service it offers to customers. Positive feelings, as well as feelings of communion, are here very high. But, as valuation 5 shows, team members are cautious about criticising each other (being a source of ambivalent, i.e. positive as well as negative, feelings). This again suggests the emphasis on personal freedom to be present in the team. Valuation 6 addresses the issue of the question of inquiry, namely bringing in new customers. The valuation words the differences in reactions of the team members toward the experienced necessity of attracting them. Here, the positive feelings P(i) are significantly lower than those attributed to the group (P{g}), which stresses the experienced lack of optimism in the team. Team members feel even less positive than they expect the group to feel about it. This suggests that the question of inquiry is even more urgent than expected.

When inspecting these outcomes, the team members together with the facilitator discussed the possibility of a connection between lack of optimism and low initiative. Did they give up the fight, hoping and trusting that other team members would solve the problem? Valuation 7 finally shows the urge the team feels for change. Here, the mean r(g) was significantly higher than the mean r(i) (.484 over .103, p<.01), which suggests a coherence in affect modalities attributed to the group as compared to the individuals’ affect modalities. Team members felt that their team wanted change. Also valuation 1 showed this phenomenon \(r(g) = .711, r(i) = .357\); p<.1), underlining the team’s collective tendency to give central importance to personal freedom. Most of the team’s valuations were not collective, in the sense that the values of mean r(g) and mean r(i) remained low. This again suggests a high degree of personal difference between the team members: apparently, they had very different feelings about experiences that could otherwise be regarded as collective (since the events described in the valuations concern them all, and the team members formulated them jointly).

After inspecting the data on their valuation system and interpreting them, the team concluded the following, in ‘evidently-sentences’, about their cooperation (a selection):

* Evidently, we feel somewhat powerless, lonely and angry about this freedom, and we do not trust each other very well. We are cautious with negative feelings about each other [theme-variables for the system diagram: freedom, joy, obliqueness];

* Evidently, we lack joy, energy and freedom when trying hard to bring in new customers. Instead, we feel powerless and fearful [theme-variables: lack of confidence, petrification];

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- Evidently, the valuation ‘Stirring things up is necessary’ challenges us positively. We connect it with some self-confidence, pride, energy and freedom. Of course, we experience here some insecurity as well, but this proves not to be too strong (hope, drawing on each other);
- Evidently, as individuals we often think that things can continue without extra attention, and wait for each other’s initiative (relaxedness, lethargy, lack of realism);
- Evidently, the discussion on ‘how to’ flags sometimes, when approaches appear too different (entering into confrontation);
- Evidently, discussions about strategy don’t produce too many results. We insufficiently follow up on each other’s entrepreneurial ideas (following up on each other).

The measurement of the team’s multivoicedness produced an outcome that is presented in Table 8.2. Here, the prominence as well as the internal consistency of the voices is listed.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Professional</td>
<td>6.30</td>
<td>1.50</td>
</tr>
<tr>
<td>The One who Enjoys</td>
<td>6.20</td>
<td>1.85</td>
</tr>
<tr>
<td>The Caring One</td>
<td>5.50</td>
<td>2.50</td>
</tr>
<tr>
<td>The Plain</td>
<td>4.90</td>
<td>2.95</td>
</tr>
<tr>
<td>The Chairman</td>
<td>4.45</td>
<td>2.30</td>
</tr>
<tr>
<td>The Little Boss</td>
<td>4.30</td>
<td>1.35</td>
</tr>
<tr>
<td>The Strategist</td>
<td>3.65</td>
<td>3.40</td>
</tr>
<tr>
<td>The Caretaker</td>
<td>3.55</td>
<td>2.90</td>
</tr>
<tr>
<td>The Shaper</td>
<td>3.20</td>
<td>3.10</td>
</tr>
</tbody>
</table>

The voice of the Professional was rated highest in prominence as well as internal consistency. This means that the team members spoke with this voice strongly [prominence] and in more or less the same way [internal consistency]. Also the One who Enjoys had a high prominence and internal consistency. Thus, both voices proved to be collective voices in the team. The Professional stood for a serious and creative worker, the One who Enjoys represented the flavour of joy that the team members experienced when doing their work. Also the Caring One had a high prominence and can be regarded as a collective voice, though its internal consistency was just moderate. Team members felt care for each other and spoke correspondingly with a caring voice.

Other voices had a much lower prominence and internal consistency. We mention here a few of them. The Little Boss [representing each team member as running his own little firm within the firm] still had a high internal consistency, but was of lesser prominence; the Strategist, Caretaker and Shaper [last two voices derived from Belbin’s team roles, see Appendix 1] each had a low prominence as well as low internal consistency. Precisely these three voices were missed badly by the team in facing the current business challenge, indicated in their question of inquiry.

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The team’s system diagram

When we combine the voice of the Professional with the voice of the One who Enjoys, we can regard the team's multivocedness to be heavily coloured by an 'Enjoying Professional'. This was easily admitted by the team members. Since collective voices cohere with social expectations (see section 1.4), both of these collective voices strongly influenced the patterns of cooperation. The team produced a system diagram that illustrates this. See Figure 8.1.

The system diagram shows the outcome of the first phase of the TCM trajectory: an overview of the team's situation in which the insights produced during the naming and inspection of valuations and voices are brought together. This system diagram presented a meaningful whole for the team. Its content should be clarified here first.

We start in the upper part of the diagram. Team members indicated that sometimes a successful deal with a new customer was stimulated by a methodical approach or a confident attitude. Confidence was for its part generated by discussions about how to jointly approach a new customer, or by actively drawing on each other's strengths. But discussions about 'how to' do not usually take place in the team, either because there is no time (when everyone works hard), or because one respects the colleague's freedom to put personal emphases in carrying out the task (a discussion would then be experienced as too restrictive),

Figure 8.1 – System diagram of the mutual cooperation in the team (drawn by the team). In italics the lever deviant voices; bracketed the collective voices held responsible for the behavioural patterns.
or because a certain lethargy has gradually come into being (‘we have actually lost our belief in the possibility of jointly attracting new customers’). This lethargy, in its turn, is according to the team members generated by a high degree of respect for the colleague’s freedom (remember the valuation I, the collective voices of the Professional and the One who Enjoys, and the voice of the Little Boss) and by a cautious approach of colleagues when giving feedback is concerned. The respect for the freedom of colleagues originates in the beginning of the firm, when team members attributed great value to freedom. Probably they have since then, imperceptibly, cultivated this.

In the system diagram certain loops can be discerned, through which the repetition of certain patterns of cooperation is indicated. The more one discusses how to jointly approach new customers, the more one draws on mutual strengths, and the more one will be familiar with each other’s feelings; this will then according to the team members lead to more feedback to each other, which will then lead to a more cautious approach of each other (for they claim that knowing each other’s feelings helps in avoiding to hurt each other’s feelings and in treating each other with respect). A more cautious, respectful approach will then lead to more drawing on each other’s strengths, thus closing a circle of cause-effect relationships. Here, the cautiousness works positively. Yet, it may work out negatively too: it can cause lethargy for the absence of confrontation (sometimes much needed), when the cautiousness is too strong. Finally, lethargy may cause less discussion on how to jointly bring in new customers, and less drawing on each other’s strengths. Thus, two other circles are closed. These last two loops are negative feedback loops, meaning that the patterns described by them are stagnant. The variables ‘discussion on how to’ and ‘drawing on each other’s strengths’ need higher values in order to raise the opportunity to attract new customers, but they never get these levels because of these stagnating negative loops.

By analysing the system diagram, the team members realised the central influence of the variable ‘respect for the colleague’s freedom’, which caused lethargy and a diminishing chance of constructive discussions on how to reach synergy. If this variable remained unchangeably high, the pattern of negative loops in the system would not change. Only if it would be given other value, or if it would be replaced by another variable, then the pattern caused by it would change along. In order to realise that, a lever was needed. Therefore, the team members appointed a few lever deviant voices that they considered appropriate (see again the voices placed in Figure 8.1).

Before that, they indicated which collective voices were determining the current patterns of cooperation, as described in the system diagram. First, they placed the voice of the Little Boss in the diagram, there where it had its strongest influence: around the variable ‘respect for the colleague’s freedom’. The facilitator suggested that the collective voices of the Professional and the One who Enjoys had their influence around an even more basic variable in the system: ‘sense of freedom’, as well as around two variables more up in the system: ‘working hard individually’ and ‘enjoying the work’. These two voices also kept the existing, counter-productive patterns in place. The team members recognised this. Then, they placed a few lever deviant voices in the diagram, in order to indicate how the existing patterns could be breached: the voices of the Shaper (in order to breach lethargy), the Chairman (in order to make sure that discussions on how to attract customers would take place and be constructive), and
the *Strategist* (in order to make sure of a methodical approach in steps toward new work). The *Little Boss* should in fact be exchanged for the *Co-operator*, a voice not present in the team’s list, but very appropriate indeed. They regarded the *Co-operator* as the voice lying below the other three lever voices, since these all represented a way of cooperating more intensively.

A few other lever voices were placed in the diagram: the Plain/Critical stood for a voice that could assure clear feedback; the One who Confronts was needed to breach a too cautious approach of each other. Later on, the team marked both voices as identical. These two lever voices were directed to the team’s inner world only (i.e., the *relations* between the team members), while the other three/four lever voices were dealing with the link between the team’s inner and outer world (i.e., the *content* of actions needed).

If now only the influence of these five to six lever voices could be enhanced in mutual coherence, there would be a real chance that the cooperation be decisively renewed in the desired direction. The team members formulated for each of the lever voices a corresponding intention, i.e. an action to be undertaken that could help breaching the patterns of the system diagram. Thus, the reflective phase of the TCM trajectory gave way to the phase of action, or in terms of Valuation Theory, the invalidation/validation phase (see sections 2.2, page 49 and 4.2, page 90-91). The team’s intentions were the following (each time between brackets the name of the team member who felt some enthusiasm for the intentions concerned, and took responsibility for the initiative):

- Intention corresponding with the voice of the *Shaper*: jointly practise bringing in new customers. Arrange the coming month one joint customer visit or one coaching session with a colleague about a customer visit that you are about to undertake. Plus: examine certain sources (like magazines of internet) about ‘suspects’. Report on the progress of both activities in a half hour meeting chaired by Eric (action for all, action for Eric).

- The voice of the *Chairman*: signal when engagements between team members do not hold or are even broken. Organise a regular meeting: twice a month a brief ‘general meeting’ chaired by Adrian or Mary (action Adrian). Celebrate when we keep our engagements.

- The voice of the *Strategist*: make an overall plan, for every account, on how to bring in new work. The plan contains an overview of facts and figures, an analysis and a schedule for directed action. Juliet develops the format for it, and organises a meeting chaired by herself about this topic (action Juliet).

- The voice of the *Plain*: present a feedback instrument on the next Friday afternoon meeting in order to use regularly afterwards for giving each other feedback. Here we point out how and when it will be used (action Jeannet).

The team members emphasised that the calling of meetings was not a solution to their problem; improving ‘internal procedures’ would quite possibly block any new developments of the so much needed outward-orientatedness in the team. The team’s challenge was rather to go out. After all, the most important thing was to really bring the lever deviant voices to expression, also when a given action was not directly done in line with the appointed list of intentions.
Right after the end of the third session (when the team members had been producing their system diagram and intentions for breaching patterns), we decided to reassess valuation 6 in order to find out if and how team members had changed their experience of the necessity of attracting new work. After all, valuation 6 ('We react very differently now that bringing in new customers proves to be necessary again') addresses most directly the issue central in the team's question of inquiry. The measurement produced significantly lower levels of negative (14.4 over 19 before) and higher levels of positive feelings (15.2 over 10.6) connected to this valuation. Moreover, the challenge of attracting new work was obviously experienced more collectively than before (mean r[g] values of .511 over .154 before). The team members evidently experienced a higher degree of mutual connectedness in relation to their problem; also their collective confidence seemed higher (higher 5 scores on the valuation of general experience). Would the team members be able to hold to their increased self-confidence? This would depend on the quality of the further absorption by the team of the issues discussed during the sessions.

**Reported change and an answer to the third research question**

As mentioned before, the research question of this chapter is: "Can a team foster change by using deviant voice as a lever?" The aim of the present case study was to demonstrate, with the aid of empirical facts, that this is indeed possible. Did the lever deviant voices that were appointed by the team do their job? Did the team hold to the list of intentions, and did this produce results?

Five months after the third session, another session was held to determine the degree of progress of the team. Multivoicedness was reassessed, valuations were reformulated and the connected affects measured again. Moreover, the team members evaluated the quality of progress together, with and without the aid of assessment results. We present some relevant facts here that may help answering the research question concerned.

The team members indicated that the theme of the question of inquiry, 'bringing in new customers', was much more on their minds than before. At the same time, nothing specific had been done with the list of intentions. The improvement of behaviour and activities concerning the attraction of new customers had, however, been passing off organically. All team members had been making their contribution to improvement on the spur of the moment. They observed that they still had been doing their own thing too much, instead of trying to harmonise their efforts. However, results on customer actions were discussed on meetings, and this more strategically and systematically. Juliet did a good job in chairing meetings and bringing in facts and figures in preparation. Moreover, the results on bringing in new work were encouraging. Apparently, the team had performed well in systematic canvassing. It was satisfied on its progress, though there was still room for improvement as well.

The measurements on the team's multivoicedness showed that the lever deviant voices had been active in the invalidation/validation phase of the TCM trajectory. The voices had become stronger, even in spite of the fact that the team members did not stick to their specified action plan. Apparently, even without the actual use of the blueprint of intentions, the deviant voices had done a good job. See Table 8.3.
The lever deviant voices of the *Plain*, the *Chairman* and the *Strategist* had become more prominent. Measures of their collectivity invariably showed a rise in prominence, and the internal consistency of the *Plain* and the *Chairman* had been rising as well. Only the *Strategist* showed a low consistency, but this was for obvious reasons: Juliet had been the person coordinating most of the strategic work, so that it was almost solely her canalising the colleagues' mental energy on this topic. Thus, the voice of the *Strategist* was still not shared equally, though it unmistakably had become more collective among the team members if it came to prominence. Basically, all three voices had become less deviant and more influential. Finally, the *Shaper* had not been increasing its prominence: though its absolute prominence score had raised, it had still the lowest ranking and was therefore relatively the weakest. Team members confirmed this, indicating that in their eyes a weak *Shaper* corresponded with their rather fragmented, uncoordinated way of taking initiatives to solve the team's problem. They still insufficiently shared ideas, and they agreed that this was to be improved.

In fact, it is here that the obstinacy of the team members' love of freedom once more became manifest. The *Little Boss* had only become a bit weaker. The team had appointed this voice five months before as a collective voice, in other words a voice potentially preserving old patterns. Also the *One who Cares* had weakened just a bit. These were traits of the team that seemed hardly changeable. Just as in the case of the previous chapter, this illustrates the simultaneity of stability and change. This phenomenon is in principle healthy, for change without stability would quite possibly become an unproductive chaos.

Team members confirmed the picture produced by the measurement. They indicated that they experienced the deviant voices as useful, and that they had experienced the TCM sessions as a support for starting to use them. For instance, before it had been quite difficult to express the voice of the *Strategist*, but now the previous feeling of this voice being unwelcome had disappeared. The *Strategist* now had the wind behind.

Table 8.4 shows in its first column how the valuations' changed wording after the five months' period. If one compares with the earlier formulations, a few things are noticeable.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
<th>Prom. ranking went up/down</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Professional</td>
<td>6.55</td>
<td>2.10</td>
<td>Equal</td>
</tr>
<tr>
<td>The One who Enjoys</td>
<td>5.60</td>
<td>2.40</td>
<td>Equal</td>
</tr>
<tr>
<td>The Plain</td>
<td>5.40</td>
<td>1.70</td>
<td>Up</td>
</tr>
<tr>
<td>The Caring One</td>
<td>5.10</td>
<td>1.95</td>
<td>Down</td>
</tr>
<tr>
<td>The Strategist</td>
<td>4.60</td>
<td>2.60</td>
<td>Up</td>
</tr>
<tr>
<td>The Chairman</td>
<td>4.55</td>
<td>1.40</td>
<td>Equal</td>
</tr>
<tr>
<td>The Little Boss</td>
<td>4.05</td>
<td>1.75</td>
<td>Down</td>
</tr>
<tr>
<td>The Shaper</td>
<td>3.95</td>
<td>1.35</td>
<td>Equal</td>
</tr>
</tbody>
</table>

Table 8.3 – Multivoicedness after three months: the collectivity measures of prominence and internal consistency per voice as assessed for the team. Range of prominence ratings between 0 and 9. Internal consistency of a voice is highest when the consistency measure has the lowest value. To be compared with (the rankings in) Table 8.2: some voices became stronger, others weaker. The Caretaker was not reassessed.
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Table 8.4 - The changes in the team's collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used when new affect scores differ significantly from old scores (Mann-Whitney U test). Italic font is used where (i)-scores differ significantly from (g)-scores (Mann-Whitney U test).

<table>
<thead>
<tr>
<th>Valuation</th>
<th>(i) S</th>
<th>(i) O</th>
<th>(i) P</th>
<th>(i) N</th>
<th>(g) S</th>
<th>(g) O</th>
<th>(g) P</th>
<th>(g) N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (old)</td>
<td>14</td>
<td>10</td>
<td>23</td>
<td>11</td>
<td>15</td>
<td>12</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>1 (new)</td>
<td>(identical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (old)</td>
<td>12</td>
<td>13</td>
<td>17</td>
<td>12</td>
<td>11</td>
<td>13</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>2 (new)</td>
<td>10</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>12</td>
<td>14</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>3 (old)</td>
<td>8</td>
<td>11</td>
<td>20</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>3 (new)</td>
<td>(identical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (old)</td>
<td>16</td>
<td>17</td>
<td>33</td>
<td>3</td>
<td>16</td>
<td>15</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>4 (new)</td>
<td>16</td>
<td>17</td>
<td>31</td>
<td>2</td>
<td>17</td>
<td>16</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>5 (old)</td>
<td>7</td>
<td>14</td>
<td>16</td>
<td>13</td>
<td>9</td>
<td>13</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>5 (new)</td>
<td>(identical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 (old)</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>19</td>
<td>8</td>
<td>10</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>6 (new)</td>
<td>12</td>
<td>13</td>
<td>23</td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>8 (new)</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>14</td>
<td>9</td>
<td>9</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>7 (old)</td>
<td>10</td>
<td>11</td>
<td>15</td>
<td>12</td>
<td>8</td>
<td>12</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>7 (new)</td>
<td>11</td>
<td>13</td>
<td>19</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>20</td>
<td>9</td>
</tr>
</tbody>
</table>

First of all, formulations have become somewhat milder, which suggests that the problem (‘insufficient attention for bringing in new work’) has become smaller. Valuation 3 no longer emphasises that ‘there is no team’, but that ‘we realise that we need each other’; valuation 6 indicates that ‘there is less resistance’ to any project of attracting new customers; valuation 7 has been changed in ‘we back frontiers in order not to miss the boat’. Yet, a new valuation has been added: valuation 8, indicating that the joint bringing in of new customers is still a problem to be solved. In short, the problem has shifted from ‘bringing in new work’ to ‘bringing in new work together’. But largely, this problem is being addressed in a satisfactory way.
that valuation 5 has a stronger negative overtone than it had before. The valuation evokes more negative and less positive feelings (higher N and lower P for individual affect \([i]\)). Team members, however, spoke of the fact that they experienced a moderate improvement of the former over-cautiousness toward each other; here, they seem to speak for the collective, since the \((g)\)-scores of N are indeed slightly lower and of those of P slightly higher. Apparently, there is still work to be done in addressing each other’s flaws.

Have patterns been breached? The team was asked to review the system diagram of a few months ago. Only Adrian was able to re-interpret the diagram; the other team members thought it to be too complex to read and could not clearly remember what it was about. Adrian named many facts as a proof of pattern-breaching. The Plain had become more prominent in daily life, the lethargy was less stifling, the outward-orientedness had become stronger thanks to a higher prominence of the Chairman, a more methodical approach was now present and discussions about how to approach new customers had become more common. Striking was that all changes that he signalled were located in the upper part of the system diagram. Sustainable change would probably require also changes in the lower parts of the diagram, where the factor ‘freedom’ is located. Adrian’s remark corresponds with this: ‘the diagram is still valid for the current patterns of cooperation, it is only that things have been smoothed out a bit’. Indeed, two years later, Mary evaluated the investigation as too superficial. Looking back, the deviant voices had not been strengthened enough in order to give them a wholesome influence on the team’s canvassing practice. If they had been more explored in depth, they would have been more directed and plausible. From her point of view, the improvement had remained modest and largely temporary. Though this runs counter to the measurements that proved the actual occurrence of improvement, we consider this evaluation as significant for the fact that the attained changes in the team’s patterns of cooperation were only moderate. Mary’s reading was that the deviant voices were not deepened well enough; though we think there is a lot of truth in this, we consider the fact that the issue of freedom was not addressed in the team as a much more serious omission. If other deviant voices had been chosen, the change might have been more decisive.

**Answering the research question**

In the beginning of this chapter, we set the research question that we named as central in this case. It is the third research question of this functional validation study, which is described in further detail in chapter 6.

3. Can a team foster change by using deviant voice as a lever?

Though the problems remain partly in place, the assessment results (see Tables 8.3 and 8.4) as well as the team members’ evaluations point to a moderate occurrence of the desired change. The team has succeeded in making a step in the right direction that was wanted in the beginning of the trajectory; the team members themselves have shaped this step, but in a different way than they indicated at the end of the third session with the list of intentions. The change is apparent in the greater role for voices that previously had been peripheral.
It is not easy to make the actual usage of these deviant voices during daily cooperation explicit. However, with the aid of measurements, it can be done, for the appointed lever deviant voices prove to have gained in strength.

Especially in the eyes of the team two years later, the attained changes were not spectacular. Change had been only moderate, and would probably have been more decisive if the deviant voices had received more attention in the investigation. They could have been chosen more cleverly (so that the patterns more deeply anchored in the team's cooperation would have been influenced) and/or explored more in depth (so as to bring them more fully to the team members' awareness). In any case, with the positive outcomes of the measurements after five months, together with the evaluations by the team formulated simultaneously, there is an indication that multivoicedness can serve as a lever for improvement. It seems that we can answer the third research question with a cautious yes: a team can foster change by using deviant voices.

The two functional propositions that are closely connected to research question 3, namely 'the determination of a lever deviant voice by team members is helped by placing the assessed voices in the system diagram' and 'the use of validating assignments from the facilitator makes understandable to team members how new behaviour can / should be validated', could be accepted. After all, the team members proved able to draw up a meaningful system diagram representing their mutual cooperation, in which important lever deviant voices were placed. This system diagram was the starting point for planning how to act in the direction of the desired change. The facilitator insisted on basing the team's intentions on the deviant voices' hidden power. The team members proved to be successful in realising a satisfactory improvement.
CHAPTER 9

Significant incidents in the process of improvement: The case of a management team in a welfare institution

9.1 Introduction

The previous chapter contained a report of a team that improved its collective and individual functioning with the aid of lever deviant voices. The ways in which the use of these voices changed the team members' behaviour remained, however, largely implicit. The two TCM functions of stimulating insight and improving behaviour are essentially output-oriented; this is reflected by the fact that the progress of the team is measured by assessment of valuations and voices. What happens in between, that is before the realisation of progress, can easily remain a black box. The third function of the TCM, that of promoting a process of collective investigation throughout the whole trajectory, is there precisely for filling this gap. Thus, the TCM contains, just like the SCM, an invalidation/validation phase in which behavioural change is fostered (by respectively attending, creating and anchoring new enactments; see section 2.2, page 49).

The current chapter will demonstrate ways of fostering the process of improvement of collective and individual functioning. Like in the previous chapter, the active side of collective learning (being the improvement of behaviour) is central; there, however, the focus was on the result of a basic intervention for behavioural change (the 'output'), while here the focus is on the process of a chain of interventions for behavioural change, and their effects on the team's progress toward the result at the end of the trajectory (the 'throughput'). The present case is meant to give an answer to the fourth research question of our study (see also chapter 6 for an overview of research questions):

4. Can we pinpoint important incidents in the process of change that prove the team's deviances being in action in the desired way? Can we show the working of voices in the process of change?

We chose to qualitatively assess the meaningfulness of the working of interventions, and the working of voices, during the process of change. When important incidents took place is basically a subjective judgement. Since we take meaningfulness to be inherently subjective, we consider such judgement sufficient for a satisfactory answer to the research question. Therefore, we test the meaningfulness of interventions by using team and practitioner evaluations. It is here that we introduce a 'new paradigm method' (see section 3.4, page 85): with the learning history (Roth & Kleiner, 1998), facts about the team members' subjective judge-
Part II - Design and validation of the method

In sum, the present case study aims to enrich the picture of the change process that would otherwise have been rather implicit, because the TCM tends to assess change only in retrospect. Relevant data are shown as illustration, and discussed.

The team of the present case study is a management board of a welfare institution. The team consisted of five members. Henry, director of the institution, headed the team. His deputy was Sandy; Helga was head of the personnel department; Germaine and Michelle completed the team. Sandy, Germaine and Michelle each headed an operational department of the institute. The team was rather young. Though Henry had ample experience as a head of the board, the others were relatively new in their positions: they had held these for only a couple of years. The length of the TCM trajectory was agreed on one full year. In the course of this year Henry died, before his time; this tragic event had much impact on the other team members. However, they decided to continue the trajectory, and they happened to stay together until they had to split up because of a merger with another institute, shortly after the completion of the year.

At the start of the trajectory, Sandy was just back from temporarily replacing Henry. He had been absent from work for a few months. Sandy had been doing well as a deputy director, not only in Henry’s but also in her colleagues’ eyes. Michelle had been absent for a few weeks because of burnout. The last year had been very demanding to her when she was faced with a combination of circumstances: among other things, her new position and participation in an intensive one-year management course. She rejoined the team only in the sixth month of the trajectory. Helga had as her special assignment the preparation of the merger with the other institution, which was in fact another branch of the same large nationwide organisation. This merger had been announced last year and needed intensive fine-tuning in advance. It meant an extra job for her on top of her usual work. Finally, Germaine was responsible for a relatively large department that was closely connected to Sandy’s. About five months after the start of the TCM trajectory, she started the same management course as Michelle.

As may become clear from this description, all members of the team (except maybe Henry) experienced a high pressure. In their new positions, they felt responsible but often immature. They had the feeling that they did not have enough time to live up to the expectations that came along with their function. They all worked hard and had a lot on their minds. Michelle clearly had had too much of it, but also Helga and Germaine complained about pressure. Sandy did not mention it too much, but also she had her fair share of it. Only Henry, experienced as he was, considered the pressure as a part of life, and he was used to coping with it. Naturally, this was easier for him as for the others, because of his experience and the fact that he was the only one who worked full time. Still, he agreed with the other members on starting a TCM investigation. The team aimed to handle its time pressure better, thinking a team intervention to be the best way to make this happen.
The research question central in this case study concerns the possibility of making the effects of interventions during the invalidation/validation phase of the TCM trajectory explicit. What happens in this phase before it leads to a successful result? A satisfactory answer is to be found in reports of the team’s experiences during this phase. Also facts about the practitioner’s interventions are important. Therefore, the case study is constructed around qualitative reports of team members on what happened. First, necessary context is given with the team’s question of inquiry, some valuations of and voices in the team, the system diagram of the team’s patterns of cooperation, and the resolutions made for breaching these patterns. Then the central part of the case study concentrates on the invalidation/validation phase, which is investigated thoroughly with the learning history instrument (introduced briefly before). Experiences of the team members will thus be systematically presented. Necessary facts about interventions, and some observations of the practitioner will be added. Through this, an answer will be formulated to the present chapter’s research question.

9.2 Case description

Context: question of inquiry, valuations, voices, system diagram and lever voices

The team started off with the following question of inquiry:

‘How do we stay healthy and keep enjoying our work, given an “overly tight work schedule”?'

Sandy, Germaine, Michelle and Helga all experienced this as an urgent problem. They could not cope with their workload anymore. Michelle, with her burn-out, was the first victim, currently not even capable of joining the TCM investigation. A general, though not expressed feeling in the team seemed to be: who is next? Henry agreed that something had to be done, and therefore he assented to a TCM trajectory. The things he had done himself in order to reduce the general workload (like adjusting job responsibilities, or negotiating with the chairman of the institute’s board of governors) had been insufficient in the eyes of Michelle and Helga in particular. Possibly, with the TCM the situation could be well analysed, and maybe some fruitful solutions would be produced by the team members themselves.

The facilitator was struck by the typical style of conversing during the TCM meetings. Team members tried to be meticulous with each other and showed themselves sensitive and verbally intelligent. At the same time, discussions were lengthy. It was as if every topic was personal and urgent enough to need precise wording, before a change of subject was allowed. This gave matters a certain weight, sometimes too much, even in the eyes of the team members themselves. In such cases they expected the facilitator to intervene and bring order to their conversations. Slowness and fuzziness thus coloured their meetings, in an otherwise friendly atmosphere.

Parallel to this was another pattern that was visible almost right from the start. It was the role of Henry. In spite of Helga’s and Germaine’s emphasis on things related to work load that needed improvement, he kept on reassuring that they all did well and that
time pressure was part and parcel of the work. Was this heartening or frustrating to his
team members? Probably it was both. On the one hand, it was heartening, for Henry showed
his sympathy (and patience) for the team members’ relative immaturity in their new func-
tions. On the other, it was frustrating, for Henry seemed to trivialise the team members’
experience of work load and pressure. It became clear that he had provided support by a
structure that offered some clarity, but in the eyes of his team this remained insufficient.
Henry always tried to explain why things were as they were; yet, he did not radiate real under-
standing of his colleagues’ worries.

Some valuations illustrate the state of the team’s mental experience. Valuations
together with (i) and (g) affects are presented in Table 9.1.

Table 9.1 – The team’s collective valuations and their affect modalities, represented by the averaged sum
scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between
0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members
individually) and (g)-affects (attributed by the team members to the group). Bold font is used where
(i)-scores differ significantly from (g)-scores

<table>
<thead>
<tr>
<th>Valuation</th>
<th>(i)</th>
<th>(g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>1. Henry draws the big picture and gives to each team member the opportunity to further put in the details, with a support structure.</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2. We have put up the organisation well, given the explosive growth and external influences.</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>3. We are as a team sometimes too well-behaved. What we think of each other gets less attention. As a team we are not that capable of constructive criticism.</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>4. We get bogged down in daily affairs, and cannot rise up from them.</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>5. We are too demanding with each other.</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>6. We cannot make agreements that hold. We don’t draw the line.</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

The valuations 1 and 2 were positively experienced, given the high values of S, O and P and low values of N. Moreover, the assessment showed a collective character of these experiences (mean r(g) values were .851 and .855 respectively). Apparently, the satisfaction with Henry’s support was reasonably high (in spite of its supposed insufficiency, as expressed by some team members), and the team’s pride of common achievements as well. Furthermore, it becomes clear from the table that the experience of valuations 3 to 6 had a negative colour, with comparatively high values of N, and low values of S, O and P. In addition, it proved that these valuations were not similarly experienced by the team members. The mean r(g) values were here only .218, .154, .020 and .500; this means that the team’s experience was fragmented. Nevertheless, the mean r(g) of valuation 6 was significantly higher than its mean r(i) value, which was only .364 (Mann-Whitney U test, p<.05), meaning that the team had at least some collective experience about engagements not being kept. But in general, team members did not ‘find’ each other on the negative side of their experience, and this was precisely their problem. Though the problem was observed, there were no shared solutions produced.
Inspection of these measurements, however, produced some common insights. They were formulated in a set of 'apparently-sentences':

- Evidently, we value Henry's 'support structure' more than we expected.
- Evidently, we are ambivalent about Henry's message: 'accept the work pressure and getting bogged down in daily affairs!' This may be partially true (for it belongs to the job), but is fatalistic at the same time (for we neither can influence it nor are responsible for it).
- Evidently, we share the experience that our institute has been positioned well [by ourselves].
- Evidently, talking about things that we are critical about is preferable to talking about things that we like. We particularly talk about things that do not function well.
- Evidently, it is not Henry who is the 'most demanding', it is ourselves as a group.
- Evidently, our difficulty is the fear of making mistakes, out of a feeling of responsibility.

