



**Examination of the Explanatory Role  
of Self-Evaluation Motives when Studying  
Feedback-Seeking Behavior in Organizations**

*Frederik Anseel*

Promotor: Prof. Dr. Filip Lievens

Proefschrift ingediend tot het behalen van de academische graad  
van Doctor in de Psychologische Wetenschappen

2005





**Examination of the Explanatory Role  
of Self-Evaluation Motives when Studying  
Feedback-Seeking Behavior in Organizations**

*Frederik Anseel*

Promotor: Prof. Dr. Filip Lievens

Proefschrift ingediend tot het behalen van de academische graad  
van Doctor in de Psychologische Wetenschappen

2005



## CONTENTS

<b>CONTENTS</b>	<b>5</b>
<b>ACKNOWLEDGEMENTS</b>	<b>9</b>
<b>INTRODUCTION</b>	<b>11</b>
REFERENCES	15
<b>CHAPTER 1 THE INTEGRAL ROLE OF SELF-MOTIVES IN THE FEEDBACK-SEEKING PROCESS: TOWARDS A MORE COMPREHENSIVE MODEL</b>	<b>17</b>
ABSTRACT	17
INTRODUCTION	18
METHOD	20
RESULTS OF THE REVIEW	21
<i>Model Underlying Previous Studies</i>	21
<i>Antecedents</i>	22
<i>Outcomes</i>	28
MOTIVES OF THE SELF	30
<i>Background, Assumptions, and Motives</i>	30
<i>Implications of Self-Motives for Antecedents of Feedback-seeking Behavior</i>	33
<i>Implications of Self-Motives for Outcomes of Feedback-seeking Behavior</i>	37
<i>Underlying Model for Future Research</i>	41
CONCLUSIONS	44
THE PRESENT DISSERTATION	45
REFERENCES	49
APPENDIX: SUMMARY OF STUDIES WHICH INVESTIGATED FEEDBACK-SEEKING BEHAVIOR IN ORGANIZATIONS	60

<b>CHAPTER 2 AN EXAMINATION OF STRATEGIES FOR DIRECTING FEEDBACK-SEEKING TOWARDS SPECIFIC PERFORMANCE DIMENSIONS</b>	<b>67</b>
ABSTRACT	68
INTRODUCTION	68
THEORETICAL BACKGROUND	70
<i>Importance Beliefs</i>	70
<i>Modifiability Beliefs</i>	72
OVERVIEW OF CURRENT STUDY	74
<i>Method</i>	75
<i>Results</i>	81
DISCUSSION	86
<i>Boundary Conditions and Future Research</i>	89
REFERENCES	93
<b>CHAPTER 3 A CLOSER LOOK AT THE RELATIONSHIP BETWEEN UNCERTAINTY AND FEEDBACK-SEEKING</b>	<b>99</b>
ABSTRACT	100
INTRODUCTION	100
THEORETICAL BACKGROUND	102
<i>Uncertainty Reduction Theory</i>	102
<i>Self-Verification Theory</i>	103
<i>Uncertainty Reduction and Self-verification Theory</i>	104
<i>Integrating Uncertainty Reduction and Self-Verification</i>	105
BETWEEN- AND WITHIN-PERSONS APPROACHES	107
STUDY 1	109
<i>Method</i>	109
<i>Results and Discussion</i>	111
STUDY 2	114
<i>Method</i>	114
<i>Results and Discussion</i>	116
GENERAL DISCUSSION	121

---

<i>Curvilinear Relationship</i>	121
<i>Feedback-seeking Strategies</i>	122
<i>Individual Differences as Moderators</i>	124
<i>Practical Implications</i>	125
<i>Limitations</i>	127
CONCLUSION	128
REFERENCES	129
APPENDIX	135
<b>CHAPTER 4 CERTAINTY AS A MODERATOR OF FEEDBACK REACTIONS: A TEST OF THE STRENGTH OF THE SELF-VERIFICATION MOTIVE</b>	<b>137</b>
ABSTRACT	138
INTRODUCTION	138
THEORETICAL BACKGROUND	140
<i>Integrating Self-Verification and Self-Enhancement Motives</i>	141
UNIQUE CONTRIBUTIONS OF CURRENT STUDY	143
STUDY 1	145
<i>Method</i>	145
<i>Results</i>	149
STUDY 2	152
<i>Method</i>	152
<i>Results</i>	154
GENERAL DISCUSSION	158
REFERENCES	165
<b>CHAPTER 5 DOES ELABORATION OF FEEDBACK ENHANCE THE FEEDBACK – TASK PERFORMANCE RELATIONSHIP?</b>	<b>171</b>
ABSTRACT	172
INTRODUCTION	172
BACKGROUND	173
<i>Recent Research on the Feedback-Performance Relationship</i>	173

## 8 CONTENTS

---

<i>Theoretical Basis of Elaboration</i>	175
<i>Practical Basis of Elaboration</i>	177
STUDY	179
<i>Method</i>	179
<i>Results</i>	184
DISCUSSION	188
<i>Practical Implications, Limitations, and Directions for Future Research</i>	191
CONCLUSION	194
REFERENCES	196
APPENDIX A EXAMPLE OF AN IN-BASKET ITEM AND THE CORRESPONDING PARALLEL ITEM	201
APPENDIX B EXAMPLE OF FEEDBACK REPORT FOR COMPETENCY “COORDINATING”	203
<b>CHAPTER 6 GENERAL CONCLUSIONS</b>	<b>205</b>
ABSTRACT	205
RESEARCH OVERVIEW	206
<i>Objective 1: Identifying New Antecedents of Feedback-seeking Behavior</i>	206
<i>Objective 2: A Closer Look at Unresolved Issues in the Feedback-Seeking     Process</i>	207
<i>Objective 3: Understanding and Enhancing the Feedback - Performance     Relationship</i>	209
CONTRIBUTIONS, LIMITATIONS, AND RESEARCH OPPORTUNITIES	211
<i>From a Theoretical Perspective</i>	211
<i>From a Methodological Perspective</i>	215
<i>From a Practical Perspective</i>	218
REFERENCES	224



## ACKNOWLEDGEMENTS

This doctoral thesis was accomplished while I was working as a Research Assistant of the Special Research Fund at the Department of Personnel Management, Work and Organizational Psychology of Ghent University, Ghent, Belgium. I would like to thank these institutions for their support.

First of all, I want to thank my advisor Prof. Dr. Filip Lievens for his excellent guidance on my first steps in academia. Actually, “excellent” is somewhat of an understatement. He introduced me to the field and taught me all the ins and outs of doing research in I/O psychology. He encouraged me to seek my own research path, and generously shared his incredible expertise. His drive and enthusiasm has proven to be dangerously infectious.

A second person who played a key role is Prof. Dr. Rita Claes. As head of the department, she provided the ideal conditions to complete this dissertation. Her help in contacting the Flemish Public Employment Service for conducting the field studies was very valuable. Her advice and comments on various papers and proposals were much appreciated and helped me to stay focused.

I’m very grateful to Marc Covents who did all the programming work for the in-basket exercise. I couldn’t dream of a better programmer to develop this management simulation. Marc combines great technical skills with a drive for perfection, and an inexhaustible patience to put up with my sheer endless requests for modifications. I’m sure there were times he cursed the day we met. Thanks for your excellent work, Marc.

Very special thanks go to Dr. Wouter Duyck, who was my help-desk deluxe during the past four years. He provided assistance in writing research proposals, solving lay-out problems, conducting statistical analyses, getting me alive out of a taxi in Beijing, and saving me from starvation during work hours.

## 10 ACKNOWLEDGMENTS

---

I would like to thank and acknowledge the following people for their valuable suggestions on my work in the past four years and for making the empirical studies possible: Y. Bostyn (VDAB), Prof. Dr. S. Brutus (Concordia University), Prof. Dr. J. Edwards (University of North Carolina), Prof. Dr. J. Fontaine (UGent), Prof. Dr. W. Fias (UGent), M. Gillebeert (VDAB), Prof. Dr. M. Harris (University of Missouri - St.-Louis), D. Houbrechts (VDAB), Prof. Dr. A. Kluger (The Hebrew University of Jerusalem), Prof. Dr. P. Levy (University of Akron), S. Maertens (VDAB), K. Naessens (KATHO), Dr. M. Schittekatte (UGent), Prof. Dr. L. Sels (KUL), Prof. Dr. W. Swann (University of Texas), Prof. Dr. R. Tett (University of Tulsa), Prof. Dr. I. Van Den Brande (VLEKHO), I. Vandamme (KATHO), Prof. Dr. A. Van Hiel (UGent), C. Van Rillaer (VDAB).

I would also like to thank all my colleagues and former colleagues of the Department of Personnel Management, Work and Organizational Psychology for making this department such a great place to work and for their continuous encouragements during these last months. Special thanks go to Stefaan, Helga, Colin and Greet for reviewing and editing my papers, to Hans for his computer savvy and to Bart for his indispensable problem-solving skills.

Finally, I should not forget the moral support I received during all those years from my father, my mother, my sister, and, of course, from my girlfriend. Jane, thanks for being there from start to finish. Whatever analysis I conducted, you always turned out to be the most significant factor with the widest confidence interval. I hope I can help you as much as you helped me. You're up next!

Frederik Anseel, Ghent, February 2nd, 2005

## INTRODUCTION

“How am I doing ?!!” - In a recent speech, endorsing the sitting president’s re-election campaign, former New York City mayor Ed Koch could not resist tapping into his trademark “how am I doing?”-line. The crowd roared with applause and cheering. In the 1980s, mayor Ed Koch became famous for walking the streets of New York, and asking citizens the same question over and over, “How am I doing?” Apparently, gathering feedback about his administration was important to him, and as you would expect, New York City voters were happy to provide him with feedback. This unorthodox feedback-seeking strategy attracted worldwide attention, as it appealed to a basic human need, the need for obtaining feedback about one’s own performance.

Providing feedback to people, that is, informing people about the results of their performance to stimulate development and improvement, has become one of the most widely accepted and applied psychological interventions. Across a wide range of settings, feedback is believed to direct, motivate, and reward behavior. The assumption that giving feedback is beneficial for individual and group performance has also been widely supported in organizations. This assumption is well reflected in a number of statements of prominent researchers in the performance feedback domain:

*“Numerous studies have examined the effect of feedback on performance, and practically all of these investigations have supported the existence of such a relationship”* (Becker & Klimoski, 1989, p. 343)

*“The positive effect of feedback on performance has become one of the most accepted principles in psychology”* (Pritchard, Jones, Roth, Stuebing, & Ekeberg, 1988, p. 338)

*“The importance of feedback as a tool for enhancing performance in organizations can hardly be overestimated” (Larson, 1989, p. 408)*

As described by Kluger & DeNisi (1996, 1998), feedback research dates back more than 100 years. In the beginning of the previous century, several scholars experimented with providing individuals “knowledge of results”(KR) about task performance to improve subsequent performance. Thorndike (1927) provided the initial theoretical arguments for the effectiveness of feedback with his law of effect. Based on the law of effect, positive feedback was equated with reinforcement and negative feedback with punishment. Reinforcement and punishment facilitate learning and thus, both positive and negative feedback should improve performance because one reinforces the correct behavior and the other punishes the incorrect behavior. The first feedback studies suffered from methodological problems and often did not pay attention to inconsistent results. Still, these flawed studies installed the first vague though persistent notions about the beneficial role of giving feedback. The wonder years of feedback research were summarized by Ammons (1956) in a review of the effectiveness of “knowledge of results” interventions. Ammons’ most important conclusions were (a) that knowledge of results increases learning, and (b) that knowledge of results increases motivation. Although the evidence Ammons reported was highly questionable and ignored contradictory studies, his conclusions had substantial impact on the psychological literature of its time. The conviction that feedback always has a strong enhancing effect on performance was further spread and became generally accepted knowledge for years, as illustrated in the above cited statements.

However, in the 80s several studies began reporting that “there was something rotten in the state of Denmark”, suggesting that the relationship between feedback and performance was more complicated than had previously been assumed (Balcazar, Hopkins, & Suarez, 1985; Salomi, Schmidt, & Walter, 1984; Taylor, Fisher, & Ilgen, 1984). Ilgen, Fisher, and

Taylor (1979) were among the first to note that relating feedback directly to feedback was very confusing and that results were contradictory and seldom straightforward. In their review paper, they argued that the effects of feedback interventions on performance could only be understood if research gained more insight in how feedback recipients responded to feedback.

Around the same time, a new and innovating perspective on the feedback process was articulated. In this perspective, organizations were depicted as feedback-rich environments, wherein employees were not condemned to passively wait for feedback, but acted as active monitors and seekers of feedback (Ashford & Cummings, 1983; Hanser & Muchinsky, 1978; Herold & Parsons, 1985). This new perspective radically differed from previous feedback process conceptualizations as it portrayed the feedback recipient no longer as a passive information-processor, but as an active information-seeker. The stage was set for the study of feedback-seeking behavior, which would become the most dominant and prolific research theme in the feedback domain in years to come. One of the aspirations of feedback-seeking research was to shed new light on the troubling feedback – performance relationship by examining the active role of the feedback-seeker. It was assumed that people would be more willing to act on feedback they had sought themselves, leading to more likely performance improvement. Consequentially, organizations were advised to look for managerial strategies to promote feedback-seeking if they wanted to improve individual and organizational performance. The feedback-seeking enterprise received additional impetus when an extensive quantitative review of feedback interventions demonstrated that the effects of giving feedback on performance were still far from understood (Kluger & DeNisi, 1996, 1998). This meta-analysis showed that in more than one third of the cases feedback impaired performance and that there was no general principle that could predict the effectiveness of feedback interventions. As it became clear that giving feedback to people often produced detrimental effects on performance, research looking for practical strategies to encourage feedback-

seeking and examining outcomes of feedback-seeking, grew even more in importance.

The first chapter of this dissertation presents an overview of past feedback-seeking research by systematically reviewing 49 studies that examined organizational feedback-seeking behavior. On the basis of this review, the main limitations of previous feedback-seeking research are summarized. An alternative model that, on the one hand, might increase understanding of feedback-seeking behavior in organizations, and, on the other hand, provides several new avenues for future research, is presented. At the same time, this model depicts the broad framework that connects the various empirical studies that are presented in this dissertation. At the end of this first chapter, a general outline of these empirical studies is provided with specific attention to how these studies relate to the framework that has been presented.

