Chapter 7
Reflection and Reflective Behaviour in Work Teams

Thomas Schley and Marianne van Woerkom

Abstract Despite many routinised and rule-based workflows, there are often unique features and new experiences in the workplace. These deviations originate from exceptional cases or lasting changes. It is not until these experiences are reflected on that they lead to learning in terms of modified beliefs, mental models and knowledge. This need for reflection and reflective behaviour is of particular importance within work teams, and both require and benefit from the reflection skills of its participants. Starting with learning as problem-solving and the need for reflection, we will focus on the purpose of reflection to solve challenges (problems) and break-up routines. Afterwards, we discuss individual reflection and its connection to team reflection and team reflective behaviour because individual reflection is the basis of team reflection and benefits from it. Based on the discussion of the individual and team level, we look at the organisational level and focus on exemplary contextual settings and methods of reflection in team settings and their implementation in work settings. With this, we look at the connection between team reflection and organisational learning and offer a brief insight into the challenges and boundaries of reflection in teams. After showing the relations and difficulties of team learning and organisational learning, we conclude our chapter with the recognition that a comprehensive analysis of reflection has to consider the individual, social as well as the organisational perspective when it comes to team reflection.

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7.1 Introduction

In recent discussions, there has been a growing interest in reintegrating work and learning particularly because of the necessity of lifelong learning. Learning in the workplace occurs if one's own expertise does not extend further enough to fulfil a given task. Thus, this task becomes a problem that triggers reflection. A problem exists—according to research on problem-solving—if there are barriers that prevent getting from a present state to a desired goal state, so that one does not know exactly how to get there. Therefore, new behaviours have to be developed through thinking and reflection. A problem in this sense is not given a negative value as it is in colloquial usage. Problem-solving is just what we do, when we are not exactly sure what to do (Frensch & Funke, 1995). Problems are subjective, depending on individual expertise, prior knowledge, self-confidence and so on, so that most problems at work have to be recognised and solved reflectively (Dörner, 2002). We only tend to consult our "solution database" to find an answer to the problems we consider. "Our solution database contains all the standard answers and assumptions we have used in our past to solve our problems" (Raelin, 2002, 67). This means that we try to solve challenging situations using routines, heurism and algorithm and forms of rule-based knowledge (Dörner, 1996; Ellström, 2006; Gersick & Hackman, 1990). Additionally, we tend to ignore or misinterpret situations or try to avoid problems, for instance, by delegating them, and as a result miss out on learning opportunities (Dörner, 2002; Ellström, 2006; Van Woerkom, 2010). Furthermore, we do not recognise how current ways of operating may have become obsolete due to environmental changes, sometimes which might have been possible through us of reflections (Tjosvold, 1991). But the adherence to the established is a normal human tendency to draw, for example, on path dependencies, the force of habits, rituals, rules, mental models and routines. There is little willingness to question individual actions and assumptions at regular intervals (Busch, 2010; Dörner, 1994). On the one hand, this is the case because "society gives reflection and its counterpart—listening—short shrift" (Raelin, 2002, 66) and focuses more on actions at work because there is no time to think and also a tendency to avoid conflicts (ibid.). On the other hand, there is the adherence to the established, and it is quite natural to save resources by not asking oneself the same questions again and again (Dörner, 1994, 1996; Gersick & Hackman, 1990). Building up (mental) models and routines gives us safety in our orientation and behaviour, and it is much easier to act at ones current level of competencies (flow experience) or to hide in groups than think for oneself (ibid., Dörner, 1994; Reither, 1985; Sembill, 1999). Routine action is an important aspect not only for individuals but also for organised social systems like groups and organisations because routinisation helps to get a large amount of work done in less time (Gersick & Hackman, 1990).

Nevertheless, reflection and critical reflection are widely recognised as crucial elements in the (self-organised) learning and problem-solving processes of individuals, teams and organisations and thereby necessary for workplace learning and professional development. However, this is not so far backed by a consistent theory,

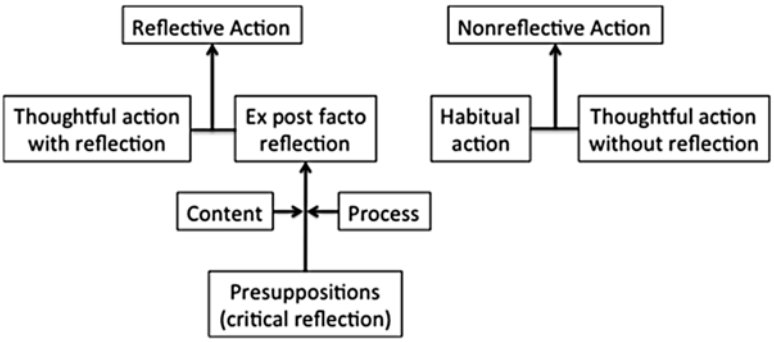

Fig. 7.1 Nonreflective and reflective action according to Mezirow (1990, 7)

and there remains a lack of empirical evidence to support these claims (Boud, Cressey, & Docherty, 2006, Dörner, 1979; Ellström, 2006; Gillen, 2007; Marsick, 1988; Schön, 1983; Sembill, 1992; Tisdale, 1998; Van Woerkom, 2003, 2010).

7.1.1 The Need for Reflection at Work

Despite the importance of reflection and problem-solving at work, most work processes still seem to consist of predominant routine and rule-based tasks that are not interpreted as problems and could be solved without great cognitive effort and reflection (cf. nonreflective action, Mezirow, 1990, see also Fig. 7.1). Reflection is only triggered if there is an instruction or the appearance of any failure within routines, for example, through errors, obviously and surprisingly changed conditions, questions and dissatisfaction, and these circumstances offer the possibility of solving the problem or breaking up routines and inducing workplace learning. Moreover, even in the most routinised tasks, there are unique variables worth reflecting on because some variables or the context could have been changed (Billett, 2006; Raelin, 2002; Schön, 1983/1999). So it seems valuable to take a break from a routine to make problematic unconscious aspects conscious and to look more at the differences between situations than the similarities (Boud, 2006; Raelin, 2002).

More important, in "professional contexts, people are paid to solve problems" (Jonassen, 2004, xxi) and are—up to a certain degree—responsible for their own professional development. We are frequently confronted with diversified problems in every condition of life, and these problems offer us a possibility to learn (i.e. deliberate practice) (ibid.).

Therefore, in the workplace, there are two ends of a continuum for professional actions: (nonreflective) routine actions with implicit learning taking place and problem-solving (thoughtful action with reflection) where conscious learning occurs (Rausch, 2011, 2012; Mezirow, 1990, see also Fig. 7.1). If a worker is faced

with something new, he is confronted with a problem (see above) and has to deal with it consciously and reflectively. Dealing often with that kind of problems leads to routinisation (Rausch, 2011, 2012) which is "adaptive learning" for Ellström (2006) and means that formerly conscious elements become unconscious (Dörner, 1994; Rausch, 2011, 2012). On the contrary, to break routines that might no longer be adequate, one has to reflect on them making former unconscious elements conscious (Rausch, 2011, 2012)—at least as far as possible because not everything is consciously accessible. That is what Ellström (2006) calls "development learning". Whilst there are implicit and incidental learning processes going on, "experience itself does not teach" (Tjosvold, 1991, 189). Implicit knowledge has to become conscious (as far as it is possible; cf. Eraut, 1998, 2000) to have the ability to use this knowledge consciously.