This was the first time that team members systematically interpreted their daily common experience. Helga: our institution has considerably grown, with new services and client groups. This is a great challenge, and I am feeling my way; but do I perhaps try too hard? [emphasis added]. Sandy: when we sit together in regular team meetings, we are too much focused on details. We shouldn't make a fool of ourselves. This way, we do not finish a single process. Germaine: I have committed myself to our organisation and expect the same commitment from others. Maybe that I, as a member of the management team, shoulder too much responsibility. And finally Henry: in this team, there is a tendency to exaggerate instead of making subtle distinctions.

Most of these insights may seem obvious to the reader, but for the team members themselves, they came only with the making of associative connections between different aspects of their experience. After all, the team members did not get the introduction that was offered to the reader on the previous pages (and neither did the facilitator). The construction of meaningful insights is a matter of joint searching.

The collection and assessment of voices produced a list from which we present a selection in Table 9.2.

Table 9.2 – Multivoicedness: the collectivity measures of prominence and internal consistency per voice as assessed for the team. Range of prominence ratings between 0 and 9.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>The One who Takes On Anything</td>
<td>6.77</td>
<td>1.06</td>
</tr>
<tr>
<td>The Helicopter</td>
<td>6.50</td>
<td>1.67</td>
</tr>
<tr>
<td>The Group Worker</td>
<td>6.00</td>
<td>1.67</td>
</tr>
<tr>
<td>The Tempter</td>
<td>5.93</td>
<td>1.28</td>
</tr>
<tr>
<td>The Monitor</td>
<td>5.93</td>
<td>1.72</td>
</tr>
<tr>
<td>The Respectful</td>
<td>5.93</td>
<td>2.04</td>
</tr>
<tr>
<td>The Change-oriented</td>
<td>5.83</td>
<td>1.11</td>
</tr>
<tr>
<td>The Energetic</td>
<td>5.60</td>
<td>1.83</td>
</tr>
<tr>
<td>The Implementer</td>
<td>5.27</td>
<td>2.17</td>
</tr>
<tr>
<td>The Peace-keeper</td>
<td>4.27</td>
<td>2.72</td>
</tr>
<tr>
<td>The Victim</td>
<td>3.83</td>
<td>2.56</td>
</tr>
</tbody>
</table>
In this ranking, the **One who Takes On Anything** comes forward as the most collective voice. Sandy: we turn our hands on to a lot of things; one can easily get tired of that. We stuff everything together, for we want to do it all. This seems quite perfectionist. Also the **Helicopter** is a collective voice. Helga: are we pragmatic enough (weak **Implementer**)? We lack pragmatism by our wish to keep overview all the time (strong **Helicopter**). We quite often go ahead and do it all over again. The strong **Group Worker** in this team suggests a tendency to care for a good atmosphere in the group; hence the meticulousness with which the team members treat each other during the meetings. Next, 2-d voice (for this type of graph, see explanation at the end of section 5.3) showed that the **Monitor** and the **Tempter**, also to be seen as collective voices, go along together: each time when someone warns the other about something, the other is tempted to do some extra work in order to prevent things going wrong. Vice versa, each time a job is unloaded unto someone, this person remains being harassed by her colleagues with objections about the way of doing it. Sandy confirmed both interpretations with examples from daily work. Finally, the **Change-oriented** is a collective voice with reasonable prominence and high internal consistency, and is associated in the 2d-voice graph with the **One who Takes On Anything**. This means that the team members were very busy doing their preparation on the upcoming merger with the other institute, which was confirmed by the team members (especially Helga) with examples.

Also the interpretation of the assessment of the team’s multivoicedness produced new insights into ‘deeper layers’ of collective and individual functioning. Together with the insights produced by inspection of the valuation measurements, they produced the material for the team to make a system diagram of the prevalent patterns of cooperation. In Figures 9.1a and 9.1b., relevant parts of this system diagram are represented.

The Figure 9.1a shows two different clusters of loops present in the team. The first (cluster I) and second (cluster II) show a central importance for the feeling of insecurity present in the team. It is especially insecurity about the quality of the work, in the light of the strong feelings of responsibility that the team members (except Henry) experience. Cluster I shows the following patterns: firstly, the stronger the feelings of insecurity, the more the team gets tired, and the more team members talk about things that do not function well; the more they talk about things that do not go well, the more they get tired again, and the more they feel insecure again. The loops are closed. The more they feel insecure finally, the more they try to be meticulous, which produces a diminished insecurity. The first sets of loops in this cluster are positive loops, with a tendency to get stronger and stronger; the final loop is a negative loop, meaning that it tends to stabilise. In other words, insecurity and meticulousness keep a balance, but the meticulousness never solves the feelings of insecurity.

Cluster II shows two extra loops. The first is positive: the more insecurity, the more team members withhold criticism; the more they withhold criticism, the more they feel insecure. Team members found that their inclination to hold back criticism was unproductive in fighting insecurity. The second loop is negative: the more insecurity, the more Henry’s stress on his ‘support structure’; the more attention for this structure, the less insecurity experienced by his team members. Apparently, team members thought that Henry’s concerns to do something about his colleagues’ insecurities helped them through, but not completely; there
always remained their insecurity being not fully solved. The first positive, escalating loop is stabilised by the second, negative loop.

Figure 9.1 b shows a chain of variables. The more team members have a demanding attitude towards each other, the more they cram a lot of work together in a certain amount of time. The more they stuff work together, the more they experience time pressure, and, vice versa, the more they cram work together again. The more this happens, the more the team gets tired.

Different collective voices can be connected to these loops and chains as pattern-preserving voices. In cluster a, this is the Monitor and the Group Worker; in cluster b, this is the Group Worker; and in the chain, this is a full set of collective voices: the Monitor and Tempter produce a demanding attitude, the One who Takes On Anything, the Change-oriented and the Helicopter produce a stuffing of a lot of work in a brief period of time. It is the Helicopter, with her willingness to find the big picture in things, which together with the other voices, demands a full awareness, and a continuous mindful functioning. The team members, with their perceived lack of experience, use their heads intensively, in order to come to grips with all kinds of things. Simultaneously, they tend to pass their energy limits and get overworked. On discovering this, the team decided to bring a deviant voice more to the fore, a voice previously unnoticed: the One who Speaks with the Belly. As the facilitator stated, the belly is the organ connected with eating, and it was already Aristotle who associated it with the

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**Figure 9.1 a – Two repetitive loops of behaviours in the team**

**Figure 9.1 b – A prevailing chain of behaviours in the team**
virtue of temperance. The belly knows about personal limits. The team members agreed they should temper themselves and speak more with their bellies, or in other words: observe their limits and express them directly and unhesitatingly.

Thus was the team's resolution: to speak more with the belly. It was based on a suggestion of the facilitator (the study's author). His analysis was that the team's patterns of insecurity were especially anchored in the voice of the Helicopter, a 'voice of the head' committed to getting unlimited overview in each occasion; these patterns could then be breached by an opposite 'voice of the belly'. This suggestion was, though at first with some hesitation, accepted by the team members. Germaine, Helga and Sandy were initially the hesitant, while Henry was immediately enthusiastic about it: it seemed to reflect his own sense of balance between 'over-eating' (licentiousness, or doing too much) and 'eating too little' (insensibility, or indifference), with respect to the work. A day after the meeting, Henry hung the resolution in a central place in his office, so as to share it again and again, and be kept reminded of it. From this day, the next phase in the TCM trajectory started, that of validating the new insight ('we can cope with time pressure by means of speaking with our belly') and a new way of collective functioning ('speaking with the belly'). The Bellies of the team would help it getting over its insecurities.

The invalidation/validation phase: the use of the Socratic dialogue and Learning History

The process of behavioural change has largely remained a black box in the described case of the previous chapter. It is now our aim to give more explicit information on how this learning process, directed towards improvement, can take shape. Our investigations carried out to answer the leading research question in this chapter are to be presented.

A few steps in the invalidation/validation phase were taken in order to attend to, create and anchor new ways of behaving. Firstly, as a way of enhancing the team's improvement, a Socratic dialogue was organised in order to shed more light on the significance of 'speaking with the belly' (attending): what does it mean for each of us, which of its elements do we share, do these fit with our resolution for improvement? Secondly, as a way of enhancing the team's improvement as well as a source for our scientific investigations, a learning history was jointly made (attending, creating and anchoring): what patterns do we discern in our cooperation, what changes do we see and try out in our behaviour, and how stable are these changes? Thirdly, throughout the months following the first phase of the TCM-investigations (i.e., steps 1-3 in Figure 4.1, section 4.2), the team and their facilitator came regularly together to assess progress, discuss penetrating events, celebrate successes and keep on investigating, with the facilitator in a probing role. It was also during these meetings that the Socratic dialogue and the learning history were used as tools to facilitate progress.

To be sure, the Socratic dialogue is not a prescribed element of the designed TCM protocol. Moreover, it was not used as a method for our scientific investigations either. It was used here solely for enhancing progress, which illustrates that practitioners keep freedom to choose their interventions creatively, especially in the invalidation/validation phase. A Socratic dialogue (see for a closer description of it Kessels, Boers & Mostert, 2004; or Nelson, 1970) is meant to investigate a question thoroughly by treating it according to a series of pre-
scribed steps. A group is asked to (1) select a question that is to be investigated, (2) select a specific example where the question is at stake, (3) let the provider of the example tell his story in detail, (4) jointly pinpoint the crucial moment of this story: an act, experience or judgement of the provider, (5) investigate his motives for this and connect his answers to the initial question, (6) check the provider's motives with the motives the others would have in the same situation and find reasons why one would make a choice for one motive or the other, (7) have each group member individually formulate some essential reasons, (8) reach consensus on the essences, and formulate an answer to the initial question. In the dialogical process, the group members should try to think along with the others, rather than think against the others.

Our team carried out the Socratic dialogue in order to get a better grip on the issue of 'speaking with the belly'. What was it all about? The team started its dialogue with the question: 'When is the voice 'the One who Speaks with the Belly' helpful?' It was Henry who provided the exemplary case. The Socratic method proved to be helpful in finding more nuance in the issue of speaking with the belly. Sandy: 'You also need speaking with the belly for the careful process of reaching agreement with other parties, and keeping an eye for the strategic importance of things'. Germaine: 'With the belly means: come out of your shell, give up safety and security, but dependency as well'. Helga: 'It means also: taking risks in the face of the status quo.' And Henry concluded: 'It is staying yourself while running the organisation, by counting your blessings instead of remaining angry'. Thus, for the team, speaking with the belly turned out to be more than just blindly and unintelligently observing personal limits and directly expressing them. It was using a kind of mix of belly and mind. The answer to the initial question was: 'the One who Speaks with the Belly' is helpful when he makes personal limits clear without losing sensibility and sensibleness. Feelings should not be your only guide, but they should be an indicator for the need of confronting issues that otherwise go without saying. This conclusion greatly helped the team; they had developed more depth in understanding the meaning of 'speaking with the belly'. Moreover, they had developed more mutual trust, because like the TCM, the Socratic method had demanded a joint investigation of high quality, to be conducted with an attitude of respect. Last but not least, they had developed more trust in Henry's hitherto inimitable behaviour; they had recognised, when he openly provided his example for their thorough Socratic investigation, what his considerations were and why he acted in his particular ways; and when this process of investigation had proven to be rewarding, Henry had expressed his confidence in the other three by stressing that he believed in them and their capabilities of running the organisation. The Socratic dialogue had done something more than just producing clarity: it had brought the team closer together.

Before we continue with the learning history intervention, it is necessary to notify some important events that happened simultaneously with the interventions described in this section. These events had much influence on the team's functioning, and therefore indirectly on the quality of its learning as well. Because some of these events are mentioned in the learning history, they should be mentioned here.

The night after the meeting with the Socratic dialogue, Henry suddenly died. This was a big shock: he died much before his time, unexpectedly, and the rest of the team was...
suddenly left to its own devices. Its resilience was remarkable in the days and weeks after. Often, the team members reminded each other of the afternoon before his death, when they had sat together and experienced such strong ties. Though Henry was missed badly, his colleagues seemed to have imperceptibly gained confidence. Sandy retook her position as the acting director, and Germaine and Helga did their jobs under even more time pressure than before, but with more self-assurance. Michelle, meanwhile, came back to her former position, gradually recovering from her burn-out. She joined the TCM sessions with much attention, vulnerability and openness, and her colleagues valued her constructive attitude. In short, the team had changed its nature.

Three things are still to be added here. First, the fact that Germaine started the same one-year management course as the one Michelle had finished a year before; this took a lot of her extra time and energy, but she appreciated its added value for her work and inspiration. It only indirectly influenced the team’s functioning; yet, her own functioning was once more under (time) pressure. Second, Sandy decided, after giving it some thought, that she would not accept the invitation to succeed Henry as the director of the institute. After her decision, an external person, Wesley, was hired to be the interim director for the last months before the merger. Third, the upcoming merger demanded more and more attention of the team and prompted the team members to decide what should be the basic values of the new institute: would that be an emphasis on (financial and organisational) professionalism or on the humanness that had been for years central in the institute’s culture?

How can we carefully trace significant incidents in the process of improvement? How can we make the anchoring of the gathered new insights visible, as well as the attention for, creation and anchoring of new behaviour? How can we see whether the necessity of speaking with the belly is shared and anchored in the team members’ minds, and whether the actual behaviour of speaking with the belly takes place, is practised and experimented with? We think that the method of the learning history (Roth & Kleiner, 1998) is helpful here.

The learning history describes a process of change in a narrative manner, especially the lessons learned by the people concerned. Through the learning history’s special make-up (its pages are divided up in two columns; the right hand column contains the team members’ directly quoted narrations, the left hand column their learning investigations — e.g., feedback, reflections and conclusions — about elements of the right hand column), the quality of collective learning in organisations or teams can be improved to a greater depth. Members of the organisation or team share their experience as well as their observations about it, thus realising double-loop learning, i.e. learning about the learning process itself instead of learning about solutions. Thus, a team can struggle out of mainstream thinking, which is just oriented to ad-hoc problem solving. The team’s undercurrents come to the surface, and teams can learn about the process of problem solving itself.

A finished learning history is a document that offers a lot of inspiring lessons for other teams that face a similar situation, but also the team itself learns about its own functioning more deeply than usual. ‘(Team members) create a common context that allows the readers to develop a new shared understanding that becomes the foundation from which they generate their own answers’ (Roth & Kleiner, 1998). This happens especially in the left hand column, where learning investigations are carried out by the team or some of its members,
and their facilitator. Such investigations may consist of collective reflection (by placing questions or reflective observations), of making implicit significance explicit, or presenting key information about particular right hand side quotes and their context. The facilitator has a special role: apart from participating in the previous ways of investigating, he continuously edits the growing document. He may then also provide wider perspectives (e.g. by relating to global scientific knowledge) and reveal the reasons behind his editorial choices. In essence, he makes sure that the document is an efficient representation of the collective learning process, so that redundancy in the text is avoided.

The document will grow gradually. The first step is to let the team put factual information (in the form of ‘true stories’) in the right hand column. The second step is to gather comments (reflections, observations, questions to each other or the facilitator) in the left hand column. The third step is then to react on each others’ comments by adding reflections about them, again in the left hand column. Meanwhile, the facilitator edits redundancies out.

We have selected the learning history instrument for finding an answer to our fourth research question (‘Can we pinpoint important incidents in the process of change that prove the team’s deviances behave in the desired way? Can we show the working of voices in the process of change?’), because here subjective judgements are most prominently necessary for finding an answer. It is precisely the left hand column of the learning history that contains the needed information about the team members’ subjectively experienced learning process. With the instrument, we could closely follow the process of change after the first team-investigation (steps 1-3 of the TCM design, see Figure 4.1).

We divided the document in sections. Firstly, we asked the team members to gather narrations and observations about repeating patterns that they recognised in their cooperation (anchoring of gained insights). Secondly, we let them collect their experiences of change after the first phase of TCM-investigations, i.e. after the finding of the ‘speak with the belly’ resolution (attending to new ways of behaving). Thirdly, the team was asked to select examples from practice in which ‘speaking with the belly’ was made manifest (creating and anchoring new ways of behaving). Fourthly, the team members were offered a chance to reflect on the changes that were about to come, especially the upcoming merger with the other institute. This was done because the team members proved to develop more and more attention for the pressing questions of the day, and tended to mix their reflections about them with their reflections on the former three themes. The inclusion of the fourth theme in the learning history gave the opportunity to connect things learned in the current, exciting developments that reached their height about a year after the start of the process with the things learned throughout the TCM process. At the same time, the latter remained separated from other issues, which is important for finding an answer to our research question. Below, we will bring significant sections from the learning history to the reader’s attention. These sections give more insight into the way significant incidents during the invalidation/validation phase influenced the team’s collective and individual learning processes that led to an improvement of its functioning.

In Exhibit 9.1, we present an extract from the learning history that gives more insight in aspects of the team’s learning process as a result of the incidents of Henry’s death, finding a successor for him, the preparations for the merger, Michelle’s absence and come-
back, and the participation in management courses. Apparently, the TCM process was not the single factor that induced learning. Yet, as they would put it themselves afterwards in their evaluation, this process helped the team members to keep a learning attitude during and after all these events.

**Pattern: “Being [too] dependent”**
This pattern has to do with the insecurity of the team members about the content and amount of tasks that they get on their plate. This insecurity has decreased in the course of time, because now each team member knows better for herself what she wants and what her limits are.

What was the case? Henry’s support structure on the one hand and the scrupulousness of the team members on the other hand were insufficient for removing the insecurity. Being insecure, the team members remained reactive and dependent on Henry; they were governed by either fear, time pressure, employees or the board. But then they were thrown upon their own resources. Circumstances forced them to make choices for themselves, for it became impossible to keep all options open and working on each of them. Henry’s death, the settlement of his succession, the vicissitudes of the merger, for Michelle: her temporary absence, the participation in the management course, and also the TCM, created a higher awareness and better observation of personal limits (‘speaking with the belly’, instead of ‘speaking with the head’). Ever now and then, one can still be reactive, but less than before.

On the end of the trajectory:
‘I think the members of the team all radiate calmness and self-confidence in their contacts with external parties. Before, it was only Sandy in her function of the acting director, now I see a development that all team members do this [examples].’

During the first meeting of the TCM, the team tried to find an appropriate question of inquiry. The following pattern of the talk appeared: thinking out loud, Henry begins with proposing a phrase. Through this act, he takes on a central role right from the start. The others react with brief suggestions for improvement, and seem to bide their time. On the moment that it seems to be resolved, one or the other comes up with a fundamental amendment. Henry listens to the objections, team members support the objections, and the team seeks a better solution. It is Henry who formulates it. And again: on the moment that everything seems resolved, the pattern may repeat itself. The conversation seems inefficient and time-consuming. One takes each other’s contribution very seriously.

**Exhibit 9.1 – Part of the learning history**

In the left hand column, the team members clearly state that they see gradual progress to have taken place after the different indicated incidents, in the context of their TCM resolution ‘speak with the belly, instead of with the head’. They have learned to make their own choices about coping with time pressure, and have become ‘calmer’ and ‘more self-confident, because the incidents prompted them to listen pro-actively to their own priorities and limits.

In Exhibit 9.2, we show the team members’ indications of improvement after the first phase of the TCM investigation and during the invalidation/validation phase. The reported changes are presented in the right hand column, and the reflections about these reports are to be found in the left hand column.
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Reaction 1:
I am much more aware of the choices that I make myself. For example, the choice for resigning the post of interim gave me very much space. Likewise, the choice to wait with taking up a study. Through this, I have in any case more peace in my head.

Recently, Germaine tackled me about my helicopter view. From that moment, I started to attend to it more consciously. I realised that I apply it almost all day, so that everything becomes grand. For example, someone comes to me with a relatively simple question. I don’t answer it but put it into the context of other departments, former decisions, or the merger. Briefly, I am then puzzled myself as well. If I just limit myself to the question it will in fact be very simple. Though I can’t very well oversee what the possible consequences of this conduct are on the longer term. But maybe I should let go and allow things to happen.

Consideration of facilitator: these are two nice examples of clearing your head by observing personal limits (using the belly!).

Reaction to reaction 1:
I have grown aware of the fact that nothing is ever done to perfection. Things are seldom good or perfect. There is always someone who is unsatisfied with a decision. These are facts of a manager’s (and private) life.

On moments that I realise this, a weight is taken from my shoulders. I can let things go and see them in perspective. I can better listen to others’ arguments, so that I can then better reach a helicopter view.

Reaction 2:
Reading all this, I can’t help feeling that this happened in another era. Not surprisingly, a lot has changed since then – for me, but also for others. The death of Henry had the biggest impact, but also the TCM and the process that took place during its course, the management course for me, societal developments demanding another attitude, and now the cooperation with the other institute and Wesley.

In general, I can maintain that especially my self-confidence has increased, that I have grown more independent and feel more peace in and with myself, and feel more secure, also in my position as a manager. I feel more “prepared” for the future, although this future keeps on puzzling me too. Next to that, a few issues that were at stake before, are still existent.

- The most important I learned in the TCM trajectory, is that is us ourselves who cause the pressure, by our attitude towards the work.

Although that is different for each of us: Helga and I especially insecure and, due to this insecurity, all the time busy to do it better, to let it become perfect, to reconsider, looking for support that we always insufficiently receive, etc. Sandy especially by her wish to have everything complete, to connect everything with everything, to see connections everywhere.

- But knowing that it is happening, does not mean that it has gone.

We express toward each other the frustrations that we feel because of the bottle necks in our work; we look for solutions and carry them out. We need to make sure to keep on evaluating.

Last week I realised that if you see something as a threat, it will cost much more energy (inactive behaviour, weight), than if you regard the same action as an opportunity. [Example]

I notice that the habits have certainly not been breached yet. But I have made the expression of my belly the guide for taking position in a few issues.

In the previous period, I have a few times clearly kept my distance when new tasks were allocated.

Hold on to agreements made.
Avoid feeling responsible for everything [example].

Basically I feel responsible, but the execution has been allocated by the management team to one person. I should therefore not be tempted to perfectionism.
But because of the process that we experienced together, I have the confidence that we will tackle each other, be open to each other, and can learn from each other. On the whole, that is fine. Paradoxically enough, my biggest worry is about the question we started with: how do we stay healthy and keep enjoying our work, given an overly tight work schedule? This question is currently not connected with the thousand and one little things that we were occupied with, or with the fact that we all wanted to join considering and talking about everything, but according to me much more with some current big issues that we have on our plates. I am not so sure that speaking with the belly is an answer to that.

Question of the facilitator:
Striking that you still worry about your coping with work pressure, while you feel on the whole so much more secure, about yourself and about the mutual cooperation. Can't you face these current big issues much easier with this higher inner security? And (without wanting to downplay it), isn't your inner insecurity meanwhile much more 'in your head', while your inner security has — irrationally — settled in your belly?

Reaction to reaction 2:
With all the big upcoming changes within our institution, peace of mind can chiefly be found by "letting go". Letting go of patterns, fixed ideas, fixed functions and positions. An open mind gives me more and more freedom and calm, though there is sometimes a fear of letting go as well, that creates insecurity, questions and indistinctness. Learning objective: the most difficult part of this is to stay close to my own feelings and not be taken away by the feelings and emotions of others. And: (to avoid) the pitfall of (too much) drive and sense of responsibility.

Being more pragmatic. Through the high amount of tasks I have the idea that in practice I am quite successful at this.

- The most important lesson for me is to strive to tackle each other more directly and without censorship. More on the basis of a primary feeling.
- The One who Speaks with the belly is on my mind continuously and the term is dropped regularly in the team. Though we are often rather giggly about it. Furthermore, I have the impression that the colleagues respond to each other more directly, without losing respect. We react less on the basis of mental notions, and we don’t beat about the bush. Sometimes we seem to get to the point faster because of this. There is more excitement.
- I notice that I have become more fearful of confrontations. Maybe I should try and enter into them.
- In addition I notice that I less quickly leave things unsaid. I take time to give colleagues feedback, positive as well as negative.

Exhibit 9.2 – Part of the learning history

It is in this exhibit that we see the collective learning process in action. The texts at the right are older than those on the left. At both sides, insights are reported (e.g., ‘it is us ourselves who cause the pressure’). Successes are celebrated (‘I am more conscious about the choices I make’, or ‘my self-confidence has improved’), but doubts are expressed as well (‘knowing that it is happening does not mean that it has gone’, or ‘I am not sure that speaking with the belly is the answer to some of the current questions of the day’). Conditions for a good learning process are stated (‘We need to make sure to keep on evaluating’), and wise observations shared (‘if you see something as a threat, it will cost much more energy than if you regard the same action as an opportunity’), or tips (e.g., on ‘how to hold back’).
And the activity of the facilitator is visible too: he reinforces (‘these are two nice examples of’) and encourages (‘your inner security has meanwhile settled in your belly’).

In sum, all kinds of learning experiences are gathered in this learning history. The ongoing process of learning is more visible than it would otherwise be, and the learning itself becomes a topic of reflection. In future circumstances, it might thus be easier to transfer the learned, for it is not only the learning successes that are shared, but also the doubts and the setbacks. It becomes easier to see what are the significant incidents in the course of the process that induced learning. Put in chronological order, these were the significant incidents that led to a process of collective learning.

- The start of the TCM and the first three months of the trajectory.
- Henry’s death and the period of mourning succeeding it.
- The settlement of Henry’s succession (and Sandy’s decision not to take the job).
- The preparations for the merger (and especially Helga’s coping with the strain connected to it).
- The temporary absence of Michelle, her coping with burnout, and pulling herself together when rejoining a team in turmoil.
- The start of a one year management course by Germaine and the extra strain on her mental resources, next to everything else that came to her on the job.

In the year of the TCM trajectory, this team had to live through some fierce circumstances. It can be seen as surprising that all these strains were coped with in a constructive way. After all, the team had been considering its coping style problematic, since the initial question of the team was to find ways to handle the work pressure. And the pressure even increased during the year. According to the team members, their successful coping was mainly due to the fact that they gathered regularly for an intensive sharing of experiences in the TCM sessions.

What specifically was the TCM’s added value? This was reported by the team members in their evaluation of the process when they concluded the one-year TCM project. The outcome of this evaluation will be addressed in further detail below. First, we will present the results of reassessing the team’s valuations and voices at the end of the year.
Reported change after a year of collective learning

At the end of the year in which the TCM investigations took place, changes in valuations and voices were assessed. There were clear indications of improvement of collective functioning. Table 9.3 shows the changed valuations, and their affective modalities; Table 9.4 shows the changed character of the team’s multivoicedness.

The change of valuations, presented in Table 9.3, shows some important improvements of the team’s functioning. First of all, Henry’s support structure has been replaced (reformulation of valuation 1). This would possibly have occurred as well if Henry had lived; in any case, the team shows a certain feeling of self-assuredness and self-sufficiency in the new formulation. The dependence of the team members on a leading, fatherly figure, has disappeared. Team members indeed took an independent stance towards interim director Wesley, who substituted Henry the months before the merger. The gained self-assuredness shows in the reformulation of valuation 2 as well. Here, the former formulation is split into two new ones: the first (valuation 2a) states that the institution (its mission and organisation) has been put down well internally, i.e. in the minds of the employees; the second (valuation 2b) however maintains that it has not yet been made sufficiently known to the outside world. Here, the team displays a mature self-criticism that indicates self-awareness. The negative feelings connected to this valuation 2b are a sign of the urgency that the team members experience in handling this problem. At the same time, in valuation 2a they celebrate their success, but more subtly than before. On the whole, many negative feelings have largely disappeared. Valuation 3, previously experienced negatively (high N-scores), has been dismissed fully as not being valid for the current situation anymore. Valuations 4 and 5 are reformulated in such a way that an experience of improvement prevails over the former experience of problems. Scores of affects on the N-category are significantly lower here.

In all valuations, the O-affect “care” ranked low. When confronted with this fact, Sandy interpreted it as positive: “We were too meticulous about each other and about things.” The low score on “care” seems to be connected to the new routine of observing personal limits; indeed, the affect-scores on the S-category have increased on the whole range in the team’s valuation system. Finally, the P-affect “joy” received high ratings in all the team’s valuations. The team members indeed enjoyed their collective (and individual) functioning more than before. This is another proof that they succeeded in coping with the work pressure, which was their initial question of inquiry.

The same improvements are mirrored in the picture of the team’s multivoicedness of Table 9.4.
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Table 9.3 — The changes in the team’s collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used when new affect scores differ significantly from old scores (Mann-Whitney U test). Italic font is used where (i)-scores differ significantly from (g)-scores (Mann-Whitney U test)

<table>
<thead>
<tr>
<th>Valuation</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
<th>S</th>
<th>O</th>
<th>P</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (old). Henry draws the big picture and gives to each team member the opportunity to further put in the details, with a support structure.</td>
<td>15</td>
<td>15</td>
<td>31</td>
<td>2</td>
<td>15</td>
<td>14</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>1 (new). We use now much more the whole team as a support structure, we have more agreement about how to approach something.</td>
<td>15</td>
<td>14</td>
<td>30</td>
<td>4</td>
<td>15</td>
<td>16</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>2 (old). We have put up the organisation well, given the explosive growth and external influences.</td>
<td>12</td>
<td>14</td>
<td>24</td>
<td>3</td>
<td>12</td>
<td>14</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td>2a (new). We have put up the organisation well internally, given the explosive growth and external influences.</td>
<td>14</td>
<td>11</td>
<td>24</td>
<td>7</td>
<td>14</td>
<td>13</td>
<td>27</td>
<td>7</td>
</tr>
<tr>
<td>2b (new). We have insufficiently presented the organisation externally.</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>16</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>3 (old). We are as a team sometimes too well-behaved. What we think of each other gets less attention. As a team we are not so well capable of constructive criticism.</td>
<td>9</td>
<td>13</td>
<td>16</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>3 (new). What we think of each other gets a chance. We are capable of being constructively critical and express things more easily towards each other.</td>
<td>14</td>
<td>14</td>
<td>28</td>
<td>8</td>
<td>15</td>
<td>14</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>4 (old). We get bogged down in daily affairs, and cannot rise up from them. (removed from the valuation system)</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>20</td>
<td>7</td>
<td>11</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>5 (old). We are too demanding with each other.</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>12</td>
<td>7</td>
<td>9</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>5 (new). We are still demanding but don’t overload each other anymore.</td>
<td>14</td>
<td>15</td>
<td>30</td>
<td>7</td>
<td>15</td>
<td>16</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td>6 (old). We cannot make agreements that hold. We don’t draw the line.</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>6 (new). We make more agreements that hold.</td>
<td>16</td>
<td>15</td>
<td>31</td>
<td>2</td>
<td>15</td>
<td>14</td>
<td>29</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 9.4 — Multivoicedness after a year: the collectivity measures of prominence and internal consistency per voice as assessed for the team. Range of prominence ratings between 0 and 9. Internal consistency of a voice is highest when the consistency measure has the lowest value. To be compared with (the rankings in) Table 9.2: some voices became stronger, others weaker

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
<th>Prom. ranking went up/down</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Helicopter</td>
<td>6.27</td>
<td>2.03</td>
<td>Up</td>
</tr>
<tr>
<td>The Change-oriented</td>
<td>6.10</td>
<td>1.28</td>
<td>Up</td>
</tr>
<tr>
<td>The One who Speaks with the Belly</td>
<td>5.67</td>
<td>1.56</td>
<td>Down</td>
</tr>
<tr>
<td>The One who Takes On Anything</td>
<td>5.60</td>
<td>1.61</td>
<td>Down</td>
</tr>
<tr>
<td>The Monitor</td>
<td>5.60</td>
<td>1.83</td>
<td>Equal</td>
</tr>
<tr>
<td>The Respectful</td>
<td>5.50</td>
<td>1.78</td>
<td>Equal</td>
</tr>
<tr>
<td>The Energetic</td>
<td>5.33</td>
<td>1.56</td>
<td>Up</td>
</tr>
<tr>
<td>The Group Worker</td>
<td>5.17</td>
<td>2.44</td>
<td>Down</td>
</tr>
<tr>
<td>The Implementer</td>
<td>5.00</td>
<td>1.44</td>
<td>Equal</td>
</tr>
<tr>
<td>The Peace-keeper</td>
<td>4.43</td>
<td>1.28</td>
<td>Up</td>
</tr>
<tr>
<td>The Tempter</td>
<td>2.93</td>
<td>2.50</td>
<td>Down</td>
</tr>
<tr>
<td>The Victim</td>
<td>1.67</td>
<td>2.33</td>
<td>Down</td>
</tr>
</tbody>
</table>
The One who Speaks with the Belly speaks prominently in the current ‘polyphony’ of the team, as was the resolution after the first phase of the TCM investigation. It has reached rank 3 in the voice ranking. Team members confirmed: “We are more clear in stating where our limits lie”. Complementarily, the Tempter has dropped significantly. Team members indicated on this outcome: “We burden each other less than before with all kinds of questions and extra tasks”. The Group worker has dropped too, reflecting the same phenomenon as indicated above with a decrease of the O-affect of “care” in the team.