## REFERENCES

- Ammons, R. B. (1956). Effects of knowledge of performance: A survey and tentative theoretical formulation. *Journal of General Psychology, 54*, 279-299.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance, 32*, 370-398.
- Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management, 7*, 65-89.
- Becker, T. E., & Klimoski, R. J. (1989). A field study of the relationship between the organizational feedback environment and performance. *Personnel Psychology, 42*, 343-358.
- Hanser, L. M., & Muchinsky, P. M. (1978). Work as an information environment. *Organizational Behavior and Human Performance, 13*, 244-256.
- Herold, D. M., & Parson, C. K. (1985). Assessing the feedback environment in work organizations: Development of the job feedback survey. *Journal of Applied Psychology, 70*, 290-305.
- Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.
- Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*, 254-284.
- Kluger, A. N., & DeNisi, A. S. (1998). Feedback interventions: Toward the understanding of a double-edged sword. *Current Directions in Psychological Science, 7*, 67-72.
- Pritchard, R. D., Jones, S. D., Roth, P. L., Stuebing, K. K., & Ekeberg, S. E. (1988). Effects of group feedback, goal setting, and incentives on organizational productivity. *Journal of Applied Psychology, 73*, 337-358.
- Salmoni, A. W., Schmidt, R. A., & Walter, C. B. (1984). Knowledge of results and motor learning: A review and critical reappraisal. *Psychological Bulletin, 95*, 355-386.
- Taylor, M. S., Fisher, C. D., & Ilgen, D. R. (1984). Individuals' reactions to performance feedback in organizations: A control theory perspective. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 2, pp. 81-124). Greenwich, CT: JAI Press.

Thorndike, E. L. (1927). The law of effect. *American Journal of Psychology*, 39, 212-222.



**CHAPTER 1**  
**THE INTEGRAL ROLE OF SELF-MOTIVES**  
**IN THE FEEDBACK-SEEKING PROCESS:**  
**TOWARDS A MORE COMPREHENSIVE MODEL<sup>1,2</sup>**

**ABSTRACT**

This article reviews 49 studies that have examined feedback-seeking behavior in organizations. The review shows that a resource-based perspective of feedback-seeking behavior has dominated the field. However, several mixed results about antecedents and outcomes of feedback-seeking behavior could not be explained on the basis of the dominant resource-based framework. Borrowing from research on self-motives in social psychology, we offer a new theoretical perspective and more comprehensive model that might guide future research. In particular, we propose three new directions for future research. First, on the basis of the self-motives framework several new antecedents of feedback-seeking behavior might be identified. Second, a new light might be shed on unresolved issues in antecedents of feedback-seeking behavior by considering the role of different self-motives in the feedback-seeking process. Third, the relation between feedback-seeking behavior and performance can be better understood by considering feedback reactions in relation to self-motives. These new directions offer an alternative and more theoretically-driven underpinning for studying feedback-seeking behavior in organizations.

---

<sup>1</sup> Parts of this review study were published in the Dutch blind peer-reviewed journal “Gedrag & Organisatie”. The full reference is: Anseel, F., & Lievens, F. (2002). Feedback-zoekend gedrag in organisaties: Literatuuroverzicht en richtingen voor toekomstig onderzoek. *Gedrag & Organisatie*, 5, 294-319.

<sup>2</sup> This paper benefited significantly from several excellent suggestions made by Paul Levy.

## INTRODUCTION

In the last twenty years, an increasing number of studies has examined how employees take on an active role in the feedback process and seek out feedback themselves. By asking for feedback, employees can adjust their goal-directed behavior (Morrison & Weldon, 1990), better assess their capabilities (Ashford & Tsui, 1991; Williams & Johnson, 2000), manage impressions about their performance potential (Ashford & Northcraft, 1992), enhance their future effectiveness (Morrison, 1993; Renn & Fedor, 2001), and “learn the ropes” of a new job (Morrison, 1993).

In their seminal work, Ashford and Cummings (1983) introduced feedback-seeking behavior as “a conscious devotion of effort toward determining the correctness and adequacy of behaviors for attaining valued end states.” (Ashford & Cummings, 1986, p. 466). The theoretical model of Ashford and Cummings took a “resource-based” perspective (also called a “cost-value”-perspective). Ashford and Cummings proposed that employees make an assessment of the costs and values that are associated with feedback-seeking and that this cost-value analysis is the primary determinant of subsequent feedback-seeking behavior. For instance, people will seek more feedback from a source with a high expertise on a feedback matter because feedback from this source is more valuable. Conversely, employees will seek less feedback in public because of fear for face-loss in the presence of their colleagues.

The purpose of this article is to provide a review of research on feedback-seeking behavior and to offer a new theoretical perspective on the feedback-seeking process in organizations. Granted, there have been other reviews of the feedback-seeking literature (Ashford, Blatt, & VandeWalle, 2003; Morrison, 2002). However, none of these earlier reviews have focused on feedback-seeking from the broader social psychological literature. Yet, we argue that theoretical perspectives in social psychology are of key relevance

to the organizational feedback-seeking literature for various reasons. First, feedback-seeking behavior in organizations is historically grounded in social psychology (see Ashford & Cummings, 1983). Since its origin, the literature on organizational feedback-seeking has evolved independently from research on self-evaluation processes in social psychology. Although several similarities can be noted between the two domains, the social psychological literature on self-evaluation processes has taken a broader perspective, and now deals with how and why people select, process, and react to self-relevant information across a variety of contexts. In social psychology, feedback-seeking behavior is only one special case of the broad self-evaluation framework. So far, this conceptually similar framework has remained largely ignored in feedback-seeking research in organizations. Second, although we believe that knowledge relevant to feedback-seeking has advanced considerable over the last decades, in recent years several inconsistencies and shortcomings have been noted (see Ashford et al., 2003; Farr, 1993; VandeWalle, 2003). Furthermore, previous studies on feedback-seeking behavior in organizations are almost entirely grounded in the original resource-based perspective, introduced by Ashford and Cummings (1983). A new theoretical perspective on feedback-seeking behavior might shed additional light on these inconsistencies and shortcomings, and might advance our understanding of the antecedents and outcomes of feedback-seeking behavior. In short, despite the fact that seeking feedback in organizations is essentially a self-evaluation process, the feedback-seeking literature has not kept pace with social psychological advances in research on self-motives. We have given special consideration, therefore, to recent theoretical developments in social psychology as they relate to feedback-seeking behavior in organizations.

The structure of this review is as follows. In a first section, we use Morrison's (2002) integrated model of information seeking as a way to organize a systematic review of the prior empirical literature on feedback-seeking, including both field and laboratory studies. On the one hand we summarize the most important findings about feedback-seeking behavior in

organizations. On the other hand we point out that there still are some inconsistent findings and shortcomings in the research domain. In the second section, we introduce various self-(evaluation) motives. On the basis of this new perspective we propose several avenues for future research. These recommendations are based on recent research on self-motives in social psychology. By using this social psychological framework as a theoretical underpinning, we aim to ground feedback-seeking behavior back to its roots in social psychology.

### **METHOD**

To be included in the review, we used the following criteria. First, a study had to empirically examine a relationship between feedback-seeking behavior (direct or indirect) and one or more antecedents or outcome variables. Second, studies had to be conducted in a (simulated) organizational context. We used a number of electronic databases (PsychLit, Social Science Citation Index and Current Contents) to detect relevant studies. Additionally, we scrutinized reference lists from obtained studies to find other published and unpublished studies. Finally, researchers in the feedback-seeking domain were contacted to retrieve more unpublished papers.

Forty-nine studies, dating from 1985 to 2004 conformed to the stated criteria. Thirty-seven studies were published, 12 studies were unpublished. Seventeen studies used an experimental design, 26 studies used a cross-sectional design, and 6 studies used a longitudinal design. For comparison purposes, the results of each study are synthesized in the appendix. For each study, we describe the objective, the sample, the design, the antecedents, and the outcomes. In the appendix, we provide the nature of the zero-order correlation between the feedback-seeking behavior and the antecedents and outcomes as follows: a significant positive relationship (+), no significant

relationship (ns.), and a negative significant relationship (-). All studies included in our review are marked by an asterisk in the Reference list.

## **RESULTS OF THE REVIEW**

### **MODEL UNDERLYING PREVIOUS STUDIES**

As mentioned before, almost all the studies in the appendix were guided by perceptions of feedback costs and feedback value. In particular, 45 studies examined antecedents that might affect cost and value perceptions and feedback-seeking behavior. In Figure 1, a simplification of Morrison's (2002) integrative conceptual model is provided. We believe this model depicts the kind of approach that has guided previous feedback-seeking research. Basically, Morrison's model suggests both individual and contextual antecedents to a desire for or perceived need for feedback. Feedback-seeking costs play an important role in this model, moderating the relationship between one's desire or felt need for feedback and actual feedback-seeking intentions. Feedback-seeking research has traditionally been built around this idea of comparing costs and values of feedback-seeking or what Ashford and Cummings (1983) called a resource-based approach. There has not been very much research looking at outcomes of feedback-seeking behavior. Further, research has not been especially effective in distinguishing among the various outcomes of feedback-seeking behavior. Morrison breaks the outcomes up into primary and secondary outcomes, but notes that most research has been focused on performance improvement and, in all, the research has been inconsistent. We will use Morrison's integrated model as a framework for our review of the existing literature.

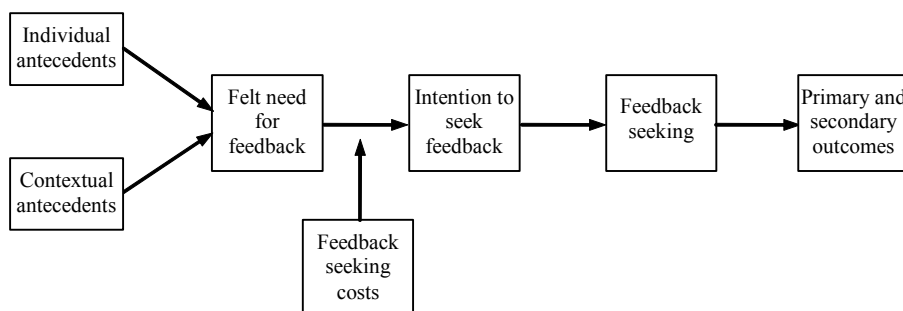


FIGURE 1: A SIMPLIFICATION OF MORRISON'S (2002) CONCEPTUAL MODEL OF FEEDBACK-SEEKING.

## ANTECEDENTS

**Individual antecedents.** The study of individual antecedents that influence feedback-seeking behavior has been mainly guided by possible value (benefits) perceptions of feedback-seeking behavior (Ashford, 1986; VandeWalle, Challagalla, Ganesan, & Brown, 2000; VandeWalle & Cummings, 1997). First, feedback can be advantageous because it can help employees to attain various valued end states and personal goals. Therefore, it is hypothesized that antecedents, that are related to the value of a particular goal or to the expectation of attaining a certain goal, will be significantly related to feedback-seeking behavior. Consistent with this expectation, several studies in the appendix showed that goal attainment (Ashford, 1986; Morrison & Weldon, 1990), performance expectations (Ashford, 1986; Morrison & Cummings, 1992; Northcraft & Ashford, 1990; Thomas & Williams, 1998), need for achievement (Klich & Feldman, 1992), and job involvement (Ashford & Cummings, 1985) were positively related to feedback-seeking behavior.

A second benefit associated with feedback-seeking is that feedback is a valuable source of information because feedback can be used to reduce uncertainty (Ashford & Cummings, 1983). Some studies in the appendix

supported this hypothesis (Ashford & Cummings, 1985; Callister, Kramer, & Turban, 1999; Fedor et al., 1992), but Morrison (2002) argues that it is surprising that research has neither focused very heavily or directly on uncertainty as a motivator of feedback-seeking nor on the role of feedback-seeking in reducing uncertainty. From the research that does exist, one could conclude that antecedents that are conceptually related to uncertainty (e.g., role ambiguity, role conflict, tolerance for ambiguity) had a positive effect on feedback-seeking behavior (Ashford & Cummings, 1985; Fedor, Rensvold, & Adams, 1992; Madzar, 2001). Moreover, research showed that newcomers in organizations seek more feedback for reducing their uncertainty (Ashford & Black, 1996; Brett, Feldman, & Weingart, 1990; Callister et al., 1999; Morrison, 1993; Morrison, Chen, & Salgado, 2004). However, no unequivocal conclusions about the role of uncertainty in the feedback-seeking process can be drawn because other studies yielded conflicting findings (Ashford, 1986; Fedor et al., 1992; Gupta, Govindarajan, & Malhotra, 1999; Stark & Sommer, 2000). Using various measures of uncertainty, these studies revealed that high levels of certainty also lead to increased feedback-seeking behavior. Thus, employees who already have high certainty about their performance continue to seek feedback. Furthermore, several studies failed to support the hypothesis that more tenured employees, which are supposed to suffer less from uncertainty, seek less feedback (Brutus & Cabrera, 2004; Gupta et al., 1999; Renn & Fedor, 2001; Roberson, Deitch, Brief, & Block, 2003; Wanberg & Kammeyer-Mueller, 2000).

Competence creation and achieving a sense of mastery serves as a final benefit that employees might experience by seeking feedback (Ashford & Cummings, 1983). Along these lines, goal orientation has been found to be an important antecedent. Two major classes of goal orientations are typically distinguished – a learning and a performance goal orientation. Individuals with a learning goal orientation seek to develop themselves by improving their ability, acquiring new skills, and mastering new situations. In contrast, people with a performance goal orientation seek to demonstrate and validate

the adequacy of their ability by seeking favorable judgments and avoiding negative judgments about their ability (Dweck & Legget, 1988; VandeWalle & Cummings, 1997). VandeWalle and Cummings proposed that employees with a goal orientation would seek more feedback, even in challenging situations or when the necessary skills are not available. Individuals with a learning goal orientation tend to view feedback in terms of its diagnosticity and focus on how likely this feedback is to help them to improve performance, whereas people with a performance goal orientation tend to interpret feedback rather as an appraisal of their competency and worth. Thus, employees with a learning goal orientation attach more value to feedback as compared to employees with a performance goal orientation. The appendix shows that these hypotheses have been supported by a series of empirical studies (Farr, Ringseis & Unckless, 1999, Madzar, 2001; Moon & Levy, 2000; Nowakowski & Kozlowski, 2004; Park, Schmidt, Scheu, & Deshon, 2003; Stark & Sommer, 2000; Tuckey, Brewer, & Williamson, 2002; VandeWalle et al., 2000; VandeWalle & Cummings, 1997).

