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FEEDBACK IN ORGANIZATIONS

A REVIEW OF FEEDBACK LITERATURE AND A FRAMEWORK FOR FUTURE RESEARCH

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Abstract

Feedback interventions in organizations are supposed to be important conditions for positive organizational outcomes. The findings of a meta-analysis conducted by Kluger and DeNisi (1996) suggest that the mechanisms of feedback are still unclear. We propose that these findings can be explained by an isolated view on feedback in the literature. To ground these assumptions we carry out a literature review to get an overview on the various relevant themes in research on feedback in organizations. The results show that the investigation of the dynamic interplay between all components of feedback is missing in previous research. In the second part we derive components of a new integrative model for analyzing feedback in organizations. Based on the results we introduce a theoretical model of the perceived feedback culture. This new theoretical model is based on a multidimensional and continuous perspective of feedback in organizations with respect to formal and informal feedback. Furthermore the level of norms and values related to feedback is integrated into the model.

1. Introduction

Companies that want to stay competitive have to adapt to developments in society. To meet the demands of developments in, for instance, technology, economy, and demography, the organization has to keep on providing a high quality of work. That can only be realized if employees continuously learn and develop (Maurer et al., 2003). The question arises about how employees learn and can keep learning at work. There are possibilities in the interaction between employees. Work-related feedback plays an important role in this respect. This feedback supports self-development and continuous professional development (London & Smither, 1999). Feedback helps to focus employees' work-related activities on the desired personal and organizational goals (Kleinbeck, 2004). It also enhances an individual's self-awareness (Herold & Greller, 1977), helps to adjust self-perceptions and self-ratings, and helps to detect performance gaps (Mory, 1996). Thus, feedback on work-related behaviour seems to be a crucial element for individual and organizational success.

Research on feedback in organizations has a long tradition. Ashford and Cummings (1983, p. 372) define feedback in the context of organizations as follows: "Specifically, feedback is defined as a subset of information available to individuals in their work environment. Feedback is that information that denotes how well individuals are meeting various goals. In the interpersonal realm, feedback involves information about how their behaviours are perceived and evaluated by relevant others. […]" The reason for this interest in feedback is that in previous research, feedback has proven to have an effect on numerous organizational outcomes, such as work performance (e.g. Becker & Klimonski, 1989), organizational commitment (e.g. Norris-Watts & Levy, 2003), and organizational effectiveness (Fedor, 1991). Kluger and DeNisi (1996) conducted a meta-analysis on research on the effects of feedback. Results showed that feedback has only moderate positive effects on work outcomes, and in more than 38 percent of the studies the effects that were found are negative. This suggests that despite the long research tradition, the mechanisms of feedback are still unclear. We propose that the findings of Kluger and DeNisi (1996) can be explained by an isolated view on feedback in the literature. Authors mainly focus on particular stages of feedback, antecedent variables and correlates, rather than investigating the feedback process as a whole. We argue that for analyzing and researching feedback processes in organizations, an integrative concept is required. In this concept the *perceived feedback culture* is crucial. Therefore, such a concept has to be developed.

Because we want to ground these assumptions, we pursue three central goals in this contribution. Firstly, the goal is to get an overview on the various relevant themes in research on feedback in organizations. Therefore a literature review was carried out. Based on the results of the review, we argue that investigating feedback in organizations is characterized by an isolated view. The results of this review will be further explained below. In the second part, we derive themes for a new integrative model for analyzing organizational feedback processes. Thirdly, we introduce a theoretical model of the *perceived feedback culture*.

2. Review of the feedback literature

2.1. Literature search

The relevant literature consists primarily of theoretical conceptualizations and empirical research on feedback in organizations. The guiding questions for the review were: What are important research issues in research on feedback? How is feedback understood and measured? Which are antecedent and correlate variables of interest? By answering these guiding questions we can detect difficulties in the feedback literature which could have led to the inconsistent findings of the meta-analysis by Kluger and DeNisi (1996). In the subsequent section we describe how the data of the review were searched for, selected, and analyzed.

With this conceptual review it is not intended to provide a complete and final overview of theoretical and empirical studies on feedback research, nor present specific studies in depth. We concentrate on answering the identified questions. For searching the relevant literature two major computerized databases were screened: The Educational Resources Information Centre (ERIC) catalogue and Psychological Index (Psyndex). These databases give access to material from educational and psychological sciences, but also from related disciplines such as organizational behaviour, sociology, social work, law, and criminology. We concentrated on literature referring to feedback in organizations and only included articles published in peer-reviewed journals. The literature search consisted of several phases. In the first phase, the databases were scanned for recently published and also for older *theoretical and empirical reviews* of feedback in general and more specifically in organizations. In the first phase of the literature search, the following keywords were used:

- Keywords containing feedback: feedback, feedback intervention, feedback process, performance feedback, performance appraisal
- Keywords referring to a theoretical or empirical review: review, historical, meta-analysis, framework, model
- Keywords referring to the focused location of feedback: organization

Screening the databases applying these keywords resulted in 14 theoretical and empirical articles with the results of review studies. In the second stage of the literature search we analyzed the citations in these articles. We used these citations for the selection of additional relevant literature to analyze. In addition, analyzing the 14 reviews resulted in additional keywords. These keywords refer to the various topics in feedback literature. These keywords were then applied to the databases. These articles were also analyzed for citations to find additional relevant literature. We ended our search after the cited literature in the articles mostly overlapped. This procedure resulted in 92 articles which were included in the review. These articles were found to be the most cited in the literature on feedback in organizations, which is an indicator of the quality of the articles. They come from various research paradigms.

The central aim of this review is to explore the relevant issues in research on feedback in organizations in educational and psychological sciences. The results of the review are the basis for our conclusion that an isolated view in investigating feedback in organizations is used in the literature so far. We categorized the articles based on a range of characteristics: study aim, definition and understanding of feedback, antecedent variables, outcome variables, study design, measurement of feedback, the subsequent analysis, and conclusions of the study. Thus, we

uncovered the most important research themes. That led to a classification of themes in which the studies were arranged.

In the following paragraph the results of our review are presented.

2.2. Results of the literature review

The content analysis of the articles delivered four major themes in the research. The first group of texts that could be identified deals with investigating *components or instances of feedback,* such as characteristics of the feedback source, the feedback message, the feedback recipient, and context variables. These variables are related to the feedback process itself. A second important issue is the kind of *response on feedback.* These can be cognitive, affective, motivational, and behavioural responses. These variables follow the feedback process. These two strands of research are concerned with giving feedback. The third topic in the literature investigates components that are there before feedback and possible responses: the *individual feedback behaviour* divided to feedback-giving-behaviour and feedback-seeking-behaviour. The most recent issue in feedback research deals with the *feedback environment*. Here researchers try to investigate the several instances of feedback as a whole. Figure 1 contains these central issues in feedback research. In the next section, crucial findings within these four major research themes are presented. The central findings per theme are described. We will not question or interpret findings of single studies; instead the review results in a discussion of problematic aspects of previous feedback research. These mainly relate to an isolated view on feedback in organizations.
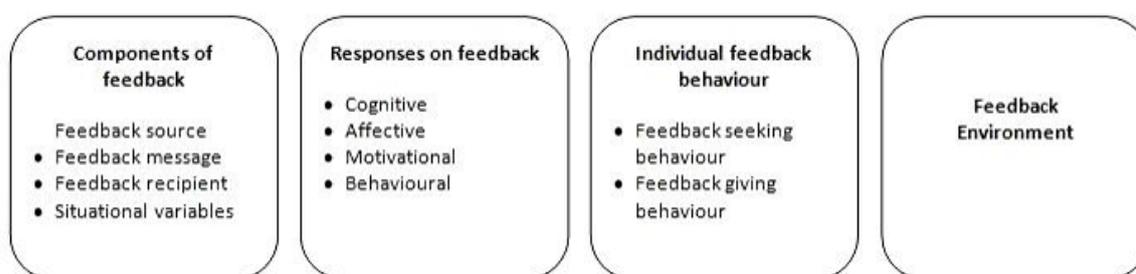
figure 1: Central issues in the feedback literature