Despite the premise of the need and positive effects of reflection for workplace learning and problem-solving, it also has negative effects and can create (new) difficulties. If one sees, for example, one's own incompetence, reflection might lead to demotivation, inactivity and pessimism (cf. discussion about rumination and brooding, e.g. Trapnell & Campbell, 1999). There seems to be a need for an adequate balance between a required amount of reflection and other ways of learning and solving problems as well as reflection and action in the workplace, and therefore the questions regarding the necessary extent of reflection are not answered yet (Van Woerkom, 2010). "For an effective and productive performance, there needs to be a balance between routine and flexibility" (Van Woerkom, Nijhof, & Nieuwenhuis, 2003, 185).

7.1.2 Reflection and Reflective Behaviour in Work Teams

What presents a large challenge for individuals is all the more so for teams and especially teams that are working together in projects as they are faced with problems that can seldom rely on routines as project work is highly problem based. In teams, the systematic care of reflection and pause (to think) is not a luxury but a necessity (Busch, 2010). Particularly in changing environments, teams must reflect on their internal and external environments and change how they operate in order to be effective (West, 1996, cf. Tjosvold, 1991). "Teams need to be able to assess their present state of functioning, celebrate and build upon their accomplishments, learn from mistakes and deal with frustrations. Effective groups monitor and regulate themselves so that they can continue to work together without great deal of intervention by managers. They built themselves up into an independent team that will be productive in the future as well as the present" (Tjosvold, 1991, 38). Effective and efficient work in groups is a cornerstone of successful organisations, and team reflexivity is one central determinant (Neininger & Kauffeld, 2009; Schippers, Den Hartog, Koopman, & Van Knippenberg, 2008). But team reflection is not a "fast-selling item" making interventions and implementations necessary (Neininger & Kauffeld, 2009).

The implementation of a reflective practice is a challenge for individuals, teams and organisations alike, especially when looking at the interactions between these different ontological levels.

7.2 Individual Reflection and Learning at Work

Team reflection requires and benefits from the reflection skills of each participant. Thus, what individual reflection is and what it has to do with team reflection has to be clarified. When it comes to individual reflection and the central question "What is reflection?", we have to focus on different essential sub-questions to analytically dismantle reflection. We have to ask about the triggers of reflection that provoke the reflection process. Additionally, we have to know what elements of the reflection process can be distinguished, which focuses on the extent of reflection—the perspectives and levels that were taken into account. Furthermore, it is important to consider the functions of reflection and with this the question why we reflect. Reflection is an action we do with a specific aim—eventually to correct beliefs, mental models and for knowledge acquisition and through this building identity. These questions are not easy to answer because of the problem that reflection is often used as a synonym for higher-order mental processes (Mezirow, 1990) and because of a lack of specific empirical studies that show how reflection develops in working processes. We will take a closer look at the aforementioned systemisation in this section.

After the systemisation of literature, Boud (2006) summarises the notion that reflection is seen as a means of examining and re-examining experience, as a conscious, volitional process and as an act of the individual. That is true for Daudelin (1996), too. She sees in reflection "a highly personal cognitive process. When a person engages in reflection, he or she takes an experience from the outside world, brings it inside the mind, turns it over, makes connections to other experiences, and filters it through personal biases" (Daudelin, 1996, 39). She continues: "reflection is the process of stepping back from an experience to ponder, carefully and persistently, its meaning to the self through the development of inferences; learning is the creation of meaning from past or current events that serves as a guide for future behaviour [sic]" (Daudelin, 1996, 39). With this, she defines the two etymological meanings of reflection: to see oneself in a mirror and to bend back, looking on oneself. Van Woerkom (2003) defines reflection according to Boud, Keogh, and Walker (1985) as a complex activity aimed at investigating one's own action in a certain situation and involving a review of the experience, an analysis of causes and effects and the drawing of conclusions concerning future action which results in a changed conceptual perspective. "Reflective practice … is the practice of periodically stepping back to ponder the meaning of what has recently transpired to ourselves and to others in our immediate environment. (…) It typically is concerned with forms of learning that seek to inquire about the most fundamental assumptions and premises behind our practice" (Raelin, 2002, 66). Though all

Table 7.1 Analytical elements of an ideal-typical reflection

Element of reflection	Description	Examples (see also Table 7.2)
Triggers of reflection	Triggers are external circumstances and intrinsic states that can cause a reflection process	Errors, (negative) feedback, (critical) questions, conflicts, difficult situations, (disturbing) behaviours of others, discontent
Object(s) of reflection	The object of reflection is the main focus of the reflection and is always a thought (e. g. about an experience). It is often the thought of the trigger itself, especially in incidental reflections	Triggers, learning processes, learning outcomes, own and others' behaviour
Perspectives of reflection	Based on the object of reflection, the perspectives of reflection are alternative views, perceptions of others, alternative approaches and so on	Focusing, for instance, on the content, process or premises of a problem. Looking at the output, outcome, different stakeholders, social environment or general frameworks
Levels of reflection	The levels of reflection define the depth and quality of the reflection. There exist different classifications from descriptive up to questioning assumptions and embedding the insights into a (social) context	Descriptive, dialogic and critical level (Hatton & Smith, 1995) Descriptive, comparative and critical level (Jay & Johnson, 2002) Prereflective, quasireflective, reflective thinking (King & Kitchner, 2004)

these definitions emphasise different aspects of reflection and combine these aspects with reflective behaviour, they focus only partly on the different questions raised at the beginning of this section. Sometimes the definitions of reflection even blend these perspectives and focus on more than the question of what reflection actually is. Because of the complexity of the reflection process and its similarity to other concepts, like action regulation and control (cf. metacognition) or problem-solving itself, it is expedient for the discussion and survey of reflection processes to analytically dismantle it (cf. Mezirow, 1990). Hence, a consensual working definition of reflection is that reflection is the deliberate realisation and critical analysis of a memory content (object of reflection as a thought) using the mechanism of recapitulation and reconstruction. With this, the reflectitioner looks at various perspectives and varying viewpoints (extent of reflection), in regard to different qualitative outcomes of the learning potentials (levels of reflection) and its possibilities to learn and solve problems as a kind of Munchhausen trick, to lift oneself up by one's own bootstraps, as is explained in greater detail below (Dörner, 1979; Tisdale, 1998; Van Woerkom, 2010).