A number of scholars also investigated individual antecedents that influence perceptions of feedback costs. It was hypothesized that the cost of feedback-seeking was higher for people with low self-efficacy because of the detrimental impact negative feedback might have on the feedback-seeker's self-image. However, research shows that this individual difference variable is not directly related to feedback-seeking behavior (Brown et al., 2001; Moon & Levy, 2000; Renn & Fedor, 2001). Instead, it seems to act as a moderator in the feedback-seeking process. For example, Moon and Levy (2000) demonstrated that the relation between performance goal orientation and feedback-seeking behavior was negative for employees with a high self-efficacy. They concluded that individuals with a low performance orientation and a high self-efficacy, frequently seek feedback because they have high confidence in their abilities and are more eager to use the feedback. Employees with a low performance orientation and a low self-efficacy exhibited lower levels of feedback-seeking behavior.



Whereas self-efficacy refers to a context-specific assessment of competence to perform a specific task or a range of tasks in a given domain (Bandura, 1997), self-esteem refers to a global cognitive appraisal of the self-concept. The appendix shows that the relationship between self-esteem and feedback-seeking behavior is not very clear. For example, Ashford (1986), Morrison (1993), and Levy, Albright, Cawley, and Williams (1995) found no significant relationship. Northcraft and Ashford (1990) reported that self-esteem was significantly related to feedback-seeking behavior about absolute performance levels. Yet, it was not related to feedback-seeking about comparative (relative to others) performance levels. Fedor et al. (1992) found a negative relationship between self-esteem and direct feedback-seeking (inquiry) but not between self-esteem and indirect feedback-seeking (monitoring). Moss, Valenzi, and Taggart (2003) found that employees with high self-esteem sought more positive feedback for reasons of impression management. Finally, Vancouver and Morrison (1995) revealed that the relationship between self-esteem and feedback-seeking was moderated by the quality of the relation between the feedback source and the feedback-seeker.

**Conclusion.** Our review of individual antecedents of feedback-seeking behavior leads to three conclusions. First, it appears that individual antecedents referring to the attainment of valued goals and competence creation are positively related to value perceptions of feedback and accordingly to feedback-seeking behavior. Second, the cost-value model of feedback-seeking behavior has led to mixed findings and has only been sporadically tested. For example, the relationship between antecedents that are conceptually related to the uncertainty reducing function of feedback (e.g., tenure) and feedback-seeking behavior is not clear. A third conclusion concerns the inconsistent findings about the role of two individual difference variables (i.e., self-esteem, and self-efficacy) in the feedback-seeking process.

It is important for future research to shed light on these inconsistent findings. We believe that recent empirical and theoretical work in social psychology can accomplish this, attributing a central role to the various self-motives that guide behavior in self-evaluative situations. A limitation of previous research examining feedback-seeking behavior in organizations is that generally only one dominant motive underlying feedback-seeking behavior is acknowledged, namely the uncertainty reduction motive. In other words, although impression management and ego maintenance have been suggested as important motives (Levy et al., 1995), it has generally been assumed that people are more driven by feelings of uncertainty and this uncertainty drives decisions to seek feedback, thereby reducing uncertainty and improving performance.

***Contextual antecedents.*** Whereas research on individual antecedents of feedback-seeking research has primarily paid attention to the value of feedback-seeking behavior, research on contextual antecedents has focused on the costs associated with feedback-seeking. The perceived costs of feedback-seeking behavior have been shown to be an important predictor of feedback-seeking behavior (Ashford & Cummings, 1983, 1986; Fedor et al., 1992; Thomas & Williams, 1998; Vandewalle & Cummings, 1997). When people believe that seeking feedback will convey a negative image of themselves (e.g., looking insecure, unconfident, incompetent) to their supervisor and colleagues, they will refrain from seeking feedback.

The first contextual antecedent that influences the costs associated with feedback-seeking is the presence of significant others. As can be seen in the appendix, research has revealed that employees seek more feedback when feedback-seeking behavior does not take place in public (Ashford & Northcraft, 1992; Northcraft & Ashford, 1990), when the situation is perceived as private (Levy et al., 1995; Moon & Levy, 2000; Williams, Steelman, Miller, & Levy, 1999), when feedback can be requested and/or provided via a computer (Ang & Cummings, 1994; Ang, Cummings, Straub, & Early, 1993; Kluger & Adler, 1993), when stereotype threat is low

(Roberson, Deitch, Brief, & Block, 2003), and when other colleagues also seek feedback (Ashford & Northcraft, 1992; Williams et al., 1999). These contextual studies have typically revealed that the influence of the environment is moderated by the presence of individual antecedents. For example, Northcraft and Ashford (1990) found that context interacted with performance expectations. Employees with low performance expectations sought less feedback in a public environment, because they anticipated the potential face-loss in presence of their colleagues and refrained from seeking feedback. However, the anticipation of positive feedback in people with high performance expectations yielded an appropriate opportunity to make a positive impression to others, leading to higher levels of feedback-seeking in public.

The costs and drawbacks associated with feedback-seeking are also be influenced by the characteristics of the feedback-sender. Several studies in the appendix have shown that the following characteristics of the feedback-sender are positively related to feedback-seeking behavior: positive mood (Ang et al., 1993), consideration and supportiveness (Brown et al., 2001; Farr et al., 1999; Kuchinke, 2001; Levy, Cober, & Miller, 2002; Steelman, Levy, & Snell, 2004; Thomas & Williams, 1998; Williams et al., 1999), charisma (Kuchinke, 2000), accessibility, close relationship, reward power (Thibodeaux & Kudisch, 2000; Vancouver & Morrison, 1995), and a transformational leadership style (Levy et al., 2002; Madzar, 2001). The credibility of the feedback-sender appears to have an influence on the value perceptions of feedback. Employees are most likely to seek feedback from high expertise feedback sources because their feedback is seen as more valuable (Fedor et al., 1992; Morrison, 1993; Steelman et al., 2004; Thibodeaux & Kudisch, 2000; Vancouver & Morrison, 1995).

Recent studies have also paid attention to cultural differences in feedback-seeking behavior, as proposed by Sully de Luque and Sommers (2000). Results of these studies indicated substantial variations in feedback-seeking behavior across cultures. More specifically, individuals from the United

States exhibited more direct feedback-seeking behavior (inquiry) than individuals from Asian cultures, due to differences in self-assertiveness, power distance, and perceived face-loss costs (Brutus & Cabrera, 2004; Kung & Steelman, 2003; Morrison, Chen, & Salgado, 2004).

The degree of structure in an organization (e.g., in a specific team or department) is a final contextual antecedent. This variable refers to the extent that roles and responsibilities on the job are clearly defined and structured by the supervisor or manager. Initially, Ashford and Cummings (1983) expected a negative relationship with feedback-seeking behavior: when job roles are clearly defined, employees do not suffer from uncertainty and are less motivated to seek feedback. However, empirical research has demonstrated a positive relationship between structure and feedback-seeking behavior (Brown et al., 2001; VandeWalle et al., 2000). Apparently, providing a high degree of structure involves setting clear and attainable goals (Fleishman & Peters, 1962). Goal-setting encourages employees to seek feedback for obtaining more clarity about the progress made toward attaining these the goals (Morrison & Weldon, 1990).

**Conclusion.** Research examining situational antecedents of feedback-seeking behavior has yielded several consistent findings. The presence of significant others, the characteristics of the feedback source, and the degree of job structure affect the potential costs linked to feedback-seeking and in turn feedback-seeking behavior. Research also suggests that feedback-seeking strategies are not universal but vary across cultures.

## **OUTCOMES**

Only 18 of the 49 studies measured outcomes of feedback-seeking behavior. Most studies tested whether there was a positive relationship between feedback-seeking behavior and performance. One of the main tenets of Ashford and Cummings' (1983) feedback-seeking theory was that people who actively seek feedback, would be more likely to improve performance.

A first group of studies in the appendix found empirical support for this hypothesis (Ashford & Northcraft, 1992; Ashford & Tsui, 1991; London, Larsen, & Thisted, 1999; Morrison & Weldon, 1990). A second group of studies failed to find support for a positive relationship between feedback-seeking behavior and performance (Ang et al., 1993; Ashford & Black, 1996; Klich & Feldman, 1992; Moon & Levy, 2000) or reported a negative relationship (Brown et al., 2001; Fedor et al., 1992). Finally, a third group of studies illustrated that the relationship between feedback-seeking behavior and performance was more complicated than previously thought. For example, Renn and Fedor (2001) reported that feedback-seeking behavior did not lead to a direct improvement in the quality and quantity of performance, but was indirectly related to work performance through personal improvement goals established from performance feedback. Morrison (1993) reported a positive relationship between monitoring (indirect feedback-seeking) and performance but no significant relationship between inquiry (direct feedback-seeking) and performance. Furthermore, seeking social feedback ("Is my behavior acceptable?") had no influence on performance (Morrison, 1993).

The appendix further shows that there is a paucity of studies examining outcomes of feedback-seeking behavior other than performance improvement. Hence, Morrison (2002) suggested that future research should examine other primary and secondary outcomes such as knowledge, uncertainty reduction, and job attitudes. Only a few other outcomes have attracted some research attention. Specifically, seeking feedback leads to a higher congruence between self-appraisals and appraisals by others (Ashford & Tsui, 1991; Williams & Johnson, 2000). In addition, people who frequently seek feedback were less inclined to leave the organization and reported more job satisfaction (Kuchinke, 2000; Morrison, 1993; Wanberg & Kammeyer-Mueller, 2000). However, this relationship with job satisfaction was not supported by Ashford and Black (1996). Finally, one study found that feedback-seeking from clients yielded higher client satisfaction (Barnard & Greguras, 2001).

**Conclusion.** Prior research yielded mixed results concerning the relationship between feedback-seeking behavior and performance improvement. These inconsistent findings do not support one of the main assumptions of the theory of Ashford and Cummings (1983). Given the importance of the feedback-seeking – performance relationship, more research examining this relationship is needed. Again, we hypothesize that recent research in social psychology can shed light on these unclear findings. In particular, we propose that many studies fail to uncover the expected relationship between feedback-seeking behavior and performance because employees' motives underlying feedback and their reactions to feedback have been largely ignored. In the remainder of this paper, we develop a conceptual argument and model (See Figure 2) that provides a reasonable explanation for the lack of consistent effects in the feedback-seeking literature. First, we will discuss self-motives and the role that they play in the feedback-seeking process. Second, we will consider other outcomes of feedback-seeking such as employee reactions and propose where they fit into these processes.

## MOTIVES OF THE SELF

### BACKGROUND, ASSUMPTIONS, AND MOTIVES

Since ancient times, the importance of accurate self-knowledge has been acknowledged. Centuries before the birth of Christ, devout pilgrims made the arduous trek to Delphi in Greece to ask for advice from the famous Oracle about important choices in their lives. The prophecies of the Oracle at Delphi were given in the form of a riddle, or story, and it was left to the person inquiring to work out the meaning for themselves. The door of Apollo's temple at Delphi was inscribed with the famous imperative, "*Know Thy Self*" (*gnothi seauton*). Accurate self-knowledge was believed to be the key to gain insight in the Oracle's advice and, consequentially in their own lives. Throughout history, philosophers, and psychologists have not ceased

to debate whether people's self-knowledge is accurate or biased and what the consequences of several types of self-knowledge are for people's social lives. Since its origins, research on self-motives underlying information processing has occupied a central position in social and personality psychology. The roots of self-motives research in social psychology go back to the early writings of Gordon Allport (1937), Charles Cooley (1902), Leon Festinger (1957), William James (1890), and Prescott Lecky (1945). The interest in self-motives in social psychology stems from the central importance of the self to nearly all other phenomena studied by social and personality psychologists. The self is the central point of reference for social cognition, emotion, motivation, and social behavior.

Research on self-motives is based on one fundamental assumption: The way people select, process, and remember information about themselves – their personal attributes and behaviors – is *motivated* (Banaji & Prentice, 1994; Sedikides & Strube, 1995, 1997). Motives have been proposed to color the ways in which people seek self-relevant information, appraise its sources, interpret its veracity, and intend to change their behavior. Traditionally, four different theoretical models have been distinguished, each with a different view on the dominant motive behind self-evaluation: self-verification, self-enhancement, self-assessment, and self-improvement (see Figure 2).

According to the *self-verification* perspective, people are motivated to maintain consistency between their self-conceptions and new self-relevant information. They want others to see them as they see themselves (Lecky, 1945). Therefore, people will solicit information that confirms their existing self-views (e.g., Swann, 1987; Swann, Rentfrow & Guinn, 2002). According to the *self-enhancement* perspective, people are motivated to improve the favorability of their self-conceptions and to protect their self-concepts from negative information. For instance, people process positive self-relevant information faster than negative self-relevant information and spend more time reading favorable information (e.g., Sedikides, Gaertner & Toguchi, 2003; Sedikides, Herbst, Hardin, & Dardis, 2002). The third perspective, the

*self-assessment* perspective proposes that people are motivated to obtain a consensually accurate evaluation of the self. To accomplish this objective, people are interested predominantly in the diagnosticity of self-relevant information, that is, the extent to which the information can reduce uncertainty about an aspect of the self. Thus, people seek diagnostic information regardless of its positive or negative implications for the self and regardless whether the information affirms or challenges existing self-conceptions. For instance, people rate high diagnostic tasks as more attractive than low diagnostic tasks (e.g., Trope, 1980; Trope & Pomeranz, 1998). According to the fourth and last perspective, *self-improvement*, people are motivated to improve their traits, abilities, and skills. This motive is conceptually different from the other three motives (Taylor, Neter, & Wayment, 1995; Wayment & Taylor, 1995). Whereas self-enhancement is concerned with maximizing the positivity of the self-concept, self-improvement focuses on genuine improvement. Whereas self-verification is concerned with maintaining consistency between old and new self-relevant information, self-improvement focuses on self-concept change. Finally, whereas self-assessment is concerned with increasing the accuracy of self-knowledge, self-improvement focuses on self-concept betterment regardless of self-concept accuracy.

Initially, a fierce debate existed between adherents of the various perspectives. Proponents of each theoretical model questioned the existence and dominance of the other motives and tried to persuade the opposition through ample empirical evidence (for a review, see Shrauger, 1975). Currently the existence and importance of each of these motives in guiding behavior and information processing is no longer questioned. Recent studies have started examining how the various theoretical models can be reconciled, thus addressing broader questions as how the various self-motives work in concert (Sedikides & Strube, 1995, 1997). A first category of studies have looked at individual difference variables moderating the emergence and interplay of the four motives (e.g., Dunning, 1995). For instance, Roney and Sorrentino (1995) showed that uncertainty-oriented



persons are more likely to be guided in their self-evaluation by self-assessment strivings, whereas certainty-oriented persons are more likely to be guided by self-verification strivings. A second category of studies has tried to answer the question "under which circumstances do the motives operate?", looking at situational moderators of the self-motives (e.g., Trope & Gelber, 2003; Morling & Epstein, 1997). For instance, accountability has been found to moderate the self-enhancement motive. When people expect that they have to explain, justify, and defend their self-evaluations to another person, self-evaluations tend to be lower (Sedikides et al., 2002). Finally, a third category of studies shows that different motives might also be activated simultaneously and interact with each other (Sedikides, 1993; Swann, Pelham, & Krull, 1989). For instance, Katz and Beach (2000) found that individuals were most attracted to romantic partners who provided both self-verification and self-enhancement, and were less attracted to partners who provided either self-verification alone or self-enhancement alone.