2.2.1. Components of feedback

The first research issue in feedback literature consists of theoretical and empirical approaches focusing on *components or instances of feedback*. These components are the *feedback source*, the *feedback message*, the *feedback recipient*, and *context variables* of feedback processes. Some of the instances consist of several variables, which in turn can be divided into various facets. Findings of relevant studies regarding these issues are presented in the next section. This section results in a summary and discussion regarding our conclusion on the isolated view of feedback processes in the literature.

The feedback source

Ilgen, Fisher, and Taylor (1979) identified the feedback source as a particularly important part of the feedback process. Research regarding feedback sources concerns the types of feedback sources in a work environment, attributes of feedback sources, and the impact of source

attributes on the acceptance of the feedback message and the extent to which feedback is used. Findings on all these components will be discussed below in more detail.

Types of feedback sources
Previous results mention five potential sources of feedback found in a work environment: the *formal organization*, the *supervisor*, the *co-workers*, *information provided by performance of the task*, and *employees' personal thoughts and feelings* (Greller, 1980; Greller & Herold, 1975; Herold, Liden, & Leatherwood, 1987; Northcraft & Earley, 1989). Follow-up studies categorize feedback sources into three categories: organizational and supervisory feedback, co-workers (individuals not in a formal hierarchical relationship), and the process of performing a task (task or self-feedback) (Greller & Parsons, 1992; Herold & Parsons, 1985). Recent approaches suggest two feedback sources in a work environment that are relevant: the supervisor and the co-workers (Ashford, 1993; Steelman, Levy, & Snell, 2004).

Source attributes
Differences among sources of feedback can be captured in several attributes: a) usefulness/importance, b) consistency/reliability, c) amount/frequency, d) credibility, e) informativeness, f) accessibility, g) relationship and h) reward power.
Greller (1980) reported differences in the perceived *usefulness* of information from different sources. The respondents rated the intrinsic sources (like the self). The self was found to be the most useful source of information, and the organization and the supervisor were mentioned as least useful sources. However, Ashford (1993) had respondents valued the *importance* of different feedback sources. He found that individuals, regardless of their work experience, thougt the organization and their supervisors were the most important feedback sources. Peer feedback and self-observations were considered less important. Greller and Parsons (1992) examined what information a person uses when (s)he gets different kinds of feedback from various sources on the same incident. The authors found that in those cases, employees use the information that is most self-confirming. Herold, Liden, and Leatherwood (1987) attempted to classify sources of feedback in terms of *usefulness*, *reliability*, and *frequency,* and found that individuals judged feedback from formal organizations least positively, followed by feedback from co-workers, feedback from supervisors and the task, and finally the individuals' own feelings and ideas. Also, Hanser and Muchinski (1978) reported differences in the perceived *reliability* of the different sources. In their study, the feedback of supervisors was valued as more reliable than that of co-workers.
Findings of Hanser and Muchinski (1978) and Greller and Herold (1975) indicate that intrinsic sources give more feedback than more distant sources. Another important attribute of the source is *credibility*. Credibility in this case refers to the confidence that an individual has in the knowledge a source has about the behaviour (s)he gives feedback on (Vancouver & Morrison, 1995). Perceived credibility has an effect on employees' accuracy to interpret feedback, as well as on their likelihood to respond to it (Ilgen et al., 1979). This finding is supported by the research of Tuckman and Oliver (1968) and Huse (1967).
Greller and Herold (1975) investigated sources as providers of two types of feedback. Differences in perceived *informativeness* across sources were moderated by the type of information they provided. They found that supervisors gave more information concerning task requirements than the task itself did (referent feedback). Feedback on performance, on the other hand, was mostly

received from the task itself, and less from the supervisor (appraisal feedback). This result was confirmed by Hanser and Muchinski (1978). *Accessibility* refers to the ease with which one can obtain information from a source. O'Reilly (1982) found that decision makers are far more likely to obtain information from highly accessible sources than from less accessible sources, even if the latter could provide better quality information.

The quality of the *relationship between the feedback recipient and the source of feedback* is another characteristic of the source (Vancouver & Morrison, 1995). Findings indicate that the better the relationship, the less likely a source will react negatively to feedback, and the more likely he or she will provide feedback in a sensitive and constructive manner (Larson, 1989; Northcraft & Ashford, 1990; Morrison & Bies, 1991). The last source characteristic is *reward power*, which refers to the ability a source has to influence the behaviour of a feedback recipient with his feedback (Ilgen et al., 1979). Ilgen et al. (1979) found that power is an important variable in feedback processes, affecting the likelihood that employees will accept and respond to feedback.

The feedback message

The second component of the feedback process is the *feedback message*. Variables of the feedback message are *content, timing*, and *delivery* of feedback messages.

Content of the feedback message. This is determined by various facets. These facets are "kind of information," "valence," and "specificity."

Kind of information. One aspect of the content of the feedback message is the kind of information it conveys. Herold and Greller (1977) found different types of messages: messages relating to the satisfaction of internal and external standards and messages relating to the smoothness in the work flow. The information value of feedback depends upon the increase in knowledge about work-related behaviour that is provided by the feedback (Ilgen et al., 1979). Feedback seems to be efficient when it increases knowledge, and thereby reduces uncertainty. Another aspect of the value of information is that recipients must be able to translate the message to units that are meaningful to them (Ilgen et al., 1979). Zhou (1998) examined the interactive effects of feedback style, feedback valence, and task autonomy on creativity. Individuals who received positive feedback in an informational style, and employees who had a large amount of autonomy in their tasks, generated the most creative ideas.

Valence. One of the most important aspects regarding the content of feedback is its valence, whether it is positive or negative (Herold & Greller, 1985). Positive feedback consists of messages that articulate the acceptance of behaviour, or the satisfactory or higher performance. With negative content of feedback, those messages are meant that refer to the unsatisfying behaviour of the recipient and are not well received by the recipient (Cusella, 1987). Ilgen et al. (1979) found in their review that positive feedback is perceived and remembered more accurately than negative feedback. Furthermore, there is evidence that providers of feedback tend to deform, delay, and avoid positive and negative feedback. Herold and Greller (1977) found clear differences in how adequate the recipients perceive positive and negative feedback messages from one and the same source. Podsakoff and Farh (1989) found, that feedback is more effective when it contains a moderate amount of positive feedback combined with a little negative feedback. Zhou (1998) examined the effect of feedback valence on creativity and found that positive feedback is more helpful for creative performance than negative feedback. The results of Steelman and Rutkowksi

(2003) indicate that employees are more motivated to improve their job performance because of unpleasant feedback, when the feedback source is perceived as credible, the feedback is of high quality, and the feedback is delivered adequately.