The Change-oriented is as collective a voice as before: this is not strange, given the upcoming merger. The Helicopter has remained collective as well; it has, however, a more positive connotation: “We are more capable of leaving details behind and looking at the big picture.” The more negative connotation of having the inclination of connecting everything with everything is still present (see learning history, Exhibit 9.2), but less prominently. Finally, the One who Takes on Anything has a less prominent role than before. Germaine: “I don’t lose myself anymore in details and all kinds of small jobs.” The fact that this voice is still strong, indicates that the team (fortunately) has not lost its drive to fix things, and that most change processes necessarily include a simultaneity of stability and change. In order to successfully improve, things have to partly remain stable (Hermans & Hermans-Jansen, 1995).

Had, in the team members’ experience, the team’s patterns of cooperation of a year ago been breached (for these patterns, see Figure 9.1.)? First and for all, the team members indicated that Henry’s death had had a major impact. Out of sheer necessity, the team members had to start relying on themselves. Germaine: “We learned to support each other on tasks or letting go. We give each other feedback and trust.” Secondly, the feeling of insecurity dominant in the team’s patterns of a year before have changed. Michelle: “Nowadays, I am not insecure very often, and I don’t need to do things perfectly anymore, and I don’t automatically get defensive when criticised.” Germaine: “The insecurity is less personal now. It is not about my personal functioning as a manager, but about the issues I encounter when dealing with the merger;” Sandy: “Maybe the chance gets bigger that we relapse into the old pattern of insecurity, e.g. when we are indignant about ‘what they do to us’ in the merger. This is another type of insecurity as before, but the same old pattern [cluster a: feeling insecure, getting tired, talking about things that don’t go well, feeling insecure again) could come back again.” Yet, the team members indicated that the tendency to talk about things that don’t go well had decreased. Helga: “Now I rather think: okay, so be it, it is not my immediate responsibility, I don’t mingle in it.” And concluding: “By speaking with the belly, we let go much more.” Michelle: “I don’t judge others or myself.” Germaine: “When we tackle each other, there is more peace of mind. We are not tempted to do extra small jobs all the time, and what doesn’t happen today will be done tomorrow.” Helga: “In this team, there has grown a preparedness to take a step down.” The strains that they put to themselves a year before, with all the negative consequences, had become lighter. The bellies of the team members were more relaxed: they had learned to speak out.
Evaluating the team’s progress in the year of the TCM, the team members indicated the following:

- We have grown, have learned to speak more with the belly, stay closer to ourselves, and observe our own and each other’s limits (Sandy).
- I am closer to my feelings now (Germaine).
- I enjoyed doing the sessions, we proved to be able to cooperate constructively. You cannot be clear enough toward each other (Helga).
- In general, the TCM sessions offered a break in our hectic daily existence (Michelle).

Finally, the team members regretted that the team would most probably fall apart, due to the merger. This would happen within a few (maybe two) months. After having built up so much together, in ways of working and cooperation, the general feeling was that the collective learning result would be wasted. But, as a consolation: “What remains is the things that you have learned for yourself”. Thus, the whole TCM trajectory produced improvement of both collective and individual functioning, though this could possibly be lost again with changing circumstances.

**Answering the research question**

To start with, the testing of the functional propositions that are central in this chapter, being ‘the naming of collective voices in a free manner by the team produces useful collective voices’ and ‘the naming of deviant voices through feedback sessions produces useful deviant voices’ was done by team and practitioner evaluations. With respect to the first proposition: it was proven that the team could (1) autonomously name sensible collective voices as an input for assessment, and (2) meaningfully connect their, (by assessment proven) collective voices [e.g., the One who Takes on Anything, the Helicopter, and the Tempter] to prevailing patterns of cooperation, as laid down in the system diagram. And even before laying this connection, the team members stressed the meaningfulness of the collective voices. Sandy: “the One who Takes on Anything can make you tired very easily. And, we stuff everything together, there is much perfectionism to it.” And Helga: “A strong Helicopter means that we lack pragmatism, by keeping on flying in circles above things. We tend to often give repeat performances”. The named collective voices proved to be very meaningful. Hence, the first functional proposition is accepted.

With respect to the second functional proposition, the lever deviant voice ‘the One who Speaks with the Belly’ was not mentioned in the session in which potential deviant voices were named. This lever deviant voice was proposed by the practitioner (the author of this study) in the third session of the first phase of the TCM investigation, i.e. just before the start of the invalidation/validation phase. His analysis was accepted by the team members as meaningful. The team took on this lever voice for empowerment, and during the invalidation/validation phase, this voice proved to be productive for inducing improvement. Team members confirmed this. Germaine: ‘For me, ‘speaking with the belly’ has made possible that I take myself [my limits] more seriously now. I use my belly as a signal, about the necessity to stop and think, about ‘there is something wrong here’. By telling each other what our belly
says, sometimes a single word was enough to understand each other”. And Helga: “Speaking with the belly has been nice to learn, staying with yourself. I sometimes comply with things too quickly (working just a little bit longer, a little bit harder, only then expecting things to succeed), but the issues you encounter are not solved by working harder (e.g. emotions, confrontations).” In sum, though the lever deviant voice proved to be a very helpful one, it was not named by the team members themselves, while the designed protocol was meant for the collection of potentially meaningful deviant voices. Here, it was named by the practitioner, and accepted by the team. This does not mean that the designed session is not helpful (it was here in other respects, for many meaningful voices were produced, and the mutual feedback was highly appreciated by the team members) or not suitable for finding lever voices (in other cases, like the case of chapter 8, the chosen lever voice proved to have appeared for the first time exactly during this feedback session). In fact, both the team and the practitioner can assign a proper lever deviant voice. The decision for choosing meaningful voices, as well as the most meaningful voice as a lever, is to be made by both parties, in cooperation. Hence, the second functional proposition should strictly be rejected. The protocolled session is necessary, but not sufficient, for finding meaningful deviant voices.

Based upon the facts presented in this case description, it should now be possible to answer the fourth research question of this book. We here repeat its formulation:

Can we pinpoint important incidents in the process of change that prove the team’s deviances being in action in the desired way? Can we show the working of voices in the process of change?

In a year’s time, the team of this case study investigated its patterns of cooperation and tried to improve it through attending, creating and anchoring activities. Several important incidents (e.g., the sudden death of Henry, the pressure around an upcoming merger) influenced the collective learning process. There is no single cause to the successful change of the collective and individual functioning of the team and its members. It is the combination of events, together with a good process of dealing with them psychologically, that paved the way for the team’s success. The TCM performed its function in deepening the process of collective learning. The deviant voice ‘the One who Speaks with the Belly’, assigned as a lever for the breaching of insecurity patterns that were current in the team, did its work in the desired way. This voice gave the team members confidence and self-assuredness about their capability to observe personal limits of energy, and about the constructiveness of doing this.

With the results of the learning history, it is possible to pinpoint significant incidents in the process of improvement. The learning history is a document that grows during a learning process, and can be used for monitoring the progress and setbacks of the team during the invalidation/validation phase of the TCM investigation. It can furthermore enrich the picture of the change process that would otherwise have been rather implicit, for the TCM tends to determine changes only in retrospect. This makes the learning history an interesting document for the team members and their possible successors whenever they feel the need for reflecting on relevant learning experiences of the past.
CHAPTER 10

The TCM’s effectiveness in solving conflicts:
Three cases of teams in different stages of conflict

10.1 Introduction

The chapters 7 to 9 contained reports of TCM investigations that illustrated the core characteristics of the method. Essential interventions and their effects were described. An answer was given to the central research questions with respect to collective learning and the workings of lever deviant voices. This was all done with the intention of assessing the method’s functional validity as well as to illustrate the application of the method to the reader.

The present chapter concentrates on the fifth research question of our quintet; it is the most specific. It concerns the application of the TCM in the difficult yet common situation of conflict. We think this is an important issue. After all, it happens often in the field of team development that the practitioner is invited to facilitate a team with disagreements going on between team members. Is it possible to use the TCM in such a case? How, and under what conditions, could it be used? The research question central in this chapter is the following:

5. Can conflicts be solved by following the designed method?

As we did in the previous chapters, we intend to use case studies for finding an answer to a research question. In this chapter, we want to find out what the appropriateness is of the TCM for handling conflicts in teams, or, in other words, its functional validity (practicality and effectiveness) in cases of conflict. In the three cases of this chapter, we will test the functional propositions with the numbers 2 and 3 of the rubric ‘process promotion’, being ‘the naming of collective voices by the team produces useful collective voices’ and ‘the naming of deviant voices by the team produces useful deviant voices’ (see Table 6.2). Do collective and deviant voices play a meaningful role during the process of change also when the team is in conflict?

The three cases deal with different stages of conflict. According to many textbooks (e.g. Mitchell & Larson, 1987), conflicts develop gradually. Conflicting parties tend to adopt a win-lose orientation through time. This is frequently accompanied by distorted, stereotypical perceptions of other parties as well as the own. More and more, the parties decrease their level of interaction. The reduced interaction then serves to maintain the distorted perceptions, etc. In principle, a reasonable level of conflict in organisations could help creative problem solving, but such benefit is only realised when dysfunctional perceptual consequences of conflict can be overcome. If that does not happen, conflict will be more difficult to resolve.

It is the mediation profession (see e.g. Moore, 2003; Brenninkmeijer, Bonenkamp,
Van Bruggen & Walters, 2003) that may facilitate conflict resolution by intervening and mediating between the conflicting parties. Interventions are planned depending on the current stage of conflict. In the first stage, parties are aware of tensions when they resolve problems, but they keep on trying to jointly find ways out. This is a potentially fruitful situation. But the situation can also deteriorate to the second stage of conflict, when winning and losing become of paramount importance. As yet, the struggle remains decent, because certain moral standards are obeyed. In the third stage however, these standards are dropped and parties' main interest is to prevent the other party from winning, even if this means that both parties lose (Brenninkmeijer et al.). The three stages could be characterised as (1) a brewing conflict, (2) a warm conflict and (3) a cold conflict. The brewing conflict has the potential to become more intense (when existing feelings of disappointment increase), but may be channelled in positive directions as well; the existing differences are not yet very problematic. The warm conflict is characterised by intense debate and disagreement, expressed openly and explicitly, and by feelings of anger. The cold conflict is characterised by growing disbelief in the possibility of resolution, a decreasing interaction and, beside anger, feelings of powerlessness. Conflicting parties could do without mediation during the first stages, but certainly not during the last stages.

In this chapter, three case studies are describing the application of the TCM, each in one of the three conflict stages.

- The team of bank managers (section 10.2) experienced a brewing conflict. By using the TCM, intentions were made for productively making use of the differences in the team. Later on, however, the differences were heightened and an open conflict took form. The conflict was addressed explicitly and then neutralised, so that the initial intentions for pattern breaching as produced in the TCM could be effectuated. The report is illustrated with relevant facts and data.

- The first team of school teachers (section 10.3) experienced a warm conflict. The TCM was used for making the situation clear from a neutral position, in order to detect and propose lever voices that could bring improvement. This was done together with the team members, in spite of initial impatience on their behalf. Furthermore, improvement was realised with extra interventions after the TCM investigation. The case shows how changes took place by producing relevant data.

- The second team of school teachers (section 10.4) was more or less stuck in a cold conflict. The TCM was applied for finding patterns of cooperation that would be illustrative for the conflict and at the same time promise opportunities for change. The case shows that it was already necessary here, during the sessions that were intended for TCM application, to use other interventions than the designed ones (or even: leave the designed protocol behind). Otherwise, a solution to the team's problems would most probably not have been produced. Data show the state of the team and how it changed through time.

The last section (10.5) concludes on the research question central in this chapter: how functionally valid is the Team Confrontation Method in cases of conflict?
10.2 Brewing conflict: the case of the management team of a bank

This section concentrates on a team that experienced a conflict that could break out any moment, but was not yet manifest. The team consisted of bank director John, and his assistant directors Fred, Gary and Cynthia, who each ran a different department of the bank (businesses, households and operational management, respectively). The team members asked the practitioner (this thesis’ author) to help change the culture of the bank. They considered the bank to be insufficiently orientated to the customer, and desired a more aggressive marketing approach. The practitioner agreed to facilitate such a process, and suggested as a first step the use of the TCM to critically assess the team’s own possible group dynamics that could hinder the type of collective leadership needed for inspiring the bank’s employees to change in the desired direction. It should be noted that at this moment in time, the team members, together with the facilitator, were barely aware of a conflict in the team, even though there were some irritations.

Starting off the TCM process, the team members indicated that they were motivated to use the TCM for realising a better team spirit and sharper collective ambition, in order to achieve higher results with the bank; they expected the TCM to help them find the means for inspiring each other and the bank’s employees. However, during the investigation process that followed the character differences between the team members proved to be fuel for misunderstandings, distrust or even conflict. Therefore, the choice for doing a TCM-team investigation was later on even more justified. It made differences clear, probably before they would have become manifest otherwise.

The team’s question of inquiry was: “How do we inspire each other to be more customer-oriented, decisive, result-oriented and collectively focused?” The valuations that were subsequently produced are shown in Table 10.1.

Table 10.1 – The team’s collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used where (i)-scores differ significantly from (g)-scores. — Valuation 2 produced by Fred and Cynthia; valuation 3 by Gary and John

<table>
<thead>
<tr>
<th>Valuation</th>
<th>(i)</th>
<th>(g)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>1. We have made customer-orientedness more tangible with the introduction of the *****-trajectory.</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>2. We are decisive: we want to fix the details, start with Project Central 1, but after some 10 weeks the discipline gets down.</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>3. We have lost customers lately, because we reason and argue with an internal instead of external orientation.</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>4. We are passionate and enthusiastic about our work.</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>5. General Experience (GE)</td>
<td>14</td>
<td>13</td>
</tr>
</tbody>
</table>
When these valuations were formulated, there was at times much debate. Fred and Gary confronted each other with the disadvantages of their preferred approach in the "Project Central 1", notably 'Fred is too precise, Gary too informal'. A lot of time and energy was put into this debate, but it did not result in mutual understanding. While the assessment results (Table 10.1) show a largely positive experience of things (the valuations GE, 1 and 4), a negative side of the team's experience does come forward in the valuations 2 and 3. Precisely these valuations show where it went wrong in the team. Valuation 2 was produced by Fred and Cynthia, and stresses the importance of meticulousness. Valuation 3 was produced by Gary and John, and stresses the importance of a flexible adaptation to customers' wishes. The facilitator diplomatically observed an essentially harmless, and even potentially fruitful difference in management style. Following the unfruitful debate, John declared: 'How strong is our will to be the same? It blocks us'. And Cynthia: 'Of course it's all wonderful when you can be complementary. Also Fred and Gary could be. But these differences are annoying. Why should the cooperation be so laborious? In daily affairs, I have the inclination to put such disagreements aside: let go and don't make an issue of it! I don't like this fuzz, please just let me get back to work. I am busy enough with the current things'. John: 'However, we should discuss it when there is something brewing.' And Cynthia: 'I agree that it's a pity when you wait with that only until it's over and done with'.

Finishing the first session, John concluded: 'Differences are okay'. Gary: 'I appreciate the openness.' Fred: 'The gain is confrontation. We know a bit more of what drives us personally'. And Cynthia: 'But the negative things were prominent. I prefer an emphasis on the positive side'. In these evaluations, there are two things present that are typical for situations of brewing conflict. Firstly, a hopeful, but simultaneously somewhat awkward emphasis on the positive aspects of the experienced confrontation, as appeared from the remarks of John, Gary and Fred. Secondly, impatience with its negative aspects and an urge to rule them out quickly, as stressed by Cynthia. It's not without reason that the facilitator urged for patience: 'Only when you apply an investigative attitude, debate is constructive. When debate is just struggle, then it's not constructive at all'. The team should try to exercise patience, as a condition for making the application of the TCM successful. Quick solutions would not solve the team's problems. In line with this, the team should try to wait patiently until the final sessions in order to find concluding answers to their questions.

The second session produced interpretations of the assessment results on the affect component of the valuations. What was 'evidently' the case in the team? A few of them should be mentioned: (1) 'evidently we don't share our feelings enough'; (2) 'evidently we are not enough attuned: we make our own assumptions instead of consulting each other'; (3) 'evidently we are very critical toward each other', (4) 'evidently we don't celebrate our successes enough' and (5) 'evidently our involvement and sense of responsibility is higher than we think, even when it seems not the case, considering our different opinions about the approach of things'. A very serious team came forward, more perfectionist than free or easy-going. Fred observed a pattern: when we experience time pressure, then we try to convince each other of our own view; when we engage in a time-consuming debate with our differing opinions, then we experience time-pressure. Should we at least for once try to be a bit less demanding and persistent?
The third session gave more insight in the team’s multivoicedness. The ranking of voices is presented in Table 10.2.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Involved One</td>
<td>7.33</td>
<td>2.22</td>
</tr>
<tr>
<td>The Result-oriented</td>
<td>6.60</td>
<td>1.83</td>
</tr>
<tr>
<td>The Persuader</td>
<td>6.17</td>
<td>1.56</td>
</tr>
<tr>
<td>The Group Worker</td>
<td>5.93</td>
<td>1.50</td>
</tr>
<tr>
<td>The Resource Investigator</td>
<td>5.83</td>
<td>2.00</td>
</tr>
<tr>
<td>The Problem Solver</td>
<td>5.83</td>
<td>2.11</td>
</tr>
<tr>
<td>The Chairman</td>
<td>5.77</td>
<td>2.16</td>
</tr>
<tr>
<td>The One who has a Wide-Ranging Drive</td>
<td>5.67</td>
<td>2.67</td>
</tr>
<tr>
<td>The Investigator</td>
<td>5.60</td>
<td>1.17</td>
</tr>
<tr>
<td>The One who Puts things into Perspective</td>
<td>5.33</td>
<td>3.00</td>
</tr>
</tbody>
</table>

A combination of the Group Worker and the Persuader, the ‘persuading group worker’, as appeared from this list as well as from the team’s 2d-voice graph, suggested a typical urge in the team, its members again being demanding and persistent, to bring differences to harmony by mutual persuasion, and, simultaneously, downplay the differences. The Involved One, being the third collective voice, only amplified this pattern: the urge to be involved in a collective weakens the influence of a factor that is in reality an important condition for collectivity: the acceptance of differences.

The fourth session produced the system diagram of the team’s patterns. Out of this diagram, two important loops are taken and presented in Figure 10.1 (a and b).
Two patterns are made visible here: the ‘decelerating loop’ and the ‘persuading loop’. The first loop, the ‘decelerating loop’, shows the following: the more time pressure, the less discipline in sticking to agreements; the less agreements are observed, the more team members start to convince each other of the important reasons behind the agreements and why one should stick to them; the more one tries to persuade, the longer the meetings; the longer the meetings, the higher the time pressure. This loop is strongly influenced by the team’s demanding attitude: the more demanding, the more one starts to persuade the other about the importance to stick to agreements. According to the team members, it is the Involved One who brings the overly demanding attitude; it is the deviant voice of the One who Puts things into Perspective who could break this pattern.

The second loop, the ‘persuading loop’, shows the following: the more one persuades the other, the less positive experiences are shared and feelings expressed, and the less one feels involved; the less one feels involved, the less sense of responsibility; the less sense of responsibility, the less one sticks to agreements; the less one sticks to agreements, the more one starts to persuade the other. The team’s convincing attitude is a time-bomb: it can in the long run weaken the involvedness of the team members. Yet, it is the Involved One together with the Persuader that keeps this counterproductive loop alive; but the pattern can be breached by the deviant voice of the Investigator, as the team members state.

The team members found that the deviant voices of the One who Puts things into Perspective as well as the Investigator could breach the prevailing counterproductive patterns of cooperation in the team. This team was too demanding, and too quick in trying to force instead of investigate solutions to disagreements. The team agreed on this. The team members were quite satisfied about the process of confronting each other openly and honestly. They considered it successful. Intentions were made for productively making use of the differences in the team, by appointing the lever deviant voices. Yet, when discussing the consequences of the investigation, the One who Puts things into Perspective was only hesitatingly
welcomed by Fred and Cynthia. They associated the voice with Gary and his informal and laidback style. Supposed that this voice would be capable of breaching a pattern, Gary should not exaggerate, but rather show his involvement! In fact, Fred and Cynthia remained suspicious, as proved to be the case later on. The facilitator’s emphasis on the importance of finding the lever deviant voice in yourself rather than associating it with just one member in the team appeared not very helpful. It seemed hard for these team members to be willing to look for their own inner voice of the ‘One who Puts things into Perspective’. Apparently, Fred and Cynthia regarded Gary in person as the deviant, and they did not fully trust this deviant person to be productive. Essentially, this would withhold the appointed lever deviant voices from becoming productive, for two of the four team members did not identify with at least one of the deviant voices. A deviant voice should be recognised as an inner voice (or potential inner voice) in order to make it wholesome for the improvement of collective functioning.

Some time after the TCM investigations, John sent an e-mail message to the facilitator, containing the rather positive message: ‘These weeks are very messy, because many team members were absent for vacation or other reasons. This period, we came only once together as a team. Therefore I cannot tell yet what the effect of the TCM sessions is. But I notice that the [Fred and Cynthia’s] aversion to Gary that started to grow has disappeared. I think they are all more open and understand each other better. But it will probably last some time until we all really acknowledge that differences are okay; now they are often experienced as bothersome’. This initial optimism disappeared after two to three months. John noticed a growing irritation among his colleagues.

Around the time that the team had appointed to do the second team investigation in order to evaluate progress on pattern breaching, John told the facilitator that the team should instead give attention to something more urgent: a conflict was about to break out. Fred and Cynthia on one side, and Gary on the other. John felt himself pressed into the role of the arbiter and the diplomat, and he did not like this. He would rather have his colleagues resolve the differences of opinion by themselves. No, the pattern breaching was not realised. Tension had grown, all the more because a merger between the bank and another regional bank was soon coming up. In this climate, the existing negative images one had about the other had grown bigger again. Team members instead found more reasons to dislike a colleague’s demeanour. The conclusions from the first TCM investigation, about accepting and making use of character differences, thus breaching counterproductive patterns of cooperation, were apparently forgotten. The lever voices of The One who Puts things into Perspective and the Investigator had not been given enough chance.

Thus, a special session was arranged in order to address the growing tension between the two parties. All team members acknowledged the necessity of doing so. The meeting was programmed according to a simple format: firstly, every member got the opportunity to state what his or her expectations were of this session; secondly, every member received feedback from every other; third, so-called primary qualities, together with pitfalls, challenges and allergies (Ofman, 1992) were determined for every member and exchanged.

To start with, the expectations of the team members were unanimously positive: the general opinion was that it was good to finally devote some time, with a neutral facilitator,
to set things right. Of course, teams were cautious. It felt quite difficult to speak out: on the one hand, it was important to be open and honest about your own emotions, on the other, it was quite scary to possibly lose your temper and make things worse instead of solving them, and moreover, it would probably be difficult to be fully open to feedback that you were not very willing to hear. Things could get out of hand during this session, and therefore the team was glad to have the meeting facilitated. After this sharing of expectations, the actual feedback was exchanged. Three basic rules for giving feedback and three for receiving it were given to the team members as a format. For giving feedback, one should (1) state facts about the other's behaviour in certain situations, and remain as concrete as possible; (2) state the effect of the other's demeanour on own feelings, thoughts and behaviour; and (3) tell the other what concrete behaviour would be preferred in the given situation. For receiving feedback, the other should try to stick to (1) being open for feedback, as could be shown nonverbally; (2) summarise the received feedback and ask for clarification if desired; (3) tell what he or she would personally do with the received feedback, like planning to experiment with the suggested alternatives, or else asking for some time to think it over and come back to it later on. With some help from the facilitator, the team members were quite capable of sticking to this format and offer each other insightful feedback at the same time. After this exchange, an hour was planned to put the images of oneself and others in Ofman's format\(^1\) of primary personal qualities. Because time was running out, the team chose to let the facilitator offer his observations about differences in the team through this format. This was helpful indeed, as was the session as a whole in the eyes of the team members. They appreciated the fact that they all had exchanged constructive feedback and made a fresh start, so that they would be able to be more considerate in working together. A month later, the climate was still quite positive, but all minds were set on the upcoming merger and the accompanying uncertainties. Because the team would most probably fall apart in the new situation, the decision was made to cut the TCM process and cancel the second team investigation.

As John stated later on, the patterns had not had the chance to be breached. Mutual irritations had never fully disappeared, though the situation had improved after the special feedback session.

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1 Ofman (1992) offers the concept of a person's 'primary quality', a fundamental and more or less unique make-up of his personality. In a schematic representation his strengths and weaknesses are mapped. A piece of paper is divided in four. In the upper-left quadrant, the person writes a primary (positive) quality that is fundamental to his personal functioning, e.g. decisiveness. In the upper-right quadrant, he writes down his 'pitfall', being the excess of this quality which indeed other people sometimes reproachfully mention to him, e.g. tiresomeness. In the lower-right quadrant, he writes down the opposite quality of this pitfall, being his 'challenge' to be developed, e.g. patience. He may see this quality in others and learn it from them. In the lower-left quadrant finally, he writes down his 'allergy', being the excess of his challenge and at the same time the opposite of his primary quality, e.g. passivity. He may recognise his allergy when confronted with others' personal pitfalls, and find out that it is not just other people that are bothersome, but that it is also the own allergy and sensitivity that could be overcome. Thus, the person maps his typical bright and dark sides, and learns to focus his development and learn from others, especially the ones who own his opposite qualities. Obviously, this analysis can be very insightful and constructive when carried out by conflicting parties.
This was all that the team had been able to achieve in this trajectory, and John was neither satisfied nor dissatisfied; he could accept the situation as it was. Everyone had appreciated the TCM sessions as instructive and useful for personal development, if not for the development of a team.

What could the facilitator have done better in this process? Possibly, he could have been more sharp at scanning the presence of a brewing conflict, although he had recognised it. Though the team members continuously down played their differences as no causes for concern, there had been some indications of the situation’s conflict character. Firstly, John himself had mentioned the irritations among the two parties early in the process. Secondly, all team members had put an (in the rear-view striking) emphasis on openness and honesty as conditions for a good TCM process. And thirdly, the two parties were ostentatiously playing down (and in fact not recognising) the mutual differences, being a sign in itself. However, it was not enough for the facilitator to recognise the brewing conflict; he possibly could have addressed it earlier. Of course, there is always a dilemma here: when you address a conflict, it may become unnecessarily sharper (and you may then be perceived by the wranglers’ as a causer of conflict); when you do not address it, it may grow and stay unresolved. Between this Scylla and Charybdis, the facilitator did not address the conflict character of the situation. Instead, he stressed the positive side of the character differences present in the team, hoping that the parties would pick up this wisdom and choose the constructive way. Indeed, all conclusions of the team were aligned with this, so that this strategy at first seemed successful. However, apparently the team members’ resolve was weak, and the conflicting parties could not overcome their differences. The facilitator should probably have kept a finger on the pulse of the brewing conflict’s further progress in the immediate aftermath of the first team investigation. In that case, a feedback session could have been convened earlier, and two months’ time would not have been lost. This would probably have been preferable to waiting until the summer holidays were over.

Getting back to the research question that is central in this chapter (Can conflicts be solved by following the designed method?), we maintain that a valuable investigation along TCM lines is clearly possible in this stage of conflict: things can be clarified with valuations, assessment and especially the system diagram. However, it seems that additional interventions (like systematically exchanging feedback) are needed to fully address the conflict character of the situation. These interventions could be mingled with the protocelled interventions, thus slightly changing the protocol; they can also be planned before or after the first team investigation. It seems recommendable to use these interventions quite soon after the conflict character of the situation is recognised and not wait too long to implement them.

10.3 Warm conflict: the first case of a team of school teachers

The following section concentrates on a team that experienced a conflict originating a few months before the start of a TCM team investigation. The conflict had developed considerably during these months and had become ‘warm’, meaning that it was characterised by intense debate and disagreement, expressed openly and explicitly, and by feelings of anger.
Quite a few team members were angry. The team consisted of Peter, being one of the school directors and head of the team, and twelve teachers who had two years since shared the responsibility of their own department, in which they taught child care. The team was considered to be largely autonomous and hence carried out, among other things, its own human resources management, education management, student supervision, examination, PR, contract activities and administrative support. Coordination responsibilities for each of these task clusters were laid in the hands of so-called star-roles, who were officially appointed by the team. A star-role meant comparatively more influence on the course of daily affairs, as well as extra workload, yet it was barely paid extra for. Moreover, star-role holders received minimal coaching and were de facto independent.

Catherine, who held the star-role of human resources management, asked, with consent of the team members, the two practitioners (the author, and Adrienne, who was an education specialist and group facilitator) to help resolve the existing conflict in the team with the use of the TCM. The problems were as follows. Ronald, a teacher and member of the team, was said to perform insufficiently. Some students as well as some parents had complained, and his style of teaching was supposed to be somewhat old-fashioned. There was animosity between Catherine and quite a few other team members on one side and Ronald on the other; at first, Ronald refused to confirm that he underperformed, but after a while he complied with the measures taken by Peter, who had overruled the team's request to transfer him to another team, and instead had offered him a programme for improvement. Because of this decision, the majority of the team was disappointed with Peter as well. Apart from these facts, the team had also a tendency to hold very lengthy meetings, during which many disagreements were discussed without resolve, on whatever topic. This was also a source for discontent and a feverish atmosphere.

Before the start of the sessions, a measurement was taken of the group cohesion in the team. See Table 10.3. Six simple questions were answered on a Likert-scale, rating from 0 to 5, and summated. Thus, an overall score was produced of the team's group cohesion.

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a good team spirit among my colleagues.</td>
<td>2.25</td>
</tr>
<tr>
<td>2. Members of my group have personal interest in each other.</td>
<td>3.08</td>
</tr>
<tr>
<td>3. Members of my group are never afraid of giving vent to issues and problems that affect them.</td>
<td>1.42</td>
</tr>
<tr>
<td>4. My colleagues make my work easier by sharing their ideas and opinions with me.</td>
<td>2.08</td>
</tr>
<tr>
<td>5. If I had a chance to do the same task for the same payment in another group, then I would still remain in this group.</td>
<td>3.00</td>
</tr>
<tr>
<td>6. My group is usually aware of important events and situations.</td>
<td>2.75</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14.58</td>
</tr>
</tbody>
</table>
The group cohesion was low, compared to other teams. In the author’s experience, a value of 19-20 on this questionnaire is about the average for teams; here, the value of 14.58 was far below it.

The team longed to settle things with the aid of the external practitioners and the TCM. The members were invited to express their expectations right at the start of the first TCM session. Mary: ‘I hope that the internal tensions are expressed more, so that a close cooperation will arise’. Catherine: ‘I hope that we will know what it is that goes wrong, and that we get a clearer picture of what holds us together’. Ronald: ‘I hope that the good intentions lead to cooperation, and that we get rid of frustrations’. Peter: ‘I hope that we make a clear picture of what the barriers are to result-responsibility, so that we can work towards it easier’. And Paul: ‘I hope that things will be solved’. There was much hope among the members, but less confidence in a good result. They seemed to depend on the facilitators, a bit too much to their taste. The facilitators addressed this problem: ‘In essence, you are the ones to solve the problems!’. The team recognised it. However, in the eyes of the facilitators there always remained a trace of this dependent attitude among team members.

It was hard for the facilitators not to be drawn into the conflict. The team members seemed to make the facilitators take sides, and to have them settle the conflict their way. They did not have much patience with the facilitators’ habit of asking, making the team clarify things, and summarising. Also the system of the TCM protocol made them impatient. Where did this all lead to? What was the sense of completing lengthy questionnaires? Would the problems be solved? The facilitators had, right from the start, urged for an investigative attitude. ‘What does it include?’, they asked the team. The team produced some factors like ‘listen well to each other’, ‘summarise what the other says’, ‘curiosity’, ‘openness’ and ‘the will to investigate the own part in the conflict’. Of course, the team members knew what was constructive behaviour. But it seemed that one wanted the other to show this behaviour first, before showing it oneself.