In short, self-motives research in social psychology proposes that self-evaluation processes such as feedback-seeking are colored by four different motives. It is assumed that these motives are dynamically interrelated; they do not usually operate independently. The key to understanding feedback-seeking is an enhanced understanding of the dynamic interplay among the four motives.

#### **IMPLICATIONS OF SELF-MOTIVES FOR ANTECEDENTS OF FEEDBACK-SEEKING BEHAVIOR**

A first implication of using a self-motives perspective for studying feedback-seeking in organizations is that a more fine-grained view on the underlying motives of feedback-seeking might be obtained. The common assumption in the feedback-seeking domain was that people are predominantly motivated to reduce uncertainty and to attain goals (e.g., Fedor et al., 1992, Gupta et al., 1999; Renn & Fedor, 2001; VandeWalle et al., 2000). This is best

reflected in the following statement of Morrison (1995, p. 352): *"In fact (various works) are best understood as reflecting the important informational role that feedback has in reducing uncertainty and helping people to achieve goals. This is the dominant motive behind feedback-seeking behavior"*. Similarly, Ashford (1985, p.68) stated: *"If one were completely certain about all potential evaluations of those behaviors, it is unlikely that feedback would be perceived as valuable. In such situations, individuals would have no motive to seek feedback"*. However, even with this narrow approach of uncertainty reduction, Morrison (2002) has suggested that feedback-seeking researchers have not directly focused much of their attention on the role of uncertainty reduction in motivating feedback-seeking behavior. Although we learned a lot from this perspective, we suggest that to enhance our current understanding of the feedback-seeking process, we need to apply recent insights from the self-motives domain.

Social psychological research on self-motives, which evolved almost independently from the study of organizational feedback-seeking, has demonstrated that motives other than uncertainty reduction might be activated when people evaluate themselves. In particular, social psychological theory and empirical research has suggested that self-assessment (e.g., uncertainty reduction), self-improvement (e.g., goal attainment and competence creation), self-enhancement (e.g., nurturing a more favorable identity), and self-verification (e.g., confirming one's own view) might play an important role in guiding self-evaluative behavior. Although the self-enhancement motive has received some indirect attention in previous research on feedback-seeking behavior in a public context (e.g., Levy et al., 1995; Williams et al., 1999), the role of the self-verification motive has been neglected (Stark & Sommer, 2000). Furthermore, very few studies in the feedback-seeking domain have addressed how the underlying motives work in concert (see Morrison, 2002). Research on self-motives offers clear guidelines how individual and contextual variables might regulate the interplay between the various motives. Thus, we are convinced that self-motives offer a richer and more theoretically-driven framework for

studying feedback-seeking behavior in organizations than has typically been provided.

A second benefit of considering the underlying motives is that we can identify several new antecedents of feedback-seeking behavior and link them directly to specific motives based on the self-evaluation literature. For illustration purposes, we delineate a number of theoretically interesting antecedents, relating them to one of the four motives. For example, evidence suggests that people high in uncertainty orientation, people with a high desire for self-appraisal, Type A individuals, people high in need for cognition, people high in learning goal orientation, and individuals high in need for closure are likely to be more prone than their counterparts to self-assessment concerns as opposed to self-verification concerns (Sedikides & Strubbe, 1997).

Cultural dimensions are another antecedent that deserve further attention in relation to feedback-seeking behavior. Research indicates that the individualism/collectivism dimension of culture instantiates the self-enhancement versus the self-assessment motive. Apparently, people from collectivistic cultures are less motivated by self-enhancement concerns (Sedikides & Strubbe, 1997), whereas those from individualistic cultures are more driven by self-enhancement concerns.

A third example of a possible antecedent is the way in which feedback is provided. When positive feedback is given in a non-controlling manner (e.g., "You did well at that") self-enhancement and self-improvement concerns might come into play. However, when feedback is given in a controlling manner (e.g., "You did just as you should"), the two self-motives might not become operative because perceived competence and intrinsic motivation are undermined (Sedikides & Strubbe, 1997).

A third benefit of using self-motives is that they may help explain some of the inconsistent findings of previous studies. For instance, our literature

review showed that the relationship between tenure and feedback-seeking behavior was unclear. In previous research, it was generally acknowledged that tenure was an antecedent activating the self-assessment motive (uncertainty reduction motive). Consequentially, scholars assumed that long-tenured people do not seek feedback because they are relatively certain about their performance. However, in social psychology several studies have shown that certainty might activate the self-verification motive: the more certain individuals are of a particular self-view, the more they go out of their way to confirm and sustain this self-view (Chen, Chen, & Shaw, 2004; Pelham & Swann, 1994; Swann & Ely, 1984; Swann, Pelham, & Chidester, 1988). Thus, highly experienced people who have acquired certainty might also seek feedback and continue to seek feedback although they are driven by a different motive.

Another example concerns the relationship between self-esteem and feedback-seeking behavior. Previous studies (e.g., Ashford, 1986) hypothesized that people with high self-esteem would seek more feedback than people with low self-esteem. As indicated in our review, this hypothesis was not always supported (e.g., Fedor et al., 1992). Social psychological research offers a likely explanation for these inconsistent findings. On the one hand, empirical research in the self-motives domain showed that people with high self-esteem are motivated by a self-enhancement motive or self-verification motive. People with high self-esteem generally expect to perform well and thus expect to receive positive feedback. Consequentially, they seek feedback in order to receive good news, to verify their abilities, and to feel better. This also gives them an opportunity to create a favorable impression on their colleagues (Brown & Gallagher, 1992; Brown & Smart, 1991). On the other hand, empirical research in social psychology showed that people with low self-esteem are motivated by self-enhancement strivings in certain situations, leading them to seek additional feedback (Baumgardner, Kaufman, & Levy, 1989). In short, both low and high self-esteem might lead to increased feedback-seeking behavior under different conditions. These two examples illustrate how the previously studied

antecedents of feedback-seeking behavior can be sorted in theoretically meaningful categories on the basis of social psychological theory and research.

### **IMPLICATIONS OF SELF-MOTIVES FOR OUTCOMES OF FEEDBACK-SEEKING BEHAVIOR**

Our review of the literature pointed out that the relationship between feedback-seeking behavior and performance improvement was often not supported. Self-motives research in social psychology might help clarifying the inconsistent findings regarding feedback-seeking behavior and performance improvement. In this section we will give two possible explanations for these inconsistent findings, both based on the self-motives perspective.

***Self-motives and locus of attention.*** A first explanation is based on the nature of the four self-motives that are supposed to drive feedback-seeking. Conceptually, these four motives fall apart in two groups. A first group consists of the *self-assessment* and the *self-improvement* motives. These self-motives are both geared towards obtaining accurate information about the self and are concerned with improving, learning, bettering oneself etc. For instance, in terms of task performance, people with a self-assessment motive will be especially interested in their result on the task (“How am I doing?”) and people with a self-improvement motive will be looking for strategies to improve their task performance (“How can I do better?”).

The second conceptual group consists of the *self-enhancement* and the *self-verification* motives. These self-motives are not so much geared towards an accurate representation of reality, but are more concerned with protection and ensuring that others see them in a particular way. In terms of task performance, people with a self-enhancement motive will be especially preoccupied with obtaining a task result that is favorable for their ego (“In which part of the task did I do best?”) and people with a self-verification will

looking for confirmation of their self-image (“I’m not the kind of person to score high on these tasks”).

Thus, when self-assessment and self-improvement motives are activated, attention will be directed at task performance, whereas self-enhancement and self-verification motives will shift attention from task performance to ego-goals. Kluger and DeNisi (1996) proposed that the effects of feedback interventions could be explained by the locus of attention. If feedback interventions direct attention and cognitive resources to the task, performance will increase. However, when feedback interventions direct attention away from the task to self-relevant goals, performance will decrease. These hypotheses were to a large extent supported in their meta-analysis. On the basis of these findings, we argue that self-motives might provide more insight in the relationship between feedback-seeking and performance. Self-motives might determine the locus of attention in feedback interventions, leading to improved performance when attention is shifted towards the task level (self-assessment and self-improvement motives) and to decreased performance when attention is shifted towards the ego level (self-enhancement and self-verification motives).

This explanation might enhance our understanding of the conditions in which feedback is supposed to improve performance. Future research should identify antecedents of the self-assessment and the self-improvement motives in order to encourage feedback-seeking geared towards performance improvement. An example of such an antecedent is the use of specific and concrete feedback versus the use of group norms in the feedback message. When employees are confronted with feedback comparing their performance to the performance of others, attention is directed to ego-based goals, resulting in decreased performance (DeNisi & Kluger, 2000; Sedikides & Strubbe, 1997). However, the use of concrete and specific task information in the feedback message has been related to performance improvement (Goodman & Wood, 2004; Goodman, Wood, & Hendrickx, 2004).

*Self-motives and feedback reactions.* A second explanation for the troubling relationship between feedback-seeking and performance is based on an apparent lack of attention for feedback reactions in feedback-seeking research. As shown in the appendix, none of the previous studies in the feedback-seeking domain looked at the role of feedback reactions. In social psychology, findings indicate that the same self-motives that are proposed to guide feedback-seeking behavior, also influence how people react to feedback. There is a relative consensus that three categories (see Figure 2) of feedback reactions can be distinguished (Ilgen & Davis, 2000; Ilgen, Fisher, & Taylor, 1979; Taylor, Fisher, & Ilgen, 1984). The first category concerns how people react cognitively to the feedback provided. Feedback acceptance (Korsgaard, Meglino, & Lester, 1997; Nease, Mudgett, & Quinones, 1999) and perception of feedback utility (Brett & Atwater, 2001; Cawley, Keeping, & Levy, 1998) constitute two cognitive reactions referring to the extent that people believe that the feedback accurately reflects their performance and the extent that people intend to use the feedback for future performance. Self-motives research suggests that these cognitive reactions to self-relevant feedback are guided by the self-verification motive. People are more likely to accept feedback and perceive feedback as useful when the feedback message confirms their self-views (Shrauger, 1975; Jussim, Yen, & Aiello, 1995; Moreland & Sweeney, 1984; Swann, Griffith, Predmore, & Gaines, 1987). The second category denotes affective reactions such as satisfaction with feedback (Brett & Atwater, 2001; Korsgaard, 1995). Affective reactions to self-relevant feedback have been found to be in line with predictions of self-enhancement theory. Individuals are more satisfied with favorable feedback compared to unfavorable feedback (Shrauger, 1975; Jussim et al., 1995; Sweeney & Wells, 1990). The third category consists of behavioral or conative reactions. Employees can change their behavior in several ways when they receive a feedback message. They can adopt a new strategy to achieve their goals, they can put in more or less effort, they can persevere or quit, or they even can sabotage the organizational processes (Fedor, Davis, Maslyn, & Mathieson, 2001; Vance & Colella, 1990). Little social

psychological research has examined conative reactions to feedback, although recent research shows that individuals reported more destructive intentions after negative feedback, thus supporting self-enhancement theory (Van de Vliert, Shi, Sanders, Wang, & Huang, 2004).

Although it is clear that these three categories of feedback reactions are far from independent (Cron, Slocum, & VandeWalle, 2001; Keeping & Levy, 2000), it is generally accepted that cognitive reactions play a key role in the feedback process. In particular, feedback acceptance serves as a central moderator for performance improvement (Ilgen et al., 1979; Taylor et al., 1984). Feedback only leads to performance improvement when it is cognitively accepted (O'Reilly & Anderson, 1980, Kinicki, Prussia, Wu, & McKee-Ryan, 2004). Thus, an examination of feedback reactions constitutes a second possible avenue to enhance understanding of the intriguing relationship between feedback-seeking behavior and performance. Feedback acceptance (and other feedback reactions) have been studied in assessment and development centers (Jones & Whitmore, 1995), 360-degree feedback (Brett & Atwater, 2001), management development programs (Ryan, Brutus, Greguras, & Hakel, 2000), computer testing (Tonidandel, Quinones, & Adams, 2002), performance appraisal (Cawley, Keeping, & Levy, 1999) and selection decisions (Bauer, Maertz, Dolen, & Campion, 1998). Given the widespread study of feedback reactions, it is remarkable that no attention has been paid to feedback reactions in the context of the feedback-seeking process. As feedback reactions determine whether or not feedback leads to performance improvement, we propose to incorporate feedback reactions into a broader model of feedback-seeking behavior. Furthermore, on the basis of the self-motives framework two additional moderators are included in our model. A first moderator of feedback reactions that has been examined is the cognitive effort that people expend when processing feedback. It seems that people especially exhibit self-verifying feedback reactions when they have ample time or are strongly motivated to expend additional cognitive effort, whereas feedback reactions are driven by self-enhancement strivings when cognitive resources for processing feedback are



lacking (Hixon & Swann, 1993; Morling & Epstein, 1997; Paulhus & Levitt, 1987; Swann & Shroeder, 1995; Swann, Hixon, Stein-Seroussi, & Gilbert, 1990). A second moderator that has been examined in relation to feedback reactions is personal investment. Research has shown that people reacted according to the self-verification perspective when they were highly invested in their self-views (confidently held or personally important), whereas feedback reactions followed predictions of self-enhancement theory when people were not invested in their self-views (Dauenheimer, Stahlberg, & Petersen, 1999; Markus, 1977; Seta, Donaldson, & Seta, 1999; Stahlberg, Petersen, & Dauenheimer, 1999). As low acceptance of negative feedback has been identified as one of the main stumbling blocks in the feedback process (Brett & Atwater, 2001; Kinicki et al., 2004), these two moderators might offer new strategies for enhancing feedback acceptance.

#### **UNDERLYING MODEL FOR FUTURE RESEARCH**

In Figure 2, we present a model that should guide future research on feedback-seeking behavior. This heuristic model shows how the various new concepts that were introduced in the previous section are theoretically related to feedback-seeking behavior. Our model builds on Morrison's (2002) recent conceptual model (see Figure 1) and opens various avenues for future research.