Specificity. Specificity refers to the extent to which the feedback provides specific (detailed) information about performance, in contradiction to general (or no detailed) information. In her review, Brinko (1993) found that feedback is more effective when it contains concrete information. Goodman, Wood, and Hendrickx (2004) investigated the effect of feedback specificity on exploration and learning. The results demonstrate that increasing the specificity of feedback positively affected performance, but its benefits did not endure over time nor resulted in a modification of the task. In addition, feedback specificity negatively affected the level of exploration during work.

Timing of feedback. This consists of two facets, namely the "frequency of feedback" and the "feedback interval".

Frequency of feedback. The frequency of feedback refers to how often feedback is given (Becker & Klimonski, 1989). Ilgen et al. (1979) stated that it is assumed that the more frequent feedback is given, the more effective it is. Another study by Chhokar and Wallin (1984) indicated that when feedback is given more often, subsequent performance is not supported. Caroll and Goldberg (1989) found that feedback is more effective for work behaviour when feedback is considered as a process, not as a one-time event.

Feedback interval. The feedback interval relates to how quickly a feedback source provides feedback after performance occurs (Cusella, 1987). The recipient can use the feedback when it is given shortly after the behaviour in focus, because then (s)he is able to connect the feedback to the behaviour. Ammons (1956) already concluded in his review that the more time there is between the behaviour and the feedback, the lower are the effects on the subsequent behaviour. Kulik and Kulik (1988) conducted a meta-analysis on feedback timing and learning and have obtained a variety of results. In field studies it was usually found that immediate feedback is more effective than delayed feedback. This contradicts the results of experimental studies, where delayed feedback seemed to be more effective.

Feedback delivery. The third variable of the feedback message is *feedback delivery*. Regarding this variable, Ilgen et al. (1979) emphasize the role of intrinsic motivation. Individuals will more likely respond to feedback that is given in a non-controlling manner and that promotes a sense of competence (Gagné & Deci, 2005). Another important aspect of feedback delivery is its *sensitivity*. Feedback sensitivity describes whether or not the feedback source shows concern for the recipient's feelings when the feedback is given (Cusella, 1987). London (2003) distinguishes between constructive and destructive feedback. Jöns (2005) as well as Gagné and Deci (2005) provide evidence for the importance of a constructive delivery concerning acceptance of feedback.

Characteristics of the feedback recipient

Next to the characteristics of the external stimuli, characteristics of the receiver him/herself are of importance. There are various characteristics of the feedback recipients that have an effect on perceiving, accepting, and interpreting feedback. Research has shown that the following individual dispositions are relevant: *Performance expectations*, *attributional style*, *self-esteem/self-efficacy*, *age and work experience*, *emotional stability* and *performance/mastery orientation*.

Performance expectations. Ilgen et al. (1979) found evidence for the impact of recipients' expectations and hypotheses about their work-related behaviour based on past performance, on the effects of feedback. The recipient tends not to perceive feedback that is inconsistent with his or her hypotheses and expectations and tends to select feedback that is consistent with what their expectations (Kanning, 1999).

Attributional style. Mory (1996) emphasizes the influence of the individual attributional style on perceiving, accepting, and interpreting feedback. Attributional style refers to individuals' explanations of causes for positive and negative feedback (Rheinberg, 2000). Employees who attribute negative feedback to external causes do not tend to change their work behaviour. Employees who get negative feedback and interpret the message so that they themselves are to blame will change work-related behaviour (Liden & Mitchell, 1985; Ilgen & Knowlton, 1980).

Self-esteem and self-efficacy. In addition, some studies focus on the influence of self-esteem. Weiss (1977) reported that employees with high self-esteem, compared with those with low self-esteem, relied less on external sources and more on their own self-perceptions to guide their work-related behaviour. Individuals with low self-esteem rely more on feedback from external sources. Atwater and Brett (2005) showed that those employees with high self-efficacy tend to see feedback as a positive thing and that these employees tend to be more willing to engage in follow-up activities. Jussim et al. (1995) support these findings. They found that those with high self-esteem took more responsibility for the receipt of positive feedback than of negative feedback, and they judged positive feedback as more accurate. Individuals with low self-esteem took more responsibility for negative feedback and perceived negative feedback as more accurate.

Age and work experience. The age of the recipient also appears to influence the degree to which feedback is accepted and used. Meyer and Walker (1961) found that older employees used feedback less than younger employees. According to the authors, this may be explained by the fact that age in most work settings is positively related to experience. More experienced individuals may tend to use their past experience as a source of feedback, and it is also more likely that they reject feedback from others (Ilgen et al., 1979).

Emotional stability. Individuals who score high on emotional stability are predisposed to manage events and emotions in a balanced adaptive way, and they are less likely to report negative feelings (Russel & Karol, 1994). Low emotional stability is associated with feeling anxious and fearful and with a predisposition to experience negative emotions. Atwater and Brett (2005) found that individuals with lower emotional stability give more negative reactions to feedback, and give fewer positive reactions; they are less motivated, and engage less in follow-up behaviour than those with higher emotional stability.

Mastery and performance orientation. London and Smither (2002) mention mastery and performance orientation as an important individual variable. For individuals with a mastery orientation, their main focus is on developing competence (Dweck, 1986). These individuals want to acquire knowledge and skills until they reach a level of mastery that represents a deep understanding, and they take feedback on skill deficits as an opportunity for improvement. Employees with a performance orientation compare their performance to that of others and tend to focus on performing better than others. They tend to see failure as indicating a lack of ability, and therefore take performance feedback as threatening. Moreover, individuals with a mastery

orientation are more likely to be open for feedback and thus persist until they have achieved the level of competence (Squires & Adler, 1998).

Context variables
There is little empirical research regarding contextual factors of feedback processes (Steelman, Levy, & Snell, 2004). In the context of informal feedback, Larson (1984) postulates in his theoretical model the impact of norms and rules in an organization on employees' feedback-related behaviour. The author states that the normative pressure and values regarding the work environment are positively related with how feedback is given, received and used by the employees. London and Smither (2002) emphasize the task and outcome-dependency of feedback processes in an organization. If employees' performance improvements following feedback are recognized and rewarded, they will more likely tend to use feedback. Levy and Williams (2004) state that organizational culture and organizational climate are positively related to individual feedback behaviour and feedback use. In a recent study, Rosen, Levy, and Hall (2006) found evidence for organizational influences on feedback processes and reported a negative relation between the perceived feedback environment and perceptions of organizational policies.

2.2.2. Summary of the components of feedback
The first research theme regarding the components of feedback in organizations has been presented. The central components are the *feedback source*, the *feedback message*, the *feedback recipient* and *context variables*. Each one of the components of feedback consists of many variables which again are subdivided to several facets. This underlines the complexity of feedback in organizations. Reviewing the literature we found that most articles focus on investigating one single component, variable, or facet of feedback. However, this is a reduction and bias of "feedback-reality" in organizations, where all instances are interdependent. The investigation of the dynamic interplay between all components is missing in the previous research. In addition, contextual variables of the feedback processes have been disregarded in the literature.
In the next section, the second research theme in the feedback literature is presented.