The team started with the formulation of a question of inquiry. They did this surprisingly fast: ‘How can we make sure that we really call each other to account, and at the same time appeal to each other?’ Team members were afraid to hurt each other or to be hurt; they did not dare to discuss matters with each other; and they felt each others’ judgements, without hearing them aloud. In sum, they had learned to avoid confrontations, and started to appeal less to each other; the team was slowly falling apart. The focus of this process was between Ronald and Peter on one side, and Catherine and quite a few others in the team on the other. Here, differences of opinion were the largest. Probably this sting should be taken out first, before answering the question of inquiry. In any case, this was not done by the more or less impartial people in the team; these were apparently not strong enough to neutralise the conflict.

Six valuations were formulated and scored by the team. Three of these valuations are listed in Table 10.4. Based on the scores, the team members had an interpretative talk about the things going on in the team.
The assessment results generated interesting insights for facilitators and team, though many team members had considerable difficulty with interpreting the tables and figures. Only when the facilitators would ask them interpretative questions on the basis of the outcomes, they started to be involved. First of all, in the General Experience the affect ‘security’ scored very low values (an average of 1.42 at a maximum of 5, with a rank 21 in the list of 24 affects). S-affects were quite high (being usually a sign of opposing perceived threats) and O-affects low (not surprisingly, given the low group cohesion scores). Highest positive feelings were energy and freedom, quite surprisingly: apparently the team still worked with considerable enthusiasm. Highest negative feelings were powerlessness, loneliness and anger, being a sign of conflict and the relative weariness of the conflicting parties (high powerlessness). On the valuations 1 and 2, the above-mentioned negative feelings received high scores as well; striking were high levels of caring and involvement. Apparently, in spite of the conflict, team members still felt involved and caring. What kind of conflict was this?

The mean r(g) score of valuation 2 was significantly higher than its av. r(i) score: .565 over .410 (p<.001). This means that the team experienced this valuation similarly as a group. Valuation 2 was a collective valuation. Apparently, the ‘case Ronald’ obviously was collectively experienced. Note that the mean r scores of General Experience (mean r(i) .302; mean r(g) .273) and valuation 1 (mean r(i) .410; mean r(g) .396) were roughly lower. Apparently, these experiences were less collective: the same valuation gave people different feelings, which could be interpreted as a sign of disagreement and mutual distance.

Valuation 1 (about Peter’s leadership role) and its assessment outcomes evoked an interesting discussion and a clearer picture of the character of the conflict. Team members thought that Peter should express his appreciation of things more clearly. They experienced his perception of the environment as a typical director’s; he tended to speak formally and based his arguments on policies, while the teachers longed for some sign of affection, for a way of arguing that came closer to concrete daily affairs, and for a more informal language. Apparently, there was a distance between the director’s and the team’s world. Finding each other demanded some translation. Next to this, the team members thought that Peter should be more meticulous about submitting his reasoning to the team; this had of course its origins in the perceived high-handedness of his decision to offer Ronald a programme for

<table>
<thead>
<tr>
<th>Valuation</th>
<th>(i)</th>
<th>(g)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>O</td>
</tr>
<tr>
<td>1. Before long, we have to move</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>toward competences-oriented</td>
<td></td>
<td></td>
</tr>
<tr>
<td>education. Peter has started a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>working group, but who is to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>draw the picture and who is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>responsible? Peter? Or me?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. We are all troubled by the</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>long drawn-out conflict with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ronald and the idea that there</td>
<td></td>
<td></td>
</tr>
<tr>
<td>is nothing wrong anymore.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. General Experience (GE)</td>
<td>12</td>
<td>9</td>
</tr>
</tbody>
</table>

Part II - Design and validation of the method

Table 10.4 – The team’s collective valuations and their affect modalities, represented by the averaged sum scores per affect category per person. Range of scores between 0 and 20 for S and O-affects, between 0 and 40 for P and N affects. A distinction is made for (i)-affects (experienced by the team members individually) and (g)-affects (attributed by the team members to the group). Bold font is used where (i)-scores differ significantly from (g)-scores.
improvement and keep him as a member of the team. In general, one thought that it was insufficiently clear for the team members what the star-role was and what the role of the team and Peter's. Some members explicitly said: 'There is little respect for Peter. I don't expect anything from him anymore, for me Peter does not have a role in the team. When I take care of things myself, then I reduce chances of falling flat on my face.' This gave Peter a fright: he indicated that he tried to make contact with the team, but experienced it as very difficult. He found the door often closed.

Valuation 2 (about Ronald's perceived underperformance) and the accompanying affect data further got the picture of the conflict clear. The team members experienced a typical mix of care and powerlessness. And anger was on the average less strong for individuals (i) than the average perceived anger of the group (g). Some team members indicated that they felt care for Ronald, and were disappointed that he rejected their rapprochement and refused to be open to their criticism. Ronald on the other hand found his colleagues' feelings of care ambivalent: 'I don't experience the team as caring, I rather feel neglected. People talk behind my back.' The team had the feeling that a public discussion about Ronald's performance was being avoided by Ronald and Peter. Hereupon, Peter clarified about the actions taken to give Ronald the chance to improve; and subsequently team member Alice, apparently satisfied, acknowledged that Ronald experienced unsatisfactory recognition for his efforts and must feel vulnerable and not respected. Had this situation been too difficult for the team to handle autonomously? Peter said that there was a procedure available on how to deal with criticism about someone's performance: the star-role holder was supposed to first discuss it with the person in question, and, if necessary, both should discuss it with the team leader (himself) after that. Star-role holder Catherine declared that she found it difficult to apply such a procedure, and it seemed that most other team members also experienced the given framework for this difficult HRM-problem as deficient. More coaching was needed, by Peter, on how to make use of the frames.

In the course of the series of case studies presented here, it has probably become clear to the reader that tables on a team's multivoicedness are offered as a standard in every team investigation. As was explained extensively in chapter 2, this is in line with the importance of multivoicedness for the improvement of the team's functioning. Relatively weak voices in the score can become lever deviants that provoke pattern breaching. The multivoicedness of the current team is now given in Table 10.5.

Table 10.5 – Multivoicedness: the collectivity measures of prominence and internal consistency per voice as assessed for the first school team. Range of prominence ratings between 0 and 9. Internal consistency of a voice is highest when the consistency measure has the lowest value.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>The One who is Open</td>
<td>5.10</td>
<td>2.95</td>
</tr>
<tr>
<td>The One who feels Responsible</td>
<td>4.80</td>
<td>3.70</td>
</tr>
<tr>
<td>The Devoted</td>
<td>4.95</td>
<td>3.20</td>
</tr>
<tr>
<td>The Warm-hearted</td>
<td>4.90</td>
<td>3.25</td>
</tr>
<tr>
<td>The One who is Plain</td>
<td>4.90</td>
<td>2.90</td>
</tr>
<tr>
<td>The Innovative</td>
<td>4.70</td>
<td>3.30</td>
</tr>
<tr>
<td>The Critical</td>
<td>4.50</td>
<td>2.80</td>
</tr>
<tr>
<td>The Decisive</td>
<td>4.30</td>
<td>3.60</td>
</tr>
<tr>
<td>The Rational-Analytic</td>
<td>3.95</td>
<td>3.60</td>
</tr>
<tr>
<td>The Entrepreneur</td>
<td>4.50</td>
<td>3.40</td>
</tr>
<tr>
<td>The One who Consults Others</td>
<td>4.40</td>
<td>3.60</td>
</tr>
</tbody>
</table>
Part II – Design and validation of the method

The most prominent voice was The One who is Open, reflecting the willingness of all members to be open to each other, even in times of conflict. The One who feels Responsible, the Devoted, the Warm-hearted, and the One who is Plain were also strong voices. Note that the internal consistency of these voices differed remarkably among these prominent voices; apparently, the prominent voices were often scattered as well (like the valuations, given their affect modalities with low mean r values). The multivoicedness proved to be rather fragmented. Finally, the weaker voices, to be considered as deviant, were the One who Consults Others, the Rational-Analytic, the Decisive, and, to a lesser degree, the Innovative. All this information gave the facilitators and the team again more insight into the character of the conflict.

Based on the insights derived from the interpretation of the assessment results (on both valuations and multivoicedness), the facilitators prepared a system diagram for presentation to the team, so as to give it something to hold on to in these complicated circumstances. Of course, this is a change of style. After all, in the TCM’s spirit the team itself should make the system diagram and act as the investigator. But some resolution, resulting from this laborious process of investigation, was much needed by the team members, and they seemed not ready for producing it themselves. The facilitators stuck to the principle of having the team make a system diagram for itself; however, they simultaneously assumed that the team would be too impatient to jointly produce it. Therefore, they offered a ready-made system diagram. The appurtenant benefit would be a reduced risk of decelerating discussions or arguments and an accompanying loss of time and patience. The diagram contained a reduction of the collected bunch of interpretations to a surveyable whole. After presentation, the team would be invited to amend the facilitators’ diagram. It is pictured in Figure 10.2.

Figure 10.2 – System diagram of the cooperation between the members of the first school team. Bracketed the collective voices associated with the loops; in italics the projected lever deviant voices for breaching the prevailing patterns of cooperation.

<table>
<thead>
<tr>
<th>RATIONAL-ANALYTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence of a framework for complex cases</td>
</tr>
<tr>
<td>Warm-hearted devotion</td>
</tr>
<tr>
<td>(OPEN)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ONE WHO CONSULTS OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of experience of star role holders</td>
</tr>
<tr>
<td>Sense of responsibility</td>
</tr>
<tr>
<td>(WARM-HEARTED) (DEVOTED)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ONE WHO CONSULTS OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived insufficiency of consultation by leader</td>
</tr>
<tr>
<td>Perceived lack of consideration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INNOVATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unaccustomed to calling each other to account</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MILD (PLAIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(ONE WHO FEELS RESPONSIBLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm and persistent approach</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTENSIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehement protest of the person concerned</td>
</tr>
<tr>
<td>Vehement protest of the team (e.g., by letter)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RATIONAL-ANALYTIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference of perspectives on the environment (WARM-HEARTED)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSECURITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distrust</td>
</tr>
</tbody>
</table>

Figure 10.2 – System diagram of the cooperation between the members of the first school team. Bracketed the collective voices associated with the loops; in italics the projected lever deviant voices for breaching the prevailing patterns of cooperation.
The diagram was clarified to the team by the facilitators. It reflects all aspects of the conflict, both factual and emotional. Most loops in the system are positive, meaning that the system tends to escalate. Things will get worse and worse, unless well-planned interventions are carried out. The starting point of reading the diagram can be the variable on the left upper side: the absence of a framework for complex cases. The facilitators had the strong impression that the implementation of star-roles and the accompanying autonomy of the team were done too fast and too inaccurately. When cases were particularly complex, such as in the case of Ronald’s perceived underperformance, the absence of a framework on how to act prudently became apparent. The more this absence was felt, the more the team members felt responsible (and caring) for finding a solution. At the same time they lacked experience. This all resulted into a firm and uncompromising approach of the case, under which the team members (and especially star-role holder Catherine) possibly hid an inner insecurity about their lack of experience. The more firm (but gross) the team’s approach of Ronald was, the more Peter felt the inclination to intervene. This caused anger among the team members, who devoted themselves so warm-heartedly to their task; their anger amplified their firmness and made it persistent (or even stubborn). Thus, Peter was encouraged to intervene even more, and this made the existing frames for handling complex cases even more unclear, since Peter’s measures could easily be explained as a contradiction to the team’s supposed autonomy. This was one loop. Another was the firm and persistent approach by the team of Ronald causing Ronald’s vehement protest, which in turn caused an even higher persistence in the team. Ronald’s protest was dictated by the school teachers’ culture to not call each other to account (cf. the team’s question of inquiry!): teachers (and likewise Ronald) were not used to it. Another loop started at Peter’s interventions. The more he tended to intervene, the more the team members perceived this as insufficient consultation by Peter, resulting in a perceived lack of consideration, again by Peter, of the things going on in the team. This led to a vehement protest by many team members against Peter’s protection of Ronald (which in fact occurred by means of an official letter to Peter), which in turn amplified Ronald’s opposition to the team, and the team’s stubbornness in its way of treating his case. Finally, Peter’s interventions caused distrust, which was further amplified by the fact that Peter’s and the teacher’s perspectives on the environment were so much different; the higher the distrust became, the higher feelings of insecurity among team members. This insecurity was also enhanced by the perceived lack of consideration by Peter to things going on in the team.

What did the team members think of this reading of the situation? It was the facilitators’ reading, but was it also theirs? Did they feel the need to amend the diagram? The team was struck with awe. There was nothing to add to the given diagram: it gave clarity to what was going on and what causes were behind the conflict. Moreover, all assumptions laid down in the diagram were convincingly underpinned with factual interpretations made by the team in the TCM sessions. The diagram was recognisable. And one of the basic causes of the problems was the absence of a framework for complex cases. The existing book in which the procedures were laid down, while offering the possibility for amendments, was perceived as unclear, uninteresting, and uninviting. It was not only their own fault that the conflict had come into being! The team accepted the diagram almost with gratefulness. But also Peter appreciated the diagram: it gave a balanced picture of everyone’s contribution to the course.
of events. And he accepted that the imperfect implementation of star-roles and team autonomy played an important role in it. The diagram gave a lot to hold on to.

The team’s urge was now: how could we breach these described patterns? With the facilitators’ aid, the team selected a few lever deviant voices: the One who Consults Others, the Innovative, and the (newly introduced) Mild One; moreover, if Peter would try to let his inner Warm-hearted voice speak, while the team members would express their own Rational-Analytic, the different worlds of the team and its leader would start to come closer. All team members chose a personal lever deviant voice that they promised to express more in the coming future.

Evaluating the first investigation phase, the team members found the roots of the conflict clarified. A new urge was there: how do we prevent ourselves from a relapse? Mandy asked rhetorically: ‘But are all problems solved now? Have the conflicts evaporated? Can the facilitators leave us now to ourselves?’ Ronald: ‘The real work starts now’; Catherine: ‘I agree with Ronald on this’; and Mary: ‘And now for the practical proof of the pudding!’ Team members were not so sure that after these meetings the problems were over, and found that extra actions should be taken. They unanimously indicated that they still needed more external support for getting out of the mire of daily conflict routine. In their eyes, the TCM had not been the method to solve the conflict: it had helped clearing things out, but not finished it. And they had hoped that after the TCM sessions the problems would have been gone. However, the TCM was not over yet. There was an invalidation/validation phase to come, in which the lever deviant voices would do their pattern-breaching work.

In this phase, the facilitators chose to do more than just letting the levers do their work. They estimated that during the coming months some very specific steps had to be taken as preconditions for lasting success. These steps were the following: (1) mediation in the conflict between protagonists Ronald and Catherine (after the TCM sessions, their worst disagreements were over, but possibly some things were left to be addressed in a more personal atmosphere); (2) the coaching of team leader Peter (helping him strike the right note in his contact with the team, and helping him find good ways to handle the further implementation of star-roles); (3) the coaching of Catherine in her star-role (she needed more skills for giving structure to her work); and (4) the coaching of the whole team in giving structure to their meetings (in order to reduce their lengthiness and get rid of the negative atmosphere). One of the facilitators, Adrienne, set out to do these tasks.

According to the results of the second TCM team investigation five months later, she had been doing a good job. And in parallel, the team had. The relations between Ronald and Catherine had decisively improved; Peter was more on speaking terms with the team; Catherine was more outspoken and self-assured in her star-role; and the team as a whole experienced a better atmosphere. The measured group cohesion had risen from the initial 14.58 to a more normal value of 17.83, as put down in Table 10.6. Alice: ‘We emphasise the positive side of things more than before. There is more humour.’
Lena: ‘I experience more support’. Paul: ‘Peter shows up more regularly.’ Rosy: ‘I saw and spoke to Peter much more often. He is more relaxed.’ Catherine: ‘We had the inclination to immediately, but prematurely, try solving a problem. That’s what we do less now. We don’t demand immediate solutions. At the other hand, we (for instance, Peter and myself) have become less long-winded, we are more goal-oriented.’ And Mandy: ‘we have become capable of holding better meetings’. Peter: ‘The people know better where they stand. The organisation functions well’. Adrienne’s interventions in the validation phase had apparently done their job: there was collective improvement.

The assessment of the team’s multivoicedness confirmed this picture. The levers had done their work as well. People had learned to communicate differently. See Table 10.7.

Two of the three lever deviant voices had become stronger: the Innovative and the Mild one. Also the Rational-analytic had strengthened in the team; only the One who Consults Others had barely increased. In fact, all voices had increased their expression. The team had become more ‘talkative’.

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**Table 10.6 – The second measurement, after five months, of the first school team’s group cohesion.**

Scores on the six items were summed. To be compared with Table 10.3: comparison shows a considerable improvement of the group cohesion (min. 0, max. 5)

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a good team spirit among my colleagues.</td>
<td>3.42 [2.25]</td>
</tr>
<tr>
<td>2. Members of my group have personal interest in each other.</td>
<td>3.16 (3.08)</td>
</tr>
<tr>
<td>3. Members of my group are never afraid of giving vent to issues and problems that affect them.</td>
<td>2.58 (1.42)</td>
</tr>
<tr>
<td>4. My colleagues make my work easier by sharing their ideas and opinions with me.</td>
<td>2.75 (2.08)</td>
</tr>
<tr>
<td>5. If I had a chance to do the same task for the same payment in another group, then I would still remain in this group.</td>
<td>2.92 (3.00)</td>
</tr>
<tr>
<td>6. My group is usually aware of important events and situations.</td>
<td>3.00 (2.75)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17.83 (14.58)</strong></td>
</tr>
</tbody>
</table>

---

**Table 10.7 – Multivoicedness after a year: the collectivity measures of prominence and internal consistency per voice as assessed for the first school team. Range of prominence ratings between 0 and 9. Internal consistency of a voice is highest when the consistency measure has the lowest value.**

To be compared with (the rankings in) Table 10.5: some voices became relatively stronger, others weaker.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Prominence</th>
<th>Consistency</th>
<th>Prom. ranking went up/down</th>
</tr>
</thead>
<tbody>
<tr>
<td>The One who is Open</td>
<td>6.25</td>
<td>2.15</td>
<td>Equal</td>
</tr>
<tr>
<td>The Decisive</td>
<td>6.40</td>
<td>1.35</td>
<td>Up</td>
</tr>
<tr>
<td>The Devoted</td>
<td>6.10</td>
<td>1.95</td>
<td>Equal</td>
</tr>
<tr>
<td>The Innovative</td>
<td>6.30</td>
<td>2.05</td>
<td>Up</td>
</tr>
<tr>
<td>The One who is Plain</td>
<td>6.20</td>
<td>1.95</td>
<td>Equal</td>
</tr>
<tr>
<td>The One who feels Responsible</td>
<td>5.70</td>
<td>2.55</td>
<td>Down</td>
</tr>
<tr>
<td>The Rational-Analytic</td>
<td>6.05</td>
<td>1.45</td>
<td>Up</td>
</tr>
<tr>
<td>The Entrepreneur</td>
<td>6.10</td>
<td>2.25</td>
<td>Up</td>
</tr>
<tr>
<td>The Mild One</td>
<td>6.15</td>
<td>1.40</td>
<td>New</td>
</tr>
<tr>
<td>The Critical</td>
<td>5.75</td>
<td>2.10</td>
<td>Down</td>
</tr>
<tr>
<td>The One who Consults Others</td>
<td>6.00</td>
<td>1.80</td>
<td>Up</td>
</tr>
<tr>
<td>The Warm-hearted</td>
<td>6.15</td>
<td>1.55</td>
<td>Down</td>
</tr>
</tbody>
</table>

---
The stronger *Innovative* meant according to the team that one called each other to account more (cf. the team’s question of inquiry) and that one accepted this, and that one better observed personal limits and thus reduced time pressure. The stronger *Rational-analytic* corresponded with a weaker *Warm-hearted*. The weaker *Warm-hearted* meant in the words of Catherine: ‘I have come to realise that you can do the wrong things with the best intentions’. Peter: ‘People have become more honest. I think there was too much faking in the *Warm-hearted*’. Helga indicated that a weaker *Responsible* meant that the team members put less effort in things they could not influence after all, so that they stopped feeling responsible for everything. The *One who is Open* remained the team’s number one. Peter: ‘The openness has changed character’. Paul: ‘We take more distance to things now, for instance to the case of Ronald.’ Helga: ‘I appreciate this bigger distance. It gives me time to attend to my own affairs.’ Ronald: ‘After the holidays, there was a different atmosphere in the team with respect to myself. It was balm to the soul. I had a talk with Catherine on teaching and the type of students that I find difficult; I also discussed this with Alice and clarified things in the team’s committee. And I talked to Paul about it. I still feel vulnerable as a teacher. But I’m not the only one, there are also other colleagues who have difficulties with certain types of students.’ Ronald expressed his inner *One who is Open* in a constructive way. He indicated that things had improved, discussions had become more open, but he as well openly expressed his disappointment about the team’s impatience and one-sided attention for his faults and his faults only. Some team members responded by saying that they still found it hard to speak up openly to Ronald about his imperfections. It seemed as a repetition of former patterns. Yet, the tone of the discussion had changed: it had become milder.

In sum, this team had learned collectively to cope with conflict. The atmosphere was still not perfect; yet it had considerably improved. It is our contention that the facilitators’ initiative in interpreting the situation (instead of leaving it up to the team) helped a lot. They proposed the system diagram that integrated different perspectives in one whole, and they shaped the invalidation/validation process by proposing essential steps. It is not the TCM’s protocol itself but the way of applying it that fosters change: it is the facilitator who brings structure to a drifting team by proposing and prescribing, so as to avoid that nothing would improve. It is essential to encourage the team’s willingness to change.

10.4 Cold conflict: the second case of a team of school teachers

The third and last case study of this chapter concerns another team of school teachers, again under the spell of an all too fallible implementation of the autonomous work group’s maxim. Due to the successful application of the TCM in the previous team, the same school asked the facilitators (again the author together with his colleague Adrienne) to use the method with a team of 13 teachers of ICT, nearly all male, in order to find an end to the conflict that had dominated it for than a year. Causes of the conflict were unclear when the investigation started; the only obvious thing was that the leader of the autonomous team Nigel (who was appointed from within his own ranks) was increasingly rejected by a group of about five colleagues, headed informally by Stan and Eric. A few interventions were tried by the school’s
board (of which Oliver was the team’s hierarchical boss), but nothing had helped. The conflict had deepened and grown more complex, and both sides had stopped taking each other seriously, passing cynical remarks about the other in the other’s absence, and avoiding contact with the other. Hope was long gone. Everyone felt powerless in the present situation. Correspondingly, a large majority of team members was sceptical about the planned TCM sessions’ use. Yet, the team agreed to do the investigation, probably not because they believed in the conflict’s resolution, but because a failed process would give way to another routing. After all, if this would not work out, more severe measures would have to be taken, like substituting team members. One seemed to hope for the other’s ultimate defeat.

The team planned its sessions according to the TCM’s protocol, and all interventions were included in the plan, such as formulating the question of inquiry, formulating valuations, scoring the affect modalities of the valuations, jointly interpreting the assessment results, naming and assessing collective and deviant voices and interpreting the assessment results, and drawing up a system diagram. However, along the way the facilitators found out that many team members behaved too vehemently as to conform themselves to the TCM’s patient script. This was not the time of joint investigation; this was the time of confrontation. Therefore the facilitators chose to follow a mediation script rather than the TCM’s, even if in fact all TCM measurements were done (and proved their worth, as will be illustrated later).

Mediation (Moore, 2003; Brenninkmeijer, Bonenkamp, Van Bruggen & Walters, 2003) roughly follows three successive phases. Firstly, both parties are invited to uninterruptedly tell their part of the story. The other side is required to listen. Secondly, the interests of both parties are revealed. In this phase, the parties’ unique needs and expectations in the conflict and pre-conflict situation, together with their underlying norms and values, are brought into the open. It is usually in this phase that the conflict’s underlying causes become manifest, since one tends to project the own norms and values upon the other. Thirdly, negotiations take place about possible solutions to the conflict that may satisfy both parties and give the opportunity to rebuild some trust. Of course, a major precondition for the success of mediation is the willingness of both parties to come to an agreement. It remains a question as to whether this willingness was present here, since unfortunately the facilitators omitted an explicit query on its presence in their intake. However, we can assume that there was enough willingness among a majority of team members, as well as the board, to put a decisive pressure on the unwilling to at least show some initiative for improvement.

At first sight, the TCM seems fit to the purpose of mediation in conflict situations, if mediation is to be taken as the surfacing of underlying motives and using of gained insights for fruitful negotiations. Though this may be true in ideal cases (when all parties are patient enough to go through assessments for gaining insight), in the present conflict the TCM protocol seemed too slow. All different kinds of urgencies disturbed the quiet investigations that were planned for; and these urgencies deserved immediate attention, given their emotional overtones.

However, the facilitators used the TCM protocol as a framework for their interventions. The team’s question of inquiry was jointly formulated as ‘Where can we trace our energy leaks?’. The conflict was experienced as very tiring, and the team members all longed to get rid of it. The question of inquiry seemed an objective wish for clarity on the conflict’s
causes, but was possibly rather a wish for some final judgement, passed by outsiders (i.e., the facilitators as well as the school’s board, of which two members, Oliver and Ron, were present during the TCM sessions), on who was to blame. Indeed, the team’s valuations gave the outsiders more information on what had been going on. The decisions of team leader Nigel were perceived as inconsistent (e.g., he sometimes made promises to students’ parents that he was not appointed to make, thus passing over his colleagues) or unfair (e.g., he had empowered Hugh and Rick, both teachers of lesser competence in their colleagues’ eyes, to take authority on important tasks; whenever Hugh and Rick would make mistakes or need help, the other colleagues had to step in and solve their problems, and this was intolerable to them, given the enormous time pressure that they experienced otherwise). Moreover, organisational adjustments made under Nigel’s supervision were insufficient for facing the team’s daily problems. The facilitators noticed during the sessions that Nigel’s perceived inconsistency, unfairness and incompetence was amplified by his aloofness, which he employed whenever he was criticised.

In addition the mapping of the team’s multivoicedness produced some extra insight. The voices that proved to be most collective were ‘The One who Cares for Students’, ‘The Empathic’, and ‘The Optimist’. This offered some consolation: essentially, the whole team was very dedicated to its teaching purpose. At the same time, it showed with its high degree of seriousness a possible low capability of putting things into perspective. People seemed too committed. Deviant voices were identified as well, and proved to be very useable in the phase of deciding how to break existing patterns.

Since they had gained so many insights into the character of the conflict by making use of the TCM assessments, the facilitators decided to propose a system diagram to the team. The diagram was based on their observations and corroborated by the assessment results. This was preferable to having the team make a system diagram by itself, which would be virtually impossible in this conflict situation. The facilitator’s system diagram is presented in Figure 10.3.

The system diagram was accepted by the team members, because they all recognised the current patterns of cooperation in it. Again, the missing framework for the implementation of autonomous work teams was the main source. The more the existing rough framework was multi-interpretable, the more team members experienced a lack of clarity in the division of responsibilities, the more they experienced a disproportionate division of tasks, and the more they perceived the decisions of the team leader as inconsistent (because they had only their own sense of consistency to fall back on, instead of the justification of a neutral frame). These factors all caused anger among a core group of ‘criticasters’. The more angrily they behaved, the more aloof the team leader (Nigel) became, and the less transparent he was in his decisions, because he refused to explain his grounds. The less transparent he was, the more his decisions were perceived again as inconsistent. Moreover, the criticasters became dominant in their anger, and this caused anger about the lack of respect for the team leader among Nigel and a few members around him, especially Hugh and Rick, who felt protected by him. This caused an even stronger aloofness in Nigel, and the tendency to point the finger accusingly to others. This was also done by the criticasters in their increasing anger. It led to more and more negativity and to a mentality of work-to-rule, thus letting all
energy in the team leak away (cf. the team’s question of inquiry). In the course of time, the described patterns became stronger and stronger, and gradually ruled out the possibility of other patterns with a capacity of countering them. Potentially, such patterns were available among the other, more mild or neutral team members, but they were in fact curbed by the prevailing anger and accusations. The more anger the criticaster group radiated, the less the other team members expressed their objections to this anger explicitly. Instead, they remained quiet and became ‘neutral bystanders’, denying themselves a possible mediating role. The more accusations were made, the less the team members were willing to investigate the received feedback of the other party. They would otherwise have taken responsibility for finding a solution and have consulted each other to shape an agreement on how to get things done. In reality, this was *not* done, and the lack of it enforced the multi-interpretability of the existing imperfect framework for the implementation of autonomous teams. The team did not constructively cope with these imperfections but made things worse instead.

The diagram was evaluated in the following terms. Eric: ‘I see myself on all places in the diagram. The last four years I have become more and more angry and my energy leaks away, and only because I care for the students I manage to hold out.’ Stan: ‘I recognise the picture. It makes me afraid. I don’t see a solution where I myself could play a role in, and that is frustrating because I would like to. I don’t like the role of the criticaster that somehow is cast upon me. I need some peace.’ Nigel: ‘I recognise the sources of the conflict. The fuel for the process. If not something will be done about the source, the fire will keep burning.’
Wesley: ‘A clever interpretation, and all too true. But the most important is: what should now be done?’ Apparently, the same thing happened here as in the previous case: the system diagram generated the urge to do something about these counterproductive patterns, and at the same time the team did not know how to do it. There was a strong need to get out of it, accompanied by a commonly felt powerlessness. Oliver, member of the school board, suggested that a more detailed framework for the team’s autonomy should be drawn up, of which agreed norms for the team leader’s role would be a part. And the facilitators indicated where in the system diagram the existing patterns could be breached by lever deviant voices (see Figure 10.3).

The next intervention of the facilitators was directed at the individual team members. They asked the team members to think over their own possible contributions to an improvement of the described situation and to publicly announce these as their personal intentions. They did this together with choosing a lever deviant voice that they would personally express during the period ahead. This led to announced intentions like ‘I have to leave my anger behind’ (Eric), or ‘I will more openly share my experience as a team leader’ (Nigel); the conflict’s protagonists chose levers like the Demander of a better Structure from the board (Nigel), the Empathic and the One who Finishes things Off (Eric), and the Mild One and the One who Puts things into Perspective (Stan). Other team members expressed an intention to more actively and positively influence the course of affairs, most of them by using the lever deviant voice of the One who Puts things into Perspective. Wrapping up this part, the team members listed in subgroups the things they expected from others, such as ‘We want Nigel to use his competencies on the right occasion’, or ‘We want the board to clarify in more detail what they want from an autonomous team’.

After this, a list was jointly made, by negotiation, of what preconditions should be improved to influence the situation positively, and which of the parties were to be taken responsible for these conditions. Agreements were reached very fast, probably because the whole process of mediation was seen through to fruition, and possibly also because of the team members’ fatigue at the end of the intensive session. Most important was the agreement that the board would be responsible for an improved framework for the team’s autonomy (a rough outline of such a framework was specified and agreed upon), and that the team would be responsible for calling each other to account by using constructive feedback (linked to agreed upon responsibilities and tasks) and to start a trajectory for investigating emotional frictions in mutual dialogue. The agenda of the next team meeting was drawn up, containing elements that corresponded with these agreements. Team members left the session in a hopeful mood, though some of them remained sceptical, especially about the board’s contribution that is was to make.

What followed was the invalidation/validation trajectory, during which the team was to express its lever deviant voices, and live up to its intentions. Facilitator Adrienne tried hard to keep track of this process and to intervene whenever possible and needed. However, she did not get sufficient access to the scene. The process of improvement and collective learning stagnated soon after. The board had not significantly increased its efforts to have the framework for team autonomy clarified (Oliver and Ron being too busy with other urgent things), and the team had at the slightest setback lost courage and fallen back into old pat-
terns of negativity. There were islands of hope: some team members kept the positive intentions alive, but this did not lead up to a definitive improvement of the situation. Nigel became ill, the team fell slowly apart (the first signs being visible after four months, when two team members found work somewhere else), and the planned last TCM session, meant for evaluating progress and improvement, was cancelled.