First, future studies should focus on the left side of the model (e.g., antecedents, motives and feedback-seeking behavior). For instance, scholars might examine how previously studied antecedents (e.g., learning and performance goal orientation) are related to various self-motives. In addition, future studies should explore the broad range of new antecedents that might be identified on the basis of the self-motives framework. Furthermore, studies should examine whether self-motives act as mediators between antecedents and feedback-seeking behavior. In particular, it is important to

test whether an antecedent has a different impact on feedback-seeking behavior depending on the motive that guides the seeking behavior.

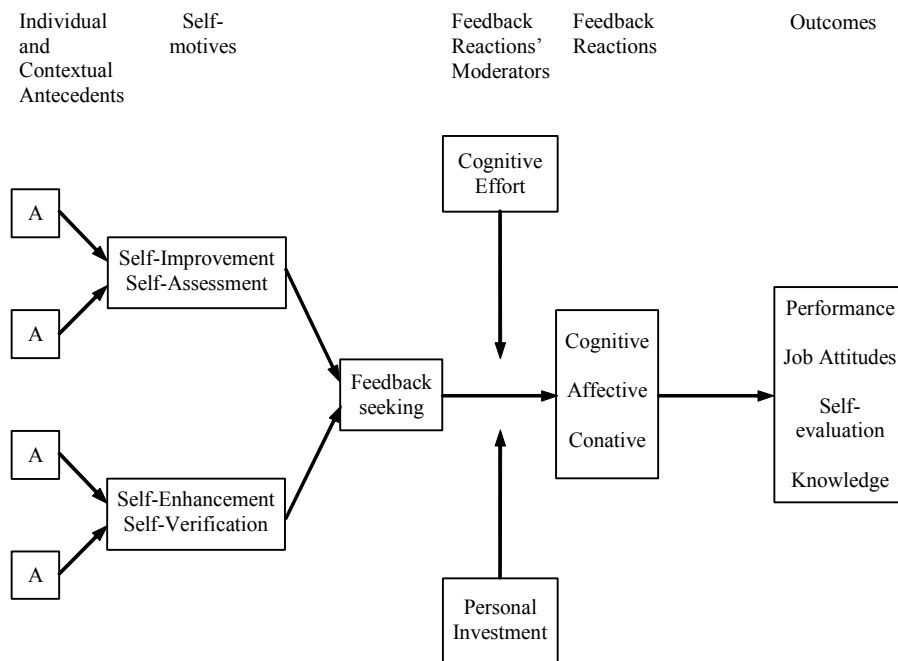


FIGURE 2: A SELF-MOTIVE MODEL OF FEEDBACK-SEEKING

Second, other future studies should concentrate on the right side of the model (e.g., feedback-seeking behavior, feedback reactions' moderators and outcomes). Here, scholars should investigate the mediating role of feedback reactions in the relationship between feedback-seeking behavior and outcomes such as performance improvement. Furthermore, future studies should investigate how different feedback reactions (acceptance and satisfaction) relate to performance improvement. In addition, potential moderators such as cognitive effort and individual investment should be targeted to ascertain their role in the feedback-seeking - feedback reactions chain.

Third, future studies might test the entire model. For instance, some empirical findings suggest that antecedents (e.g., credibility, self-esteem, self-efficacy, goal orientation) that affect feedback-seeking behavior also play an important role in influencing feedback reactions (Ilgen & Davis, 2000; Steelman & Levy, 2001). Another interesting avenue would be to investigate whether motives that have been activated at the feedback-seeking stage continue to have an influence at the feedback reactions stage. Finally, future research should examine whether self-motives that are geared toward obtaining accurate, and developmental feedback (the self-assessment and self-improvement motives) eventually lead to an increase in performance.

From a methodological perspective, two different approaches (i.e., a direct and an indirect method) can be used. In the direct method the motives are directly measured by surveys in a cross-sectional or longitudinal design. This approach is typically used in field studies. Several scholars have already employed such designs and questionnaires to study self-motives in an organizational context (see Helgeson & Mickelson, 1995; Stark & Sommer, 2000; Tuckey et al., 2002). However, McClelland (1980), McClelland, Koestner, and Weinberger (1989) and Winter, John, Stewart, Klohnen, and Duncan (1998) pointed out that there is an important difference between explicit motives (as measured by questionnaires) and implicit motives (as deduced from experiments) and that these different motives might have other behavioral consequences (for a meta-analysis, see Spangler, 1992). Along these lines, one might question whether a rather implicit and unconscious motive as self-verification can be accurately measured by a questionnaire (Swann, Rentfrow, & Guinn, 2002). An indirect approach wherein the activation of several implicit motives is inferred from experimental designs seems a valuable alternative. In social psychology, various paradigms for assessing the role of self-motives have been developed. For example, in a typical self-assessment experiment, participants are presented with tasks of varying degrees of diagnosticity. The dependent measures in these experiments focus on whether participants prefer, choose, or are more influenced by high-diagnosticity versus low-

diagnosticity tasks (e.g., Sedikides, 1993; Trope & Neter, 1994). Another promising paradigm that can easily be transferred to an organizational context, was developed by Swann and Read (1981). In this paradigm, participants are presented with a choice between a variety of feedback opportunities to find out whether they possess a particular attribute. The typical dependent measure used deals with the degree to which a participant demonstrates a preference for feedback that is consistent, more positive or more negative than existing self-views.

### CONCLUSIONS

Over the last two decades, research on feedback-seeking behavior has emerged as one of the most dominant themes in the feedback domain. A broad range of antecedents and outcomes of feedback-seeking has been examined. Our review of 49 studies showed that a resource-based perspective dominated prior research on antecedents of feedback-seeking behavior. Although twenty years of research has yielded important insights, some inconsistent findings could not be explained on the basis of the resource-based perspective. First, it was concluded that antecedents that were conceptually related to uncertainty did not always have a uniform impact on feedback-seeking behavior. Second, the role played by self-concept related variables in the feedback-seeking process was unclear. Third, findings about the relationship between feedback-seeking behavior and performance were mixed.

To shed light on these unresolved issues and further refine thinking in this area, we proposed a general framework for studying feedback-seeking behavior. By borrowing from broad models in social psychology, we provided an alternative for the traditional resource-based perspective on feedback-seeking behavior. The use of insights from the broader self-motives domain might lead to a more fine-grained and theoretically-driven picture of feedback-seeking behavior in organizations. More specifically,

three new directions for future research were presented. First, on the basis of the self-motives framework several new antecedents of feedback-seeking behavior might be identified. Second, self-motives research in social psychology can provide new insights in the inconsistent results concerning the relationship between antecedents and feedback-seeking behavior in previous research. Third, the relationship between feedback-seeking behavior and performance can be clarified by considering the role of various feedback reactions in relation to self-motives. By providing this self-motives model of feedback-seeking behavior, we not only hope to bring the study of feedback-seeking behavior in organizations more up-to-date with recent developments in social psychology, but also to provide a rich framework for guiding future feedback-seeking research.

### **THE PRESENT DISSERTATION**

In the current dissertation, I will present several studies which aim to accomplish some of the research avenues that were suggested in the previously described research agenda. More specifically, by using the self-motives framework I aim to pursue three objectives. First, self-motives should be fruitful in identifying new antecedents of feedback-seeking behavior, which may offer new strategies to encourage feedback-seeking in organizations. Second, a closer look will be taken at some unresolved issues in the feedback-seeking process by considering the role of underlying self-motives. Third, the self-motives framework will be used to shed additional light on the troubling relationship between feedback and performance.

In Figure 3, the overarching structure of this dissertation is given. This structure is a simplification of the self-motives model that was presented before (Figure 2). As such, it represents a working model for this dissertation wherein only the specific variables that are directly examined across the empirical studies are included. As none of the four self-motives will be directly measured in the following studies, the self-motives are not included

as variables in the model. Instead, the self-motives framework acts as theoretical underpinnings guiding the choice of antecedents and moderators that will be studied in this dissertation, as is suggested in Figure 3. In each empirical study, a closer look will be taken at the relationship between specific elements of this model. Thus, the working model in Figure 3 is meant to illustrate how the various studies in this dissertation are interconnected. With this purpose, the model will be retaken before each chapter, highlighting the specific elements under study.

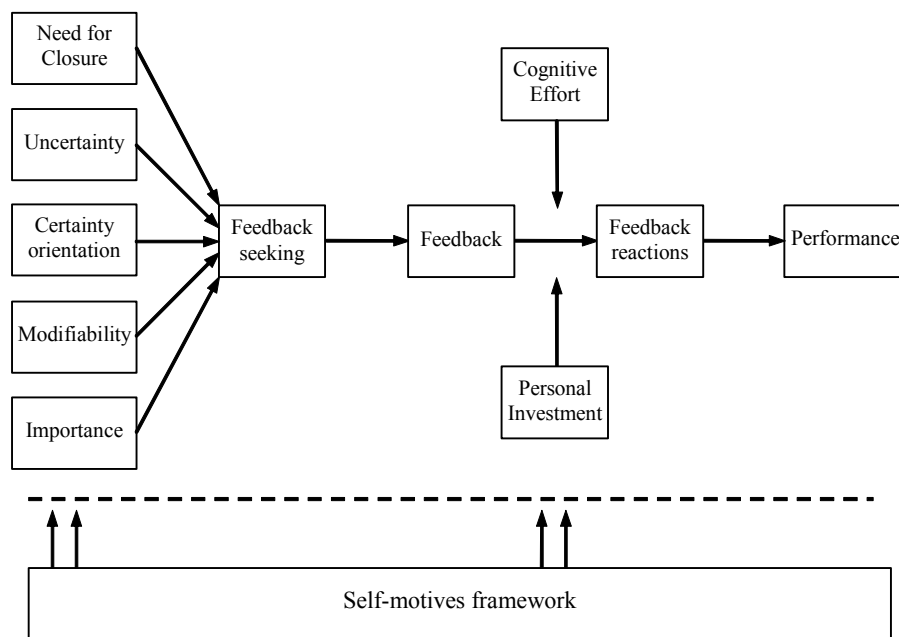


FIGURE 3: A WORKING MODEL LINKING THE VARIABLES STUDIED IN THIS DISSERTATION.

In the first empirical study (Chapter 2), two antecedents are examined that are believed to activate self-improvement strivings in people (Sedikides & Strubbe, 1997), and thus are likely to influence feedback-seeking behavior, namely people's beliefs about the modifiability and importance of various performance dimensions. This experimental study takes a unique perspective

by looking at how these two antecedents influence individuals' feedback-seeking decisions when they have several feedback options. Thus, the primary focus of the first study is to identify new antecedents of feedback-seeking behavior, targeting the first objective of the dissertation. Consequentially, this study is situated on the left side of the overarching structure (**modifiability**, **importance**, and **feedback-seeking**) in Figure 3.

The third chapter presents a laboratory and a field study that take a closer look at the role of uncertainty in the feedback-seeking process. As discussed earlier, some studies found that uncertainty lead to more frequent feedback-seeking, whereas other studies failed to replicate these findings or reported opposite relationships. The current two studies try to shed a new light on these inconsistent findings by examining the moderating role of two individual difference variables, need for closure and certainty orientation, as suggested by self-motives research. Thus, on the one hand, these two studies aim to accomplish the second objective of the dissertation, namely resolving inconsistent findings from previous research. On the other hand, need for closure and certainty orientation have previously not been examined as possible antecedents of feedback-seeking behavior, thus also the first objective is tackled in Chapter 3. As can be seen in Figure 3, these two studies examining **uncertainty**, **need for closure** and **certainty orientation** in relation to **feedback-seeking** are also located at the left side of the model.

Whereas Chapter 3 focused on the role of uncertainty in the feedback-seeking stage of the feedback process, Chapter 4 mirrors this focus by considering the role of uncertainty in the feedback reactions stage of the feedback process. Previous research yielded different answers to the question whether people prefer favorable or confirming feedback (Shrauger, 1975). In this chapter, I propose that individuals' level of investment (certainty) in their self-views might be an important factor that has been overlooked in previous research. It is hypothesized that people's preference for favorable or confirming feedback is moderated by the certainty of their self-views. Two studies, a laboratory study with a student sample, and a field

study with a working sample are conducted to test this hypothesis. Similar to the previous chapter, these two studies aim to accomplish the second objective by gaining more insight in unresolved issues from previous research. Together, chapter 3 and 4 also paint a more complete picture of the role of uncertainty in the feedback process than has typically been provided. As can be seen in Figure 3, the relationship between **feedback**, **personal investment** and **feedback reactions** is situated at the center of the model.

Finally, the last empirical study (Chapter 5) tackles the third objective, which aims to gain more knowledge concerning the effects of feedback interventions on performance. As noted before, several theoretical models have postulated feedback acceptance as the main determinant of performance improvement. Therefore, low acceptance of negative feedback is identified as one of the main stumbling blocks in the feedback process. The self-motives framework suggests that feedback acceptance is to a large extent determined by the cognitive effort that people put in processing feedback. Therefore, in two different samples, I tested whether requiring individuals to extensively elaborate on feedback messages might lead to enhanced feedback acceptance and improved task performance. As this study looks at the relationships between **feedback**, **cognitive effort**, **feedback reactions**, and **performance**, this final chapter is located at the center and right part of the model in Figure 3.

After this fourth empirical part, this dissertation finishes with Chapter 6, in which I present the general conclusions and the theoretical, practical and research implications which can be drawn from the previous chapters.



**REFERENCES<sup>3</sup>**

- \*Abraham, J. D., Burnett, D., & Morrison, J. D. (2002, April). *Developmental assessment centers: Who wants feedback?* Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, Toronto, CA.
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- \*Ang, S., Cummings, L. L., Straub, D. W., & Early, C. P. (1993). The effects of information technology and the perceived mood of the feedback giver on feedback seeking. *Information Systems Research, 4*, 240-261.
- \*Ang, S., & Cummings, L. L. (1994). Panel analysis of feedback-seeking patterns in face-to-face, computer-mediated, and computer-generated communication environments. *Perceptual and Motor Skills, 79*, 67-73.
- \*Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal, 29*, 465-487.
- \*Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology, 81*, 199-214.
- Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management, 29*, 773-799.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance, 32*, 370-398.
- \*Ashford, S. J., & Cummings, L. L. (1985). Proactive feedback seeking: The instrumental use of the information environment. *Journal of Occupational Psychology, 58*, 67-79.
- \*Ashford, S. J., & Northcraft, G. B. (1992). Conveying more (or less) than we realize: The role of impression-management in feedback-seeking. *Organizational Behavior and Human Decision Processes, 53*, 310-334.
- \*Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal, 34*, 251-280.