The description of the following reflection process is an ideal-typical one, which is seen taking place inside the individuals mind. It offers a closer look at the questions of what triggers reflection, what is reflection and what does it look like (see also Table 7.1):

Table 7.2 Comparing the main aspects of individual and team perspectives on reflection (following Høyrup & Elkjaer, 2006, 38)

Aspects	Individual perspective	Team perspective
Support of reflection	Time, space, positive emotions or degree of suffering, openness about mistakes, career awareness	Time, space, climate of trust, culture of reflection and feedback, openness about mistakes
Trigger of reflection	Habits do not work (errors, mistakes). Complex, ambiguous, uncertain and unique problem situations. (Negative) feedback, criticism, questions, conflicts, changes in the organisation, etc., that lead to perplexity, hesitation doubt, inner discomfort, dilemmas, dissatisfactions, unfulfilled expectations, unexpected outcomes (…)	
Degree of organization	Spontaneous/informal to planned/formal	
Cognitive processes	Can be tacit language/not codified language Anticipatory thinking. Analysing, observing, recapitulation, reconstructing and concluding. Introspection, synthesis of different kinds of experience. Elaboration	
Elements of action/ behaviour	Inquiry, asking for feedback, experiments	Thoughts are converted through interaction into explicit language (codified). Discussing, enter into a dialogue, asking for and receiving feedback, sharing knowledge and visions. Collective planning, analysis, decision-making
Critical elements	Hunting assumptions. Questioning of the taken for granted. Focusing on political, social, organisational and cultural processes	Challenging groupthink. Breaking assumptions. Focusing on political, social, organisational and cultural processes

1. The question about the when and why there is reflection is aimed at the *triggers of reflection*. In the reflection literature, the triggers or initiators are the starting points of the reflection process. The examples of triggers vary, but they have in common that they often have a negative connotation. So triggers are deficiencies, resistors and difficulties, for example, errors, (negative) feedback, critical questions, conflicts, difficult situations, (disturbing) behaviours of others and so on (e.g. Høyrup & Elkjaer, 2006; Reither, 1979; Swift & West, 1998, see also Table 7.2) which force the worker to pause and think—as far as the trigger reaches the awareness. But if the outcome of a situation is better than expected, reflection could also be triggered. From the point of view of the action-regulation theory (e.g. Frese & Zapf, 1994), the mere existence of a trigger is not enough to start the reflection process. In the sense of Scherer (1986), the triggers are only stimuli that are initially and unconsciously assessed by the individual. Scherer called these appraisals Stimulus Evaluation Checks (SEC). If there is a trigger which lasts as a stimulus, it is checked to see if it is new (routine or problem), if

it is pleasant (Do I like it? escaping, coping or exposing), refers to aims and needs (relevance, expectations, convenience, pressure), coping capacity (control, power, adaptability) and conformity with (internal and external) standards (norms). Every stage of the evaluation process also refers to positive and negative emotions: (1) surprise, interest and fright; (2) palatableness, approximation/prevention and passion/disinclination; (3) fright and anger vs. pleasure and satisfaction; (4) confidence vs. fear, awkwardness and depression and (5) experience of identity and pride vs. shame, guilt and contempt (for a detailed explanation, see Sembill, 1992). We claim that reflection processes only start when the appraisal comes to the fourth level (level of intellectual regulation). Otherwise, we act within routines and automated autonomous reactions (sometimes rule based). The trigger has to irritate or surprise oneself in a certain way so that in this sense, it is worth reflecting on or necessary to. Affiliated to the triggers, we have to distinguish between reflection as a natural spontaneous aspect or self-initiated and self-perpetuated process inherent in learning, problem-solving and team processes and reflection as a (ideally self-motivated) deliberate (highly organised managerial) intervention to promote learning (e.g. Tarrant, 2013). Individuals who have a great tendency to reflect will not need an intervention for reflection processes, whereas others do. Hence, reflection processes interrupt actions and require time and of course space (Boud, 2006; Ellström, 2006; Kayes, Kayes & Kolb, 2005). "Perceiving oneself as 'off-the-job' can be important for reflection" (Boud, 2006, 165) because otherwise the pressure and stress of daily work prevents us from taking some time for reflection. Hence, the more stressful, incriminating and urgent a situation is, the less likely that reflection will occur. This should also show that emotions and motivation in reflection processes should not be neglected as has been the case in previous research (Van Woerkom & Tjepkema, 2013).

2. To avoid an endless regression of a metatheoretical systemisation of reflection, as Tisdale (1998) and Dörner (1994) advise against, we first have to take a closer look at the *object of reflection*, which is for initial reflections often the thought of the trigger itself. For this, we have to model an assumption of the existence of a special kind of memory—a log memory or behavioural record—because reflection assumes a trace of one's own activities (Candy, Harri-Augstein, & Thomas, 1985; Dörner, 1994; Reither, 1979; Tisdale, 1998). The log memory contains a journal of mental processes of our behaviour and inner processes, and it is necessary to keep orientated within time (Dörner, 1994). This record contains all memories of events, our thoughts, our experiences, our volition, our actions and our feelings (Tisdale, 1998). But there might be gaps and blurred lines within the log memory where a reconstruction (repair) based on "similarity matching" and "frequency-gambling" (Reason 1988 cited after Tisdale, 1998, 7) becomes necessary. In this kind of view, reflection is the critical observation and analysis of memory content (of the log memory) with the help of processes of recapitulation and reconstruction (Tisdale, 1998). The mere remembrance and description of this content is a necessary but not sufficient condition of reflection (ibid.). This is what is meant by shallow or simple reflection (cf. Marsick, 1988) and is inherent

in common sense. With regard to the levels of perspective of reflection, this depicts only the first and second level of reflection: remembering and description (e.g. Hatton & Smith, 1995). In this understanding of reflection the distinction between the times of reflection (i.e. reflection-in-action and reflection-on-action, Schön, 1983) is obsolete. Reflection always happens in the present moment; the object of reflection is in every case a memory content—a thought about something, a mental model. Only the recent nature of the thoughts changes and with it the amount of gaps.

3. If it finally comes to a reflection, there is the question of how deeply are aspects reflected (*perspectives and levels of reflection*), and that is related to insight quality and learning potential (cf. Bolton, 2010). The perspectives of reflection means the different aspects that are taken into account in relation to the object of reflection, for example, the product/content or the process, the individual or the group or the environment, internal vs. external, variable or stable aspects, premises and so forth (Mezirow, 1990; for a German example, see Egloffstein, Frötschl, & Baierlein, 2010). For each level of reflection, there exist different classifications (e.g. Boud, Keogh, & Walker, 1985; Daudelin, 1996; Hatton & Smith, 1995; Jay & Johnson, 2002; King & Kitchner, 2004; Swift & West, 1998). To sum them up, there are at least four levels: description of the object and with this an explication and realisation of mental models, appraisal, interpretation and explanation (first level, sometimes classified as nonreflective) and the relation to one's own knowledge and skills (second level). These two levels cover simple or shallow reflection. Eventually, the new insights should be projected into further actions and respective changes in behaviour (third level, moderate reflection). Within the fourth level of reflection, the new knowledge is validated by questioning one's own assumptions and becoming aware of the (social) contextual embeddedness (critical reflection). However, in studies, the last two levels in particular have rarely been discerned empirically (e.g. Schippers, Den Hartog, & Koopman, 2007). Again, the reflection process depends on motivational and emotional aspects because the remembrance of perspectives and levels and the endurance (volition) to go in-depth are related to positive and negative emotions that prevent or promote the reflection. The amount of perspectives that an individual is taking into account and the depth of the level of reflection depend on the object of reflection, the knowledge, the emotion, the motivation and the volition, as well as the time available. The need to ask somebody else is presumably higher if there is less time to reflect, if a worker has a lack of knowledge in a specific case or if he is not keen on it and maybe gets exactly this as a result of his insight (cf. Ellström, 2006).