In sum, this team had failed to collectively learn to cope with conflict. The TCM had done its part and made things clear and ready for change; yet the process of improvement was wasted by the parties' poor performance in the validation/invalidation phase, and a lack of access of the facilitators to change the situation for the better.

The TCM was mingled with mediation-like techniques and interventions, because the protocol by itself was not fit for facing the team's impatience and urge to fight instead of investigate. The validation/invalidation phase needed the same mix of TCM interventions (such as inviting the lever deviants to express themselves) and mediation techniques (such as inviting the team members to live up to their negotiated agreements). Though the interventions can be said to have been carried out technically properly, the team's (and board's) willingness to change proved insufficient. It was not the method that was unsuccessful, but the team. Yet, the question can be asked as to whether this conflict was too cold for the TCM to be successful at all. This will be addressed in the final section of this chapter.

10.5 Conclusion

Our leading research question in the current chapter can now be answered. It concerns the fifth research question that was included in the functional validation programme that we presented in chapter 6. This question was the following:

Can conflicts be solved by following the designed method?

The answer should be broken into three parts: a separate answer for the brewing conflict, for the warm conflict and for the cold conflict.

For the brewing conflict, the TCM helped clarifying existing dissensions and their consequences for the team cooperation. Though the team members sensed their discord, they were not fully aware of it. The application of the TCM seemed at first to amplify the problems by bringing out into the open disagreeable things that were covered previously, but this helped later on to find ways to cope with the mutual differences and to prevent the conflict from getting more intense. The addition of certain interventions to the protocol, such as the systematic exchange of feedback, was necessary for the method's success.

For the warm conflict, additional interventions were needed as well, and even more. Especially helpful was the choice of the facilitators to bring structure to the situation by proposing to the team a final interpretation of the conflict in a ready-made system diagram, and by recommending the necessary interventions for making the team perform better and live up to its own intentions.

It seemed that in the case of cold conflict, the structure imposed on the team was
just as much necessary, but not sufficient anymore. The method did its part by helping to clarify the situation and its causes, but the subsequent validation/invalidation trajectory was unsuccessful. This can be ascribed to the parties failing to do their part. And indeed, mediation often fails, for it needs the involved parties to be willing to find a solution and do their best to implement it. Therefore, the question as to whether the TCM is applicable at all in cases of cold conflict, is rather nonsensical. After all, an equivalent of this question would be whether mediation is applicable at all, and this always depends partly but crucially on the parties involved.

Now that the answers to the research question are formulated, there only remains the question whether the functional propositions with the numbers 2 and 3 of the rubric 'process promotion', being 'the naming of collective voices in a free manner by the team produces useful collective voices' and 'the naming of deviant voices by the team produces useful deviant voices' can be accepted. The collective voices appointed by the different teams proved to be useful, for they could be ascribed to prevailing patterns of cooperation in the teams; the deviant voices proved useful as well (for reasons of a capacity to serve as a lever to breach a pattern), though in all cases, it turned out that some of the lever deviant voices were proposed by the facilitator, and accepted by the team. This means that, strictly speaking, the last proposition could be accepted in the case of the bank managers and the case of the second team of school teachers, but that it should be rejected in the case of the first team of school teachers. Therefore, the proposition could better be modified in 'the naming of deviant voices in feedback sessions, or in consultation with the facilitator, produces useful deviant voices'.

In general, the TCM seems very well applicable in cases of conflict. Its functional validity proved to be enough convincing in the presented cases. The method generates insight into the situation and its causes, and helps lifting the counterproductive patterns by inviting team members to name meaningful collective voices and lever deviant voices. However, we should emphasise that the TCM's effectiveness in solving conflicts is reduced when facilitators rely too heavily on reporting (and jointly interpreting) the rather complex patterns of data. A joint investigation of the measurements is too decelerating in the eyes of team members who are impatient and demand fast progress. Yet, the data can be very informative for facilitators who want to get insight into the situation and plan their interventions correspondingly. In sum, it seems advisable to bother the team as little as possible with lists of data, and let them attend to the here and now of the patterns of conflict.
CHAPTER 11

Concluding discussion across cases:
A functional validation of the method

11.1 Introduction

Six different case studies were presented in the previous chapters and these cases produced answers to the five leading research questions of this study. In this final chapter, we will assess the quality of these answers. Thus, we will make a final evaluation of the method's functional validity.

Functional validity is the extent to which a designed tool functions according to plan, and to which it produces the results it is designed for. It contains two aspects: ‘effectiveness’ (how well does the method perform to output standards, e.g. does it produce collective learning?) and ‘practicality’ (how well useable and appealing is our method in the eyes of team members and facilitators?). The five research questions that were central in the study are all concerned with the TCM's functional validity:

1. Can we see collective learning taking place when applying the TCM?
2. Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?
3. Can a team foster change by using deviant voice as a lever?
4. Can we pinpoint important incidents in the process of change that prove the team's deviances being in action in the desired way? Can we show the workings of voices in the process of change?
5. Can conflicts be solved by following the designed method?

In section 11.2, we will summarise the answers to the research questions that were given at the end of each case study. We will also bring together our main experiences in using the method and the most relevant evaluations of team members and practitioners of the method. Thus, the method is assessed for its effectiveness and practicality. In section 11.3, we will discuss the value of these findings. Does the TCM prove functionally valid? The method’s lacunae are assessed, and suggestions for further improvement are given. Finally, in section 11.4, we focus on possible criticism of the way the method was developed. Based on this, we generate suggestions for further research.

11.2 Findings across cases

Which main findings are to be listed in order to make a good judgement of the TCM’s functional validity? Subsequently, we will sum up our answers to the five research questions and
the validity of each of the main functional propositions (so as to get an estimate of the method's effectiveness), and the most relevant experiences with the method's use, as evaluated from the perspectives of the team and the facilitator (so as to get an estimate of the method's practicality).

**Research question 1:** Can we see collective learning taking place when applying the TCM? – This question could be answered affirmatively in the case of the chemical factory management team of chapter 7. We found proof of collective learning: a gained insight among team members into the features of the mutual cooperation (meaningful system diagrams were produced), and an improvement of collective as well as individual functioning in the team (showing in measurement data and team members' evaluations). Apart from this, the other cases as well showed collective learning taking place: virtually everywhere teams gained insight and improved their cooperation.

**Research question 2:** Can the designed method help team members in finding counterintuitive or 'unfamiliar' attributes of the team cooperation? – This question was also answered affirmatively in the chapter 7 case. The 'evidently-sentences' produced by the team after interpreting the assessment results show this: there was always a mix of insights that were new and unexpected and insights that summarised familiar attributes of the team cooperation. Both types of insights were welcomed by the team members. Moreover, the system diagram produced new and unexpected insights as well.

**Research question 3:** Can a team foster change by using deviant voice as a lever? – This question was answered affirmatively not only in the case of the career counsellors team of chapter 8 (which was specially meant for answering this research question), but also in most other cases. Especially the case of the welfare institute management team (chapter 9) showed the success of a deviant voice, but also the case studies of the factory team (chapter 7) and the first school teachers team (chapter 10) illustrate that deviant voices can be used for the improvement of collective and individual functioning. Especially in the cases of chapter 8 and 9, we found that deviant voices should be helped with additional interventions in the invalidation/validation trajectory in order to increase its positive effects. These interventions are aimed at giving the deviant voice more centrality in daily cooperation.

**Research question 4:** Can we pinpoint important incidents in the process of change that prove the team's deviancies being in action in the desired way? Can we show the workings of voices in the process of change? – These questions were addressed in chapter 9, in the case of the welfare institute management team. It was shown that several important incidents during the invalidation/validation trajectory were subject to the team's collective learning. The appointed lever deviant voice ('The One who Speaks with the Belly') played a central role in taking these incidents up constructively, deepening the learning process. Thus, we gained more insight into the process of a deviant voice exerting its influence.
CHAPTER II - Concluding discussion across cases: A functional validation of the method

Research question 5: Can conflicts be solved by following the designed method? – This question could be answered affirmatively, for the method gave a sensible structure to the investigation of the triggers for conflict and its possible solutions. However, we found that other interventions were needed in addition, especially in cases where conflict had deepened and seemed harder to resolve. Such interventions are not provided by the TCM protocol. In the described cases, they always had the character of mediation, which addresses the conflict more directly. It was found that the investigative nature of the method provoked impatience among team members, and we therefore concluded that facilitators should not stick too much to the protocol (e.g., by insisting on jointly interpreting complex sets of data) when the team finds itself in a crisis situation and wants fast progress. The ground rules of the TCM (investigation, dialogue, system thinking, room for deviancy) proved nevertheless very relevant when conflicts need resolution.

Validity of the main functional propositions – Table 11.1 shows the propositions of the TCM that were tested in the case studies. The table indicates which of them were accepted or rejected.

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Cases where tested explicitly</th>
<th>Acceptation or Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>The assessment results stimulate meaningful interpretation by team members.</td>
<td>1</td>
<td>Accepted</td>
</tr>
<tr>
<td>The determination of a lever deviant voice by team members is helped by placing the assessed voices in the system diagram.</td>
<td>2</td>
<td>Accepted</td>
</tr>
<tr>
<td>The use of validation assignments from the facilitator makes understandable to team members how new behaviour can / should be validated.</td>
<td>2</td>
<td>Accepted</td>
</tr>
<tr>
<td>The naming of collective voices in a free manner by the team produces useful collective voices.</td>
<td>3 - 6</td>
<td>Accepted</td>
</tr>
<tr>
<td>The naming of deviant voices through feedback sessions produces useful deviant voices.</td>
<td>3 - 6</td>
<td>Accepted in 4 and 6; Rejected in 3 and 5</td>
</tr>
</tbody>
</table>

Table II.2 – Functional propositions after testing. The list shows the tested properties of the method.

Functional propositions: final, tested set

Function: stimulating insight
- The assessment results stimulate meaningful interpretation by the team members

Function: stimulating improvement of behaviour
- The use of validation assignments from the facilitator makes understandable to team members how new behaviour can / should be validated

Function: process promotion in the team fitting the current group dynamics
- The naming of collective voices in a free manner by the team produces useful collective voices
- The naming of deviant voices, in feedback sessions or in consultation with the facilitator, produces useful deviant voices
- The determination of a lever deviant voice by team members is helped by placing the assessed voices in the system diagram
In Table 11.1, we list the functional propositions whose testing was performed in the case studies. As we can see in the table, nearly all propositions could be accepted. Only the last one, “the naming of deviant voices through feedback sessions produces useful deviant voices” was rejected twice next to being accepted twice. The fact is, that in the case studies 3 and 5 the lever deviant voice was proposed by the facilitator instead of the team members themselves. This was necessary when the naming of deviant voices by the team itself (for the procedure, see Appendix 3, III-8) did not produce a potentially pattern-breaching deviant voice, even though it produced other meaningful deviant voices. In those cases, the facilitator was helpful in proposing a proper lever voice; in each of the cases it was chosen with the team’s full approval. In short, the list of named deviant voices coming out of the feedback sessions did not prove in all cases to be sufficient for finding the lever. Therefore, the formulation of the functional proposition has been modified, as shows from Table 11.2.

All other main functional propositions whose validity we suspected beforehand could be accepted. In all cases, though in some slightly less than others, the assessment results stimulated meaningful interpretations of the quality of the mutual cooperation; in all cases the determination of a lever deviant voice by team members was helped smoothly by placing some of the assessed voices in the system diagram; most clearly in the cases of the welfare institute and the first team of school teachers, the use of validating assignments (meant for making the lever deviant voice stronger) was transparent and plausible to the teams; and finally, the naming of collective voices in a free manner by the team produced in all cases meaningful collective voices.

The rest of the functional propositions as listed in Table 6.1 were tested as well, but this is not accounted for in this study. The tests were conducted in a practical manner, not systematically.

Finally, the testing of propositions was done by case studies, which means that the testing always leads to temporary results: the proposition is valid until it will be in some cases rejected. If so, it should probably only be modified; it is very well possible that this will prove necessary for single propositions sooner or later during the life of the method.

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1 It showed that even in cases where no specific further assignments were given (as in the cases of the chemical factory managers and the career counsellors), improvement was visible. The lever deviant apparently did its work also without accompanying support from the facilitator. However, it seems that in the cases with support the improvement was more sustainable. In the case of the career counsellors, no additional support was given by the facilitator, and the improvement there was indeed moderate and more or less temporary.

2 In principle all of the propositions were accepted, though a few propositions had to be modified slightly. The proposition “The formulation of 3 collective and 2 deviant valuations produces meaningful valuations that are illustrative for the actual situation in the team” seems too much specified; though it worked in all cases according to plan, also other numbers of collective and deviant valuations proved meaningful. Probably, the same effect would be there with other (though still small) amounts of valuations. The proposition “The organisation of the evaluation step in the TCM by two sessions helps team members sufficiently to evaluate change” has the same property of too much detail. Evaluation could probably also be done by one session.
User evaluations — We can further functionally validate the TCM by evaluations of team members and facilitators. At the end of all of the case study chapters, such evaluating remarks were reported. We will make here a selection of the evaluations we consider most relevant.

Team evaluations — The sense of direction of the process: Generally, many team members, also in the teams that were involved in conflict, indicated that the conclusions of the sessions were ‘clarifying’ to them, and that the process steps were sufficiently obvious once explained by the facilitator. One striking exception should be mentioned. A member of the chemical factory team indicated that, even though he had appreciated the result of the process very much, had had the recurring thought of ‘where does this lead to’ during the first two sessions; only in the last session this feeling had disappeared. In this TCM investigation like in the others, the facilitators had sketched the road straight from the start, but for this person this had apparently not been done clearly enough.

Team evaluations — The value of measurement: The assessment procedures should receive special attention here. One leader of a team said: ‘The method measured the situation, and measuring means knowing. This worked well, though at first things seemed a bit unclear and needed further explanation.’ Another team member said: ‘For interpretation of the data I needed explanation on how to read them. During these explanations I was time after time surprised about what could all be extracted from these data’. However, working with the complex data sets was typified by single team members as ‘time-consuming’ or even ‘terrible’, especially in teams that were deeply involved in conflict or teams that were not trained in maths or data processing. Though the facilitator could help those team members by skipping most of the perceived ‘complicated juggling’ with data and make as many ‘here and now’ interventions as possible, this particular quality of the method could make it somewhat controversial, for it remains central to it.

Team evaluations — The acceptance of the method’s concepts: The concepts that were used, such as ‘collective valuation’ or ‘deviant voice’ were easily made clear to all team members by explanation, and also the system diagram was easily produced by the teams, except of course in those cases where they accepted a ready-made diagram proposed by the facilitator. The concept of ‘lever deviant voice’ was widely accepted as the road towards improvement. The team members could easily choose which lever deviant voice they intended to express more, and they never had difficulty with formulating their intentions for improvement based on a deviant voice. Quite a few team members explicitly said that the deviant voices stuck to them easily, because their names were in their language. Thus, these voices were helpful for inducing change, for reminding each other and remembering the essence of the TCM’s outcome. For instance, in the case of the welfare institute managers, the voice of ‘The One who Speaks with the Belly’ that was embedded well during the whole year in the minds of the team members, proved to be a focal point for all discussions about improvement.

In some cases though, there was some misunderstanding about the essence of the deviant voice concept. The deviant voice is conceptually supposed to be present in every team member, and should not be identified with one individual. However, in a single case team members tended to identify a deviant voice with one individual team member. Extra expla-
nation about the meaning of ‘deviant voice’ (not an individual deviant, but a deviant more or less present in everyone) by the facilitator was necessary to clear this up.

Team evaluations – The need for support in the invalidation/validation phase: In most cases, team members indicated that they were in need of further support by the facilitator after finishing the third session, where the system diagram was produced and intentions expressed for the next few months: the invalidation/validation trajectory. Though the clarification of the situation had indeed been helpful to them, they did not know what to do next. Moreover, now that the situation was clear, they felt the urge to do something more. In the cases where the desired support was given (in the cases of the welfare institute and the first team of school teachers, of which a few members some days after the third session explicitly indicated that ‘they had not been helped well enough yet’), this was welcomed very much; while in the cases where for different reasons this support was not given (as in the cases of the career counsellors and the second team of school teachers), the team more or less experienced a lack of direction. Only one team, that of the chemical factory, did not have this perceived lack of direction, even though they had not received additional support.

Facilitators’ evaluations – The value of measurement: Special evaluations by the facilitators (among others, the author of this study) were the following. As to the use of complex data sets, the facilitators experienced rare, but recurring ‘silent complaints’ among team members about the difficulty of interpreting these data; this happened especially when the team was in conflict. This disadvantage was outweighed by the fact that many other team members were more patient about reading data, and explicitly appreciated the outcome of the interpretation sessions. Moreover, the facilitators experienced an interesting advantage of using data. It gave them the opportunity, after a thorough inspection of the data sets in preparation of the sessions with the team, to ‘read’ the situation better and be more able to choose proper interventions (like asking questions, or using relevant data when a certain topic would be raised). Based on this ‘deep’ investigation of the team situation, the facilitators felt that they had a better grip on the situation.

Facilitators’ evaluations – The need for further support: Concerning the need among team members for further support in the invalidation/validation trajectory, the facilitators felt ambivalent. On the one hand, they understood this need, for it seems natural to organise support when one feels not capable of solving things on one’s own. Practitioners of team development indeed have competencies to help solving problems in the cooperation. On the other hand however, the urge for prolonged help seemed at times to reflect a lack of ownership. In the case of the first team of school teachers, some team members expressed that the TCM ‘was not a method for resolving conflicts’ (while in fact, during the sessions, it had helped suggesting ways out of the conflict). The facilitators took this as an indication that these team members possibly attributed their lack of instant success externally, i.e. to the method, while they could as well have attributed it internally, namely to themselves. The complaint ‘we are not really helped yet’ can be a sign of refusal to take responsibility for the own situation, and indulging to it could make the team dependent on its facilitators, thus making it able to pass on to them the responsibility of possible failure as well. While aware of this potential danger, the facilitators chose here to offer further support, for there were enough ‘objective’ indications of an appropriateness of it.
Concerning the suitability of the learning history instrument for further support in the invalidation/validation trajectory, some special reflections were made by the facilitator (the author of this study). The learning history, a format for monitoring the team's learning and improvement process, seems very suitable for this phase of the TCM: it puts the team in a position to follow the process of change closely, the learning process becomes a topic of explicit reflection, and the gradual strengthening of the lever deviant is retraceable. However, other interventions should probably be added, such as a Socratic dialogue (as was done in the welfare institute team), a feedback session (done in the bank management team), or a strategic session (as it should probably have been done with the second team of school teachers on their work organisation). The learning history as such is an 'empty' format that first should be filled with meaningful experiences, such as the experiences connected to interventions like the just mentioned; only after that, in the systematic processing of the learning history, these experiences get their deeper meaning.

The TCM is a developed protocol with defined interventions that are tested for their consequences. It is like a regular tree; but this does not mean that no ornaments can be hung in it. We want to stress that the possibilities for a facilitator's creativity proved ample, especially in the invalidation/validation phase.

A final facilitator's evaluation concerning the further need for support is about the relative lack of tried-out 'attending'-interventions. Most of the interventions in the invalidation/validation phase were directed at the improvement of behaviour and should therefore be characterised as 'creating' or 'anchoring' interventions. 'Attending' can be very valuable for teams when full awareness of new possibilities needs to grow. It gives the team some time before jumping into the deep. Thus, the preparation for creative steps toward behavioural improvement could take form. We have not experimented enough with this type of interventions, though possibly the sheer naming of lever deviant voices at the start of the invalidation/validation phase, that happened systematically according to protocol, could be labelled as an 'attending' assignment.

Team and facilitators' evaluations – The role of the facilitator – As indicated above, team members generally evaluated the working with the assessment data as rather difficult, and sometimes even as annoying. The complex data sets needed much clarification of potential meanings, before they could at all be interpreted, and the facilitator proved to always have a lead here. Moreover, in most cases the team members needed the help of the facilitator to determine next steps once the system diagram was produced. The diagram indeed provoked a sense of urgency among them, but they very often did not know how to determine next steps based on a full appreciation of the diagram. The facilitator was then the one to propose such steps. In some cases, especially the conflict ones, team members could be even said to press the facilitator to take initiative and offer extra structure to their problem by additional interventions. This pressure was mostly exerted implicitly, but felt clearly by the facilitator(s). When the facilitator indulged to this, it was usually of great help to the team, as in the two cases of the conflict among school teachers, when a ready-made system diagram was proposed to, and accepted by the team as a description of their situation. When doing this, the facilitator should always be aware of his influence that can make the team dependent, instead of an active investigation partner.
Above, we have summarised the most relevant user evaluations. These evaluations serve, together with the answers found to the research questions and the acceptance or rejection of the method's functional propositions, as the basis for the functional validation of the method. We now have an overview of the TCM's effectiveness and practicality, and we have found some (potential) lacunae of the method. While the method proved to be effective to the standards that we set in advance, it proved not always practical. What should be done about these lacunae? This question will be answered in the next section by a critical reflection on our findings.

II.3 Discussion of the method's functionality: how should the design be improved?

What do the findings from the case studies mean? How can we establish the TCM as a method that is functionally valid, i.e. functions according to plan? In this section, we will discuss the findings and draw final conclusions about the method's functional validity. We therefore comment on the design of the TCM. In the next section, we will comment on the methodology applied in this study.

The basic aspects of the functional validity of a design are its effectiveness (how well does it perform to output standards, here basically: does it produce collective learning as intended?) and its practicality (how useable and appealing is the designed method in the eyes of its users, here the team and its facilitator?). We will now focus on these two aspects of the TCM's functional validity.

As to the method's effectiveness, we found in the previous section that the method lives up to its standards, for the answers to the research questions show this. Collective learning indeed took place, and this effect was produced by the method's different features. Moreover, the majority of the most important designed functional propositions were accepted in one or more of the six case studies that were presented. In a few cases, collective learning was not sustainable, like in the case of the career counsellors (where some moderate learning took place, but where the improvement did not last), in the case of the welfare institute managers (where the team fell apart due to a merger, shortly after having finished the TCM trajectory, and where in fact only the individual functioning of the team members could be supposed to have improved lasting), or in the case of the second team of school teachers (where a much needed strategic session on the work organisation in the team was postponed and eventually abandoned). The reasons that collective learning was not sustainable here were mainly connected with external circumstances that had nothing to do with any intrinsic features of the method. Only from the case of the career counsellors could it be concluded that the lack of sustainable effect was partly due to the fact that in the invalidation/validation trajectory no additional support was given to the team. Such support could for instance have been offered in the further facilitation of the lever deviant voices.
As to the method's practicality, the user evaluations produced insight into the method's lacunae. The design needs adjustments. These are listed below.

1. Though the method is often at the end of the trajectory evaluated as helpful in clarifying the team situation, it may initially not be fully clear to the team members where the TCM trajectory heads for. Though this is explained right at the beginning (with the aid of a slide showing Figure 4.1, see page ), the explanation is probably too abstract. Other ways to offer the team a clear picture of the road to follow are yet to be developed. Possibly, concrete examples of other teams who did the TCM trajectory would be more helpful to team members than the presentation and explanation of an abstract slide.

2. Though the assessment data provoke new and deeper meanings of aspects of the team cooperation, they may also generate initial confusion or even impatience. Admittedly, the data sets are not easily accessible. This makes the method less practical, especially in the eyes of people who are not used to processing data or feel impatient about this (e.g. when they are in conflict and do not like to concentrate on seemingly senseless data). Therefore, some more attractive ways should be developed to present the data; of course it is also the facilitator who can exert his influence by reducing the role of data when he thinks this to be appropriate. This role can, however, never be nullified, given the fundamental choice for the use of data in the design of the TCM.

3. Though the concept of deviant voice has proven to be clear to most of the method's users, it appears that sometimes additional explanation of the concept is needed, especially when team members are inclined to project this voice on an individual colleague instead of taking it as a voice that is 'scattered' across all team members, in other words an inner voice that is more or less familiar to everyone. Possibly, the cause of the misunderstanding is the fact that the naming of deviant voices happens in a feedback session, where in the procedure the potential deviant voices are linked to individuals (see for a full description of this procedure the Appendix 3, III-8). If so, a clear explanation about the essence of deviant voice should be given before this feedback session: the procedural reason that the potential deviant voice will in this session be linked to a person is to collect a list of voices that are potentially deviant and should be proven to be deviant by measurement.

4. Though the projected effects of the method were also reached without a structured invalidation/validation trajectory (as in the case of the chemical factory), it appears that in most cases teams appreciate the continuation of support by the facilitator, especially in cases of conflict. We think that this should not simply be yielded to, for the wish for support can cover up the team's counterproductive dependence on the facilitator. However, when this desire is judged to be legitimate, various ways should be known to the facilitator as to structure the invalidation/validation trajectory. Possibly, one or more structured ways to strengthen the deviant voice in this period could be developed. Also the learning history could perhaps be given a more structural role here.
5. Though most of the teams heard the facilitators’ call to take own responsibility for the success of the TCM investigation, some team members seemed to project their lack of instant results on the quality of the method, while they could have been taking initiative for improving their situation at the same time. This was especially the case in the two teams that were in advanced conflict. Possibly, the TCM protocol could include an explicit moment in the beginning of the investigation where the emphasis on the team’s ownership of the process is stressed; and the facilitator should be trained to confront the team with this whenever it proves necessary during the trajectory.

6. Though all teams proved to be able to produce a system diagram with the prescribed method, we found that a system diagram consisting of more than about 12 to 15 variables becomes unreadable. Therefore, facilitator and team should try to keep the diagram within these limits.

7. In conflict situations, we found that the facilitator needs the flexibility to leave the TCM protocol behind when the ‘here and now’ of the conflict asks for other interventions. Possibly, facilitators could be given extra training in mediation techniques or other interventions and in when to use such interventions in the TCM investigation process.

These improvements to the method’s design will all lead to a strengthened functional validity.

In order to make the method work, the facilitator in the TCM has a role that is more steering than the role of the psychologist in the SCM who conducts a self-investigation with his client. The data sets produced in the TCM are more complex than those in the SCM. Without the facilitator, virtually no team member feels able to interpret the data. It is therefore strictly necessary that the facilitator knows how the data could potentially be interpreted. Training is needed to help him learn to properly read the data and constructively offer them to the team for inspection and own interpretation.

The advantage of using data is that not only the team, but also the facilitator is helped with in-depth information about the team’s experience of important events, and that new meanings of aspects of the team cooperation can be produced. Through the data interpretation, the facilitator becomes knowledgeable enough to ask the right question at the right moment. Of course, he should not use his obtained knowledge of the team to jump to conclusions that would not be the team’s; neither should he be too suggestive in bringing the team to conclusions when it produces its interpretations of data. The facilitator should always be fully aware of the fact that any dominance from his side could undermine an independent interpretation by the team. After all, the team’s new meanings are to be its own meanings; such meanings, not the meanings of an outsider, will provoke sustainable improvement of collective and individual functioning.

It is the aim of the TCM to invite the team members to take on ownership of their situation, just as it is done in the SCM. The facilitator can be a mirror to the team when it makes new meanings, and with his outsider perspective he may prove fruitful here, for every now and then he will have interesting insights that the team members want to adopt or mould. He may also preselect data sets for the interpretation sessions: after all, it is almost
impossible to let the team on its own navigate successfully through the mess of data. The team expects the facilitator to preselect. Again in full awareness of his potential influence, he should offer the team this service, but always with the attitude of surprise when confronted with the team members' interpretations; thus, he may never dictate these to them.

With this aim of team ownership of the investigation, and the barriers put up by the complex data sets, the TCM runs the risk of being too slow in the perception of the team. The facilitator should each time find the proper balance between steering and following. From this point of view, it will be the users (client team and practitioner) that will make in the end the method functionally valid.

Finally, it should be noted here that the conclusions presented above include valuable design knowledge. In section 4.3, we introduced design science and its aim of developing new scientific knowledge to support the design of artefacts. Design scientists' reflection is directed at the development of new design knowledge. The to-be-developed prescriptions are valid for certain classes of cases and are of the format: 'If you want to design intervention X [for the purpose/function Y in context Z], then you are best advised to give that intervention the characteristics A, B, and C [substantive emphasis], and do that via procedures K, L, and M [procedural emphasis], because of arguments P, Q, and R' (Van den Akker, 1999, p.9; original bracketing). These prescriptions, or design principles, are meant to support designers in their task. The design principles we found in this research project are linked to the information presented above. Here follow two examples of prescriptions that could be derived from it:

1. If you want to make clear to the team where the trajectory is heading for, it helps to offer concrete (instead of abstract) information on this, such as the examples of other teams that used the method;
2. If you want to give the method's outcomes and conclusions a fair chance of positively influencing the team's performance, then you are best advised to offer the team a structured change trajectory after the investigation. You should do that via structured ways of strengthening the lever deviant voice and procedures taken from business consultancy practice and literature.

Other design principles can equally be derived from the information presented in this section.

II.4 More fundamental criticism and suggestions for further research

In this section, we will collect possible criticism that could be directed against the methodology of this study. But before that, we want to sum up the gains of this study, at least as how we see them.

We started the study in the knowledge that there was some room for an instrumentally designed method for team development. Moreover, the Valuation Theory (VT) and the related Self Confrontation Method (SCM; Hermans & Hermans-Jansen, 1995) together with the Theory of the Dialogical Self (DS; Hermans & Kempen, 1993) seemed to offer the
proper framework for grounding it, though it still needed extension to the collective level of teams. That is what this study produced: an extension of VT/DS and the SCM toward the collective level, resulting in a framework for understanding, assessing and improving collective and individual functioning in teams. What we consider also as new, especially in the practice of team development, is the approach of deviancy as something positive: deviant voices, usually powerlessly present in the periphery of teams, are now welcomed as potential renewers in the team’s history, because they are seen as able to reframe its reality. This adds a new dimension to the practice of dialogue and dialogical techniques. Finally, we hope that we have added an attractive piece of methodology to the scientific practice of industrial and organisational psychologists, in which quantitative and qualitative methods mix in a fruitful way. At the least, it proved to be able to produce prolonged research activity even when unexpected things happened that ordinarily would have stopped the research: for example, when a team tragically lost a member, their commonly conducted investigations and collective learning continued while other types of research would have become senseless (see the case of Chapter 9).

Our methodology should however prove sufficiently acceptable. Thus, we smoothly arrive at the criticism part. Which were the potential weak points in our research and how were they countered? Partly based on this treatment, we will suggest possible lines for further research.

Criticism — The methodology of this study could be criticised from different angles. We will present here a selection of the possible criticism we consider most relevant. The criticism has a more fundamental character than that of section 11.2, where it was directed at the functionalities of the method; here, it is aimed at fundamental tenets of our approach. Some of the criticism could basically be perceived as prejudices about our approach; if so, we will mention this explicitly and try to take away the misunderstandings that caused the prejudices. Our presentation of the criticism and the ways to parry it is clustered around the three activities that we undertook in this study: grounding (chapters 1 to 3), designing (chapter 4) and validating (chapters 5 to 10) the method.

Theoretical grounding:

• *“Improvement cannot be induced by the team itself”* — A basic tenet of the TCM is ownership: the team ‘owns’ the investigation and its outcome, i.e. is the final arbiter of the potential meaningfulness of certain paths to follow, and correspondingly steers the direction of the process. It is on this point that criticism could be targeted. Essentially, the argument would go, teams cannot change of their own accord. They are not able to, like Baron von Munchhausen, pull themselves from the mire by their own hair; what they need is change induced from the outside, by a preferably powerful hand. We think we have good arguments to counter this objection. Indeed groups, like individuals, have a strong tendency to maintain their ‘self-consistency’, and will try to do their best to keep and protect a sustainable identity. However, we push the matter too far if we conclude that a group cannot change itself. What do we mean, in this study, by ‘changing itself’? In the scope of our approach, teams do not strictly change themselves, but are helped,
or provoked, to change by a facilitator, someone from the outside who is able to hold up the proverbial mirror. This external figure does not exclude the team's ownership at all, but is, however, essential for inducing change; for it is the relationship between client (team) and practitioner (facilitator), with specific expertise and contributions on both sides, that brings novelty through the empowerment of the team's innovative resources. Moreover, the method is explicitly directed at the strengthening of deviant voices that are present in the team and have innovative potential. Thus, a reorganisation of the team's position repertoire and collective valuation system may take place. The essential question here is whether the innovative powers are strong enough to challenge the stabilising powers, not whether a team can at all change itself. In sum, change and improvement does not solely depend on the team, but on the quality of the team's relationship with the facilitator and the corresponding quality of their common investigation, and on the quality of the dialogue between innovative and stabilising powers in the team itself. Here, the Habermasian 'ideal speech situation', where all power differences are subject to dialogue, including power differences in the relationship between facilitator and team, can serve as a standard.