---

<sup>3</sup> Studies preceded by an asterisk were included in the review

- Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management*, 7, 65-89.
- Banaji, M. R., & Prentice, D. A. (1994). The self in social contexts. *Annual Review of Psychology*, 45, 297-332.
- \*Barnard, A. M., & Greguras, G. J. (2001, April). Feedback seeking in customer service relationships. In G. J. Greguras & E. P. Braverman (Co-chairs), *Extending our understanding of customer service through field research*. Symposium conducted at the Sixteenth Annual Conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bauer, T. N., Maertz, C. P., Dolen, M. R., Campion, M. A. (1998). Longitudinal assessment of applicant reactions to employment testing and test outcome feedback. *Journal of Applied Psychology*, 83, 892-903.
- Baumgardner, A. H., Kaufman, C. M., & Levy, P. E. (1989). Regulating affect interpersonally: When low esteem leads to greater enhancement. *Journal of Personality and Social Psychology*, 56, 907-921.
- \*Bennet, N., & Herold, D. M. (1990). The effects of tolerance for ambiguity on feedback-seeking behaviour. *Journal of Occupational and Organizational Psychology*, 63, 343-348.
- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology*, 86, 930-942.
- \*Brett, J. M., Feldman, D. C., & Weingart, L. R. (1990). Feedback-seeking behavior of new hires and job changers. *Journal of Management*, 16, 737-749.
- Brown, J. D., & Gallagher, F. M. (1992). Coming to terms with failure: Private self-enhancement and public self-effacement. *Journal of Experimental Social Psychology*, 28, 3-22.
- Brown, J. D., & Smart, S. A. (1991). The self and social conduct: Linking self-representation to prosocial behavior. *Journal of Personality and Social Psychology*, 60, 368-375.
- \*Brown, S. P., Challagalla, G., & Ganesan, S. (2001). Self-efficacy as a moderator of information-seeking effectiveness. *Journal of Applied Psychology*, 86, 1043-1051.
- \*Brutus, S., & Cabrera, E. F. (2004, April). *The influence of cultural values on feedback-seeking behaviors*. Poster presented at the annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.
- \*Callister, R. R., Kramer, M. W., & Turban, D. B. (1999). Feedback seeking following career transitions. *Academy of Management Journal*, 42, 429-438.

- Cawley, B. D., Keeping, L. M., & Levy, P. E. (1998). Participation in the performance appraisal process and employee reactions: A meta-analytic review of field investigations. *Journal of Applied Psychology, 83*, 615-633.
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self-definition. *Journal of Personality and Social Psychology, 86*, 77-94.
- Cooley, C. H. (1902). *Human nature and the social order*. New York: Scribner's.
- Cron, W. L., Slocum, J. W., Jr., & VandeWalle, D. (2001, April). *Negative feedback and self-set goal level: The role of emotional reactions and goal orientation*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Dauenheimer, D., Stahlberg, D., & Petersen, L.-E. (1999). Self-discrepancy and elaboration of self-conceptions as factors influencing reactions to feedback. *European Journal of Social Psychology, 29*, 725-739.
- DeNisi, A. S., & Kluger, A. N. (2000). Feedback effectiveness: Can 360-degree appraisals be improved? *Academy of Management Executive, 14*, 129-139.
- Dweck, C. S., & Legget, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256-273.
- Farr, J. L. (1993). Informal performance feedback: Seeking and giving. In H. Schuler, J. L. Farr, & M. Smith (Eds.), *Personnel selection and assessment: Individual and organizational perspectives* (pp. 163-180). Hillsdale, NJ: Erlbaum.
- \*Farr, J. L., Ringseis, E. L., & Unckless, A. L. (1999, April). *Seeking feedback about task and contextual performance*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, Atlanta, GA.
- Fedor, D. B. (1991). Recipient responses to performance feedback: A proposed model and its implications. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel and human resource management* (Vol.9, pp.73-120). Greenwich, CT: JAI Press.
- Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: The roles of power and recipient self-esteem. *Journal of Management, 27*, 79-97.
- \*Fedor, D. B., Rensvold, R. B., & Adams, S. M. (1992). An investigation of factors expected to affect feedback seeking: A longitudinal field study. *Personnel Psychology, 45*, 779-805.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.
- Fleishman, E. A., & Peters, D. A. (1962). Interpersonal values, leadership attitudes, and managerial success. *Personnel Psychology, 15*, 127-143.

- Freitas, L. A., Salovey, P., & Liberman, N. (2001). Abstract and concrete self-evaluative goals. *Journal of Personality and Social Psychology, 80*, 410-424.
- Goodman, J. S., & Wood, R. E. (2004). Feedback specificity, learning opportunities, and learning. *Journal of Applied Psychology, 89*, 809-821.
- Goodman, J. S., Wood, R. E., & Hendrickx, M. (2004). Feedback specificity, exploration, and learning. *Journal of Applied Psychology, 89*, 248-262.
- \*Gupta, A. K., Govindarajan, V., & Malhotra, A. (1996). Feedback-seeking behavior within multinational corporations. *Strategic Management Journal, 20*, 205-222.
- Helgeson, V. S., & Mickelson, K. D. (1995). Motives for social comparison. *Personality and Social Psychology Bulletin, 21*, 1200-1209.
- Herold, D. M., & Fedor, D. B. (1998). Individuals' interaction with their feedback environment: The role of domain-specific individual differences. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resource management* (Vol.16, pp.215-254). Greenwich, CT: JAI Press.
- Hixon, J. G., & Swann, W. B. (1993). When does introspection bear fruit? Self-reflection, self-insight, and interpersonal choices. *Journal of Personality and Social Psychology, 64*, 35-43.
- Ilgen, D. R., & Davis, C. A. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology: An International Review, 49*, 550-565.
- Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.
- James, W. (1890). *The principles of psychology* (2 vols.). New York: Henry Holt.
- Jones, R. G., & Whitmore, M. D. (1995). Evaluating developmental assessment centers as interventions. *Personnel Psychology, 48*, 377-388.
- Jussim, L., Yen, H., & Aiello, J. R. (1995). Self-consistency, self-enhancement, and accuracy in reactions to feedback. *Journal of Experimental Social Psychology, 31*, 322-356.
- Katz, J., & Beach, S. R. H. (2000). Looking for love? Self-verification and self-enhancement effects on initial romantic attraction. *Personality and Social Psychology Bulletin, 26*, 1526-1539.
- Keeping, L. M., & Levy, P. E. (2000). Performance appraisal reactions: Measurement, modeling, and method bias. *Journal of Applied Psychology, 85*, 708-723.

- Kinicki, A. J., Prussia, G. E., Wu, B., & McKee-Ryan, F. M. (2004). A covariance structure analysis of employees' response to performance feedback. *Journal of Applied Psychology, 89*, 1057-1069.
- \*Klich, N. R., & Feldman, D. C. (1992). The role of approval and achievement needs in feedback seeking behavior. *Journal of Managerial Issues, 4*, 554-570.
- \*Kluger, A. N., & Adler, S. (1993). Person- versus computer-mediated feedback. *Computers in Human Behavior, 9*, 1-16.
- Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*, 254-284.
- Kluger, A. N., & DeNisi, A. S. (1998). Feedback interventions: Toward the understanding of a double-edged sword. *Current Directions in Psychological Science, 7*(3), 67-72.
- Korsgaard, M. A. (1996). The impact of self-appraisals on reactions to feedback from others: The role of self-enhancement and self-consistency concerns. *Journal of Organizational Behavior, 17*, 301-311.
- Korsgaard, M. A., Meglino, B. M., & Lester, S. W. (1997). Beyond helping: Do other-oriented values have broader implications in organizations. *Journal of Applied Psychology, 82*, 160-177.
- \*Kuchinke, K. P. (2000). The role of feedback in management training settings. *Human Resource Development Quarterly, 11*, 381-401.
- \*Kuchinke, K. P. (2001). Feedback seeking in university human resource development education in the US, UK, and Singapore. *Human Resource Development International, 4*, 107-126.
- \*Kung, M.- C., & Steelman, L. A. (2003, April). *A cross-cultural study in feedback-seeking*. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Larson, J.R., Jr. (1989). The dynamic interplay between employees' feedback-seeking strategies and supervisors' delivery of performance feedback. *Academy of Management Review, 14*, 408-422.
- Lecky, P. (1945). *Self-consistency: A theory of personality*. New York: Island Press.
- \*Levy, P. E., Albright, M. D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes, 62*, 23-37.
- \*Levy, P. E., Cober, R. T., & Miller, T. (2002). The effect of transformational and transactional leadership perceptions on feedback-seeking intentions. *Journal of Applied Social Psychology, 32*, 1703-1720.

- \*London, M., Larsen, H. H., & Thisted, L. N. (1999). Relationships between feedback and self-development. *Group & Organization Management, 24*, 5-27.
- \*Madzar, S. (2001). Subordinates' information inquiry: Exploring the effect of perceived leadership style and individual differences. *Journal of Occupational and Organizational Psychology, 74*, 221-232.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35*, 63-78.
- McClelland, D. C. (1980). Motive dispositions: The merits of operant and respondent measures. In L. Wheeler (Ed.), *Review of personality and social psychology* (Vol. 1, pp. 10-41). Beverly Hills, CA: Sage.
- McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review, 96*, 690-702.
- \*Milner, K. R., DeShon, R. P., Henson, J. A., & Boyce, A. (2001, April). *Effects of information seeking on performance ratings*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- \*Moon, M., & Levy, P. E. (2000, April). *To seek or not to seek: Context, goal orientation, and self-efficacy as predictors of feedback-seeking behavior*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.
- Moreland, R. L., & Sweeney, P. D. (1984). Self-expectancies and reactions to evaluations of personal performance. *Journal of Personality, 52*, 156-176.
- Morling, B., & Epstein, S. (1997). Compromises produced by the dialectic between self-verification and self-enhancement. *Journal of Personality and Social Psychology, 73*, 1268-1283.
- \*Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal, 36*, 557-589.
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research, 28*, 229-242.
- \*Morrison, E. W., Chen, Y. R., & Salgado, S. R. (2004). Cultural differences in newcomer feedback seeking: A comparison of the United States and Hong Kong. *Applied Psychology: An International Review, 53*, 1-22.
- \*Morrison, E. W., & Cummings, L. L. (1992). The impact of feedback diagnosticity and performance expectations on feedback seeking behavior. *Human Performance, 5*, 251-264.
- \*Morrison, E. W., & Weldon, E. (1990). The impact of an assigned performance goal on feedback seeking behavior. *Human Performance, 3*, 37-50.

- \*Moss, S. E., Valenzi, E. R., Taggart, W. (2003). Are you hiding from your boss? The development of a taxonomy and instrument to assess the feedback management behaviors of good and bad performers. *Journal of Management*, 29, 487-510.
- Nease, A. A., Mudgett, B. O., & Quinones, M. A. (1999). Relationships among feedback sign, self-efficacy, and acceptance of performance feedback. *Journal of Applied Psychology*, 84, 806-814.
- \*Northcraft, G. B., & Ashford, S. J. (1990). The preservation of self in everyday life: The effects of performance expectations and feedback context on feedback inquiry. *Organizational Behavior and Human Decision Processes*, 47, 42-64.
- \*Nowakowski, J. M., & Kozlowski, S. W. J. (2004, April). Goal orientation and feedback seeking during learning: Processes and prospects. In B. S. Bell (Chair), *Advances in research on individual difference effects in training contexts*. Symposium conducted at the 19th annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.
- O' Reilly, C., & Anderson, J. (1980). Trust and communication of performance appraisal information: The effects of feedback on performance and job satisfaction. *Human Communication Research*, 6, 290-298.
- \*Park, G., Schmidt, A. M., Scheu, C. R., & Deshon, R. P. (2003, April). *The effect of goal orientation on feedback-seeking behavior*. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Orlando, FL.
- Paulhus, D. L., & Levitt, K. (1987). Desirable responding triggered by affect: Automatic egotism? *Journal of Personality and Social Psychology*, 52, 245-259.
- \*Renn, R. W., & Fedor, D. B. (2001). Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *Journal of Management*, 27, 563-583.
- \*Roberson, L., Deitch, E. A., Brief, A. P., & Block, C. J. (2003). Stereotype threat and feedback seeking in the workplace. *Journal of Vocational Behavior*, 62, 176-188.
- Ryan, A. M., Brutus, S., Greguras, G., & Hakel, M. D. (2000). Receptivity to assessment-based feedback for management development. *Journal of Management Development*, 19, 252-276.
- Shrauger, J. S. (1975). Responses to evaluation as a function of initial self-perceptions. *Psychological Bulletin*, 82, 581-596.
- Sedikides, C. (1993). Assessment, enhancement and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology*, 65, 317-338.

- Sedikides, C., Gaertner, L., & Toguchi, Y. (2003). Pancultural self-enhancement. *Journal of Personality and Social Psychology, 84*, 60-79.
- Sedikides, C., Herbst, K. C., Hardin, D. P., & Dardis, G. J. (2002). Accountability as a deterrent to self-enhancement: The search for mechanisms. *Journal of Personality and Social Psychology, 83*, 592-605.
- Sedikides, C., & Strube, M. J. (1995). The multiply motivated self. *Personality and Social Psychology Bulletin, 21*, 1330-1335.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 29, pp.209-269). New York: Academic Press.
- Seta, J. J., Donaldson, S., & Seta, C. E. (1999). Self-relevance as a moderator of self-enhancement and self-verification. *Journal of Research in Personality, 33*, 442-462.
- Spangler, W. D. (1992). Validity of questionnaire and TAT measures of need for achievement: Two meta-analyses. *Psychological Bulletin, 112*, 140-154.
- \*Stark, G., & Sommer, S. M. (2000, August). *Pursuing the good, the known or the unknown: Antecedents of feedback seeking motives*. Paper presented at the Academy of Management National Meeting, Toronto, Canada.
- Stahlberg, D., Petersen, L.-E., & Dauenheimer, D. (1999). Preferences for and evaluation of self-relevant information depending on the elaboration of the self-schemata involved. *European Journal of Social Psychology, 29*, 489-502.
- Steelman, L. A., & Levy, P. E. (2001, April). *When negative feedback isn't so negative*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, San Diego, CA.
- \*Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The feedback environment scales (FES): Construct definition, measurement and validation. *Educational and Psychological Measurement, 64*, 165-184.
- Sully de Luque, M. F., & Sommer, S. M. (2000). The impact of culture on feedback-seeking behavior: An integrated model and propositions. *Academy of Management Review, 25*, 829-849.
- Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology, 53*, 1038-1051.
- Swann, W. B. (1996). *Self-traps: The elusive quest for higher self-esteem*. New York: Freeman.
- Swann, W. B., & Ely, R. J. (1984). A battle of wills: Self-verification versus behavioral confirmation. *Journal of Personality and Social Psychology, 46*, 1287-1302.