2.2.3. Responses on feedback – Effects of feedback
The second research theme that was found in feedback literature concerns the *responses* or *reactions on feedback*, the so-called *feedback effects*. Responses on feedback are complex (Farr, 1991). According to Taylor, Fisher, and Ilgen (1984) these reactions can be divided into three categories: cognitive, affective, and behavioural responses. These responses, again, consist of various facets. In more recent literature, Mory (1996; 2004) emphasizes a fourth category: the motivational responses. This category is included into the review because motivation has proven to be an important determinant of work performance (e.g. Deci & Ryan, 2005). In the following section, findings regarding cognitive, affective, motivational, and behavioural responses on feedback are described. The section ends with a summary and discusses the isolated view on feedback that we found in the literature.

Cognitive responses on feedback

Various cognitive responses on the feedback process were found: *feedback-standard-comparisons*, *acceptance of feedback*, *attributional conclusions*, *goal setting processes* and *job or organizational attitudes*.

Feedback-standard-comparisons.   Feedback-standard-comparisons are part of many approaches in the feedback literature; for example of goal-setting and control theories (Kluger & DeNisi, 1996). Locke and Latham (1990) found that behaviour is goal-directed. To achieve goals or standards, people use feedback to evaluate their performance in relation to their goals. The result of the comparison between feedback and a goal or standard, leads to a feedback sign (Podsakoff & Farh, 1989). As noted by Taylor et al. (1984), control theory assumes that individuals' reactions to feedback are determined by their desire to minimize the discrepancy between their behaviour and their internal standards. When feedback indicates that one has met a standard (positive feedback) it is expected that the individual's goals and effort for subsequent work will remain stable. When feedback indicates a negative discrepancy between performance and internal standards, attempts to reduce this discrepancy can be accomplished by increasing effort and/or reducing one's standards (Inoshita, 1983). Research has shown four strategies for eliminating a feedback-standard gap (Kluger and DeNisi, 1996): 1) change the behaviour in focus, 2) abandon the standard, 3) change the standard, and 4) reject the feedback message. Research by Campion and Lord (1982) has shown that individuals who received initial negative feedback regarding the performance standard, intensify their effort, whereas repeated negative feedback eventually leads to giving up the standards.

Acceptance of feedback.   When feedback is received and compared with a standard, then an individual has to accept the feedback. The result of the feedback-standard-comparison process is the degree of acceptance of feedback (Taylor et al., 1984). Acceptance means the recipient's belief that the feedback is an accurate portrayal of his or her performance. The acceptance of feedback is influenced by source attributes such as *credibility* and *trustworthiness* (Griffin, 1967; Tuckman & Oliver, 1968), by feedback message attributes, such as *feedback sign* (Fedor et al., 1989), *feedback consistency* (Hanser & Muchinsky, 1978), and by individual variables of the recipient, such as *attributional style* (Mory, 1996), the *age of the recipient* (Meyer & Walker, 1961), and *individuals' self-esteem* (Nease et al., 1999).

Attributional conclusions.   After the acceptance of a feedback message, attributional processes become relevant. Attributional processes refer to individuals' explanations of causes for positive and negative feedback (Rheinberg, 2000). The result of the attributional process influences subsequent behaviour. Research has shown that employees who attribute negative feedback to external causes, are not likely to change their work-related behaviour (Liden & Mitchell, 1985; Ilgen & Knowlton, 1980). As a cognitive response, attributional processes are mainly influenced by an employee's attributional style (Liden & Mitchell, 1985).

Goal setting.   Research on goal setting has demonstrated that work-related feedback is a necessary condition for goal setting at work. Feedback combined with goal setting affects performance (Erez, 1977; Locke & Latham, 1990; Kleinbeck, 2004). Illies and Judge (2005) examined for both positive and negative feedback, and how feedback influences subsequent goals. After negative feedback, the goals decrease; after positive feedback, the goals rise. In contradiction, Podsakoff and Farh (1989) found that after negative feedback individuals set higher goals and improved their performance more than those individuals who received positive

feedback. Earley, Northcraft, Lee, and Lituchy (1989) as well as Vance and Colella (1990) reported that specific feedback has a stronger influence on future goals than general feedback. Balcazar, Hopkins, and Suarez (1986) found that the effects of feedback are more consistent when goal setting is part of the feedback process.

Job and organizational attitudes.   Attitudes are the result of a cognitive and affective evaluation of an object (Ajzen, 1991). Thus, this variable is not a "pure" cognitive variable. Lam, Yik, und Schaubroek (2002) examined the effects of performance feedback on job attitudes. They found that negative feelings influence the relation between positive feedback and job attitudes. Among the higher-rated performers, attitudes were improved one month after receiving positive feedback. Employees with little negative feelings after six months still had improved attitudes. Not so, those with strong negative feelings. The lower-rated performers did not change their attitudes. Tziner and Latham (1989) investigated the relationship between feedback and goal setting with organizational commitment and job satisfaction. They found that employees who got feedback combined with goals, had a higher organizational commitment and job satisfaction.

Affective responses on feedback

Affective responses refer to the individuals' feelings following feedback. That is positive and negative affect or satisfaction and dissatisfaction (Farr, 1991). Various facets of the feedback process have been proven to influence individuals' affective responses. These are the *feedback sign*, *the consistency between feedback and the recipient's standards or expectations*, *attributional effects,* and the *amount and content of feedback*. According to Farr (1991) the most important predictor regarding the affective response to feedback is the *feedback sign*. Positive feedback tends to yield positive emotions, while negative feedback tends to result in negative emotions (Jussim, Yen, and Aiello, 1995). Several studies have shown that receipt of positive feedback is much more satisfying than receipt of negative feedback and that negative feedback causes defensiveness and dissatisfaction (London, 1997; Podsakoff & Farh, 1989). Brockner, Derr, and Laing (1987) as well as Ilies and Judge (2005) found that this relation is moderated by a person's self-esteem. Individuals with high self-esteem understand negative feedback as a challenge and do not react with negative feelings.

A second feedback characteristic influencing affective responses is how *positive or negative it is, compared to the feedback one expected to receive* (Taylor et al., 1984). Ilgen and Hamstra (1972) found that both feedback that was more negative than expected, and feedback that was as positive as expected, affect an employee's satisfaction with her/his own performance. Carver and Scheier (1981) and Weiner (1982) have argued that after positive and negative feedback individuals make attributions about the causes of feedback, that lead to positive or negative emotions. If success is attributed to internal causes, like effort or ability, one feels proud and satisfied. On the other hand, if it is attributed externally, one feels dissatisfied.

In addition, the *amount and content of feedback* influences affective responses (Taylor et al., 1984). Employees want to compare their actual work-related behaviour with set goals. Therefore, they actually value feedback because it enables them to make these comparisons (Ashford & Cummings, 1986; Ashford, 2003). Referring to the content of feedback, specific feedback has been found to be more satisfying than general feedback (Ilgen, Mitchell, & Fredrickson, 1981).

Motivational responses on feedback

In research on the self-determination theory (Deci, Connel, and Ryan, 1889; Gagné & Deci, 2005), findings on motivational responses on feedback can be found. This theory assumes that satisfaction in basic psychological needs is the condition for intrinsic motivation and internalization. The basic needs are: 1) need for autonomy, 2) need for competence, and 3) need for social relatedness. A work environment that improves satisfaction in these psychological needs will support intrinsic motivation and facilitate internalization of extrinsic motivation (Gagné & Deci, 2005).