Reflection is like problem-solving, in this meaning a specific kind of action. Reflection and respectively self-reflection are the (triggered) conscious observation and critical analysis of a memory content (log memory, object of reflection) with the help of processes like recapitulation and reconstruction with the aim of knowledge acquisition (extent of reflection). Therewith, it is possible to act adequately within problem-solving processes (cf. "effective performance", Van Woerkom, 2003), which means operating flexibly (change of processing strategies) and plastically

(assimilation to changing requirements) (Boud, Keogh, & Walker, 1985; Dörner, 1994; Tisdale, 1998). Critical means in this sense to scrutinise and correct one's own mental models together with an integration of one's knowledge and action into "the big picture" (Mezirow, 1990; Hatton & Smith, 1995, cf. Marsick, 1988).

For the critical aspect, we ordinarily need others for approval and refusal and with this, the validation of new insights—a point we are normally not aware of. Habermas (1971, 1974, 1984 cited after Pearson & Smith 1985, 74, and Mezirow, 1990, 10) found some possibilities for proving knowledge:

1. Turning to an authority, tradition or force (i.e. conventional knowledge).
2. Make an empirical observation.
3. Share meanings and understandings through language (cf. 1., rational discourse)
4. Knowing about ourselves, our theories and our actions within a context of the wider world (critical knowing)

To these possibilities, one can add logical concluding and experimenting (or as ultima ratio of problem-solving "trial and error") (cf. Schön, 1983). Nevertheless, there seems a point in reflection processes where we need colleagues, mentors, coaches and friends or at the very least simply other people to declare our insights to be true and realistic.

As we know from empirical studies, humans tend not to sit quietly and silently and reflect for themselves—undertaking a "professional monologue" (Bolton, 2010)—particularly when other people are around them, for instance, at work. Thus, at some point of the reflection process, we need to submit our assumptions to the review of others by talking about them (cf. Andersen, 1990; Daudelin, 1996). In these situations, reflective behaviour could be observed, and reflection is no longer only an individual process (Van Woerkom & Tjepkema, 2013). Reflective behaviour can be part of an individual reflection process as well as the end of it. Critically reflective work behaviour is operationally defined as "a set of connected activities carried out individually or in interaction with others, aimed at optimizing individual or collective practices, or at critically analyzing [sic] and trying to change organizational or individual values" (Van Woerkom & Croon, 2008, 318). Van Woerkom (2003), Van Woerkom et al. (2003), and Van Woerkom and Croon (2008) identified different aspects of critically reflective working behaviour, such as critical opinion sharing, asking for feedback, challenging groupthink, experimenting and also attitudes that facilitate reflective behaviour like openness about mistakes and career awareness (see also Edmondson, 1999). This kind of behaviour helps the individual if it comes to a point where his reflection process gets stuck or where it is necessary to validate the new insights. In the sense of subjective theories (Groeben & Scheele, 1982), we try to approve our hypotheses and opinions through experimenting with interaction with others who can have new ideas, similar problems and challenging questions to help us rethink the problem (cf. Andersen, 1990; Daudelin, 1996). Besides, "reflection includes behaviors [sic] such as questioning, planning, exploratory learning, analysis, diverse exploration, making use of knowledge explicitly, planfulness, learning at a meta-level, reviewing past events with self-awareness, and

coming to terms over time with a new awareness" (West, 2000, 4). From the perspective of the German approach to work psychology, we have to distinguish between actions and behaviour because actions are defined as intentional, conscious behaviour (Dörner, 1996; Frese & Zapf, 1994; Kaiser & Werbik, 2012). As an observer, it is difficult to say if a behaviour such as feedback seeking is an unconscious act, for example, to avoid reflection, if it is a step within the reflection process, to fill a log memory gap, or if it is a logical action that concludes the reflection process (e.g. recognition of missing skills). What is more, feedback seeking can become a routine, so that the SEC "Can I do this?" with the answer "No, I cannot do this" leads to help seeking instead of dealing with this problem (preliminary) on one's own.

Furthermore, Van Woerkom and Tjepkema (2013) argue that reflection is only a conscious process and dismiss the emotional and motivational aspects. Although an unconscious reflection as defined above is not seen as a reflection at all, there is implicit knowledge engaged in reflection processes that cannot be completely verbalised (Berry, 1987; Eraut, 2000). This is precisely the case for routinised intuitive actions of experts that can only partly be verbalised (if at all). Additionally, some authors claim the existence of unconscious reflection processes that can be scrutinised (e.g. Daudelin, 1996 who refers to J. Allan Hobson's book "Sleep"). Stepping back from a problem and making a pause from thinking can prevent rumination. The lag between looking back on the reflection object could seemingly reveal new insights or the solution to the problem, but such insights cannot be the result of an unconscious reflection process. It is more the case that the standoff gives us the opportunity to look with a clear mind on the object again and subsequently a formerly unassociated perspective could potentially reveal a solution.

7.3 Reflection and Reflective Behaviour in Working Teams

The following sections discuss the central aspects of the topic focusing on team reflection and behaviour compared to individual reflection and exemplary contextual settings and methods. Additionally, the challenges and boundaries of team reflection will be outlined, and also the connection to organisational learning will be demonstrated. In the following discussion, we see a team as a group of two (dyad) or more people permanently (e.g. in a department) or temporarily (e.g. in a work project) who are working together semi-autonomously and are pursuing common (organisational) goals.

7.3.1 Team Reflection as Individual Reflection in Team Settings and Reflective Behaviour in Teams

Individual reflection takes place in different kinds of settings. Often, it is seen as a process we do on our own without interacting with others. As, for instance, Van Woerkom (2003) and Van Woerkom and Croon (2008) have shown, there are

moments in reflection processes were we cannot go further and need a counterpart to review and validate what we are thinking about (see above, cf. Andersen, 1990). This moment can be seen as reflective behaviour when, for example, we ask somebody for feedback. This behaviour is especially important to prevent rumination and brooding that do not lead to an end or an aim. Talking to colleagues can be considered as two combined individual reflection processes that influence and (hopefully) enrich each other (cf. Andersen, 1990; Pearson & Smith, 1985). As a result, improved individual reflection competencies can enhance team reflection so that this process is of a higher quality (ibid.). In addition, teams with improved individual and team reflection skills do not need interventions to enforce reflection and with this learning processes (cf. Buljac-Samardžić & Van Woerkom, in press). This leads to the conclusion that "the application of the concepts should not be restricted to an individual perspective" (Høyrup & Elkjaer, 2006, 29). "Reflection does not have to be a solitary activity. It can occur in group settings as well as through individual writing and thinking" (Boud, Keogh, & Walker, 1985, 16).