- Swann, W. B., Griffin, J.J., Predmore, S.C., & Gaines, B. (1987). The cognitive-affective crossfire: When self-consistency confronts self-enhancement. *Journal of Personality and Social Psychology*, *52*, 881-889.
- Swann, W. B., & Hixon, J. G., Stein-Seroussi, A., & Gilbert, D. T. (1990). The fleeting gleam of praise: Behavioral reactions to self-relevant feedback. *Journal of Personality and Social Psychology*, *59*, 17-26.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology*, *57*, 782-791.
- Swann, W. B., & Read, S. J. (1981). Acquiring self-knowledge: The search for feedback that fits. *Journal of Personality and Social Psychology*, *41*, 1119-1128.
- Swann, W. B., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary and J. Taguey (Eds.), *Handbook of self and identity* (pp. 367-383). New York: Guilford Press.
- Swann, W. B., & Schroeder, D. G. (1995). The search for beauty and truth: A framework for understanding reactions to evaluations. *Journal of Personality and Social Psychology*, *21*, 1307-1318.
- Sweeney, P.D., & Wells, L.E. (1990). Reactions to feedback about performance: A test of three competing models. *Journal of Applied Social Psychology*, *20*, 818-834.
- Taylor, M. S., Fisher, C. D., & Ilgen, D. R. (1984). Individuals' reactions to performance feedback in organizations: A control theory perspective. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 2, pp. 81-124). Greenwich, CT: JAI Press.
- Taylor, S. E., Neter, E., & Wayment, H. A. (1995). Self-evaluation processes. *Personality and Social Psychology Bulletin*, *21*, 1278-1287.
- \*Thibodeaux, H. F., & Kudisch, J. D. (2000, April). *The effects of source attributes on feedback seeking: A field study*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.
- \*Thomas, J. B., & Williams, J. R. (1999, april). *Examination of the feedback-seeking process: The effect of source-supportiveness*. Paper presented at the annual conference of the Society for Industrial and Organizational Psychology, Atlanta, GA.
- Tonidandel, S., Quiñones, M. A., & Adams, A. A. (2002). Computer-adaptive testing: The impact of test characteristics on perceived performance and test takers' reactions. *Journal of Applied Psychology*, *87*, 320-332.
- Trope, Y. (1980). Self-assessment, self-enhancement, and task preference. *Journal of Experimental Social Psychology*, *16*, 116-129.

- Trope, Y., & Neter, E. (1994). Reconciling competing motives in self-evaluation: The role of self-control in feedback seeking. *Journal of Personality and Social Psychology, 66*, 646-657.
- Trope, Y., & Pomeranz, E. M. (1998). Resolving conflicts among self-evaluative motives: Positive experiences as a resource for overcoming defensiveness. *Motivation & Emotion, 22*, 53-72.
- \*Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology, 75*, 195-216.
- Van de Vliert, E., Shi, K., Sanders, K., Wang, Y., & Huang, X. (2004). Chinese and Dutch interpretations of supervisory feedback. *Journal of Cross-Cultural Psychology, 35*, 417-435.
- Vance, R. J., & Colella, A. (1990). Effects of two types of feedback on goal acceptance and personal goals. *Journal of Applied Psychology, 75*, 68-76.
- \*Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes, 62*, 276-285.
- VandeWalle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human Resource Management Review, 13*, 581-604.
- \*VandeWalle, D., Challagalla, G. N., Ganesan, S., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context, and cognition. *Journal of Applied Psychology, 85*, 996-1003.
- \*VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation on the feedback-seeking process. *Journal of Applied Psychology, 82*, 390-400.
- \*Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology, 85*, 373-385.
- Wayment, H.A., & Taylor, S.E. (1995). Self-evaluation processes: Motives, information use, and self-esteem. *Journal of Personality, 63*, 729-757.
- \*Williams, J. R., Steelman, L. A., Miller, C. E., & Levy, P. E. (1999). Increasing feedback seeking in public contexts: It takes two (or more) to tango. *Journal of Applied Psychology, 84*, 969-976.
- \*Williams, J. R., & Johnson, M. A. (2000). Self-supervisor agreement: The influence of feedback seeking on the relationship between self and supervisor ratings of performance. *Journal of Applied Social Psychology, 30*, 275-292.

Winter, D. G., John, O. P., Stewart, A. J., Klohnen, E. C., & Duncan, L. E. (1998). Traits and motives: Toward an integration of two traditions in personality research. *Psychological Review*, *105*, 230-250.

## APPENDIX: SUMMARY OF STUDIES WHICH INVESTIGATED FEEDBACK-SEEKING BEHAVIOR IN ORGANIZATIONS

Author	Study focus	D	Sample	Antecedents	Outcomes
1. Abraham et al. (2002)	Feedback-seeking behavior in assessment centers.	E	Employees from a transporting company; <i>n</i> = 189	Performance (+); Interpersonal skills (+); Communication skills (+)	Performance (ns.)
2. Ang et al. (1993)	Effect of information technology and mood of the feedback giver on feedback-seeking behavior.	E	Students; <i>n</i> = 72	Computer environment (+); mood feedback giver (+)	Performance (ns.)
3. Ang & Cummings (1994)	Effect of preceding feedback and information technology on feedback-seeking behavior.	E	Students; <i>n</i> = 72	Feedback sign (+); computer environment (+)	
4. Ashford (1986)	Effect of individual and organizational determinants on feedback-seeking behavior.	C	Marketers; <i>n</i> = 331	Importance of goal attainment (+); uncertainty (-); organizational tenure (-); job tenure (-); negative goal beliefs (+); self-confidence (ns.); effort in seeking (-); risk in seeking (-); received feedback (+); value of feedback (+)	
5. Ashford & Black (1996)	Proactivity during organizational entry.	L	MBA - graduates; <i>n</i> = from 103 to 69	Desire for control (ns.)	Performance (ns.); satisfaction (ns.)
6. Ashford & Cummings (1985)	Effect of individual and organizational determinants on feedback-seeking behavior.	C	Marketers; <i>n</i> = 172	Role ambiguity (+); contingency uncertainty (+); organizational tenure (-); job involvement (+); tolerance for ambiguity (-)	
7. Ashford & Northcraft (1992)	Influence of public on feedback-seeking behavior.	E	Students; university managers; <i>n</i> = 67; <i>n</i> = 312	Context (+); norms (+); nervousness during feedback-seeking behavior (-); task anxiety (ns.)	performance potential (+)
8. Ashford & Tsui (1991)	Influence of feedback-seeking behavior on constituent's perceptions.	C	Managers; constituents; <i>n</i> = 378; <i>n</i> = 2447		Performance (+); Accuracy in knowledge (+)
9. Barnard & Greguras (2001)	The effect of feedback seeking from clients on service effectiveness.	C	Boundary spanners from two B2B firms; <i>n</i> = 188	Age (ns.); organizational tenure (-); client tenure (+); perceived organizational support (ns.)	Client satisfaction (+); repatronage intentions (+); word-of-mouth intentions (+); liking (+); similarity (ns.)

*Note:* When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry).

D = design; E = experimental; L = longitudinal; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2.

Author	Study focus	D	Sample	Antecedents	Outcomes
10. Bennet & Herold (1990)	Effects of tolerance for ambiguity on feedback-seeking behavior.	C	marketers; <i>n</i> = 172	General tolerance for ambiguity (ns.); job-related tolerance for ambiguity (+)	
11. Brett et al. (1990)	Feedback-seeking behavior of new hires and job changers.	L	Newcomers and job changers; <i>n</i> = 59; <i>n</i> = 28	Adjustment newcomers (+); adaptation job changers (-)	
12. Brown et al. (2001)	Contribution of information-seeking and self-efficacy to self-regulation processes.	C	Salespeople; <i>n</i> = 279	Supervisor feedback (+); supervisor consideration (+); initiation structure (-); self-generated feedback (ns.); job tenure (-); self-efficacy (ns.)	Role clarity (ns.); performance (-)
13. Brutus & Cabrera (2004)	Effect of cultural values on feedback-seeking behavior	C	MBA-students from 6 countries; <i>n</i> = 711	Age (ns.); gender (ns.); experience (ns.); ability (-); feedback cost (ns.); conformity (+); tradition (+); benevolence (+); universalism (ns.); self-direction (ns.); stimulation (ns.); hedonism (ns.); achievement (ns.); power (+); security (+); feedback clarity (+)	
14. Callister et al. (1999)	Changes in feedback-seeking behavior after career transitions.	L	Job changers; <i>n</i> = 69	Time (-); role clarity (-)	
15. Farr et al. (1999)	Effect of individual and organizational antecedents on feedback-seeking behavior.	C	Employees from various organizations; <i>n</i> = 127	Organizational tenure (-); job tenure (-); age (-); education (ns.); performance (ns.); self-monitoring (ns.); received feedback (+); learning goal orientation (+); performance goal orientation (ns.); supportiveness (+)	
16. Fedor et al. (1992)	Effect of individual and situational antecedents on feedback-seeking behavior.	L	Pilot trainees; <i>n</i> = 137	T1: Feedback uncertainty (-); feedback costs (-); source credibility (+); tolerance for ambiguity (-); external feedback propensity (+); self-esteem (ns.) T2: Feedback uncertainty (ns.); feedback costs (-); source credibility (ns.); tolerance for ambiguity (-); external feedback propensity (-); self-esteem (-)	T1: performance (ns.); T2: performance (-)

Note: When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry). D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2

Author	Study focus	D	Sample	Antecedents	Outcomes
17. Gupta et al. (1999)	Feedback-seeking behavior of managers in multinationals.	C	Managers in multinationals; $n = 374$	Organizational strategy (ns.); culture distance (ns.); role conflict (+); role ambiguity (ns.); centralization (ns.); lateral mechanisms (+); communication headquarters (ns.); socialization mechanisms (ns.); nationality (ns.); age (-); job tenure (ns.)	Performance (ns.)
18. Klich & Feldman (1992)	Effect of approval and appraisal needs on feedback-seeking behavior.	C	Employees from 5 organizations; $n = 374$	Need for approval (+); need for achievement (+)	Performance (ns.)
19. Kluger & Adler (1993)	Effect of person- versus computer-mediated feedback	E	Students; $n = 97$	Computer feedback (-)	
20. Kuehinke (2000)	The effects of individual and situational antecedents on feedback-seeking behavior in a developmental setting.	C	Management trainees; $n = 98$	Control variables (ns.); goal orientation (ns.); tolerance for ambiguity (ns.); charisma trainer (+); motivation-inspiration trainer (-); agreeableness trainer (ns.)	Satisfaction about education (+)
21. Kuehinke (2001)	Effect of individual and situational antecedents on feedback-seeking behavior in a educational setting.	C	Students; $n = 219$	Control variables (ns.); individualism (ns.); goal orientation (ns.); tolerance for ambiguity (ns.); learning motivation (-); attention trainer (+); motivation-inspiration trainer (ns.); goal setting (ns.)	Feedback-seeking utility (+); Value of the education (ns.)
22. Kung & Steelman (2003)	Cultural differences in feedback-seeking behavior	C	American and Taiwan students; $n = 78$ and 167	Taiwan: Effort cost (ns.); inference cost (-); face loss cost (ns.); group information (ns.); individual information (ns.); cultural context (ns.); supervisor interaction (+); teamwork (ns.) US: Effort cost (-); inference cost (-); face loss cost (-); group information (ns.); individual information (+); cultural context (ns.); supervisor interaction (ns.); teamwork (+)	

Note: When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry).  
D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2

Author	Study focus	D	Sample	Antecedents	Outcomes
23. Levy et al. (1995)	Effect of individual and situational determinants on feedback-seeking behavior.	E	Students; <i>n</i> = 192	Public self-consciousness (+); social anxiety (ns.); self-esteem (ns.); context (+)	
24. Levy et al. (2002)	Effect of transformational and transactional leadership perceptions on feedback-seeking behavior.	E	Students; <i>n</i> = 132	Leadership style (+); perception management by exception (ns.); perception individual attention (-)	
25. London et al. (1999)	Effects of feedback dimensions on feedback-seeking behavior and development	C	Employees/supervisors in bank sector; <i>n</i> = 115 pairs	Age (-); gender (ns.); reinforcement (ns.); evaluative feedback (ns.); nonthreatening feedback (ns.); development focus (ns.); empowerment (ns.); career motivation (ns.); self-consciousness (ns.); seeking development (+)	Performance (+)
26. Madzar (2001)	Effect of leadership style and individual differences on feedback-seeking behavior	C	Software engineers; <i>n</i> = 75	Transformational leadership (+); learning goal orientation (+); tolerance for ambiguity (-)	
27. Milner et al. (2001)	Feedback-seeking behavior in assessment centers.	C	Applicants; <i>n</i> = 461		Team skills (+); problem-solving (ns.); task orientation (ns.)
28. Moon & Levy (2000)	Effect of context, goal orientation and self-efficacy on feedback-seeking behavior.	E	Students; <i>n</i> = 138	Context (+); learning goal orientation (+); self-efficacy (ns.); performance goal orientation (ns.)	Performance (ns.)
29. Morrison (1993)	Role of feedback-seeking behavior in the socialization process.	L	Accountants; <i>n</i> from 205 to 149	Feedback type (+); feedback source (+)	Performance (ns.); satisfaction (+); turnover intention (-)
30. Morrison et al. (2004)	Cultural differences in feedback-seeking	C	MBA-students in USA and Hong-Kong; <i>n</i> = 69 and 62	Age (ns.); gender (+); national identity (-); self-assertiveness (+); self-reliance (ns.); working independently (ns.); power distance (-); formal socialization (ns.); collective socialization (ns.)	