**Design of the method:**

- "Quantitative assessment runs counter to qualitative meaning-making" – One could expect quantitative research to be of minor relevance in this fundamentally constructivist study. After all, constructivists are critical about quantitative research, or more specifically, about the epistemological assumptions of many forms of quantitative research; for them, it is not the sole standard of quality science. At first sight, they seem to favour qualitative research, emphasising the potential profusion of meaningful insights that it could bring, especially into the contexts of unique phenomena. Would it therefore not be half hearted to present so many quantitative data in a constructivist study, and to make quantitative assessment a central feature of the TCM's design? We think that a misunderstanding of the essence of quantitative data underlies this point of criticism. Though such data are indeed traditionally associated with a certain epistemological view, they are not fundamentally and solely reserved for this view. On the contrary, quantitative data can be used to provoke new and counterintuitive meaning-making; in the Weickian sense, the equivocality of seemingly familiar phenomena increases when inspecting the puzzling data, thus making it necessary to develop new sense. Quantitative data can help in realising exactly this central function of the TCM: to provoke pattern-breaching meanings. Quantitative data essentially possess a qualitative component: they are to be interpreted, and certainly in our type of study as well, where the data tell us about the character of the unique contexts of collectives and individuals. In our approach we make sensible use of quantitative data for idiographic research. Another type of argument can be added to the previous ones, namely that quantitative data make it possible for us to compare easily between individuals, categories of feelings, or moments in time. Such comparison can make interpretation and evaluation even more meaningful.
Part II - Design and validation of the method

- "Assessment results generate insight for facilitators, not for team members" – In the TCM, like in the SCM, the principle of ownership of the (team or self) investigators is central. This type of criticism is directed at the supposed fact that the TCM's figures are too complex to understand for laymen like team members. If only the facilitator can read the data, how could we then speak of ownership of the team? We think this is a misunderstanding of the role the team members can play, even when they have to deal with complex data. In our experience, we have seen many team members that were able to interpret the data in their own way, once they received neutral information on how to read the tables and figures, and suggestions on how to possibly interpret them. Moreover, we think that as long as the attitude of the facilitator is one of a curious outsider who is aware of the pitfalls of a too dominant stance, there is no real danger of the team losing ownership of the process. There is more to collective learning than just reading data, and when the facilitator can be of help, he should help.

- "Concentration on the 'here and now' is insufficient, for there is too much emphasis on data processing" – Another point of possible criticism is that of team developers who emphasise the central importance of interventions in the 'here and now' of the team's interaction. They could maintain that the TCM concentrates on the wrong issue: on particular events that happened before the session instead of events that happen during the session. The attention of facilitator and team should be directed at what happens here between members, what patterns of interaction can be discerned now, and what can be, based on this, said of the 'team system'. Team development practices like Gestalt or Process Consultation are examples of this 'here and now' approach (see Appendix 1 on methods for team development). We think that this possible criticism of the TCM is based on a prejudice. It is indeed so that the TCM concentrates on meanings that the team members give to their shared experiences of past events. It is therefore not solely concentrated on the 'here and now' of the team members' cooperation, but also on the team's past, and for the investigation of this past the TCM uses data. But does the joint reading of these data withhold the team members from a concentration on the 'here and now' of their interaction? We think it does not, for it remains very much possible to comment on processes of interaction during the joint interpretation of the data. In fact, this was what happened many times during the sessions described in the case studies. It depends on the facilitator whether he is capable of making connections between the topics under consideration and the 'here and now' of the team's interaction.

- "The system diagram produced by the team may overlook important external factors" – In Senge's (1990) version of system diagramming, external factors like market developments or outside political factors play an explicit role and Senge urges organisations and teams to trace their actual importance. In our proposed version, system diagrams seem to be restricted to phenomena that happen within the team. This may provoke the criticism that the TCM system diagrams do not exclude, or may even induce, a team's blindness to the outside world. Indeed, the
TCM system diagram mainly concentrates on the group dynamics of the team, and is therefore often inwardly oriented; yet, team members can always include external phenomena in our system diagrams. Possibly, this fact should be reminded to facilitators during their training in the use of the TCM.

Validation:

- "Case studies do not produce the results that fix the method’s validity" – Because no single case is like the other, one could maintain that the answer to a research question as derived from the case study will always remain temporary, to be proven valid in new cases in the future. When are the research questions then satisfactorily answered, and when are the functional propositions satisfactorily tested? Are then more than twenty case studies on otherwise fully comparable teams needed to achieve a satisfactory validation? We maintain, with case study specialist Yin (2003), that a single, typical case could produce many valuable observations, so that even if temporary, reasonable answers are generated. However, we did more than that when we tested the method’s functional validity: we conducted a relatively intensive testing with more than one case study, of the central propositions of the method: e.g., concerning the interpretability of assessment results, the comprehensibility of system diagrams and validation assignments, and the naming of meaningful deviant voices. We may therefore reasonably expect that our acceptance of these propositions is valid for future cases of team development. Of course, sooner or later a subsequent case study of another team with unique features will possibly provide new information about designed TCM-interventions that do not work as planned. In such cases, we become able to differentiate among aspects of a team issue that need different treatment. In fact, this has been demonstrated in this study, when we differentiated between different stages of conflict in which the team may find itself, and suggested divergent ways to intervene. Finally, if it comes to construct validity, we may trust on the process of accumulation of studies that produces a corroboration of idiographic findings on the nomothetic level. We expect more case studies to show the same quantitative patterns as demonstrated in chapter 5. Fundamentally, there is no other way than through the accumulation of case studies to corroborate our findings; likewise, the nomothetic study of Van Geel (2000) of the quantitative patterns in SCM data was based on a collection of more than 100 idiographic (case) studies.

- “Collective learning: can we really speak of it?” – Collective learning was defined in section 4.3 as the process of members of a collective creating new shared meanings of the reality and/or renewing their joint action. A point of criticism could be that collective learning did not take place in at least some of the different case studies. To be able to speak of collective learning, we need to find proof of change, and we need to find proof of a collective undergoing this change. (1) When can we sufficiently expect the changes to occur? In some cases changes occurred initially, but were not sustained. In the cases of the team of career counsellors and the second team of school teachers, the teams could not, in the long run, sufficiently breach the patterns they wanted to get rid of. However, we maintain that
they witnessed 'moderate change', meaning that initially their insight into the situation improved and that their behaviour changed. Months later, it appeared that their patterns had not been breached to the desired extent. We think we could still speak of learning here, because the teams did not relapse fully into the old patterns. The seeds of awareness were sown and the fruits were still to be reaped, provided that the proper extra support be given. (2) When can we sufficiently speak of collective change? A lack of communality in learning occurs when teams change members soon after the learning experience. If so, the team's collective learning results can not be appreciated very long, since newcomers will not have experienced its benefits. However, even when teams change their make-up, the newly learned patterns of cooperation could be taken over by the newcomers in the team. Sometimes, full teams fall apart. In two cases (the bank managers and the managers of the welfare institute), the team ceased to exist soon after finishing the TCM trajectory. Though improved collective functioning could not be sustained here for obvious reasons, there were enough signs of improved individual functioning (changed insights, or changed behaviour, as indicated explicitly by the team members involved), and it is also individual functioning that is fostered by the TCM. When a team falls apart, there can always remain a residue of collective learning on the individual level. Conclusively, when we take all these arguments together, we think we may say that collective learning did take place in all of the case studies presented here.

In this study, we have tried to collect decisive arguments for accepting the TCM's grounding, design, construct validity and functional validity. The resulting method, as compared with other methods, has its advantages and disadvantages. We refer to Appendix 1 on methods for team development for a further treatment of this issue.

Future research – Above, we have shown that we try to take the different forms of criticism seriously; at the same time, we have tried to counter them with good arguments. We think, however, that most of the criticism could be used to develop our method further, or at least get a better understanding of its essences. Future research should be done whenever the need for further developing the method is there.

The suggestions we have for further research at this moment in time are not very numerous. They mainly fall into two categories: quantitative and qualitative research.

Concerning quantitative research, we think that we need more case studies to corroborate the construct and functional validation that we carried out here. The validity of the method and its main assessment instruments would be further enhanced if we had available data of many more cases in which the TCM was used. We name two possible lines for further research explicitly. Firstly, the categories used in the assessment would prove sound on a nomothetic level. In this line of thought lies the study that Van Geel (2000) carried out for the construct validation of the SCM. Secondly, a systematic gathering of data could either further corroborate the Euclidian distance measure for a voice's internal consistency, or falsify it. Finally, with respect to the method's functional validation, the design would be more com-
completely validated if all, and not just a selection, of the functional propositions of Table 6.1 were carried out. We assume, based on our practical experience with the method, that in a further functional validation study all the functional propositions of Table 6.1 would hold, but this assumption could still get the proper empirical confirmation.

Concerning qualitative research, we consider it interesting to develop more qualitative forms of assessing the team cooperation, such as perhaps a form that uses pictorial thinking. Though the quantitative assessment performs its function according to expectation, it proves that some people do not like the interpretation of data and feel less interested in using the method. Qualitative methods of assessment could maybe help these people, and simultaneously make the TCM more flexible in use.

Furthermore, we need one or more protocolled designs for the invalidation/validation process. The invalidation/validation trajectory is now still mainly a black box, and further research could be done to see which interventions are most productive in this phase of the TCM investigation process. In particular, those interventions that mean to strengthen the appointed lever deviant voices are of interest here; future researchers could direct their creativity in shaping appropriate interventions and testing their effectiveness and practicality.

Another topic of further investigation is the way the TCM could be combined with (applications of) the SCM. After all, the SCM is a tried and tested tool for individual meaning-making, and very suitable for articulating deviant voices that are at work in the minds of individual team members. Thus, the process of team development could be deepened, and the collective learning outcomes even more sustained. Though it remains a question whether a TCM team investigation extended with SCM self investigations would be practically alluring as a product on the team development market, considering the costs of time and money spent, this extension of the current TCM protocol is worthwhile investigating.

Finally, it will be interesting to develop ways to embed the TCM in interventions on a larger scale, such as organisational learning, organisational development and action research: we think there is ample opportunity for making such connections, conceptually as well as practically. (1) Conceptually, the organisational learning literature (e.g., Argyris, 1992; Argyris & Schön, 1996) contains concepts that give clues for further developing our insight into the aspects of collective learning in an organisational context. Further research could be directed at the ways defensive routines, double loop learning and Argyris's interventionist toolkit hang together with our concepts of collective valuation system, collective and deviant voice, and pattern breaching induced by a lever deviant voice. Action research (a good introduction is provided by Greenwood & Levin, 1998) is based on a philosophy of involving 'laymen' (i.e., non-scientists) in the investigation of their own life circumstances, with the aim of improving them; the basic principles and methodological consequences are very similar to those of the TCM. Further research could be directed to the actual combination of both conceptual frameworks, so that action research as well as VT/DS/TCM could be enriched. The connection of our conceptual framework to those of others would probably enhance the TCM's development and further refinement as a tool, and anchor its place among other established team development methods. (2) Practically, the TCM is an instrument that is used to investigate patterns of cooperation, and patterns described in system diagrams could prove to be valid not only on the team level, but also on the organisational level. With the TCM toolkit,
Part II – Design and validation of the method

insight could possibly be gained into the culture of a whole organisation. The prospects of culture change could become assessable in a new way, for deviant voices would be given their part in it. The ways in which team and organisational dynamics can be influenced by pattern breaching in teams are very worthwhile to further investigate. The investigators of the corresponding practical research questions could perhaps productively make use of the methods for design research (i.e., finding out which interventions “work”), indicated in chapter 4 of this study.
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SUMMARY

This book is on the design of a new method for developing teams: the Team Confrontation Method. It reports on the theoretical grounding of it, the design choices made in order to shape it and, finally, the testing of its performance in practice. As a result, a theory-based and tested method is added to the field of team development.

The TCM borrows its principles and core concepts from the Self Confrontation Method (SCM) and the related Valuation Theory (VT) and theory of the Dialogical Self (DS) of Hermans (Hermans & Hermans-Jansen, 1995). The SCM is a method for individual self development that is used in psychotherapy and counselling / coaching; VT and DS study the functioning of the self and the role of meaning-making processes connected with it. For the grounding of the TCM, we need to extend central concepts of VT and DS (valuation, affect and voice) from the individual to the collective level of functioning. We review relevant literature and come to the new concepts of collective valuation, collective affect, collective voice and deviant voice. Essentially, the TCM is about collective meaning-making in teams and ways to stimulate it in a productive way.

After having grounded the core concepts that the TCM should make use of, we set out to design its features. Firstly, we point at a spirit of joint investigation among all parties involved (scientists, practitioners and team members) as a precondition, implicating an active role for team members to investigate their own reality as well as a willingness of practitioners and scientists to submit their investigative activities to the benefit of the team’s exploration. Secondly, we design a sequence of interventions that combine assessment with process promotion. In this sequence, reflection and action of team members are intertwined: the team investigates its reality by collecting data and interpreting them meaningfully, and discovering repetitive patterns of cooperation (reflection); it then carries on to improve its reality by actively trying to breach these patterns (action), the result of which is evaluated after some period (reflection).

The design of the method is followed by a validation of constructs and functional propositions. Firstly, we develop and test the assessment instruments to be used. Collective valuation, collective affect and collective voice are shown to be sensibly measurable. Secondly, we test the different functional features of the method: by six case studies of teams where the TCM was used, we generate insight into the quality of the method’s performance. These case studies also help the reader to get a good picture of the way our newly developed tool functions.

We will sum up below the essentials of the eleven chapters.

In the introduction to this book, the research focus of our study is set. The study is about the assessment and improvement of collective and individual functioning in teams. We want to get a grasp of the way teams as a whole and their team members as individuals function in terms of VT / DS, how team members and their facilitator can assess this functioning, and how processes of improvement can be promoted by the facilitator and the team. The result of these queries must lead to a new method for team development. The study includes the design, grounding and testing of this method.
Part I essentially prepares for the design of assessment instruments by transposing VT / DS to the group level.

Chapter 1 is about assessing collective and individual functioning: it explores the comprehensive theory on collective and individual functioning and determines what assessment is advisable in this matter. The work of Karl Weick proves especially helpful to us for making an extension of the VT / DS framework possible. His view on sensemaking as the way through which collectives organise their world is reminiscent of Hermans’s view on meaning-making as the way through which individuals structure their world. Weick, together with some other authors, lends us some propositions of collective functioning that describe essences of what happens in collectives like teams when they function in their world. These propositions (e.g., ‘it is behaviours rather than people that constitute groups’) serve as a basis for the conceptual extension of the VT / DS framework to the collective level. The newly developed conceptual framework contains the concepts collective valuation, collective affect, collective voice and system diagram.

Chapter 2 is about improving collective and individual functioning: it explores our position on advisable roads to improvement. Thus, the theoretical basis for interventions aiming for improvement is given. The work of many different authors proves helpful to us. Their view on, respectively; a team’s effectiveness, the reorganisation of collective experience, deviant voice as a power for change and improvement, dialogue as a way of including deviant voices in the team’s sensemaking process and having them fertilise it, the role of power differences in a team’s dialogue and the possibility of self-improvement by the team itself, lends some propositions of collective functioning that describe essences of what happens in collectives like teams when they improve their functioning. These propositions (e.g., ‘deviancy is the trigger for development, dialogue invites deviancy to make a constructive contribution’) serve as a basis for the conceptual extension of the VT / DS framework to the collective level. The newly developed conceptual framework contains the concepts of deviant voice, pattern breaching, dialogue and collective valuation system reorganisation.

Chapter 3 is about conducting a joint investigation. We present a view that is connected with VT and DS. The view, implying a special way of looking at the relationship between scientist, practitioner and client in conducting research, produces first and all an active role of the client team in the investigation. Clients (team members), practitioners (facilitators), as well as scientists (academics) each have a different way of interpreting phenomena that they encounter when investigating; for the production of research results that are meaningful to all three of them, they should work together systematically. This is because we maintain that team members are not study subjects of the psychologist, but active meaning-makers, and as such, active investigators as well. The providers of the TCM, practitioner as well as scientist, will have to co-operate with the team in order to produce satisfying results of the investigation. Thus, the spirit of the SCM is adopted, in the sense that a shared commitment and responsibility for meaningful results lies with the client (team), the practitioner (facilitator) and scientist. In order to shape a method that makes the active role of the team possible, scientist and practitioner should work together intensively. The scientist brings theoretical knowledge to the design process that provides the conceptual framework; the practitioner brings the practical knowledge of team facilitation that is needed for the design of the method as a tool for intervention.
Part II shows how the method is designed and empirically validated.

Chapter 4 sets up our design; we fix the functions of the method, list the corresponding design variables, and make the design choices that constitute the make-up of our method. The designed solution is put forward as an integral whole, as well as in detail by a listing of its main design choices. The design process that led up to this result is checked against and enriched by the benchmark of design methodology. The projected function of the method is leading. Our method should be a tool for assessing and improving collective and individual functioning in teams, or more briefly a tool for collective learning. This function can be subdivided. Linked to the sub-functions of ‘stimulating insight’, ‘stimulating improvement’, and ‘promoting the process of investigation in the team’, we list the corresponding requirements, design variables and design choices for the TCM. Thus, the protocol gets its shape.

Chapter 5 offers the development and validation of the measures of collective valuation, collective affect and collective voice. Research has been carried out to account for the construct validity of these concepts and for developing the tools (questionnaires) for assessment; relevant quantitative and qualitative data are presented through case studies. We empirically demonstrate the presence, and change, of phenomena indicated by our new concepts. We derive assessment measures from this demonstration that are to be used in the TCM. For the assessment of collective valuation, the ‘we-sentence’ is developed as a measure. For the assessment of collective affect, the ‘mean r[i]’ and ‘mean r[g]’ are developed as measures. Finally, for the assessment of collective voice, the ‘sum of scores’ and ‘euclidian distance’ are developed as measures of, respectively, prominence and internal consistency of a voice. All these measures are demonstrated to have construct validity.

Chapter 6 introduces the research questions that are guiding the case studies that follow in the chapters 7 to 10. Through these questions, we want to functionally validate our newly designed method: it is functionally valid when it functions according to plan. Five leading research questions are formulated: (1) Can collective learning be demonstrated with the designed method? (2) Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation? (3) Can a team foster change by using deviant voice as a lever? (4) Can we pinpoint important incidents in the process of change that prove the team’s deviances being in action in the desired way? And (5) Can conflicts be solved by following the designed method? Also the set of design choices (put in the format of functional propositions) is tested across the cases.

The case studies show among other things: how a communality in experience (assessed by the collective affect measure) blocks team development and how the method stimulates a breakthrough (chapter 7); how a deviant voice fosters improvement (chapter 8); which important incidents stimulate improvement and how the lever deviant voice helps breaching patterns (chapter 9); and, finally, how different stages of conflict in a team are addressed with the method (chapter 10).

The case of chapter 7 deals with the first and second research questions: ‘Can we see collective learning taking place when applying the TCM?’ and ‘Can the designed method help team members in finding counterintuitive or ‘unfamiliar’ attributes of the team cooperation?’ The case of the factory management team shows integrally, i.e. from beginning to end,
how the TCM is put into use in a concrete team setting. It shows how the team members' insight into the mutual cooperation increased, and how their collective behaviour became less problematic and more appropriate to the needs of the organisation. The case further shows how and to what extent an investigative attitude was accomplished among team members. Investigation by them of the discrepancy between their collective and individual affect, as shown by the assessment results, helped them to find out that they were blocking their own team development. They schematised the way how they blocked it into a system diagram.

The case of chapter 8 deals with the third research question. ‘Can a team foster change by using deviant voice as a lever?’ The team of career counsellors mapped its co-operative patterns with the use of the TCM; after a few months, they reported change in spite of the fact that no specific experimenting with innovative, pattern-breaching behaviour had taken place. It seemed that the conscious naming of potentially productive deviant voices in the group dialogue was helpful.

The case of chapter 9 concentrates on the fourth research question. ‘Can we pinpoint important incidents in the process of change that prove the team’s deviancies being in action in the desired way?’ The team of welfare institute managers did a thorough investigation of the patterns of their mutual co-operation, not only by TCM but also with the subsequent use of the learning history instrument. This instrument was also used in order to closely follow the process of change after the first team-investigation (the first three sessions in the TCM protocol, see also Figure 4.1) had taken place. The results enrich the picture of the change process that would otherwise have been rather implicit, because the TCM tends to determine changes only in retrospect.

Finally, the three cases of chapter 10 address the fifth research question. ‘Can conflicts be solved by following the designed method?’ The three cases deal with different stages of conflict.

(1) The team of bank managers experienced a brewing conflict. By using the TCM, hopes were high (and intentions were made) for productively making use of the differences in the team. However, later on the differences were heightened and a conflict took form. The conflict was addressed explicitly and then neutralised, so that the initial intentions for pattern breaching as produced in the TCM, could be effectuated. (2) The first team of school teachers experienced a warm conflict. The TCM was used for making the situation clear from a neutral position, in order to propose lever voices that could bring a solution. This was done together with the team members, in spite of initial impatience on their behalf. Furthermore, improvement was reached by extra interventions after the TCM investigation. (3) The second team of school teachers were more or less stuck in a cold conflict. The TCM was applied for finding patterns of cooperation that would be illustrative for the conflict and at the same time promise opportunities for change. The case shows that it was necessary to use other interventions than the designed ones for producing the solution to the team’s problems, already during the sessions that were intended for TCM application.

Chapter 11 discusses the findings across the six case studies: we offer some general conclusions on the functional validity of the method, discuss some shortcomings of it, and estimate the value of the reported research work. As to the method’s functional validity, we found proof of collective learning in all the case studies that we performed: a gained insight
among team members into the features of the mutual cooperation (meaningful system diagrams were produced), and an improvement of collective as well as individual functioning in the team (showing in measurement data and team members’ evaluations). The five research questions presented in chapter 6 could all get affirmative answers, and the most important functional propositions of the method could all be accepted. In short, the method proves to be effective. As to the shortcomings of the design, we found some lacunae in the method’s practicality. Among other things, the complexity of assessment data can, in certain circumstances, be so puzzling to its users that learning and the production of new meanings is hindered, at least temporarily. Also the trajectory after the first investigation (the first three sessions in the TCM protocol) that should lead towards improvement proved sometimes to be not sufficiently structured. We give hints for solving these problems; thus, the method’s design would be further improved. Subsequently, the value of the research work presented in this book is discussed: we reflect on its quality by countering potential types of criticism. Finally, we suggest different lines for further research.

The study is provided with appendices containing descriptions of other existing methods for team development, a detailed overview of the TCM’s protocol, the questionnaires used by the method, and hints for the TCM facilitator.
SAMENVATTING

Dit boek gaat over het ontwerp van een nieuwe methode voor teamontwikkeling: de Team Konfrontatie Methode (TKM). Het behandelt de theoretische fundering, de gemaakte ontwerpkeuzes en het testen van de methode in de praktijk. Dit levert een theoretisch gefundeerde en geteste methode op die kan worden toegevoegd aan het instrumentarium dat in het vakgebied reeds beschikbaar is.

De TKM ontleent haar principes en centrale begrippen aan de Zelf Konfrontatie Methode (ZKM) en de hieraan gerelateerde Waarderingstheorie (WT) en de theorie van het Dialogische Zelf (DZ) van Hermans (Hermans & Hermans-Jansen, 1995). De ZKM is een methode voor individuele ontwikkeling die wordt gebruikt in psychotherapie en counselling / coaching; WT en DZ richten zich op de bestudering van het functioneren van het zelf en de rol van ermee samenhangende processen van betekenisgeving. Voor het funderen van de TKM is het nodig de centrale begrippen van WT en DZ (waardegebied, affect, en stem) over tezetten van het individuele naar het collectieve niveau van functioneren. Op basis van literatuurstudie komen we tot de nieuwe begrippen collectief waardegebied, collectief affect en collectieve stem. In wezen gaat de TKM over processen van collectieve betekenisgeving in teams en de manieren om deze op een constructieve manier te bevorderen.

Nadat we de begrippen waar de TKM gebruik van zou moeten maken hebben gefundeerd, beginnen we met het ontwerpen van de eigenschappen van de methode. Allereerst wijzen we op de geest van gezamenlijk onderzoek onder alle betrokken partijen (wetenschappers, praktijkbeoefenaren/teambegeleiders, en teamleden) als een wezenlijke voorwaarde, hetgeen inhoudt dat teamleden een actieve rol toebedeeld moeten krijgen bij het onderzoek van hun eigen werkelijkheid en dat de praktijkbeoefenaren en wetenschappers zich in hun onderzoeksactiviteiten dienend opstellen aan dit teamonderzoek. Ten tweede ontwerpen we de opeenvolging van interventies die metingen combineren met procesbevordering. In deze opeenvolging wisselen reflectie en actie van de teamleden elkaar af: het team onderzoekt haar werkelijkheid door data te verzamelen en deze op een betekenisvolle manier te interpreteren, om daarbij terugkerende patronen van samenwerken te ontdekken (reflectie); vervolgens probeert zij actief dit samenwerken te verbeteren door de ontdekte patronen te doorbreken (actie), en het resultaat hiervan wordt na een zekere periode geëvalueerd (reflectie).

Op het ontwerp van de methode volgt een validatie van constructen en functionele preposities. Eerst ontwikkelen en testen we de meetinstrumenten die we willen gaan gebruiken. Daarbij wordt aangetoond dat collectieve waardegebieden, collectieve affecten en collectieve stemmen op een zinvolle manier te meten zijn. Vervolgens testen we de verschillende functionele eigenschappen van de methode: door middel van zes casestudies van teams waar de TKM werd ingezet genereren we inzicht in de kwaliteit van de prestaties van de methode. Deze casestudies helpen de lezer tevens om een goed beeld te krijgen van de manier waarop ons nieuw ontwikkelde instrument werkt.
Hieronder vatten we de inhoudelijke essentie van elk van de elf hoofdstukken samen.

In de *inleiding* van dit boek wordt de onderzoeksfocus bepaald. De studie gaat over het meten en verbeteren van collectief en individueel functioneren in teams. We willen begrijpen hoe teams als geheel en hun leden als individuen functioneren in termen van WT / DZ, hoe teamleden dit functioneren kunnen meten, en hoe processen van verbetering door begeleider en team kunnen worden bevorderd. Het resultaat van deze onderzoekingen moet een nieuwe methode voor teamontwikkeling zijn. De studie omvat het ontwerp, de fundering en het testen van de methode.

**Deel I** bereidt in principe het ontwerp van de methode inclusief meetinstrumenten voor, door WT / DZ over te zetten van individueel naar groeps niveau.

*Hoofdstuk 1* gaat over het meten van collectief en individueel functioneren: het verkent de brede theorievorming met betrekking tot collectief en individueel functioneren en bepaalt wat het beste gemeten zou moeten worden. Vooral het werk van Karl Weick blijkt ons te helpen bij het uitbreiden van het WT / DZ begrippenkader naar het collectieve niveau. Weick's visie op betekenisgeving als de manier waarop collectieven hun wereld organiseren doet denken aan Hermans' visie op betekenisgeving als de manier waarop individuen structuur aan hun wereld geven. Weick, tezamen met enkele andere auteurs, verschaffen ons enkele proposities van collectief functioneren die in essentie beschrijven wat er gebeurt in collectieven zoals teams wanneer deze in hun eigen wereld functioneren. De proposities (b.v. ‘niet zozeer mensen als wel gedragingen bepalen een groep’) dienen als een basis voor de conceptuele uitbreiding van WT / DZ naar het collectieve niveau. Het nieuw ontwikkelde conceptuele kader bevat de begrippen collectief waardegebied, collectief affect, collectieve stem en systeemdiagram.

*Hoofdstuk 2* gaat over het verbeteren van collectief en individueel functioneren: het verkent welke weg we het beste kunnen gaan om verbetering dichterbij te brengen. Er wordt een theoretische basis gegeven voor interventies die op verbetering gericht zijn: het werk van veel verschillende auteurs helpt ons hierbij. Hun visie op respectievelijk teameffectiviteit, het reorganiseren van de gezamenlijke ervaring, de deviante stem als een kracht achter verandering en verbetering, dialoog als een manier om deviante stemmen in het proces van betekenisgeving in het team te betrekken en hen dit proces te laten verrijken, de rol van machtsverschillen in de teamdialoog en de mogelijkheid van verbetering door het team zelf, verschaffen ons proposities van collectief functioneren die in essentie beschrijven wat er gebeurt in collectieven zoals teams wanneer deze bezig zijn met het verbeteren van hun functioneren. De proposities (b.v. ‘deviantie lokt ontwikkeling uit, dialoog nodigt deviantie uit om een constructieve bijdrage te leveren’) dienen als een basis voor de conceptuele uitbreiding van WT / DZ naar het collectieve niveau. Het nieuw ontwikkelde conceptuele kader bevat de begrippen deviante stem, patroondoorbreking, dialoog en reorganisatie van het collectief waarderingssysteem.

*Hoofdstuk 3* gaat over het uitvoeren van een gezamenlijk onderzoek. We presenteren een visie die verwant is aan WT en DZ. De visie houdt een speciale manier van kijken in naar de relatie tussen wetenschapper, praktijkbeoefenaar en cliënt bij het uitvoeren van onderzoek en betekent in de eerste plaats een actieve rol voor het team in een onderzoek. Cliënten (teamleden), praktijkbeoefenaaren (begeleiders) en wetenschappers (academisch onderzoekers) hebben elk een verschillende manier om fenomenen te duiden die zij tegenkomen als ze
onderzoek doen; voor de productie van onderzoeksresultaten met betekenis voor elk van de drie is het nodig dat ze systematisch samenwerken. We stellen dat teamleden geen studieobjecten zijn van de psycholoog maar actieve betekenisgevers, en als zodanig ook actieve onderzoekers. Degenen die de TKM ontwikkelen en ter beschikking stellen zullen daarom moeten samenwerken met het cliënt team om ervoor te zorgen dat het onderzoek bevredigende resultaten oplevert. Op deze manier wordt de geest van de ZKM overgenomen, in de zin dat wordt verondersteld dat een gedeelde verbintenis met en verantwoordelijkheid voor betekenisvolle resultaten ligt bij de cliënt (team), de praktijkbeoefenaar (begeleider) en de wetenschapper. En om een methode te maken die een actieve rol van het team mogelijk maakt moeten wetenschapper en praktijkbeoefenaar intensief samenwerken. De wetenschapper brengt theoretische kennis in het ontwerpproces in die leidt tot het benodigde begrippenka- der; de praktijkbeoefenaar brengt de praktische kennis van teambegeleiding in die benodigd is voor het ontwerp van de methode als een interventiemiddel.

**Deel II** laat zien hoe de methode is ontworpen en empirisch gevalideerd.

_Hoofdstuk 4_ doet verslag van de opzet van ons ontwerp; we bepalen de functies van de methode, sommen de ermee samenhangende ontwerpvariabelen op, en maken de ontwerpkeuzes die leiden tot de uiteindelijke opzet van de methode. Het ontwerp wordt in grote lijnen gepresenteerd, maar ook in meer detail middels een opsomming van de belangrijkste ontwerpkeuzes. Het ontwerpproces dat leidde tot dit resultaat is geïnspireerd op de ontwerpmethodologie. De geplande functie van de methode is hierin leidend. Onze methode moet een instrument zijn voor het meten en verbeteren van collectief en individueel functioneren in teams, kortweg een instrument voor collectief leren. Deze functie kan worden uitgesplitst. Gekoppeld aan de subfuncties ‘inzicht vergroten’, ‘verbetering bewerkstelligen’ en ‘het onderzoekproces in het team bevorderen’ sommen we de bijbehorende ontwerpkeuzes, ontwerpvariabelen en ontwerpkeuzes voor de TKM op. Zo krijgt het protocol van de methode vorm.