Team reflexivity can be defined as "the extent to which group members overtly reflect upon, and communicate about the group's objectives, strategies (e.g. decision-making) and processes (e.g. communication), and adapt them to current or anticipated [endogenous or environmental] circumstances" (West, 1996, 559; West, Garrod, & Carletta, 1997, 296, cf. Schippers et al., 2007, 190). As Carter and West (1998, 599) found, "team reflexivity is useful in predicting team effectiveness: Higher team reflexivity does predict better team performance". Thus, reflexivity can be seen as a key variable in team functioning (Schippers, Den Hartog, & Koopman, 2003; Swift & West, 1998; West, 2000), yet research on this topic is scarce (Schippers et al., 2007).

The articulation of individual thoughts is a central behaviour in team reflection processes. Besides, the articulations of individual reflections have the effect that the reflecting person becomes more aware of his own thoughts and mental models. That is also true for problem-solving processes that can be improved by speaking aloud what one is thinking (e.g. Hacker & Wetzstein, 2004). The externalisation of thoughts (as internal models of a subject area) is a semantic model of the second level (cf. Gigerenzer, 1981) that influences, on the one hand, my own internal model because language itself has a modelling function and relieves the brain as notes do, and, on the other hand, this external model can be perceived by and debated with others (ibid., cf. Andersen, 1990). "When reflection takes place in a small group, ideas are generated by the sharing of different perspectives. … While one person is sharing his or her experience, the others are relating the information to their own challenges" (Daudelin, 1996, 42, cf. Andersen, 1990). That also means that we "subject our assumptions … to the review of others" (Raelin, 2002, 67, cf. Høyrup & Elkjaer, 2006). This interactions process, whether it be discursive or dialogic, leads to new insights and learning (cf. Edmondson, 2002).

The following table shows the differences and similarities between reflection from the individual and the team perspective (Table 7.2).

From the viewpoint of problem-solving, "… teams have considerable potential to combine the ideas and actions of many to solve complex problems. Team members

can combine their strengths and efforts to complete tasks that individuals working alone could not efficiently do" (Tjosvold, 1991, 45). In this case, the object of reflection is a specific challenge the group is faced up with, and every individual can contribute from its specific point of view using its knowledge and skills (perspectives of reflection). Other objectives teams can reflect on are the commitment to team objectives, team processes, strategies for achieving team goals, progresses made and others (Swift & West, 1998). During team processes, the object of reflection can change if new problems occur, for example, if a conflict arises. West (2004) distinguishes between "task reflexivity" and "social reflexivity", which can be seen as new objects in the sense discussed in Sect. 7.2 (cf. Busch, 2010). Such a focus also influences the development of questionnaires for measuring team reflexivity (see, e.g. the confirmatory factor analysis by Carter and West, 1998).

From the perspective of breaking up routines within team reflections, the individual reflecting person benefits from the diverse perspectives of others (e.g. in debriefing group activities) that can offer new insights (perspectives) or can lead through questions to a deeper level of reflection (see Sect. 7.2). Furthermore, the approval and refusal of externalised individual reflection prompt further reflection within all the team members (Boud, 2006). Additionally, emotionally intense reflections can be clarified through the perceptions of others. In teams, a deeper type of reflections could be possible if the group atmosphere is open and frank.

Albeit, mainly in case of breaking up routines, "individuals and teams rarely reflect spontaneously; rather, teams tend to behave in habitual ways, even when presented with evidence that this behaviour might be dysfunctional" (Schippers et al., 2008, 1594 cited after Busch, 2010, 299). From Busch's (2010) point of view, the team leader is responsible for initiating team reflection. However, Buljac-Samardžić & Van Woerkom (in press) found within their empirical study that only weak teams benefit from these interventions. Furthermore, research shows the ineffectiveness of group discussions (Edmondson, 2002). Reasons for this might be problematic individual beliefs in the team's efficacy, the team's resources (such as the resources of individual members) and a dysfunctional team climate. As Edmondson (1999) shows, the psychological safety of team members and positive views of the team's effectiveness are important premises for a productive team reflection and serve as a basis for reflective behaviour. In her sense, psychological safety means "a shared belief that the team is safe for interpersonal risk" (ibid., 354). Only if a team member feels free to truly express what he or she thinks—without the fear of being sanctioned or isolated—reflective development in teams is possible (cf. Brooks, 1999, see also Sect. 7.3.4). Every team member and the team leader are responsible for the creation of beneficial preconditions.

Additionally, crucial for team processes are the creation of valid, useful information and the recognition of accomplishments and obstacles (Tjosvold, 1991). As described in relation to individual reflective behaviour, there is also a tendency for teams to behave in a similar way (see Table 7.2 and above). So teams may also ask for feedback, share knowledge, learn from mistakes and experimentation (Edmondson, 1999; Van Woerkom, 2003, cf. Busch, 2010). It is also important for teams to share a vision and challenge groupthink (Van Woerkom, 2003).

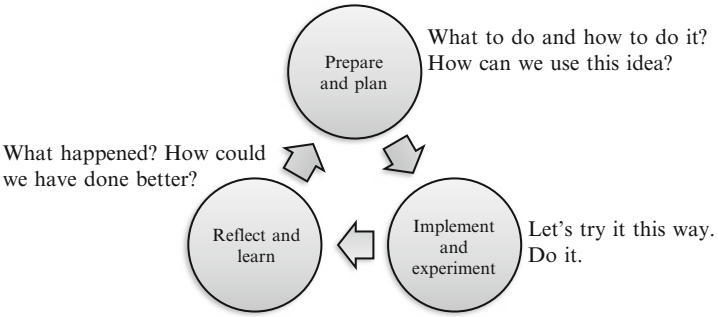

Fig. 7.2 Evaluation and development process of teams (Tjosvold, 1991, 190)

Feedback-seeking behaviour and asking for help are especially common at work because they are the easiest and most economic ways to get information or the task done without great cognitive effort (Frese & Zapf, 1994, cf. Van Woerkom & Croon, 2008). Because of that, we have to state that feedback-seeking behaviour is not a reflective behaviour in every case. "However, although feedback-seeking behavior [sic] is important for reflexivity, it is not identical to reflexivity. Reflexivity has to do with how things can be improved, while feedback seeking is getting information on how far one is from the (performance) goal and does not necessarily imply that the obtained information is reflected upon" (Schippers et al., 2007, 192).