Feedback is an important factor for feeling autonomous and the sign of feedback is closely related to the feeling of competence (Gagné & Deci, 2005). Deci, Connell, and Ryan (1989) found that when managers were trained to be more supportive of autonomy – that is, to understand subordinates' perspectives, encourage their initiative, and provide feedback in a supportive rather than a controlling way – their subordinates developed more positive work related attitudes. Studies by Deci (1971) and Ryan (1982) showed that positive feedback can enhance the feeling of competence and intrinsic motivation if it is given in an autonomy-supporting and non-controlling manner. Deci (1971) found that positive feedback facilitated intrinsic motivation by stimulating the feeling of competence. Because of these feelings, people felt that they were the source for their own successful performance. Negative feedback that decreased perceived competence was found to undermine both intrinsic and extrinsic motivation, leaving people amotivated (Deci & Ryan, 1985). In a meta-analysis of 128 laboratory experiments Deci, Koestner, & Ryan (1999) confirmed this results.

Behavioural responses on feedback

Cognitive, affective, and motivational responses on feedback lead to behavioural responses (Taylor et al., 1984; Mory, 2004). Mentioned behavioural responses in feedback literature are *effort*, *performance*, and the *participation in development activities*. Behavioural responses are determined by many of the above *components of the feedback process*, such as *characteristics of the feedback message* and the *feedback source*. Central findings about behavioural responses are described below.

Effort. Studies by Bandura and Cervone (1986) and Podsakoff and Farh (1989) indicate that initial negative feedback increases effort. Similarly, Mikuliner (1994) demonstrated that individuals who got negative feedback only once increased their effort more than those who received no feedback at all. Vance and Collella (1990) found that repeated negative feedback decreased effort.

Work Performance. Many studies have investigated the relation between feedback and performance. The findings often have been inconsistent (Ilies & Judge, 2005). Therefore, we decided not to present specific studies, but to focus on two important meta-analyses. Kluger and DeNisi (1996) conducted a meta-analysis on the effect of feedback on performance. In a review of the feedback literature, they identified 3,000 papers. The authors limited the meta-analysis to 131 papers, which contained all the necessary information required for a meta-analysis (DeNisi & Kluger, 2000). The outcome was that feedback has only moderate positive effects on performance, and that in more than 38 percent of the studies, the effects were negative. That is, in over one-third of the cases, feedback actually harmed subsequent performance. Seifert, Yuki, und McDonald (2003) conducted a meta-analysis on formal feedback and subsequent

performance. They reviewed 14 studies on either 360-degree feedback or upward feedback. They found no consistent results: some studies show performance improvements (e.g., Atwater, Rousch, & Fischthal 1995) and some did not (e.g., Johnson & Ferstl, 1999).

Development activities. London, Larson, and Thisted (1999) found positive relations between various dimensions of feedback and employees' self-development. Maurer (1999; 2002) found in relation to 360-degree feedback, evidence for a positive relation between feedback and participation in professional development activities. The results of Atwater and Brett (2005) do not support the findings of Maurer (1999; 2002).

2.2.4. Summary of the responses on feedback

Responses on feedback seem to be very complex. Feedback generates cognitive, affective, motivational, and behavioural responses. These responses are interacting. Cognitive, affective, and motivational responses on feedback lead to behavioural responses. Moreover, the review yielded that *responses on feedback* are determined by different *components of feedback*, like characteristics of the feedback message or the recipient. That is, responses are associated with each other and with several components of feedback. However, the majority of the studies in the feedback literature focus on isolated components of feedback and on only one single criterion of responses on feedback. This is an oversimplification of feedback processes in organizations and could be one reason for the inconsistent findings of Kluger and DeNisi's (1996) meta-analysis.

2.2.5. Individual feedback behaviour

A next strand of research in the feedback literature focuses on *individual feedback behaviour*. Individual feedback behaviour can be distinguished in *feedback seeking* and *feedback giving behaviour*.

Employees' feedback seeking behaviour (FSB)

Ashford and Cummings (1983) noted that beyond feedback that is given, feedback also exists more generally in the environment and is available for individuals to use. They argued that any action or lack of action by others can be interpreted as feedback by individuals. Thus, individuals can always use occurrences and their observations as feedback messages (Ashford & Cummings, 1983). In addition, individuals can seek feedback by directly inquiring how others perceive and evaluate their behaviour. Individuals are motivated to seek performance feedback actively rather than passively awaiting such information (Morrison & Cummings, 1992).

Research on feedback seeking behaviour has identified five patterns of FSB (Ashford, 2003): 1) frequency, or how often individuals seek it; 2) the method used to seek feedback, whether by monitoring or inquiry strategy; 3) the timing of feedback seeking; 4) the target of feedback seeking; and 5) the topic on which feedback is sought for.

Findings within FSB suggest that the motivation to seek performance feedback depends to a large extent on whether the seeker expects the feedback to be positive. Morrison and Cummings (1992) found that individuals are most likely to seek feedback when they expect it to be both diagnostic and positive. Northcraft and Ashford (1990) examined the roles of performance expectations, feedback context, and self-esteem in feedback inquiry. Performance expectations and the setting where the employees seek feedback influenced the frequency of feedback seeking. These effects are moderated by the type of feedback (on personal performance or social

comparison) and by the self-esteem of the feedback seeker. This finding was confirmed by Ashford and Northcraft (1992). In addition, Ashford and Northcraft (1992) examined the impact of organizational norms regarding feedback seeking. They found that organizational norms regarding feedback seeking are used as cues to evaluate how often feedback should be sought. Vancouver and Morrison (1995) investigated the effects of source attributes on FSB. Source credibility, accessibility, quality of relationships, and reward power have significant effects.

Employees' feedback-giving behaviour (FGB)

Another aspect of individual feedback behaviour focuses on feedback-giving behaviour (FGB). Larson (1984) developed a theoretical model of FGB. This model contains affective, cognitive, and contextual factors that are expected to influence individuals' FGB. An important variable within the cognitive set is the salience of employees' work-related behaviour. Behaviour is salient either because it deviates from existing norms, because it is immediate, or because it is important for the supervisor. The results of Fischer (1979) support these assumptions. Another important cognitive variable likely to influence the delivery of feedback is the degree to which the feedback source perceives the feedback recipient as being personally responsible for the observed behaviour. Regarding this assumption, Ilgen and Knowlton (1980) found evidence for attributions a feedback source makes on the recipient's behaviour. A final cognitive variable that may influence a feedback source's FGB is his or her implicit assumptions and beliefs about the likely consequences of giving feedback. Larson (1986) found that supervisors give feedback more often if they depend more on the work behaviour of the subordinates, than when they do not.

Affective antecedents of FGB are feedback valence and the feelings towards the feedback recipient. People are often reluctant to communicate negative information to another person when the information directly concerns that person (Larson, 1986; Adams, 2005). Larson (1984) postulates three ways in which this reluctance might influence feedback FGB: It may 1) decrease the probability of feedback on poor performance, 2) lead to delays in the delivery of negative feedback, and/or 3) lead to modifications of negative feedback. As a second affective variable, Larson (1984) assumes that feedback sources' reluctance to give negative feedback will interact with their feelings towards their colleagues. This assumption is supported by Adams (2005), DeCarlo and Leigh (1996), and Ilgen and Knowlton (1980). The last group of variables influencing FGB relates to contextual variables. Components supposed to influence FGB are the dependence of the feedback source on the behaviour of the subordinates, and the norms and rules in the organization (Larson, 1984). Acknowledging the circular nature of feedback, Larson (1984) assumes that feedback delivery has an effect on work related attitudes, and also on the feedback giver's own cognitive and affective variables, that again are conditions for the next delivery of feedback.