_Hoofdstuk 5_ biedt de ontwikkeling en validatie van de maten voor collectief waardegebied, collectief affect en collectieve stem. Onderzoek is uitgevoerd om rekenschap te geven van de constructvaliditeit van deze begrippen en om de meetinstrumenten (vragenlijsten) te ontwikkelen; relevante kwantitatieve en kwalitatieve gegevens worden in casestudies gepresenteerd. Zo demonstreren we de empirische aanwezigheid en verandering van de fenomenen die door onze nieuwe begrippen worden aangeduid. Uit deze demonstratie leiden we de meetinstrumenten af die moeten worden gebruikt in de TKM. Voor het meten van collectieve waardegebieden is de ‘wij-zin’ als maat ontwikkeld. Voor het meten van collectief affect zijn dat de ‘gemiddelde r(i)’ en de ‘gemiddelde r(g)’ en de ‘euclidische afstand’ de maten voor respectievelijk prominantie en interne consistentie van een stem. Al deze maten blijken voldoende constructvaliditeit te bezitten.

_Hoofdstuk 6_ introduceert de onderzoeksvragen die leidend zijn in de casestudies van de hoofdstukken 7 tot en met 10. Met deze vragen willen we een functionele validatie mogelijk maken van onze nieuw ontwikkelde methode: deze is functioneel valide wanneer ze functioneert volgens plan. Vijf leidende vragen worden geformuleerd: (1) Kan collectief leren met de ontworpen methode worden gedemonstreerd? (2) Kan de ontworpen methode teamleden helpen bij het vinden van contra-intuïtieve of ‘onverwachte’ attributen van de teamsa-
menwerking? (3) Kan een team verandering bewerkstelligen door gebruik te maken van een deviante stem als hefboom? (4) Kunnen we belangrijke gebeurtenissen in het veranderingsproces benoemen die blijk geven van de werkzaamheid van deviante stemmen binnen het team op de gewenste wijze? En (5) Kunnen conflicten worden opgelost door de ontworpen methoded te volgen? Ook worden in deze casestudies de belangrijkste ontwerpkeuzes (gevat in functionele proposities) getest.

De casestudies laten onder andere zien: hoe een zekere gemeenschappelijkheid in ervaring (gemeten met de maat voor collectief affect) de teamontwikkeling blokkeert en hoe de methode een doorbraak stimuleert middels het wakker maken van een deviante stem (hoofdstuk 7); hoe een deviante stem verbetering bevordert (hoofdstuk 8); welke belangrijke gebeurtenissen verbetering bewerkstelligen en hoe de hefboom/deviante stem helpt patronen te doorbreken (hoofdstuk 9); en hoe verschillende conflictstadia in een team worden benaderd met de methode (hoofdstuk 10).

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De case van hoofdstuk 7 handelt over de eerste twee onderzoeksvragen: ‘Kan collectief leren met de ontworpen methode worden gedemonstreerd?’ En ‘Kan de ontworpen methode teamleden helpen bij het vinden van contra-intuitieve of ‘onverwachte’ attributen van de teamsamenwerking?’ De case van een management team in een fabriek laat integraal zien, d.w.z. van het begin tot het einde, hoe de TKM wordt toegepast in een concrete teamsituatie. Ze laat zien hoe het inzicht van teamleden in hun onderlinge samenwerking toenam, en hoe hun collectieve gedrag minder problematisch werd en meer ging passen bij de dingen die nodig waren in de organisatie. De case laat verder zien hoe en in welke mate een onderzoekende houding onder teamleden werd bewerkstelligd. Onderzoek door hen van de discrepantie tussen collectief en individueel gevoel, zoals die bleek uit de meetresultaten, hielp hen om erachter te komen dat ze samen hun eigen teamontwikkeling blokkeerden. Ze schematiseerden de manier waarop ze dit deden in een systeemdiagram.

De case van hoofdstuk 8 handelt over de derde onderzoeksvraag: ‘Kan een team verandering bewerkstelligen door gebruik te maken van een deviante stem als hefboom?’ Het team van loopbaanconsulenten bracht haar samenwerkingspatronen in kaart met behulp van de TKM; na enkele maanden rapporteerden zij verandering ondanks het feit dat ze niet expliciet hadden geëxperimenteerd met innovatief, patroondoorbrekend gedrag. Het is aannemelijk dat het bewust benoemen van potentieel productieve deviante stemmen in de groepsdialoog voldoende was geweest.

De case van hoofdstuk 9 concentreert zich op de vierde onderzoeksvraag: ‘Kunnen we belangrijke gebeurtenissen in het veranderingsproces benoemen die blijk geven van de werkzaamheid van deviante stemmen binnen het team op de gewenste wijze?’ Het team van een zorginstelling deed een diepgaand onderzoek naar de patronen van onderlinge samenwerking, niet alleen met de TKM maar ook door hierna het instrument van de leergeschiedenis te gebruiken. Dit instrument werd ook gebruikt om het veranderingsproces (ofwel het zogenaamde invalidatie/validatie traject) op de voet te volgen na het eerste teamonderzoek (de eerste drie sessies in het TKM protocol, zie ook Figuur 4.1). De resultaten verrijken ons beeld van het veranderingsproces dat anders vrij impliciet zou zijn gebleven, omdat de TKM in feite het constateren van veranderingen slechts achteraf laat plaatsvinden.
Samenvatting

Tenslotte handelen de drie cases van hoofdstuk 10 over de vijfde onderzoeksvraag: ‘Kunnen conflicten worden opgelost door de ontworpen methode te volgen?’ De drie cases gaan ieder over een ander conflictstadium: (1) Het team van bank managers ervoer een broeiend conflict. Met de TKM waren de verwachtingen hooggespannen om op productieve wijze aanwezige verschillen in het team te benutten. Desondanks werden deze verschillen negatief geduid en een conflict begon zich af te tekenen. Toen het conflict expliciet aan de orde werd gesteld kon het vervolgens worden geneutraliseerd, waarna de aanvankelijke intenties om patronen te gaan doorbreken in principe toch geëffectueerd konden worden. (2) Het eerste team van docenten ervoer een warm conflict. De TKM werd gebruikt om de situatie vanuit een neutrale positie te verhelderen, teneinde enkele hefboomstemmen voor te stellen die voor een oplossing zouden kunnen zorgen. Dit werd samen met de teamleden gedaan, ondanks hun aanvankelijk ongeduld. Verbetering werd bestendigd met extra interventies na het eerste teamonderzoek. (3) Het tweede team van docenten zat min of meer vast in een koud conflict. De TKM werd toegepast om samenwerkingspatronen te benoemen die illustratief waren voor het conflict en tegelijkertijd een opening voor verandering konden bieden. De case laat zien dat het nodig was om andere dan de ontworpen interventies te doen om een oplossing voor de problemen in het team mogelijk te maken. Deze afwijkende interventies moesten worden gedaan gedurende de sessies die eigenlijk bedoeld waren voor de uitvoering van het TKM protocol.

Hoofdstuk 11 biedt een discussie van de bevindingen over de zes case studies heen: we komen met algemene conclusies over de functionele validiteit van de methode, gaan in op enkele mogelijke tekortkomingen ervan, en beoordelen de waarde van het gerapporteerde onderzoekswerk. Voor wat betreft de functionele validiteit van de methode, vonden we een bewijs van collectief leren in alle casestudies die we uitvoerden: een toegenomen inzicht onder teamleden in de eigenschappen van de onderlinge samenwerking (men maakte betekenisvolle systeemdigrammen), en een verbetering van collectief zowel als individueel functioneren in het team (zoals bleek uit de meetgegevens en de evaluaties van teamleden). De vijf onderzoeksvragen die werden geïntroduceerd in hoofdstuk 6 konden alle positief worden beantwoord en de meest belangrijke functionele proposities van de methode konden worden geaccepteerd. Kortom, de methode bewijst effectief te zijn. Voor wat betreft de tekortkomingen vonden we enkele leemtes in de praktische bruikbaarheid van de methode. Zo kan in zekere omstandigheden de complexiteit van de meetgegevens zo verwarrend zijn voor de gebruikers dat het leren en het produceren van nieuwe betekenissen, in ieder geval tijdelijk, wordt gehinderd. Ook het invalidatie/validatie traject na het eerste teamonderzoek (de eerste drie sessies in het TKM protocol) dat zou moeten leiden tot een gerealiseerde verbetering bleek soms nog onvoldoende gestructureerd. We geven aanwijzingen om deze problemen op te lossen; zo wordt het ontwerp van de methode verder verbeterd. Vervolgens wordt de waarde van het onderzoekswerk beoordeeld: we reflecteren over de kwaliteit ervan door potentiële kritiekpunten te weerleggen. We besluiten met suggesties voor verder onderzoek.

De studie is voorzien van appendices: hier treft men informatie aan over bestaande andere methoden voor teamontwikkeling, een gedetailleerd overzicht van het TKM protocol, de in de methode gebruikte vragenlijsten en aanwijzingen voor de TKM begeleider.
Current methods in the field of team development

Teams can be stimulated to learn in several ways. They could be invited to collectively investigate their knowledge base, in order to find out what knowledge is available for the common good. They could be stimulated to co-create new approaches to face professional challenges. They could also be encouraged to analyse and change their mutual cooperation, so that they function better in their internal and external contacts. It is the last type of collective learning in teams that we address in this appendix. With the Team Confrontation Method (TCM), we want to invite team members to collectively learn about their cooperation, in order to foster their insight and motivation to improve it.

In the fields of management science and industrial/organisational psychology, a few designed team development methods are available. Apart from these methods, practitioners draw on a wide array of theories on team development and group dynamics for ad hoc design of interventions. In this paragraph, we introduce a few team development methods, so as to offer a measure for a TCM to be compared with; furthermore, we briefly discuss current sources that practitioners tend to use when working with questions posed by their client teams. The TCM should not be a mere theory from which practitioners derive ideas for their interventions. It should be a methodical, step-wise approach to team development, useable across different circumstances.

Methods for team development: a few examples

Team-building interventions are typically directed toward the areas of diagnosis, task accomplishments, team relationships, and team and organisation processes. Team-building sessions aim at improving the effectiveness of the team, through better management of task demands (e.g. by joint problem solving), relationship demands (by examining and improving interpersonal relationships) and group processes and culture. The facilitator often makes conceptual inputs (mini-lectures) or structures the situation so that a particular problem or process becomes the focus (French & Bell, 1999). In the words of William Dyer, team development in its best sense is

‘(...) creating the opportunity for people to come together to share their concerns, their ideas, and their experiences, and to begin to work together to solve their mutual problems and achieve common goals’
(Dyer, quoted by French & Bell, 1999, p.163).

Very often, the practitioner shapes his interventions non-methodically, eclectically, by combining different possible approaches to the problem at hand. But he can also make use of approaches that are methodical. Such integral methods offer a higher consistency in the
choice of interventions, founded in a common theoretical ground. The methods vary in the
degree in which they prescribe in detail the sequence and character of interventions. Some
methods only offer a conceptual framework, together with hints for interventions; some offer
a detailed overview of steps to be made in order to stimulate team development in the
desired direction. Every now and then a new method appears, but in general the number of
available integral methods remains rather low. In this section we will briefly mention a few of
such methods, which seem interesting as a frame of reference for a TCM.

1. The ‘Interaction Process Analysis’ (IPA), developed by Bales in the fifties (his most
recent integral treatment of it was published in Bales, 1970), is a well-developed
observational technique for group behaviour. Twelve different categories cover the
behaviours which occur in group interaction. With these categories, a sensible
description of the character of the interaction in the team can be given, and a focus
for change recommended. Observers who wish to use IPA should be trained inten-
sively in order to achieve an acceptable level of reliability. Later on, Bales developed
SYMLOG (Bales & Cohen, 1979), a modification of IPA in which the self-assessment
of the team members is central. SYMLOG offers a number of different methods for
the observation of the group interaction. The team members rate each other sepa-
rately, thus producing a self-made “fingerprint” of the group and an urge to change
it for the better. By using SYMLOG, team members become knowledgeable and
trained in critically assessing their mutual cooperation. IPA and SYMLOG are wide-
ly regarded by social psychologists as the most well-developed and dependable
methods to use, though there are also snags attached to them: they require rela-
tively intensive training of the assessors. Both methods are well discussed, and in
some more detail, by Pennington (2002).

2. The ‘Role Analysis Technique’ (RAT) is designed to clarify role expectations and
obligations of team members, in order to improve team effectiveness (French & Bell,
1999). Dayal & Thomas developed the RAT, which is particularly applicable to new
teams, but may also be of help in teams where team members experience role ambi-
guity. Role requirements are consensually determined to the common satisfaction of
all team members. In a structured series of steps, a team member defines and delin-
eates, in close conjunction with this fellow team members, the requirements for his
own role. Expectations are exchanged. French & Bell observe: ‘This intervention can
be a non-threatening activity with a high payoff. Often the mutual demands, expec-
tations, and obligations of interdependent team members have never been publicly
examined’ (French & Bell, 1999, p.167). This joint examination could lead to signifi-
cant shifts in the whole network of activities in the group.

3. ‘Process Consultation’ (PC), as an approach or method for intervention, focuses on
process events in a team and the role of the facilitator (a team leader or consult-
ant) in understanding these. Developed by Schein (1969, 1988), the method provides
a format and a frame of reference for the skilled facilitator. PC stimulates teams and
team members to learn about intrapersonal and interpersonal processes and to
learn solving problems that occur in these processes. Thus, the self-reliance of the
team is fostered by making team members aware of processes and their consequences. Teams will gradually become better in diagnosing their processes and intervening properly in them. The facilitator is seen as a resource for the group rather than an expert. Therefore, PC is a method with ample degrees of freedom and no prescriptions for a desirable outcome; its hints remain of a general character. The approach of Clarkson (1991) is rather similar; other methods or approaches that offer support for the facilitator are described by Schwarz (2002) and Leigh & Maynard (2002). Their methods are more eclectic.

4. Some methods, like the Gestalt method for team development, focus more than others on the emotional side of group functioning. That is to say, Gestalt therapy (Perls, Hefferline & Goodman, 1973) highly concentrates on the authenticity, awareness, integration, maturation, and self-regulation of individuals, and of individual team members. They are stimulated to experience more wholeness and less fragmentation in their functioning, so that a free flow of contact with oneself and others is fostered. Dialogue between opposites could provide insight into the way they are complementary. The Gestalt approach is more directed toward individual development than team development, though it can develop teams indirectly by helping individual team members to become stronger, more aware and wiser in coping with their social environment in the organisation. In such cases, it could be directly aimed at counteracting fragmentation in teams, integrating seemingly opposing contributions and interaction styles of team members, and fostering individual authenticity. Yet, in the average organisational setting the approach is often too therapeutic to the taste of team members and is therefore not used very often. A related intervention technique is the approach of Stock-Whitaker and Lieberman (1980), who primarily aim at removing anxieties connected with the so-called ‘central group conflict’, by developing open, “space-creating” solutions together with the team members.

In all of these four (clusters of) methods the lever for change and improvement lies somewhere different. In IPA and SYMLOG it is in the gaining of insight through the measurement of interactive behaviours that invokes an attitude toward change in the team members; in RAT it is the heightened intensity of the exchange of mutual expectations; in PC the lever for change is in the self-governed learning about the human and interpersonal processes taking place in the team; and in Gestalt it is an intensified awareness and learning on personal blockings and ways to resolve them that calls for change.

The methods and approaches mentioned here can serve as a measure for the TCM. The foundations of the TCM, the works of Hermans (e.g., Valuation Theory, SCM) and Weick, are characterised by an emphasis on meaning-making, dialogue, psychology and constructivism. It seems that a TCM would be classified somewhere between the methods presented here as Process Consulting (PC) and Gestalt. After all, Bales’s emphasis on behaviour as the essential variable for assessment is not shared by the SCM, where affect laden units of meaning are central in measurement, though the assessment typical for SYMLOG also counts for the SCM and a TCM. The method of RAT is too much focused on the task aspect of team
cooperation to be comparable to Hermans and Weick whatsoever. But the encouragement of self-governed learning about process by team members with the facilitator in an assisting role, typical for PC, reminds very much of one of the basic tenets of the TCM, namely that the investigators train themselves in reflection and dialogue. The emphasis of the SCM and TCM on the role of feelings and the importance of inner dialogue and wholeness to a healthy psychological functioning, is much alike those aspects of Gestalt therapy, though the SCM and TCM seem with their use of straightforward questionnaires more practical in opening up this emotional aspect and making it accessible for discussion. The TCM keeps a discussion on feelings practical, i.e. oriented toward change in the daily cooperation, while in Gestalt such practical change seems somewhat less important than the growth of the individual team member.

In sum, the ways of PC and Gestalt in provoking change and improvement are echoed by the TCM through an emphasis on self-governed learning about processes and a heightened awareness of the feelings involved in the daily work. The TCM combines its practical orientation with a training in self-reflection and mutual dialogue. It aims at giving the team members ownership of their investigation by encouraging them to take responsibility for improvement, instead of leaving this up to the expert facilitator, or team leader.

Other sources used by team building practitioners

Apart from the more or less integral methods that were mentioned above, available for systematic team learning about cooperation processes, there is also a rich literature providing practitioners with theories that serve as an inspiration for designing tailor-made interventions. With these interventions practitioners invite their client teams to learn about their cooperation, and they may do this very well, but the intervention schemes they produce are usually neither theoretically consistent nor integral, in the sense that they follow a prescribed path toward change. Because the way of working here is eclectic, it depends on the practitioner’s personal experience and creativity whether or not he will be capable of putting a programme together with sufficient effect on the collective functioning of a team. Methods like PC, SYMLOG, RAT or Gestalt are less dependent on practitioner variance, since they work with tried and tested intervention sequences and produce outcomes that are to a certain extent predictable, at least in the kind of change that is strived for. The advantage of working with integral methods for team learning over basing oneself on the personal artistry of practitioners therefore seems obvious. However, so as to make the standard of current approaches in the field more complete, we present here a few theories or conceptual frameworks that are frequently used by practitioners when they practice their art of teambuilding.

1. Very often, team roles are mapped with the use of questionnaires. The categorisation as proposed by Belbin (1996) is the most famous to date (for an elaboration, see Box 1). Team members are supposed to have a certain (in-born or learned) preference for just a few roles out of a range. In some teams, many members will share the same preference, so that the team will be out of balance and its composition not as it should be. In the ideal situation, a team should mirror a high diversity of preferences, so that it can face a great variety of challenges that are put to it; and
it should contain members with the type of preferences that are typically associat-
ed with the main function of the team. Insight into the characters that are appar-
ently put together in the team leads to questions as: ‘Now that we have these types
of people together in the group, what could happen to the team?’ and ‘How should
these different types of people work together?’ Such questions may then serve as a
starting point for further team analysis. Apart from a few general (though interest-
ing) remarks on group dynamic consequences, Belbin has not very much substan-
tial to offer here. But in teambuilding practice, the resulting sensemaking may be
very useful for a team that wants to make up its mind. One could say that the
analysis provided by Belbin is ‘group static’ rather than ‘group dynamic’. The same
counts for the team profiles provided by the Myers-Briggs Type Indicator (MBTI –
see e.g. Bridges, 2000), where questionnaires on general, personal preferences are
completed by team members and scores across individuals summed up into a team
score. The team's typical strengths and pitfalls can then be looked up in a book (e.g.,
Bridges) and the next question introduced: ‘what should we do now?’.

**BOX 1 BELBIN’S TEAM ROLES**

A format that is often used for the mapping of a team’s make-up is Belbin’s set of team roles. A team
consists of different people with their own preferences about work and the way it should be done. The
most effective team is considered to have a good mix of different team roles; teams consisting of the
same type of people are suspected to be less effective. With a questionnaire, each team member deter-
mines his preferred types of work, or tasks, and with that his apparent personal team role (or two or
three team roles). Ideally, the team members find out that their roles are complementary; if not, they are
invited by the facilitator to find out how they could become more, e.g. by a reshuffling of tasks, or simply
by showing more respect for the other’s preferences. The use of the questionnaire results together with
a discussion based on these results is a widely applied team development intervention.

The team roles are the following:
1. The chairman – coordinates, shapes the process, brings people and tasks together.
   Mature, confident. Can be seen as manipulative.
2. The shaper – organises, sets the objectives, thrives on pressure. Challenging.
   Liable to offend others.
3. The plant – fantasises, invents new approaches of the work.
   Creative, imaginative, unorthodox. Too preoccupied with own thoughts to communicate.
4. The group worker – tries to maintain a good atmosphere and solve conflicts.
   Considerate, co-operative and diplomatic. Indecisive in crunch situations.
5. The monitor – critises, sees all options, judges accurately.
   Serious minded, strategic, discerning. Has difficulty with inspiring others.
6. The implementer – applies the rules, takes practical steps and actions.
   Disciplined, reliable. Somewhat inflexible, slow to respond to new developments.
7. The resource investigator – explores opportunities and develops contacts.
   Extraverted, enthusiastic. Over-optimistic, can loose interest soon after dropping his ideas.
8. The caretaker – completes and delivers the work, searching out errors and omissions.
   Painstaking, conscientious. Inclined to worry. Reluctant to let others finish his task.
2. Equally often, phases of group development are used for making an interpretation of the team situation. This does provide for analysis of group dynamics, while leaving aside the individual differences in the team. In particular the four phase model of Tuckman (1965), containing the famous sequence ‘forming, storming, norming, performing (see also Homan, 2001), is widely applied. Tuckman’s theory essentially predicts that newly formed teams have different problems to address than teams that have been together for a longer time, and that these problems are typical. Practitioners who apply his way of thinking can interpret, together with team members, the current events in the perspective of this model. But the model could lead to over-simplifying analyses, since there seem to be only four main problems posed to a team. Situations that are group typical, i.e. uniquely valid for this team, can easily be overlooked. Yet, in teambuilding practice, sensible analyses could be made based on this theory, in order to improve the team cooperation. Other theories of group development, like that of Schutz (the so-called Inclusion-Control-Affect model, which is more cyclical than Tuckman’s linear model; see Homan, 2001), share the advantage of a focus on developmental patterns generally applicable to teams, and the disadvantage of overlooking patterns that may be there in the unique setting.

3. Less often used, but rather influential in providing a language for understanding what is important in team functioning, are the approaches of Hackman (1987) and Katzenbach & Smith (1993). These investigators set out to map the essential variables for team success. In Hackman’s case, it led to a sophisticated normative model of causal relationships between variables like ‘group norms enabling the group to regulate member behaviour’, ‘minimised process losses’, ‘sufficiency of effort applied to the group task’ and ‘sufficiency of knowledge and skill applied to the group task’ (Hackman, 1987). None of such variables should be overlooked, the authors claim. But the claim of universality could itself overlook the importance of contextual variables that would make the difference for improvement in a unique team situation. However, this family of theories also provides very useful general knowledge for the practitioner.

4. Finally we would like to mention a not yet frequently used approach which we consider to be very interesting due to its alternative stance. It is the chaos-theoretically inspired approach of Gersick (1988, 1991). She maintains that real team development should not be oriented toward convergence, but toward breaking convergence. There is no such thing as a final, mature stage of development. Patterns around which teams converge make them rigid; breaching these patterns lies at the core of team development. According to her research, patterns come into existence very soon after the first acts of working together, creating long-lasting precedents for the way teams arrange their work. Somewhere halfway into the team’s life-cycle, around the so-called ‘calendar-midpoint’, teams suddenly prove to be open to new views and perspectives, make new contacts with the surrounding environment, and change their way of working. After the revolutionary changes associated with this, the team maintains the newly required patterns until the end of its existence.
Gersick asserts that no fundamental, but only incremental change ('more of the same') takes place during the two long periods before and after calendar-midpoint; and that the revolutionary change calls for strong negative as well as positive emotions (like fear and optimism). These strong feelings are the catalysts for change, and urge team members to look for facts instead of beliefs, rumours or stories. It is only in this brief transition phase that the team is really learning. We think the emphasis of this approach on the importance for team development of breaching predominating patterns seems highly valuable for practitioners when planning their interventions.

Could these examples of the eclectic application of (parts of) a theory serve as a measure for the TCM? In other words, could some of the interventions, described here as current in the practice of teambuilding, be a standard for TCM-interventions? We think that some of it is useable for us. The listed sources have their value in the sense that they provide useful general knowledge on teams that can be of help when we as practitioners should recognise universal phenomena. The work of Belbin, with his typification of different team members, was in fact of use to the TCM. Belbin's categorisation covers a whole range of possible individual differences; if we want to have an estimate of the ways in which the voices of team members, making up the multivoicedness of the team, can differ, his team roles can offer a good start. Also Gersick's insight that the breaching of predominating patterns in teams is crucial for team development, can be a great help, since Hermans also uses a similar insight (though on the individual level) when he discusses changes in narrative plot and theme as crucial for individual change and improvement.

1 For this description, we owe a lot to Homan for his fine introduction to Gersick (Homan, 2001).
APPENDIX 2

Full Protocol (Design Choices)

Based on the TCM’s functions, many more design choices were made than those reported in chapter 4. In the Tables of this appendix, the full lists of design choices are given. Functions are divided into requirements that correspond with design variables on which a choice was to be made; the design choices are listed in the final column. The explanations following each of the Tables I, II and III may serve as a specification of the TCM protocol and could be used as a manual of the TCM.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Design variable</th>
<th>Design choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function: stimulating insight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Concepts are grounded on an integrated theoretical frame</td>
<td>Integral theory as fundament, providing conceptual framework</td>
<td>A combination of Hermans and (mainly) Weick</td>
</tr>
<tr>
<td>2. Concepts are measurable</td>
<td>Measurable concepts</td>
<td>Collective valuation, coll. affect, coll. voice / deviant voice</td>
</tr>
<tr>
<td>3. Measures are used in interventions</td>
<td>Sequence of steps of interventions with these measures for assessment</td>
<td>Chosen steps frame</td>
</tr>
<tr>
<td>4. Team members are active investigators</td>
<td>Way of inviting team members to take an investigative stance</td>
<td>By explicit introduction and asking the team members what they see as an investigative attitude</td>
</tr>
<tr>
<td>5. Team members understand the concepts</td>
<td>Understandable concepts</td>
<td>Collective valuation, coll. affect, coll. voice / deviant voice</td>
</tr>
<tr>
<td>6. Team members can use assessment tools</td>
<td>Useable assessment tools</td>
<td>Brief questionnaires Clear instructions Separate processing</td>
</tr>
<tr>
<td>7. Team members can interpret feedback from assessment</td>
<td>Way of stimulating the interpretation of assessment results</td>
<td>Presentation of assessment measures (affect hierarchy, mean r(g) / mean r(f)), voice ranking, voice diagram and having interpretative talks about these</td>
</tr>
<tr>
<td>8. Team members get overview in understandable, integrated whole (picture of the team cooperation)</td>
<td>Way of bringing interpretations of assessment feedback together in a meaningful whole</td>
<td>System diagram</td>
</tr>
</tbody>
</table>

1. Insight can only be generated when an appropriate language is used; such a language should name and relate different phenomena in a meaningful way. The language was provided by a set of theories that integrate concepts which are potentially meaningful for team cooperation: we chose for a combination of Hermans’s Valuation Theory (VT), his theory of the Dialogical Self (DS), and Weick’s theory of sensemaking in organisations. The combination of Hermans and Weick provides the TCM with concepts for collective functioning in teams (see next design choice). Moreover, Hermans’s SCM framework provides the TCM with typical sequences of intervention (see third design choice).

2. As measurable concepts we derived concepts from Hermans and a combination of other authors (see the first two chapters), being collective valuation, collective affect, collective and deviant voice. That these concepts are measurable was demonstrated in our chapter 5 on construct validation.

3. Hermans’s SCM framework provided us with a steps frame for intervention, namely the IVI-cycle (Investigation – Validation/invalidation – Investigation). In this cycle, a question leads the first investigation, giving focus to an assessment of the self-investigator’s situation, an interpretation of the assessment results; then a conclusion concerning the leading question is produced. Subsequently, the self-investigator’s story plot that represents tenacious patterns of functioning is changed (‘invalidated’) through attending (by giving attention to exceptions), creating (by experimenting with alterna-
tive meanings and acts) and anchoring (by repeating the newly found pattern-breaching behaviours). Finally, the second investigation assesses the changes, interprets the data and evaluates the progress made. For the TCM, we chose for the same principle: a sequence of a leading question, assessment, interpretation and conclusion (being the first investigation), followed by steps toward improvement. The central lever for this change is found in the deviant voice (see further at the listing of design choices made for the function 'stimulating improvement'). After a period of experimenting with new meanings and behaviours, the progress is evaluated through a brief second investigation. Working with this step frame has the advantage that phases of investigation and change experiments alternate.

4. As a way to invite team members to take an investigative stance, we chose the simple strategy of explicitly addressing the notions of autonomy and responsibility, meaning that the team members should not rely on the facilitator for drawing conclusions from the investigation, but instead rely on themselves. In order to stimulate the desired attitude, the team is asked right at the start what they think an investigative attitude obeys to: then the team members take responsibility for their own attitude by setting their own rules. This is better than when the facilitator would set the rules.

5. The concepts of collective valuation, collective affect, collective and deviant voice were proven understandable by the designers, provided that these concepts were introduced and clarified by the facilitator to the team members when they entered their investigation. Thus, the choice for understandable concepts and the choice for measurable concepts (see second design choice) converge.

6. To have usable assessment tools at our disposal, we chose for the principle of making the questionnaires, meant for collecting data on collective valuations, collective affects and collective and deviant voices in a team, brief and easy to fill in. This means that for completion a respondent should need less than half an hour, and that the instruction on top of the questionnaire should be unambiguous. The used questionnaires are presented in Appendix 3. The use of assessment tools by team members will in the future be facilitated by a separate processing path with web-based information technology. Computers (and not the team members themselves) make the calculations that produce the outcomes that are ready for interpretation.

7. As a way of facilitating the interpretation of assessment results by the team members, we chose to present the data in relevant categories. Categories to be used are the occurrence of certain affects in relation to collective experiences (assessed with collective affect hierarchies in relation to collective valuations), the communality of experience (assessed with the measures of mean r(i) and mean r(g)), and the occurrence of certain voices in the team (assessed with voice rankings and voice diagrams). The meaning of these categories should be clarified when the data overviews are handed to the team (an explanation of the categories is provided in chapter 5).

8. As a way of bringing the team members' interpretations together in a meaningful whole, we chose the system diagram that describes sensible interrelations between phenomena that take place in the team cooperation. The system diagram is clarified in chapter 1 (there also named 'cause map'). It provides an overview of patterns of cooperation in the team that is meaningful to the team members, first because it is compressed on one page and shows the relevant aspects at a single glance, and second because it is made by the team members themselves.
As levers for improvement we chose the concepts of lever deviant voice and pattern breaching. These concepts were introduced in chapter 2. A deviant voice in a team is a voice that is more or less present in all of the team members but is usually not made heard in the team's daily cooperation, and when it is heard, it is not taken seriously. Pattern breaching is stimulated when the deviant voice is included in the team's dialogue, i.e. when it is heard and taken seriously. Counterproductive patterns of cooperation can thus be changed into better cooperative patterns that fit in more satisfactorily with the team's environment. A lever deviant voice is a lever with potential psychological depth that helps people improving their collective functioning.

As a way of making understandable for team members how new behaviour can be validated, we chose to work with 'validating assignments'. Once the team members have decided which deviant voice should be taken as a lever for improvement, they determine when and how this voice should assert its influence on the team cooperation. The validating assignment helps the team to focus its attention, experiments and exercise (cf. the validation/invalidation phases of attending, creating and anchoring, see design choice I-3) on appropriate and feasible improvement. This means a concise and focussed description of when and how to make the deviant voice heard. The assignment is designed by the team members and facilitator in cooperation; the facilitator brings his knowledge on psychological aspects of change to it, the team its sense of feasibility, i.e. the estimation of an assignment being challenging, but not too much. Expectedly, this procedure is to be prevailed over the imposition of an assignment by the facilitator on the team, since it would take away the team's responsibility of change and improvement.

The change measures we chose for our design are the same as the measures for assessing the current situation in the team (for these see design choices I-2 and I-7). It concerns the collective affect hierarchies in relation to collective valuations, the communality of experience measures mean r(l) and mean r(g), and the multivoicedness measures voice ranking and voice diagram. Improvement is measured by comparing the first investigation scores on these measures with those of the second. E.g., the deviant can be expected to have changed into a more collective voice when the pattern breaching in team cooperation has been more or less successful. Or, positive affects will have increased and negative affects decreased after a successful improvement trajectory.