Additionally, for Tjosvold (1991) team reflection is a combination of behaviour for collecting data with open discussions and planning and the implementation of these new insights. So team learning is an ongoing evaluation and development process (Tjosvold, 1991, Fig. 7.2).

Without reflection, the individual as well as the team will not use its experience to improve its abilities because "[r]eflection contributes critically to team productivity" (Tjosvold, 1991, 190, cf. Neininger & Kauffeld, 2009). Team learning does not occur if the team fails to reflect on its own actions or when they fail to make changes following their reflections (Edmondson, 2002, 130). Reasons for this might include the inability to break out of routines, the lack of necessary resources or motivation, ineffective discussions (Edmondson, 2002), surface perspectives on learning (Rausch & Schley, 2011) but also obstructive work characteristics (Rausch, 2012).

Finally, in addition to the reflection part within teams, it is most important not to forget the action part. As already mentioned, there has to be a balance between stability and flexibility at work together with a balance between action and reflection (Edmondson, 2002; Van Woerkom, Nijhof, & Nieuwenhuis, 2003). "There is unfortunate a gap between what many of us say we will do and what we actually do" (Raelin, 2002, 67). All kinds of combinations of action and reflection are conceivable (team learning behaviour classification of Edmondson, 2002):

- Reflection and action
- Reflection without action
- Neither reflection nor action

Furthermore, action without reflection is also possible when it comes to routinised actions at work and in working teams.

The same relation between individual reflection and team reflection that we have already discussed above can be transferred to reflection processes between different teams. The fundamental modelling of the ideal reflection process as well as the reflective behaviour, and with this learning from one's own experiences and that of others, stays the same (cf. Busch, 2010). But that does not mean that there are no additional aspects to take into account because, based loosely on the saying by Aristotle, the whole is greater than the sum of its parts and is different in kind. As such at every ontological level, there have to be separate empirical studies to explain the whole process (Sembill, 2012). Concluding from one level to another could introduce a problem of deduction (or induction, depending on the direction) and with this the danger of introducing fallacies.

7.3.2 Contextual Settings and Implementations of Team Reflection in Companies

Instead of a balance between stability and flexibility (see above) from an organisational point of view, the question is about the balance between control and flexibility (Brooks, 1999). Individual reflection and team reflection as well as team learning are—besides personal and team properties (traits)—determined by the contextual settings of the workplace and the organisation and with this by the implementation of methods for reflective practice and concession of time and space. In this chapter, we will only discuss aspects related to team reflection. However, reflection must be involved between the system world of the organisation and the lifeworld of the workers, between the formal and the informal, the structured and the emergent (Boud, 2006). The organisation is a complex system where changes lead to effects as well as to side and follow-up effects that are often neglected in problem-solving and reflection processes. Implementing instruments for reflection and setting the right contextual variables is a challenge as in every problem-solving process and, according to the literature, is necessary because reflection processes are rare and have to be triggered (e.g. Gersick & Hackman, 1990; Newell & Simon, 1972; Reither, 1979; Tisdale, 1998).

As Ellström (2006) indicated, learning at work is a matter of design. We cannot just rely on the knowledge and skills of the employees and the evolution of healthy structures that foster reflection and learning. "In the organizational perspective focus is very much on implementation of frames, structures, collective actions and organizational matters. The structures have to support processes of reflection" (Høyrup & Elkjaer, 2006, 40). With these frames and structures, organisations indirectly influence rule-based and knowledge-based actions (Ellström, 2006; Frese & Zapf, 1994; Rausch, 2012) and should be themselves the result of reflective actions. The frames and structures also guide reflective actions and determine how the results are recorded and transferred into rules, guidelines, recommendations and so

on (knowledge management). Organisations have to have a strong focus on these developments because once established, actions at skill-based and rule-based levels are difficult to change (Ellström, 2006; Frese & Zapf, 1994). Then again, reflection is needed to break up these routines and tacit theories ("theories-in-use") so as to change them (cf. Edmondson, 2002; Rausch, 2012).

7.3.2.1 "Reflexive Learning Spots"

By the promotion of reflective practice and herewith the professional development of employees and teams, an organisation can implement different structures and approaches that should fit the needs of the employees because during the experience itself, people are often so deeply involved that reflection is simply not possible (Brüggemann & Rohs, 2007; Pearson & Smith, 1985). An organisation has to implement opportunities for reflection through cultural and spatial structures. Brüggemann and Rohs (2007) propose the institutionalisation of little (formalised) "spots" that can foster reflection and therefore learning at work which have the following characteristics: short duration (5–10 min), immediately usable without or with only little effort (verbal, note-taking as appropriate), non-formal to informal organised, non-complex and with a connection to the workplace (ibid.). This can include small talk at the coffee machine or in the parking lot as well as checklists, for instance, general questions or activities. A central point for productive reflections might be a feeling of being off-the-job (Boud, 2006, see also Sect. 7.3.4). For that, the company climate and culture play an important role. Workers should feel free to take these off-the-job breaks and to know that they are allowed and will not be sanctioned (e.g. Pearson & Smith, 1985).

7.3.2.2 Learning Rounds

With a greater focus on teams, Busch (2010) distinguishes between work-related instruments that foster learning within teams and work-spanning instruments that serve the experience exchange between teams. In this paragraph, we concentrate on exemplary work-related instruments. Vince (2002), for example, sees in the reflection organising process the requirement to create and sustain opportunities for organisational learning and change. He suggests three characteristics that have to be fulfilled for a successfully reflective practice. Such practices should:

1. Contribute to the collective questioning of assumptions
2. Provide a "container" for the management of the anxieties raised
3. Contribute towards democracy in the organisation

He recommends focusing on four reflective practices: peer consultancy groups, role analysis and role analysis groups, communities of practice and group relations conferences. All these suggestions are some kind of learning rounds with different objectives that support a continuous professional development—they approach

reflection as a collaborative process. Within these rounds, "the group of voices produce more analysis then could be discovered by any single person" (Tarrant, 2013, 32). But it has to be questioned whether the observations are really objective, as Tarrant proclaims. A consensus of many does not automatically produce an objective truth (e.g. Kaiser & Werbik, 2012). The distant goal of these implementations should be collective action that acts as a prompt to make people act attentively, conscientiously and critically (Raelin, 2002). Intentional triggered reflection is especially needed at those times when we are unaware of our behaviour and its consequences (ibid.). Raelin (2002, 69) suggests the implementing reflective actions such as journal writing, conducting postmeeting e-mail minutes, reflective note-taking, learning histories and "stop and reflect" (comparable to the reflection and learning spots above) or managing debriefing episodes, building communities, improving processes and forming learning teams, which helps people make sense of their own (subjective) theories and experiences and lead to a learning culture amongst employees.

7.3.2.3 Debriefings and Briefings

Debriefings and briefings are two widespread methods for an organisational implementation of reflective practice for teams and have their roots in the military (Pearson & Smith, 1985). The less well-used method of briefings is a meeting and discussion in advance of a task or a project which should give an orientation to the practice, the project or the task, give clear instructions and discuss the goals, rules, purposes and intentions from different viewpoints (organisation, management, team leader). Additionally, individual expectations should be discussed (ibid.). It could help to correct possible mistakes within the tacit theories of a team and by association help identify differences in the understanding of central variables to plan the proceedings.