2.2.6. Summary of individual feedback behavior

The third issue in the feedback literature addresses why and how individuals are seeking and giving feedback. This issue is investigated relatively independently from the *components of feedback* and *responses on feedback*. Feedback behaviour is not as independent from the *components of feedback* and the *responses on feedback* as the feedback literature in this section suggests it to be.

2.2.7. The feedback environment

In the middle of the '70s, a first impulse of criticism regarding traditional models of feedback arose. The criticism was that the majority of feedback studies focused on the relationship between one single component of feedback with one single criterion of performance, and that many studies were carried out in laboratory settings (Becker & Klimonski, 1989). Such investigations were considered to be limited, because they failed to take the complexity of organizational feedback into account (Herold & Parsons, 1985). Hanser and Muchinski (1978) understood feedback as one aspect of a larger concept, the *feedback environment*. In the following paragraph findings within the *feedback environment* approach are described.

Research within the feedback environment approach

First studies within the feedback environment approach investigated the amount of feedback, generated by various sources of feedback available in a work environment, as mentioned beforehand (Greller & Herold, 1975; Hanser & Muchinski, 1978; Herold, Liden, & Leatherwood, 1987). In the following research, Herold and Parsons (1985) focused on the development of an instrument for systematically assessing the feedback environment in organizations and developed the "job feedback survey" (JFS). They defined the feedback environment as the type of job performance information that employees perceive as being available to them. Becker and Klimonski (1989) examined the relationship between the perceived feedback environment and multiple criteria of performance, by using the JFS. Feedback from supervisory and organizational sources was positively related to job performance, whereas feedback from peers and self was not. Feedback from the organization and supervisors explains most of the variance in performance. Negative feedback from supervisors relates to lower performance. The JFS has not been validated and is seldom used in research or practice, and the few published studies showed inconsistent results (Ashford, 1993; Greller & Parsons, 1992).

Recently, a new instrument for measuring the *feedback environment* has been developed (Steelman, Levy, & Williams, 2004). Contrary to formal performance feedback, the authors define the *feedback environment* as the daily interactions between members of an organization. Steelman et al. (2004) stress that the *feedback environment* should not be conceptualized as one stable aspect of an organization, but as a continually changing, dynamic system that is shaped by the actions of the feedback recipient. A more complete perspective on the feedback environment should integrate source and message variables into the individual's perceived *feedback environment*.

The Feedback Environment Scale (FES) consists of two major source dimensions, supervisor and co-workers. Both are subdivided into seven major facets: source credibility, feedback quality, feedback delivery, favorable and unfavorable feedback, source availability, promotes feedback seeking. Hence, an employee is subject to two separate, yet somewhat related environments: daily feedback-related interactions with supervisors and daily feedback-related interactions with co-workers. The reliability and validity of each of these seven facets of the FES have been confirmed by construct validation studies.

2.2.8. Summary of the feedback environment

In sum, the approaches of the *feedback environment* can be considered as a first step towards an integrative concept of organizational feedback processes. Authors tried to grasp and analyze feedback on a macroscopic level. Herold and Parsons (1985) as well as Steelman et al. (2004) integrated various feedback sources of feedback (supervisor, co-worker, and task) and dimensions of feedback messages (positive and negative feedback). In that way, the *feedback environment* approach is integrating several *components or instances of feedback*. In addition, they focused on a general individual perception of the *feedback environment* beyond single and isolated feedback messages. Nevertheless, the above models of the feedback environment merely contain informal feedback; formal feedback is neglected. Moreover, these concepts offer no connection to the *responses on feedback* and the individual *feedback behaviour*. We demonstrated above, that the *components of feedback*, the *responses on feedback,* and the *individual feedback behaviour* are interacting. Hence, concepts of the feedback environment are not sufficient to capture the "feedback reality" in organizations.

2.3. Summary of the literature review and conclusions

The purposes of this review are to: 1) elaborate important strands and research issues in the feedback literature; 2) provide evidence for our conclusion that there is an isolated view in investigating feedback in organizations in the previous literature; and thereby 3) figure out explanations for the inconsistent effects of feedback found by Kluger and DeNisi (1996). The information given so far demonstrates the considerable amount of theoretical concepts and empirical findings in the feedback literature. Particularly single instances of the feedback process (characteristics of feedback source, feedback message, feedback recipient, situational determinants) and of responses on feedback processes (cognitive, affective, motivational, and behavioural) are investigated in detail. But the meta-analysis of Kluger and DeNisi (1996) indicates that despite the large amount of research, the mechanisms of feedback are still unclear. Our review offered an isolated view of and procedure in analyzing feedback processes in organizations. This isolated view can be classified in three categories: 1) focusing on feedback quality as a central criterion to analyze feedback; 2) analyzing feedback as a single-time event; and 3) missing integration of several forms of feedback. We explain this below.

2.3.1. Focusing on "feedback quality" as central criterion to analyze feedback

The first aspect to mention refers to literature that in examining the nature and effects of feedback in organizations focuses merely on *feedback quality* (Becker & Klimonski, 1989; Norris-Watts & Levy, 2003). The construct *feedback quality* is a composition of several variables of the *feedback message,* which is one component of feedback (s. 3.1). We stated above that the *components or instances of feedback* interact and determine the *responses of feedback* in their dynamic interplay. Thus, *feedback quality* should preferably subsume various components of feedback. Moreover, recent research on behaviour in organizations gives advice to take into account that feedback goes beyond the level of apparent processes, such as *feedback quality*. They assume that the level of norms and values, for instance playing a role in responses on feedback, is important to explain effects in organizations (e.g. Hatch, 1993; Schein, 1985). Therefore, these norms and values have to be integrated in a theoretical framework.

2.3.2. *Analyzing feedback as a single-time event*

The next aspect of the isolated view of feedback refers to the time period in which feedback is surveyed. Most studies examine immediate effects of feedback (e.g. Tziner & Latham, 1989; Nease, 1999; Kohli, 1994; Vancouver & Tischner, 2004). Feedback interactions in organizations have a longitudinal nature. Employees get feedback from various sources regarding different work-related behaviour over time. Thus, we state that responses to feedback are determined by various feedback situations that again are subdivided into several components of feedback. This assumption should be included in theoretical conceptualizations and empirical studies on feedback in organizations.

2.3.3. *Missing integration of several forms of feedback*

There are several forms of feedback in organizations. The most common differentiation is that in formal and informal feedback. It is necessary to integrate both concepts into modeling and analyzing feedback in organizations. This was not the case in previous literature. Even in the concept of the feedback environment, which can be grasped as a first model of an integrated perspective on feedback in organizations, merely informal feedback is included (e.g. Steelman et al., 2004).

2.3.4. *Conclusions*

To conclude, we found an isolated perspective in theoretical modeling and the empirical investigations of feedback in organizations in the previous literature. This could be one explanation for the inconsistent findings of Kluger and DeNisi (1996). Thus, it is necessary to develop a new theoretical concept that allows an integrative and adequate modeling of feedback in organizations. This model can be used as a basis for an appropriate empirical analysis of feedback in organizations. The several steps of the development and the resulting model are presented below.