As a way to make this conceptual frame for evaluation of the team development process useable by the team members themselves, we chose for an explanation by the facilitator of the assessment results and their possible interpretation by suggesting different alternatives of what the data could mean. We
estimated that this works better than handing the scores to the team without any explanation; in that case the team members would have to find their way through a statistical jungle (in their perception) and have no time (or patience) left for interpreting the results of their queries. It is of central importance that the facilitator does some preparative work and lists some different hypotheses about the possible meanings of a data set; this of course as long as he does not dictate to the team what the data should mean.

5. As a way of stimulating dialogue in the team, we chose for the principle of explicit emphasis on the importance of dialogue and a corresponding investigative attitude right from the start, and repeatedly re-emphasising it during the process of investigation. Dialogue is important for giving improvement a chance, especially because in our frame of reference the lever for improvement lies in the inclusion of deviant voices in the team's dialogue. Therefore, dialogue is as much valid for stimulating insight as for stimulating improvement. There is some overlap between this design choice and design choice I-4. Without emphasis on its necessity by the facilitator, a dialogue with investigative properties would probably not take place in the average team. Instead, the team would engage in discussions on operational issues, i.e. in single loop learning instead of double loop learning.

6. As a way of stimulating the dialogue skills of team members, we chose for the principle of adding focussed exercises on conducting a dialogue somewhere during the TCM process, either during the first investigation or during the invalidation/validation phase. If team members are capable of conducting a good dialogue, the quality of their collective learning will probably rise in the long term. Because the TCM is a tool for collective learning, it offers a very good opportunity for team members to practice the principles of dialogue and learn them for occasions later on, when the TCM process is long over. If exercises on dialogue skills were not included in the TCM programme, this meta-level objective would not be realised.
### APPENDIX 2 - Full Protocol (Design Choices)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Design variable</th>
<th>Design choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>III Function: promoting the process of investigation in the team, fitting the current group dynamics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Teams are not too small, and not too big</td>
<td>Minimum and maximum size of team</td>
<td>Min. 3, max. 15</td>
</tr>
<tr>
<td>2. Total time taken is sufficient, and not too much</td>
<td>Number and length of meetings</td>
<td>5 meetings of 6 day sections, e.g. 1+2+2+0.5+0.5</td>
</tr>
<tr>
<td>3. Team members are prepared for the process</td>
<td>Type of intake</td>
<td>Individual or group intake, or none</td>
</tr>
<tr>
<td>4. Team members are invited to focus their joint investigation</td>
<td>Way of focussing the investigation</td>
<td>Question of inquiry</td>
</tr>
<tr>
<td>5. Team members are invited to make meaningful valuations, illustrative of the actual situation in the team</td>
<td>Way of determining valuations</td>
<td>Sociogram</td>
</tr>
<tr>
<td></td>
<td>Amount of valuations needed</td>
<td>Assessment of 3 coll. and 2 dev. valuations, appointed through vote</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Min. 3, max. 7</td>
</tr>
<tr>
<td>6. Team members are invited to complete and hand in questionnaires</td>
<td>Lay out of questionnaires</td>
<td>Simple lay out, not too many cells to fill out, unambiguous instruction</td>
</tr>
<tr>
<td></td>
<td>Way of completing questionnaire</td>
<td>In classroom [not at home]</td>
</tr>
<tr>
<td>7. Team members are invited to jointly name potentially collective voices</td>
<td>Way of determining collective voices</td>
<td>By the team in free manner</td>
</tr>
<tr>
<td>8. Team members are invited to name potentially deviant voices</td>
<td>Way of determining deviant voices</td>
<td>By feedback session (if team &gt; 5 members, then parallel feedback sessions)</td>
</tr>
<tr>
<td>9. Team members can place interpretations of assessments in a system diagram</td>
<td>Way of building system diagrams</td>
<td>By team members through special procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Through accumulated theme variables based upon conclusions from interpretation of data</td>
</tr>
<tr>
<td>10. Team members can decide which deviant voice will be the most proper lever</td>
<td>Way of determining lever deviant voice</td>
<td>By team members themselves through placing of voices in system diagram, with aid of facilitator</td>
</tr>
<tr>
<td>11. Team members can evaluate by assessment and interpretation of change</td>
<td>Way of organising the evaluation</td>
<td>In two sessions (4 hrs: assessment of new situation; 1.5 hrs: interpretation of assessment data)</td>
</tr>
</tbody>
</table>

1. As a minimum size of a team suitable for using the TCM we chose the amount of 3 members, as a maximum we chose 15. Of course, this choice is somewhat arbitrary. Also a duo can be called a group or team, and groups of over 15 can be as well. However, we chose not to include the duo in the range of possible sizes, for a duo has other dynamics than a group and moreover, is usually not seen as a team in the ordinary sense. And we did not choose groups over 15 because such groups tend to be slow (also in their own perception). Most groups do not work up enough enthusiasm and patience when on the average there is only little speech time available for each of the members.

2. As a proper number and length of the meetings, we chose the amount of 4 or 5 separate meetings with a total taken time of 3 days. Of course, the time spent could be more and could be less. We think that less time spent would harm the quality of the investigation, since there would be not enough time for careful collection and interpretation of data. More time spent would make the process too slow in the eyes of the team. Subsequently, the emphasis lies on collecting data on valuations and affect (1st meeting, half a day), interpreting these data and collecting data on voices (2nd meeting, 1 day), interpreting the data, making a system diagram and determining which deviant voices should serve as a lever for improvement (3rd meeting, 1 day), and evaluating the change/improvement phase after some time (4th and 5th meeting, each time two hours). Each interval between two meetings allows for the statistical processing of questionnaire data with the computer; this is strictly necessary for being able to feedback potentially meaningful data into the team. The processing is too complex to conduct during the meeting itself; moreover, this facilitator would not have the time.
to prepare for presenting the data to the team. The sequence of collecting valuations and affects first and voices later is not strictly necessary, though the designed exercise of collecting deviant voices (see design choice III-8) would probably not fit all groups who are in the beginning of the TCM process, since this exercise is rather intense and requires a certain amount of trust. Therefore, it is recommended to stick to the sequence as suggested above.

3. In order to prepare the team members for the TCM process, we chose the principle of offering them an intake meeting with the facilitator. This choice can be further broken down. The team members can be offered either an individual intake or a group intake, or no intake at all. Intakes have the advantage of preparing the participating team members for the process they are about to engage in, and even give them a chance to explicitly say yes or no to the project. An intake moreover gives the facilitator a better idea of what situation he is facing, and could generate potential input for data collection (e.g., he could start with collecting potential valuations from the team members which he could later on during the TCM process, anonymised, suggest to the team). The intake takes place before the first meeting and should contain elements of acquaintance (between team members and facilitator) and introduction (of the method and what is expected of the participating team member), and be directed at building trust and a sense of safety at the side of the team members. However, we consider an intake as desirable, but not strictly necessary. If no intake meeting takes place, then the acquaintance and introduction can and will be done quickly and relatively implicitly when starting off the investigation in the team, and though the risk of misunderstandings may be somewhat higher, also the half an hour of introducing the method could suffice. This means that even if no intake takes place, the team could be quickly taken along by the facilitator, provided that he is able to make a good connection with the team.

4. As a way of focussing the investigation, we copied the principle of the ‘leading question’ from the SCM. We chose for the specification of a ‘question of inquiry’ by the team, which should help focus its investigations. For instance, when the question of inquiry is concerned with the topic of the work-life balance, valuations about how the team members are inclined to direct their sales activities are probably a bit off the track and should not be collected. Besides a lens for the investigation, a question of inquiry is also the impetus for finding an answer, to be formulated at the end of the first investigation, when the improvement phase begins. ‘This is how we could cope with it’, the team members will say, and this enthusiasm can be a stimulus for the change and improvement of collective functioning.

5. a) As a way of determining valuations, we chose to work with a sociogram. This sociogram is produced through the input of a questionnaire where team members are asked to estimate their distance to other team members (see Appendix 3). The proximity ratings are then processed with the ALSCAL programme for MultiDimensional Scaling (MDS), available in SPSS. This leads to an output graph that plots an optimal solution for relative distances between team members; in this plot different subgroups can usually be distinguished (the plot is an approximation of the real situation and will therefore be checked for its representativeness with the team members). We expect that the subgroups found (with a relatively high mutual proximity) are able to formulate a common valuation quicker than the whole plenary group, especially if the team consists of more than say five members. By asking the found subgroups to sit together and produce valuations (see below, b), the process is speeded up and will probably show more divergent valuations as an output. Splitting up a plenary group is a tried trick of the trade among management trainers and team developers for the stimulation of a group’s dynamics. Team members get significantly more speech time in a small group than the plenary group. However, it is not strictly necessary to produce valuations through subgroups, especially when the team is small (five or less members).

b) As a way of formulating the valuations, we choose for an amount of 3 (presumed) collective valuations and 2 (presumed) deviant valuations. Thus, the team members are sent away in the subgroups with the assignment: ‘Tell each other which events were significant in respect of the theme indicated by the question of inquiry. Formulate then, on the basis of your stories, three collective and two deviant valuations. These are sentences that describe a key event in terms of “We in a certain situation”’. Of course, we explain to the team members what could be a collective and what a deviant val-
After approximately half an hour the team members return to the plenary room and present their valuations. They share the thoughts and insights, feelings and meanings they experience in the depicted valuations, and then choose for further investigation 3 valuations that they expect to represent a communal experience (collective valuations), and 2 valuations they expect to describe an experience that is more 'off the track', or typical for just a few of the team members (deviant valuations). This final selection is made through voting, e.g. each team member gets the right of appointing three different votes to three of the different valuations that are listed, collective valuations and deviant valuations subsequently. The valuations with the most votes are selected for scoring with the assessment instrument.

c] For the amount of valuations needed we chose a range between 3 (minimum) and 7 (maximum), excluding the standard sentences ‘General Experience’ (‘how do you feel in general at your work in the team recently?’) and ‘Ideal Experience’ (‘how would you like to feel at your work in the team?’). A lower number of valuations is (in the end) probably incomplete for drawing conclusions about the quality of cooperation in the team; a higher number leads to a bulk of data that is too large to digest and hinders a meaningful interpretation. The optimum range of 3 to 7 (or rather, 5 to 9) will induce a lot of potentially meaningful interpretations.

6. a) In order to provide the team members with useable questionnaires which could be easily completed, we chose for a simple lay-out with an unambiguous instruction and not too many cells to fill in (see Appendix 3). Thus, the team members could quickly complete the form and hand it to the facilitator. An estimated time of 20-30 minutes should be devoted to the completion of the questionnaires, since the team members are expected to indicate (i)-feelings (‘what do I feel myself’) as well as (g)-feelings (‘what do I think the group feels’), meaning that they have to fill out two times 7 valuations on the average, with 24 feelings each, i.e. 14 times 24 = 336 cells. The fact that we used the 24-affect list can be explained by the necessity of having a tried and tested questionnaire at our disposal throughout the whole research project. Other affect lists are available but relatively new. We stayed systematically with the 24 list in order to be able to make comparisons across cases. However, it is perfectly imaginable that a TCM investigation would work with one of the other lists that are available among SCM-practitioners.

b) We chose to have the questionnaires completed in the plenary room where the team session is held, with all team members present and waiting for each other to finish. This is for two reasons: first, because it makes a needed oral clarification of the instruction by the facilitator possible, and second because one can be sure of a 100% response rate. As a matter of experience, team members who bring their questionnaire home are inclined to take a lot of time for or even forget the completion of it, even when they are explicitly asked to send it back quickly. For the processing of data with the computer it is very important that the facilitator need not wait for the last team member to send his figures in until just before the next team session. There is one disadvantage to this approach. Some team members really prefer to sit back in silence and fill out their forms; the process of completion in the team tends to be a bit noisy in their perception, especially towards the end of the half hour. The members who prefer silence are usually the ones who are slowest, so that they will be disturbed by this noise; the others tend to become impatient because it is the end of the day. This potential disadvantage can simply be avoided by addressing it in advance with the whole team, and together arrange for a good solution.

7. As a way of determining potentially collective voices, we chose for the following assignment for the team: ‘Make, together, in a way that you find most appropriate, a list of three to five collective voices that you tend to use together as a team in mutual interaction or in the interaction with the team’s environment’. After some extra clarification on what is understood by a collective voice and when team members are presumed to use it, team members tend to start producing a long list (mostly by brainstorming) and then cross out many options again, in order to arrive at a final selection of three to five voices. Because this process shows features of a decision making exercise, the facilitator can observe the team producing the selection and watch what patterns of cooperation are perhaps discernible by the outsider. This information could be fed back into the team later on, be it immediately or on another time proper. The voices are to be formulated in the format: ‘We as …’, e.g. ‘We as indeci-
sive' or 'We as creative'. In this example, the indecisive voice and the creative voice are taken as collective voices by the team members. Later in the TCM process, this will be checked through assessment, and then it may appear that presumed collective voices are not so collective as one thought them to be, meaning that the potentially collective voices can only prove to be deviant after measurement.

As a way of determining potentially deviant voices, we chose for the following assignment for the team. ‘You are about to name deviant voices that are used in the daily team work. Such deviant voices are usually not very audible, for they depart from the way that is generally considered as the ‘right’ way by the team, and they tend to be shy or isolated. Yet, his contributions can have positive potential, if used well. We now give you the assignment to find out, for each individual team member, what is his unique contribution to the team, either positive or negative, and what ‘deviant voice’ would correspond with it. Formulate for yourself what you find your most typical, or preferred “deviant voice”, and do the same for all the others in the team. Then give to one person for 15 minutes all of your attention by sharing what deviant voices would belong to him. At the end of this length of time, the person chooses a deviant voice that he finds best fitting and for which he would stand firm. Remember, a deviant voice can help a team out of trouble! Subsequently, do the same for the others in the group. Then finally produce on the flipchart a list of deviant voices as long as the amount of members in the team. The instruction for this exercise could be done differently, as long as there is an awareness in the team that a deviant voice represents something that should be used more by the team. This exercise tends to be intense (because of the element of confrontation) and positive (because team members tend to give each other positive feedback about something they never value, i.e. a deviant voice). The exercise should not be done in the first phases of the TCM process, since the sense of trust and safety necessary for it need some time to develop. It is our intention that after this exercise, deviant voices are regarded by the team members as something of value to the team, and that each of the team members has to offer something unexpected (that was formerly not valued). The list of deviant voices is included in the same column of voices where also the appointed collective voices are listed. The resulting questionnaire (see Appendix 3) assesses which of these voices should be regarded as relatively collective and which as relatively deviant, meaning that potentially deviant voices can only prove to be deviant after measurement. This measurement/assessment may produce some surprising results: expected collective voices show not to be so collective as one thought them to be, and some supposedly deviant voices show much more collectivity than expected. Moreover, it will show that a deviant voice is shared, formerly secretly but now manifestly, by many more of the team members than just one.

9 a) After interpretation of the assessment results (either the results of the valuation and affect assessment or the results of the voice assessment), the conclusions of the team about the collective and individual functioning are collected in so-called ‘apparently-sentences’. The word ‘apparently’ should indicate that the team members have found some meaning behind the veil of daily phenomena, e.g. ‘apparently we are bothered by time-pressure, but are we silent about that’, or ‘apparently we tend to focus on the negative when we discuss something’. These ‘apparently-sentences’ represent an underlying theme, like ‘time-pressure’, ‘being silent about time-pressure’, or ‘being negative’. It is these themes that could be interlinked meaningfully in a system diagram. In order to make them available for inclusion in a system diagram, we write the themes in one or a few words on a yellow post-it.

b) We chose the making of a system diagram to be done through the following procedure. After some 15 minutes of introduction into the essentials of system dynamics, patterns and positive and negative cause-effect relationships, the team members get the assignment to bring the themes (or ‘theme-variables’, whose values are after all flexible) step by step, and meaningfully, together in a system diagram that indicates feedback loops of chains of cause-effect relationships. These loops will then indicate what patterns of cooperation are predominant in the team. The team divides up in pairs. One takes position in front of a whiteboard, where all of the ‘theme post-its’ have been fixed to the edge. The first duo is then asked to link up two post-its by sticking them somewhere on the whiteboard and connect them with an arrow and a plus or a minus indicating the character of the cause-effect relationship. They are also to declare why they see this relationship between the two variables. The sec-
ond duo is then asked to take a new post-it and connect it with an arrow to one of the two themes that are already there. The third duo can either choose to take a new post-it and connect it to the others, or simply put an arrow between two post-its that are already on the board, etc. Slowly, a tangle of relationships emerges on the board, out of which a few feedback loops become discernable. When the team has made meaningful connections on the screen (usually after about half hour), these feedback loops are isolated and drawn on the flip chart, and are given special names. The loops are supposed to depict important patterns of cooperation in the team that may be hindering its performance and collective functioning.

10. Feedback loops are patterns of cooperation that happen on a daily basis in the team, and most probably the team members will acknowledge that, once they see it drawn on the flip chart. The question now is how to use the deviant voice as a lever for change, i.e. for breaching counterproductive patterns of cooperation. We chose to do this through the following procedure. We presume current loops to be associated with expectations or norms, and thus with collective voices in the team. The facilitator should ask (or hypothesise) which found collective voices could be connected to a certain feedback loop and why. This suggests at the same time where a deviant voice should come in to counterweight the collective voice. Both voices are to be ‘confronted’ with each other in dialogue: this will produce many new insights about what could be done in the team cooperation. As soon as this is done, the pattern of cooperation can be expected to start changing. We have not made an explicit design decision on whether the team members themselves or the facilitator should place collective and deviant voices in the drawn feedback loops. We think that it should be done by the team, but the facilitator should be allowed to take initiative as well, as long as he takes his proposal as an option, to be agreed to by the team members.

II. As a way of organising the evaluation, we chose to arrange for two evaluative sessions, the first having a length of about 2,5 hours, the second 1,5 hour. Here, the new situation is assessed some time after the first investigation, and after the period of experimenting with new behaviour. In the first of both meetings, the valuations are deleted or reformulated and its affective modalities reassessed. Also a reassessment of the voice list is done. A possible result is that essential formerly deviant voices have become more collective, or that certain negative experiences of the past have disappeared. In the second meeting, the results of the assessment are shared with the team members. As clients, they can now evaluate the completed TCM process. Of course, one could do without this evaluation and renounce a second investigation, but seeing the progress reflected in data can be very satisfactory and useful for the team members’ trust in themselves and their team.
APPENDIX 3

Questionnaires used in the TCM

1 – Affect list (i)

On the (i) list, team members indicate their individual affects in relation to a given valuation.

<table>
<thead>
<tr>
<th>Questionnaire “How do you feel in connection to a given valuation?&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ..........  Valuation nr: ........</td>
</tr>
<tr>
<td>Joy</td>
</tr>
<tr>
<td>Powerlessness</td>
</tr>
<tr>
<td>Self-esteem</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>Happiness</td>
</tr>
<tr>
<td>Strength</td>
</tr>
<tr>
<td>Shame</td>
</tr>
<tr>
<td>Enjoyment</td>
</tr>
<tr>
<td>Caring</td>
</tr>
<tr>
<td>Involvement</td>
</tr>
<tr>
<td>Self-alienation</td>
</tr>
<tr>
<td>Solidarity</td>
</tr>
<tr>
<td>Guilt</td>
</tr>
<tr>
<td>Self-confidence</td>
</tr>
<tr>
<td>Loneliness</td>
</tr>
<tr>
<td>Trust</td>
</tr>
<tr>
<td>Inferiority</td>
</tr>
<tr>
<td>Warmth</td>
</tr>
<tr>
<td>Security</td>
</tr>
<tr>
<td>Anger</td>
</tr>
<tr>
<td>Pride</td>
</tr>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Inner calm</td>
</tr>
<tr>
<td>Freedom</td>
</tr>
</tbody>
</table>

(Your data will be treated confidentially. In a feedback session, group means will be presented; in principle, those who want to share their personal results with other team members are offered the opportunity; they will however not requested in person to do so.)

Explanation – The questionnaires for the different valuations of the team’s valuation system can be combined on an excel sheet, where the rows each represent a particular valuation and the columns each represent one of the 24 different affects. (The list can also be used in the SCM and is there called the ‘24-list’.) The data are subsequently processed for estimating collective affect.
II – Affect list (g)

On the (g) list, team members estimate the affects as supposedly experienced by the group in relation to a given valuation.

**Questionnaire “How does the group feel in connection to a given valuation?”**

Name: ................
Valuation nr.: ........
Indicate in each cell to what extent you estimate that the group experiences the feeling concerned, when taking this valuation in mind.

<table>
<thead>
<tr>
<th>Joy</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powerlessness</td>
<td>4</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>3</td>
</tr>
<tr>
<td>(Etc.)</td>
<td>2</td>
</tr>
<tr>
<td>(Etc.)</td>
<td>1</td>
</tr>
<tr>
<td>Energy</td>
<td>0</td>
</tr>
<tr>
<td>Inner calm</td>
<td>0</td>
</tr>
<tr>
<td>Freedom</td>
<td>0</td>
</tr>
</tbody>
</table>

If the group experiences the feeling:
- Very strongly, you indicate 5
- Strongly, you indicate 4
- Quite strongly, you indicate 3
- Moderately, you indicate 2
- A little, you indicate 1
- Not at all, you indicate 0

(Your data will be treated confidently. In a feedback session, group means will be presented; in principle, those who want to share their personal results with other team members are offered the opportunity; they will however not requested in person to do so.)

**Explanation** – The questionnaires for the different valuations of the team’s valuation system can be combined on an excel sheet, where the rows each represent a particular valuation and the columns each represent one of the 24 different affects. The data are subsequently processed for estimating collective affect.

III: PPR-c

The Personal Position Repertoire questionnaire for collectives (PPR-c) measures a team’s multi-voicedness. It is a matrix with the rows containing the internal voices of the team members and the columns containing as external voices each of the team members. A team member fills in the matrix’s cells. Below, an example is given for a team with size 9. Larger teams need more columns, smaller less.
In the Figure right below, we represent the way the different team members combine their answers in a collective assessment.

Each respondent rates his colleagues (external positions/voices) for bringing forward his inner voices (internal positions/voices), which are across respondents the same. Thus, group level calculations can be made, such as comparisons of positions/voices across respondents - internal consistency with an euclidian distance measure, and prominence with summations of scores. Note that whenever a respondent coincides with an external position, we take as a score the standard rate of 10 in the entry, while the ratings in all the other entries are given by the respondents at values ranging from 0 ('not at all') till 9 ('very much').

APPENDIX 3 - Questionnaires used in the TCM

Questionnaire "Which colleagues bring forward a particular inner side of me"
Name: ................
Indicate in each cell of the matrix to what extent your internal voice in the row comes forward in contact with the colleague in the column.

When your internal voice comes forward:
very strongly, you indicate 8 or 9
strongly, you indicate 6 or 7
quite strongly, you indicate 5
moderately, you indicate 3 or 4
a little, you indicate 1 or 2
not at all, you indicate 0
(Do not fill in the cells of your own column)
### Explanation

The list of voices is to be completed after including the different collective and deviant voices that were named in the special sessions devoted to it during the second day / afternoon of the protocol. The team roles of Belbin can be included in the list of internal voices (see section 5.3 for an explanation why these roles are used in the questionnaire, and Box I of Appendix I where these team roles are further amplified), so as to be able to compare a team roughly with other teams. A written indication of what the roles mean can be attached.

### IV: Sociogram

The following questionnaire is used for determining the proximity between the members of a team, and generating insight into the existence of subgroups. The questionnaire collects information about this by asking the team members to rate the perceived proximity between themselves and all the other team members. The scores are processed with the ALSCAL programme in SPSS for Multi Dimensional Scaling (see also the appendix ‘Full protocol’, section III-5a.). As a result, a two-dimensional solution of the team’s make-up is produced.

With the aid of this 2d-graph, different subgroups can be asked to formulate valuations together. Thus, we may expect that a wider range of experiences are worded than by asking the team as a whole.

**Questionnaire “With whom in the team am I in contact?”**

Name: ..................

Indicate in each cell to what extent you estimate yourself to be in contact with the person concerned.

We measure the extent to which you are in contact with a colleague by asking you to indicate how often this person is in your thoughts when you think about the team.

**How often do you think about the person concerned when you think about the team?**

- **If the person, when you think about the team, is in your thoughts...**
  - **very often**, you indicate 8 or 9
  - **often**, you indicate 6 or 7
  - **quite often**, you indicate 5
  - **somewhat**, you indicate 3 or 4
  - **just a little**, you indicate 1 or 2
  - **not at all**, you indicate 0

*(Do not fill in your own cell!)*

<table>
<thead>
<tr>
<th></th>
<th>Adrienne</th>
<th>Bert</th>
<th>Eric</th>
<th>Johanna</th>
<th>John</th>
<th>Karl</th>
<th>Maria</th>
<th>Peter</th>
<th>Robert</th>
</tr>
</thead>
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</tbody>
</table>

(The scores that you indicate will be treated confidentially. In the feedback session, only group means will be presented; those who want to share some of the own scores will in principle be given the opportunity; no one will be requested to do so.)
Competences of the TCM facilitator

What should the TCM facilitator be capable of? The facilitator role is a complex one, and requires many competences. Covering both content and process at the same time is very difficult. Groups are notorious for digressing into irrelevant discussion, pushing through an agenda without finishing important issues, and failing to apply criteria in evaluating alternatives (Vennix, 1996). Often, such inhibitions are caused by patterns of interaction prevailing in the team that characterise the dynamics of the team system. The facilitator is an outsider, not overly affected by the team system's demands, who should be able to focus on the way things are said and done in groups in order to decrease the negative effects of inhibiting process characteristics. Thus, the facilitator's task is primarily to create favourable conditions which will positively affect the process and hence the outcome.

In line with this, Schwarz (2002) holds that the facilitator should be a third party (i.e., neither a part of the team nor its leader), a process expert and someone who can be substantively neutral. Vennix (1996) quotes Doyle and Straus when he emphasises that the facilitator is in principle always confronted with a group he hardly knows:

>'Since the role of facilitator is based on flexibility and accommodation to the needs of the group members, it would be hypocritical and impossible to lay out a step-by-step procedure comparable to ‘Robert’s Rules of Order’. Unlike the chairperson who can waltz to the regulated music of ‘Robert’s Rules of Order’, the facilitator has to do a combination of tap dance, shuffle, and tango to a syncopated rhythm produced by unpredictable humans’ (Doyle & Straus, quoted by Vennix, 1996, p.142)

It is precisely this need for flexibility and unpredictability of group processes that make the facilitation task so difficult.

Keeping this in mind, the control the facilitator has developed of the TCM protocol could make him unnecessarily strict in facing the irregularities of a group process. He should be able to maintain a balance between the delineated path of the method and the temporary needs of the team to leave it. This requires specific attitudes and skills. Vennix (1996) provides an extensive list that can serve as a basis for setting the competences of the TCM facilitator. He distinguishes between facilitation attitudes and facilitation skills.

1. Facilitation attitudes
   - A helping attitude (i.e., supporting others to get a job done, while staying out of taking over the others’ responsibilities);
   - Authenticity and integrity (i.e., avoiding facilitation ‘tricks’, impression management, power games, or manipulation, because these cause a lack of confidence and trust between team members);
APPENDIX 4 – Competences of the TCM facilitator

- An attitude of inquiry (i.e., asking questions, finding out what team members mean when they say things to each other, thus creating a possibility for people to explain their thoughts while at the same time scrutinising these thoughts; fostering a problem orientation and an attitude of inquiry within the team);
- Neutrality (i.e., refraining from voicing one’s own opinion; having an open mind and being investigative, even if one feels the inclination to take sides).

2. Facilitation skills
- Group process structuring skills (i.e., providing a structure for dividing time and attention, fostering an equal participation among team members, and preventing the team from becoming and remaining side tracked);
- Conflict handling skills (i.e., facing disagreements and making them productive, resolving persistent conflicts with mediation techniques);
- Communication skills (e.g., the presentation and discussion of complex matters; voicing defensive routines that prevail in the team; listening reflectively, i.e. making sure that not only oneself as a facilitator understands what is said, but also that the other team members do; making the communication as efficient as possible with respect to the goal of the discussion);
- Concentration skills (i.e., concentrating fully on the discussion: following it and simultaneously relating it to the followed protocol; in short, keeping the team on track);
- Team building skills (i.e., inviting people to voice their views, shaping a safe climate, keeping the team focused);
- Skills to build consensus and commitment (sometimes consensus and commitment are more important than the correct analysis and the optimal solution; take inputs seriously; if the facilitator succeeds in creating a situation in which everyone has the feeling that they had a fair chance to voice their opinion, consensus almost automatically materialises during the process);
- Intervention skills (e.g., Schein’s distinction between exploratory, diagnostic, action alternative and confrontive interventions; the confrontive intervention is the most difficult and dangerous, because its results can hardly be predicted, and should be used only when alternatives are expected to fail);
- Skills to handle types of cognitive tasks (e.g. Hackman’s distinction between the discussion of issues, the production of ideas, and the solving of problems in order to develop action strategies).
The reader will notice that the subsequent list of required competences of the TCM facilitator is a specification of the above list, geared toward our special case. The Team Confrontation Method is a method with some special characteristics: it is protocolled, it demands an investigative attitude, it explicitly promotes dialogue between the team’s differing voices, and it presupposes an investigative collaboration between facilitator and team and a corresponding division of roles and expertise. Moreover, it is grafted upon the Self Confrontation Method (SCM) for individual development: many SCM practitioners, coming from the very different field of personal coaching, will be interested to include the TCM into their practice. If these practitioners want to master the method, they should devote special attention to the specific tasks that face the team coach.

The facilitator should have the following competences, in order to use the method smoothly as much as correctly:

Knowledge of the TCM protocol and awareness of its possibilities and lacunae;
An ability to help the team (1) formulating a proper question of inquiry; (2) formulating collective and deviant valuations, and collective and deviant voices; (3) completing the questionnaires with the aid of oral explanation if necessary; (4) interpreting the assessment results; (5) formulating conclusions about the team cooperation in the format of an ‘evidently-sentence’; (6) producing a system diagram; (7) shaping the invalidation/validation trajectory with the aid of validation assignments and additional interventions; (8) and evaluating the team’s progress after this invalidation/validation trajectory has been terminated;
An ability to gear in to a group and its dynamics (coaching an individual is very different from coaching a team);
Awareness of power differences in the team and an ability to explicitly address them. Correspondingly, an awareness of the own power position as a team facilitator;
An ability to shape a climate where team members feel safe to voice their views;
Awareness of the own worldview and the way it can influence the reality in the group;
An investigative attitude and the ability to be a role model to the team with respect to this investigative attitude;
An ability to stick to the own particular investigator role: the facilitator conducts an investigation together with the team, at which the team brings expertise of its own experience to the investigation, while the facilitator brings expertise of the method (TCM protocol, its possibilities and lacunae), as well as expertise of team dynamics. The facilitator is able to leave final conclusions up to the team;
An ability to shape interventions that do not strictly belong to the TCM protocol, but that could help process promotion in the team if the protocol itself did not.
Peter Zomer was born on the 18th of October 1963, in Zutphen, the Netherlands. He completed his secondary education in 1982, after which he obtained an engineering degree in Land Development in 1986. In 1988, after his military service, he started a study in Psychology; in 1992, he graduated in the field of Industrial & Organisational Psychology. He worked the following years as a business consultant with Beteor in Eindhoven, and started as a management trainer in 1996 with Company Coaching in Eindhoven. In 2004, he switched to Associatie voor Coaching in Aarle-Rixtel and worked there only until the beginning of 2005, when he founded the management training and coaching firm Zomer & Cornelissen with his partner Petri Cornelissen.

Peter has been a practitioner of business education and coaching throughout his career. He is a trained SCM consultant® and uses this method for leadership coaching and career counselling. In cooperation with different institutions, he supervises professionals who want to get familiar with the training and coaching profession. Recently, he has begun teaching the TCM protocol to those practitioners who want to start using the method in their work. The curriculum is developed by the TCM Foundation, that he established with Rob Groeneveld and Willem Geraedts.

Peter currently lives in Eindhoven, with his wife Sanja, his daughter Anne and his son Milan.
The Team Confrontation Method
Design, grounding and testing

Peter Zomer