By contrast, debriefings take place several times during a longer project or at the end of it. The aim is to evaluate the effectiveness and the efficiency of the project and to learn for future actions. The process Pearson and Smith (1985) suggest for the conducting of debriefings is similar to the reflection process of Boud, Keogh, and Walker (1985). They suggest a description phase in which the question "What happened?" should be answered (returning to experience). Afterwards, the feelings of each participant are focused on attending to feelings, following the question "What does it mean?" (re-evaluation); the situation is interpreted and appraised from a new perspective. In Pearson's and Smith's (1985) method, the integration, validation and appropriation of the new insights in addition to the focus on future actions are missing (Boud, Keogh, & Walker, 1985; Boud & Walker, 1993). A special form of debriefing is the "After Action Review" or "After Action Report" (AAR) (cf. Darling & Parry, 2001; Ron, Lipshitz, & Popper, 2006) and the "After-Event Review" (AER) (Ellis & Davidi, 2005), which are compulsory in high-performance teams (e.g. fire brigade, police). In AARs and AERs, there is interplay between analysis, reflection and reintegration in actions of the team (Geithner & Krüger, 2008).

In these teams, the focus is often placed on "critical incidents" (cf. critical incidents technique CFT, Flanagan, 1954).

Finally, effective debriefings depend in part on several aspects (Pearson & Smith, 1985). There should be a positive commitment in the company and amongst the team members. Deliberate planning is just as necessary as the establishment of clear intentions, objectives and purposes using the debriefings and the identification of ways of knowing and types of knowledge. The establishment of a debriefing environment has to be based "upon trust, acceptance, willingness to take risks and the mutual respect of individuals' feelings, perceptions and theories" (Pearson & Smith, 1985). Employees have to see that reflecting critically is rewarded and maintained in a "danger-free environment" which means no punishments for expressing personal perspectives (Brooks, 1999, 75). "Teams have a great number of ways to reflect" (Tjosvold, 1991, 194); they just have to use at least a few of them.

Prerequisites of a reflective practice are nevertheless the adequate reflective skills of each individual. Not all practitioners may reflect appropriately or understand the reflective process (Davies, 2012). As shown above, individual reflection processes cannot be distinguished from team reflection processes, whereby the improvement of individual reflection skills is indispensable. Neininger and Kauffeld (2009) showed workshops on reflection and transfer discussions to be an adequate instrument to enhance the reflection skills of individuals and teams. A reflective practice for the professional development of teams needs an initial focus on individual reflections.

7.3.3 Team Reflection and Organisational Learning

This section is closely linked to the previous section because within the organisational perspective, the focus is very much on implementation structures that support processes of reflection (Høyrup & Elkjaer, 2006). Central aspects are the structures of reflection and learning in teams with an emphasis on staff development, which is what Somerville and Keeling (2004) call reflective management, using methods like coaching, journal writing, feedback seeking, view experiences objectively, time for reflection-on-action, anecdotal notes and group discussions. Additionally, there is a knowledge management perspective where the central focus is on the formalisation and respective transformation of (new) insights into recommendations, guidelines and rules (company philosophy, organisational solution database).

The first aspect, the improvement of reflection skills, has been discussed in the previous sections; so now, the spotlight is on how the insights of individuals and teams lead to organisational learning. Organisational learning means the process of improving organisational actions through better knowledge and understanding (Edmondson, 2002), in order to provide a solid foundation for routinised and rule-based actions. To achieve this, "… an organization 'learns' through the actions and interactions that take place between people who are typically situated within smaller groups or teams" (Edmondson, 2002, 128) and the formalisation and respective

Table 7.3 Comparing the individual and team perspective with the organisational perspective of reflection (following Høyrup & Elkjaer, 2006, 41)

Dimension	Individual and team perspective	Organisational perspective
Purpose	Dealing with problems, ideational realisation of routines, learning for professional individual and team development (individual learning and learning in teams)	To make explicit and share organisational matters and workplace problems and plans in order to make common decisions and influence common actions and change of workplace structures and policy (organisational learning)
Language form	Tacit, implicit, intuitive or explicit verbal	At least explicit socially shared and accepted verbal language often formalised and determined in writing (e.g. rules, values, recommendations)
Degree of organisation	Spontaneous/informal to planned/formal	Formalised, planned activities, controlled by management. Implementation and institutionalised processes (e.g. AAR, meetings)
Content	Memory content of the log memory (behavioural record) and in the narrow sense experiences, perceptions, cognitive and social processes	A narrow focus on power structures, forms of democracy, political and cultural processes influencing organisational life
Access	Content may be private with access through introspection and reflection or public and shared. Disclosure may be a threat or uncomfortable	Content is common organisational matters and work-related items. Can be made transparent at planned meetings (etc.). Disclosure in relation to organisational values may operate here
Critical element	Analysing and trying to change individual, social or organisational values, assumptions and structures	Questioning assumptions, power structures and political and cultural processes within the organisation

transformation of these aspects within rules and guidelines. Hence, individual and team reflections and actions are a necessary but not sufficient condition for organisational learning. The challenge for organisations is to record the insights adequately and transform them into recommendations, guidelines and rules for future actions or to use them to change organisational structures. Therefore, the strategies for organisations to foster reflective practice have to be combined with possibilities of recording. That is because the dimensions of the individual and team perspectives are largely different, compared to the organisational perspective (see Table 7.3).

For an organisation, it is important to know where the possibilities and boundaries of structures and actions might be. An institution has to know when it is time for a change in working environments, working structures and corporate objectives (cf. structural reflection, Lash, 1996; see also exemplary for school development

Schley, 2013). So there has to be an infrastructure which enables people to write down central insights of team reflection processes, for instances, via an intranet, to deduce the rules that lead to future actions. An instrument that makes this possible is, for example, a collaborative learning environment within an e-portfolio or wiki. There, the employees can individually reflect on their experiences recorded when in writing together with teams who can record central aspects of their team reflections.

7.3.4 Challenges and Boundaries of Learning Through Reflections in Teams

After discussing reflection on the respective levels of the individual, the team setting and the organisation, we would like to focus on the challenges and boundaries of learning through reflections in the following chapters. As is often the case, there is also a range of benefits and limitations to reflective practice from which we would like to highlight a few central criteria (e.g. Boud & Walker, 1993; Davies, 2012).