3.   Towards an integrative model of feedback in organizations

The above-mentioned findings and analyses lead to a need for the concept of *feedback culture*. Therefore, we include approaches of *organizational culture* as a new aspect into feedback research to realize a multidimensional model of feedback in organizations. Furthermore, we integrate findings of the *feedback literature.*

3.1. *Integration of variables in the model that go beyond feedback quality*

In accordance with concepts of *organizational culture*, we assume that the quality of feedback interactions is not the only important variable influencing the perception, interpretation, and the use of feedback. Schein (1985; 1995) postulates three levels of *organizational culture* that have an effect on work-related behaviour in organizations: 1) artifacts, 2) espoused values, and 3) basic assumptions. It can be assumed that feedback in organizations contain these levels as well. The

artifacts can be interpreted as a behavioural level relating to the feedback process itself, the *espoused values* and *basic assumptions* represent a cognitive level that is related with feedback. The models of *feedback environment* are a first approach to an integrative perspective of feedback in organizations. But these models merely focus on the behavioural level of *artifacts*, represented by the *quality of feedback*. The cognitive level of *espoused values* and *basic assumptions* is not integrated into the *feedback environment* models.

One article in the feedback literature adopts a person–environment interaction view of feedback processes over time (London & Smither, 2002). The authors focus on how individual characteristics and organizational characteristics shape the impact of feedback over time. They explain the dynamic view of feedback by introducing the concepts of *feedback orientation* (an individual-level construct) and *feedback culture* (an organizational-level construct). The organizations' *feedback culture* is considered to be a moderator variable that influences the perception, interpretation, and use of single feedback processes. London and Smither (2002) postulate three categories of organizational practices that shape the *feedback culture* of an organization:

1) Organizational practices enhancing *quality of feedback*: Organizations can provide (a) training for supervisors and others about how to provide useful feedback, (b) clear standards concerning valued behaviour that are relevant for all goals, (c) clear performance measurements, (d) reports tying individual performance to bottom-line departmental or all (e.g., financial or operational) indexes, and (e) time to review and clarify feedback results with others, such as one's supervisor.

2) Organizational interventions enhancing *support for using feedback*: The organization can provide skilled facilitators to help recipients interpret formal feedback, set goals, and track progress. Supervisors can be trained and rewarded for coaching. Feedback recipients can be encouraged to discuss their feedback with raters and other colleagues to help clarify the feedback and reach a shared agreement on behaviour expectations and changes. Finally, feedback recipients need the freedom to decide how they will act on the feedback and they need opportunities to learn.

3) Organizational practices enhancing the *importance of feedback*: Managers can be expected to serve as role models about how to seek, receive, and use feedback. They can ensure that everyone receives feedback and uses feedback to guide development. They can encourage and emphasize the importance of informal feedback as well as formal feedback. They can also involve employees in the development of performance standards. Finally, they can ensure that performance improvements following feedback are recognized and rewarded.

London & Smither (2002) state that a strong *feedback culture* is one where quality of feedback, importance of feedback, and support for using feedback are high. In that case employees continuously receive, solicit, and use formal and informal feedback to improve their job performance.

The model of London and Smither (2002) not only focuses on apparent feedback processes (the behavioural level), but also on the level of values and norms that are linked with feedback, realized by the dimension *importance of feedback*. In accordance with theories on social perception (Irle, 1975) we assume that *feedback* and *feedback culture* are captured by the subjective interpretations of individuals. The model of London and Smither (2002) can be used as a conceptual framework for the integration of the levels of *organizational culture* into a model of *feedback culture*. However, London and Smither (2002) concentrate on organizational interventions that form a *feedback culture*. To map individuals' assessment of a *feedback culture* it

is essential to operationalize these organizational practices into individuals' actual perception of their *feedback culture*, rather than practices that form a *feedback culture*. Thus, from now on we focus on: 1) the *perceived feedback culture*; and 2) the *perceived quality of feedback*, *perceived support for using feedback,* and *perceived importance of feedback*. Furthermore, London and Smither (2002) assume an organizations' *feedback culture* to be a moderator variable for single feedback processes. In accordance with the "theory of cognitive dissonance" (Festinger, 1957), and theories on social perception (Postman, 1963), we postulate that for the impact of feedback the *feedback culture* is more important than single feedback processes and individual variables.

3.2. Specifying the dimensions of perceived feedback culture

3.2.1. Integration of various components of feedback by developing a new concept of perceived feedback quality

As described beforehand, many theoretical and empirical approaches in the feedback literature are characterized by an isolated view and measurement of various components of feedback. Those components of feedback can be combined into the concept of *feedback quality* (Herold & Parsons, 1985). Approaches of the *feedback environment* (Hanser & Muchinski, Steelman et al., 2004) integrate some aspects of the feedback message (called *feedback quality*) and some source characteristics. But regarding our literature review, it becomes obvious that these concepts do not contain the full complexity of perceived feedback quality. Our literature review offered several variables shaping perceived feedback quality: characteristics of the feedback message (content of feedback, timing of feedback, and feedback delivery), the feedback source (supervisor and co-worker) as well as situational and individual variables. Thus, we decided for an integrated concept of *perceived feedback quality* combining characteristics of the several components of feedback. This leads to an integrated view of the various components of feedback becomes possible. Figure 2 gives an overview of the variables we include for representing feedback quality.
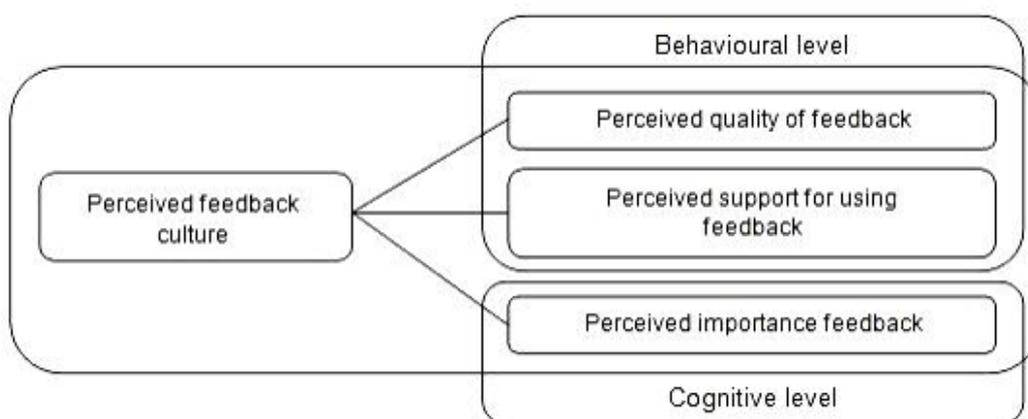

figure 2: Dimensions of the perceived feedback culture

3.2.2. *Analyzing feedback over time*

As mentioned above, feedback processes have to be considered as a longitudinal process. However, it is difficult to analyze feedback over time in an economic way. Approaches on *feedback environment* (Hanser & Muchinski, 1978; Herold & Parsons, 1985) deal with this by using the perception of feedback in employees' work environments over time. In accordance with theories on social perception (Irle, 1975; In: Lilly & Frey, 1993) we suggest that *feedback* and *feedback culture* are developed by subjective interpretation of individuals over time. This approach can be considered as one possibility to examine feedback over time.

3.2.3. *Integration of relevant forms of feedback*

The *feedback culture* includes formal and informal feedback. Formal feedback relates to institutionalized feedback interactions, e.g. the performance appraisal. In most cases this takes place between supervisor and a subordinate (Baron, 1996). Informal feedback refers to day-to-day feedback and occurs between supervisor and subordinate, as well as between co-workers working at the same level. The majority of feedback studies focus on either formal or informal feedback. We argue that the impact of feedback is shaped by the dynamic interplay of various feedback interactions in an organization over time. Therefore, we integrate both formal and informal feedback into the model of *perceived feedback culture*. We expect that the perception of formal feedback differs significantly from that of informal feedback. Formal feedback is an institutionalized instrument and creates a special opportunity for feedback. Informal feedback is a non-institutionalized process. Therefore, it is less possible in informal feedback to think about how to formulate and deliver feedback.

Figure 3 gives an overview on the realization of the above postulations within the proposed model of *perceived feedback culture*.
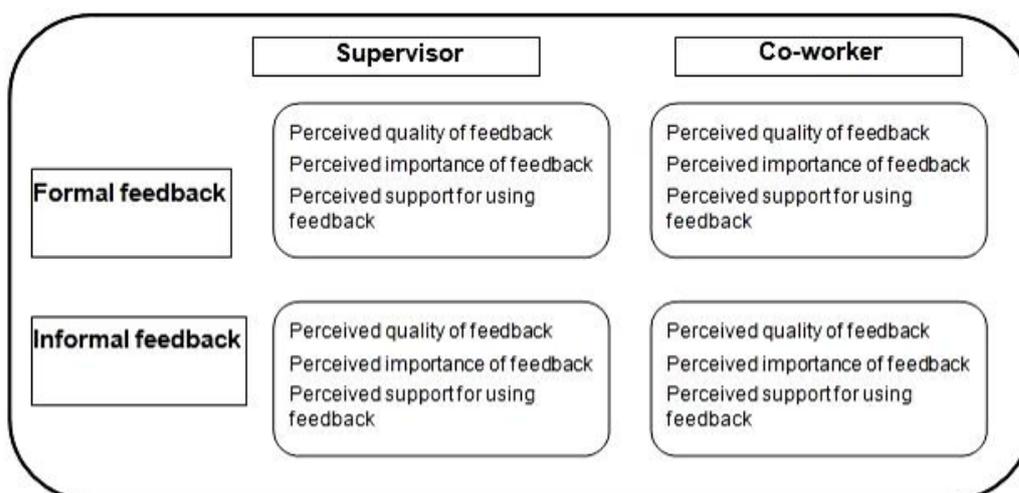

figure 3: Components of perceived feedback culture

4. Summary and implications

This contribution contained three pivotal goals. Firstly, we carried out a literature review to get an overview of the various relevant themes in research on feedback in organizations. The literature

review offered a great amount of research. We found that most articles focus on investigating one single component, variable, or facet of feedback. This is a reduction and bias of "feedback-reality" in organizations, where the several components are interdependent. The investigation of the dynamic interplay between all components is missing in previous research. We conclude that investigating feedback in this way is characterized by an isolated view and could be one explanation for the findings of Kluger and DeNisi (1996). Secondly, as a result of the outcomes, the need for the development of an integrative model on feedback was discovered and the relevant components for such a model were identified. These are 1) integration of variables that go beyond feedback quality by applying the dimensions of *feedback culture*; 2) analyzing feedback over time; and 3) integration of various forms of feedback. Thirdly, we developed such a model, that of *perceived feedback culture* including all relevant themes. We argued that it is necessary to consider feedback from a multidimensional and continuous perspective with respect to formal and informal feedback, and to construct an accurate basis for the analysis of feedback in organizations. Furthermore, the level of norms and values related to feedback have to be integrated into a model of feedback culture. These demands lead to our concept of *perceived feedback culture*.

Our model of *perceived feedback culture* integrates components of *organizational culture* (Schein, 1985; Hatch, 1993), models of the *feedback environment* (Herold & Parsons, 1985; Steelman et al., 2004) and *feedback culture* (London & Smither, 2002) as well as findings regarding feedback quality. Our model includes feedback interactions and norms and basic assumptions referring to feedback in an organization. The concept focuses on the individual perception of *feedback culture*. Thus, it is possible to capture the individual impression of several feedback interactions over time. The *perceived feedback culture* consists of two main factors: feedback from the *supervisor* and feedback from *co-workers*, which are each subdivided into *formal* and *informal* feedback. These again consist of three dimensions with various components:

1) The perceived quality of feedback. This includes the following variables:
   a) The perception of characteristics of the feedback source, e.g. source credibility, accessibility (e.g. Greller, 1980; Ashford et al., 2003);
   b) The perception of characteristics of feedback messages, e.g. usefulness, amount, specificity (e.g. Steelman et al., 2004; London, 2003; Brinko, 1993) and feedback sign (e.g. Audia & Locke, 2003);
   c) The perception of feedback delivery, e.g. considerateness (e.g. Ilgen et al., 1979; Jöns, 2005); and
   d) The perception of feedback timing, e.g. the interval between working behaviour and subsequent feedback as well as the frequency of feedback (e.g. Kulik & Kulik, 1988; Pommer, 2003).

2) The perceived importance of feedback processes. This dimension is defined as the extent to which the importance of feedback processes in an organization is in focus. The dimension refers to the values, norms, and rules regarding feedback that exists in a work environment. The following variables are included:
   a) The perception of role models regarding accepting and using feedback of important persons in a work environment;
   b) The perceived emphasis on formal (e.g. performance appraisal) and informal (day-to-day feedback) feedback processes in a work environment;

c) The perceived involvement in behavioural standards underlying feedback; and

d) The perceived recognition and reward of performance improvements following feedback.

3) The perceived support for using feedback. The third dimension of feedback culture relates to the degree to which feedback sources offer support for using feedback. This contains:
a) Perceived support for interpreting feedback;

b) Perceived support for goal setting and tracking progress;

c) Perceived encouragement for discussing feedback with feedback sources; and

d) Perceived freedom to decide how to react on feedback.

Our new feedback model has theoretical and research implications. Firstly, it provides a new basis for analyzing feedback and feedback culture in organizations as well as the effects of feedback. We assume relations between the *perceived feedback culture* and individual and organizational outcome-variables. Thus, empirical research is necessary to 1) validate the proposed model of *perceived feedback culture*; and 2) examine the relations between the *perceived feedback culture* and external variables. In addition, the new approach of *perceived feedback culture* has practical implications. Our theoretical model can be used as a framework for the development, modification, and improvement of feedback processes in organizations. Managers, who want to enhance a positive feedback culture, have to consider the feedback quality, the support for using feedback, and the importance of feedback in the organization, including formal and informal feedback. Moreover they have to support these dimensions regarding feedback from supervisors and co-workers.

Secondly, the model of perceived feedback culture provides a basis for the construction of an instrument for assessing feedback cultures in organizations. Therefore, the theoretical dimensions have to be operationalized and scales have to be constructed. In empirical research exploratory and confirmatory factor analyses are required to validate the proposed structure of the instrument. Moreover, further procedures for assessing criteria validity and reliability of the instrument have to be carried out. An instrument for assessing feedback culture in organizations would provide new possibilities for the analysis of feedback and its effects in organizations. It can be applied by practitioners to get information on the perceived feedback culture in their organization and thus for deriving potentials for development and improvement of the feedback culture. In addition, the instrument can be used by researchers for analyzing relations between the perceived feedback culture and external variables.

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