As mentioned in the introduction, reflection has been proven to be crucial for learning from experience, especially when it comes to deep learning. With reflection, it is possible to become aware of one's own knowledge, skills, strengths and weaknesses, and in this way, it is then possible to identify educational needs (Davies, 2012). Beside the possibility of breaking up routines, it is feasible as a means of gaining a further understanding of one's own beliefs, attitudes and values and encouraging self-motivation and self-directed learning. Reflection can also act as a source of feedback (ibid.). Reflection is an important aspect for developing a team and for gaining information about organisational improvements. Indeed, limitations already appear through the individual problems of employees not having the skills to reflect adequately or not feeling comfortable when challenging and evaluating their own practice (see above, Davies, 2012). Furthermore, to aid reflection, employees need a break from action, whilst reflection is also time-consuming (ibid., Boud & Walker, 1993; Raelin, 2002). "To choose to reflect can seem self-indulgent or an excessive formalization of what is perceived to be an essential act. Excuses need to be made for it and opportunities taken as part of other everyday activities—the drive home, over tea or coffee. It works as part of something else, not as an activity in its own right" (Boud, 2006, 165). Boud and Walker (1993, 79) brainstormed a whole list of barriers to reflection (partly restated, rearranged and modified here):

- Presupposition about what is and what is not possible for us to do (experience of competency)
- Past (negative) experiences
- (Anticipated) expectations of others
- Hostile or impoverished environments
- Lack of
  - Self-awareness, confidence, self-esteem and suchlike
  - Skills

  - Opportunities to step aside from tasks (time and space)
  - Support from others
- External pressure and demands
- Established patterns of thought and behaviour

Again, this list reveals that reflection cannot be distinguished from motivational and emotional aspects in addition to individual skills and environmental aspects. Discussion of reflection processes on the individual, social and organisational levels is a complex task to fulfil because of the integrated nature of all the levels.

Aggravating this situation is the fact that people usually do not like to contemplate, especially when facing barriers. It is easier not to take responsibility for one's own actions. It is much easier to act in a routinised and rule-based manner or dive back into the comfort of a group than thinking on one's own. So conflicts can be avoided, for instance, through the refusal to perform an active assimilation of information (Dörner, 1994; Reither, 1985). This behaviour is common in stressful and critical situations. Against this background, we may ask the question whether teams are actually more productive than individuals. Although it is possible to see it this way because a group of people may have different knowledge and skills, it depends on various influences on team performance, for example, permissions, members, promotion, biases, information and task characteristics. In addition, ritualisation and dogmatisation are common group phenomenons because the group gives feedback on the adequacy of a behaviour, which the real world with its "death times" cannot offer (Dörner, 1994, 216). This is also one reason why people within groups might act in a different way than they would if they were on their own. "Groupthink" provides support to individuals and which is why teams show a greater willingness to take risks (ibid.).

Also it is important to remember that reflection itself does not cause changes (Edmondson, 2002; Schippers et al., 2007). Action and adaption as "goal-directed behaviors [are] relevant to achieving the desired changes in team objectives, strategies, processes, organisations or environments identified by the team during the stage of reflection" (West, 2000, 6). Reflection gives the "opportunity for anecdotal offloading" (Tarrant, 2013, 27). Venting experiences and feelings is time-consuming, partly incriminating and will also not lead to changes alone. As already mentioned, a healthy balance of reflection and action adjusted to the respective context is essential to prevent incapacity and individual burden. There has to be prevention of "paralysis through analysis" (Busch, 2010, 297) or in other words rumination and brooding (e.g. Trapnell & Campbell, 1999).

Additionally, organisations have to be cautious in implementing structures and forcing methods for reflection because "[t]here is a risk in formalizing the informal … [as] both formality and informality are needed for reflection" (Boud, 2006, 165). Every formal activity has informal elements that may support or undermine it (ibid., see also Introduction). "Perceiving oneself as 'off-the-job' can be important for reflection" (ibid.)—sometimes explicit reflection does not lead to better results (Van Woerkom & Tjepkema, 2013). Moreover, an exaggerated reflective practice can evoke defensive responses from individuals and members of a team if

it turns out to be a burden and means a lot more work with no appreciable outcome (Busch, 2010; Tarrant, 2013). But there are also key barriers to informal critical reflection (Brooks, 1999). Internal competition and the employees' tendency to protect their turf, conflict avoidance ("sitting" on information that might be crucial to others; dancing around issues, somebody else will find it) and the tendency to act without adequate considerations of the benefits and consequences (cf. side- and follow-up-effects, Sembill, 1992; e.g. Dörner, 1994) are widespread in practice. Brooks (1999, 77) states that a loss of learning is possible in several places:

- Team members do not contribute to their own information or ideas.
- Information and ideas brought to the table are not allowed to recombine in new and unexpected ways.
- Team leaders fail to recognise that he or she is alienating other team members.
- Participants miss the opportunity to better understand how groups can work together.
- Participants leave the room frustrated and hostile and will never work in this team again.

Leaders in organisations should not be afraid of employees who, metaphorically speaking, "can see the emperor is wearing no clothes" or of those who typically are called "troublemakers" (Brooks, 1999, 68). It is important from the perspective of organisations to foster a culture of reflection, beginning with individual reflection to team reflection and finally the implementation of matching structures and methods with challenges and boundaries of reflection borne in mind.

7.4 Implications and Conclusions

It is not an easy task to suggest implications and conclusions out of the content of this paper because only a small proportion of it is underpinned by empirical studies. However, "[t]eam reflexivity is seen as a key factor in team effectiveness and enhancing reflexivity is therefore important to organizations" (Schippers et al., 2008, 1608). Thereby, it seems constructive to include the individual, the social and the organisational perspectives of reflection into one's deliberations "to conceptualize the complex processes of learning at work. When it comes to learning at work it seems evident that reflection is incomplete if conceived of as a private individual activity" (Høyrup & Elkjaer, 2006, 40), and likewise it is only partial when discussing team reflection processes without focusing on individual reflection and organisational structures. Team reflection benefits from the individual reflection skills of each participant as well as from supportive organisational structures that offer the employees the time and space for reflection and do not blame those who make grievances visible. "What is needed is the taking up of reflection as a part of workplace discourse to legitimize it and to enable work to be organized to permit it to flourish" (Boud, 2006, 168). Structural implementations for supporting reflections are needed, whilst taking

account of the challenges and boundaries. Provoking defensive reactions would be counterproductive (cf. Busch, 2010).

To sum up, "[f]eeling directed, unified, empowered, and able to explore issues helps teams reflect openly and productively. Then team members understand that reflection will be used to keep them on course, promote mutual benefit, strengthen their abilities, and use problem solving to examine their teamwork. Teams also need norms, procedures, and skills to identify and overcome interpersonal conflicts, deal with failures, and celebrate success as they work together" (Tjosvold, 1991, 194). Most of the statements and theoretical recommendations for actions in this chapter and the cited literature are predominantly normative and therefore convenient for producing theories. These theories then have to be tested within empirical studies because theoretical approaches are not always accurate when proclaiming the need for improvements through reflection for everybody. A few empirical studies show that only specific groups of employees (partly) benefit from implementations (e.g. Boud, 2006; Buljac-Samardžić & Van Woerkom, in press). But there is a lot of empirical research to conduct in this complex field to bridge the gaps that are still apparent.

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