Note: When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry). D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2

Author	Study focus	D	Sample	Antecedents	Outcomes
31. Morrison & Cummings (1992)	Effect of feedback diagnosticity and performance expectations on feedback-seeking behavior.	E	Students; $n = 84$	Performance (+); diagnosticity (+)	Performance (+)
32. Morrison & Weldon (1990)	Effect of an assigned performance goal on feedback-seeking behavior.	E	Students; $n = 31$	Assigned performance goal (+)	Performance (+)
33. Moss et al. (2003)	Development of an instrument to assess feedback management behavior	C	MBA-students; $n = 330$	External feedback propensity (+); self-monitoring (+); self-esteem (+); need for approval (-); fear of negative evaluation (+); feedback mitigating behavior (+); feedback avoidance behavior (+)	
34. Northcraft & Ashford (1990)	Effect of performance expectations and feedback context on feedback-seeking behavior.	E	Students; $n = 78$	Context (+); performance expectations (+); self-esteem (+); trial (+)	
35. Nowakowski & Kozlowski (2004)	Effect of goal orientation on feedback seeking strategies	E	Students; $n = 393$	Learning goal orientation (+)	
36. Park et al. (2003)	Effect of goal orientation on feedback-seeking behavior	F	Students; $n = 245$	T1: Expectancy value (+); appraisal value (ns.); ego cost (ns.); self-presentation cost (ns.); avoidance orientation (ns.); performance goal orientation (ns.); mastery goal orientation (ns.)	
37. Rens & Fedor (2001)	Relationship of feedback-seeking behavior with self-efficacy, goal-setting and performance.	C	Salespeople; $n = 136$	Personal control (+); external feedback propensity (+); age (ns.); gender (ns.); education (ns.); tenure (ns.)	Self-efficacy (+); feedback goals (+); performance quality (ns.); performance quantity (+)
38. Roberson et al. (2003)	Effect of stereotype threat on feedback-seeking behavior	C	Afro American in utilities industries; $n = 166$	organizational tenure (ns.); gender (ns.); education (ns.); solo status (ns.); stereotype threat (ns.)	

Note: When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry).  
D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2



Author	Study focus	D	Sample	Antecedents	Outcomes
39. Stark & Sommer (2000)	Effect of self-evaluation motives on feedback-seeking behavior.	C	Employees of 4 organizations; <i>n</i> = 826	Self-assessment (+); self-enhancement (+); self-verification (+); performance certainty (+); job tenure (-); organizational tenure (-); learning goal orientation (+); avoidance orientation (ns.); performance goal orientation (+)	Self-assessment (+); self-enhancement (+); self-verification (+); performance certainty (+); job tenure (-); organizational tenure (-); learning goal orientation (+); avoidance orientation (ns.); performance goal orientation (+)
40. Steelman et al. (2004)	Development of feedback environment scale	C	Employees at two companies; <i>n</i> = 405	Supervisor credibility (+); feedback quality (+); feedback delivery (+); feedback favorability (+); feedback unfavorability (+); source availability (+); promotes feedback-seeking (+)	Supervisor credibility (+); feedback quality (+); feedback delivery (+); feedback favorability (+); feedback unfavorability (+); source availability (+); promotes feedback-seeking (+)
41. Thibodeaux & Kudisch (2000)	Effect of source attributes on feedback-seeking behavior.	C	University employees; <i>n</i> = 153	Expertise (+); relationship (+); reward power(+); accessibility (ns.)	Expertise (+); relationship (+); reward power(+); accessibility (ns.)
42. Thomas & Williams (1999)	Effect of source supportiveness and performance expectations on feedback-seeking behavior.	E	Students; <i>n</i> = 123	Source supportiveness (+); performance expectations (+)	Source supportiveness (+); performance expectations (+)
43. Tuckey et al. (2002)	Effects of motives and goal orientation on feedback-seeking behavior.	C	Public sector employees; Students; <i>n</i> = 139; <i>n</i> = 126	S1: self-assessment (+); ego protection (-); defensive impression management (ns.); assertive impression management (ns.); learning goal orientation (ns.); performance goal orientation (-); avoidance orientation (+) S2: self-assessment (+); ego protection (-); defensive impression management (-); assertive impression management (ns.); learning goal orientation (+); performance goal orientation (ns.); avoidance goal orientation (ns.)	S1: self-assessment (+); ego protection (-); defensive impression management (ns.); assertive impression management (ns.); learning goal orientation (ns.); performance goal orientation (-); avoidance orientation (+) S2: self-assessment (+); ego protection (-); defensive impression management (-); assertive impression management (ns.); learning goal orientation (+); performance goal orientation (ns.); avoidance goal orientation (ns.)
44. Vancouver & Morrison (1995)	Effect of source attributes and individual differences on feedback-seeking behavior.	E	Students; <i>n</i> = 64	Expertise (+); accessibility (+); relationship (+); reward power (+)	Expertise (+); accessibility (+); relationship (+); reward power (+)

Note: When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry). D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2

Author	Study focus	D	Sample	Antecedents	Outcomes
45. Vande-Walle et al. (2000)	Effect of individual, contextual and cognitive determinants on feedback-seeking behavior.	C	Salespeople; $n = 310$	Experience (-); task complexity (ns.); learning goal orientation (+); initiation of structure (+); leader consideration (+); feedback costs (ns.); feedback value (+)	
46. Vande-Walle & Cummings (1997)	Effect of goal orientation on feedback-seeking behavior.	C E	Students; $n = 44$ Students; $n = 239$	Avoidance orientation (-); learning goal orientation (ns.); performance goal orientation (-); dominant orientation (+); feedback costs (-); feedback value (+); learning goal orientation (+); performance goal orientation (ns.); avoidance orientation (-)	
47. Wanberg et al. (2000)	Antecedents and outcomes of proactivity in the socialization process.	I.	Newcomers in organizations $n =$ from 240 to 118	Age (ns.); job tenure (ns.); opportunity to interact (+); transition experience (ns.); magnitude job change (ns.); occupational category (ns.); job skill (-); hours per week (ns.); neuroticism (ns.); extraversion (+); openness to experience (+); agreeableness (+); conscientiousness (ns.)	Role clarity (+); satisfaction (+); turnover intention (-); actual turnover (ns.)
48. Williams et al. (1999)	Effect of context on feedback-seeking behavior.	E	Students; $n = 134$ ; $n = 124$	Source supportiveness (+); peer reactions (+)	
49. Williams & Johnson (2000)	Effect of feedback-seeking behavior on the relationship between self and supervisor ratings.	C	Students; $n = 125$		Self-ratings (ns.)

*Note:* When studies used different measures of feedback-seeking behavior, we reported the zero-order correlation with direct feedback-seeking (inquiry).  
D = design; E = experimental; C = cross-sectional; L = longitudinal; T1 = measure time 1; T2 = measure time 2; S1 = sample 1; S2 = sample 2

## CHAPTER 2 AN EXAMINATION OF STRATEGIES FOR DIRECTING FEEDBACK-SEEKING TOWARDS SPECIFIC PERFORMANCE DIMENSIONS

*Manuscript submitted for publication<sup>1</sup>*

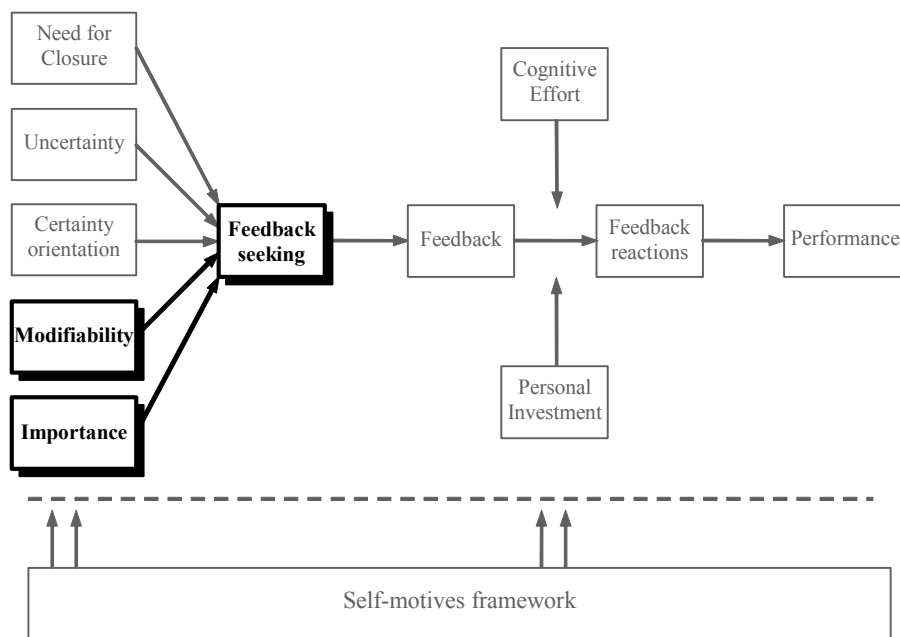


FIGURE 1: CHAPTER 2 SITUATED IN THE WORKING MODEL OF THIS DISSERTATION

---

<sup>1</sup> This paper was co-authored by Filip Lievens

### **ABSTRACT**

This study examines how feedback-seeking across performance dimensions can be influenced by changing the feedback-seeker's lay beliefs about the importance and modifiability of the various performance dimensions. A laboratory experiment ( $n = 184$ ) showed that people sought more feedback about important dimensions as opposed to unimportant dimensions and sought more feedback about non-modifiable dimensions as opposed to modifiable dimensions. These findings can assist organizations in designing strategies that direct employee feedback-seeking towards the specific performance dimensions that are valued in the organization.

### **INTRODUCTION**

The last decade, the world of work experienced some dramatic changes. Organizations compete in global markets, use state-of-the-art information technologies, are smaller, leaner, more service-driven and do no longer have jobs structured as a fixed bundle of tasks (Cascio, 1995). In response, employees are confronted with multiple competing tasks and demands in their day-to-day jobs. Additionally, managers and supervisors often demand performance on multiple dimensions for any single task, reflecting the heightened environmental complexity (Ashford & Northcraft, 2003). One strategy for coping with this heightened complexity for employees is seeking performance feedback. Research has shown that seeking feedback about performance is an effective self-regulation strategy for employees: by asking for performance feedback, they can better assess their capabilities (Ashford & Tsui, 1991), adjust their goal-directed behavior (Morrison & Weldon, 1990) and "learn the ropes" of a new job (Morrison, 1993).

Given the wealth of competing tasks and demands in the current business environments, not all feedback-seeking about performance will be directed at

improving the performance dimensions that are valued by an organization. Similarly, people might seek feedback about performance dimensions that are difficult to develop or improve on. As feedback-seeking behavior is often associated with high costs for the feedback-seeker (Levy, Albright, Cawley, & Williams, 1995), it is of key importance that these costly feedback-seeking attempts are not in vain and are directed towards the most valued performance dimensions in an organization. Till now, most studies have examined how situational and individual antecedents predict the general *frequency* of feedback-seeking behavior (Morrison & Vancouver, 2000; Vandewalle, 2003). Although it is important to know how organizations can encourage the frequency of feedback-seeking, little is known about which performance dimensions employees seek feedback, and how these feedback-seeking decisions might be influenced. The idea of directing feedback-seeking towards valued KSAOs also echoes a more fundamental problem in the strategic human resource management literature. Recent calls have been made for mechanisms that enable a better alignment between the individual competencies<sup>2</sup> represented in the firm and those required by its strategic intent (e.g., Huselid, 1995; Wright, Dunford, & Snell, 2001).

Therefore, this study addresses the following question: How can feedback-seeking be encouraged in the direction of specific performance dimensions? The basic assumption of this study is that employees' feedback-seeking decisions are made on the basis of an individual *theory of performance*. Therefore, strategies for directing feedback-seeking should aim to influence employees' theory of performance. In a laboratory study, we will test two

---

<sup>2</sup> It should be noted that the concept of competency is much debated and often considered interchangeable with the term KSAOs (e.g., Schippmann et al., 2000). The performance dimensions we used in this study, were derived from a recent study by Tett et al. (2000) who developed a taxonomy of performance dimensions in terms of managerial competencies. Thus, we further use the term competency to refer to specific performance dimensions with the understanding that the concept is by no means firmly established.

strategies (i.e., communicating explicit importance and modifiability beliefs) that are proposed to influence these individual performance theories and thus, that are proposed to direct feedback-seeking towards specific dimensions of performance. As theoretical underpinnings of these strategies, we draw on recent developments in social psychology about the role of lay beliefs in directing attitudes, judgment and behavior.

### **THEORETICAL BACKGROUND**

Organizations have a general sense of the knowledge, skills, abilities and other characteristics (KSAOs) that are deemed to lead to effective performance as this depends on the goals and values that are emphasized in their organizational strategy. Apart from this organizational theory of performance, employees also hold their own beliefs about what is considered good performance in an organization (Borman, 1987). The combined lay beliefs of an employee form an individual theory of performance that includes amongst others the content of the various performance dimensions, how KSAOs are linked to performance dimensions, which KSAOs are most instrumental for successful performance and how modifiable KSAOs are (Maurer, Wrenn, Pierce, Tross, & Collins, 2003; Schleicher & Day, 1998). We propose that two aspects of individual performance theories will most likely influence the feedback-seeking decisions of employees, namely beliefs about the importance and beliefs about the modifiability of the different KSAOs. Therefore, in order to direct feedback-seeking of their employees, organizations should try to influence these beliefs by communicating and making the common theory of performance that is hold in the organization more explicit.

#### **IMPORTANCE BELIEFS**

In a recent review of feedback-seeking behavior, Ashford, Blatt, and VandeWalle (2003) identified the instrumental motive to achieve a goal or

perform well as one of the most dominant motives of feedback-seeking. People seek feedback because it has informational value that can help them to meet goals and to regulate their behavior. For instance, previous research has shown that the higher the importance of goal-attainment, the more frequently employees seek feedback (Ashford, 1986). On the basis of the instrumental motive driving feedback-seeking, we expect that increasing or decreasing the importance of specific competencies will lead to more or less interest in feedback about these competencies. This would occur because important traits and abilities are closely associated with people's goals and ambitions (Pelham, 1991). Important traits are instrumental to achieving long-term desired outcomes and thus, diagnostic information about these traits is highly valued (Trope, 1986).

Apart from the feedback-seeking literature, additional evidence about the role of importance can be found in social psychological research on attitudes and persuasion. For instance, Petty and Cacioppo (1979) examined how people consider evidence on an issue when it is of consequence to the person as opposed to inconsequential. Subjects more systematically processed the arguments presented to them when the issue was important and consequential. Furthermore, people sought out more information and were more interested in information about important attitudes as opposed to unimportant attitudes when they were told that they would have to use these attitudes in subsequent judgments (Visser, Krosnick, & Simmons, 2003). Therefore, we expect that highlighting or playing down the importance of specific competencies will lead to the following effects:

*Hypothesis 1:* People will seek more feedback about competencies they are told to be important as opposed to competencies they are told to be unimportant.

At a practical level, it is important to note that this first mechanism for influencing people's feedback-seeking is relevant to many feedback situations in organizations. For example, in recruitment and selection,

organizations typically convey to applicants which KSAOs are critical so that applicants know up front which competencies will play a central role in the selection procedure and in successful job fulfillment. Another example is that in the context of employee development and career management, organizations benefit from making explicit which competencies are crucial for the organization to sustain its competitive advantage so that people can seek feedback about these competencies and improve on them. Despite its practical relevance, we still do not know whether it is indeed possible to encourage people's feedback-seeking toward competencies that the organization considers to be important.

### **MODIFIABILITY BELIEFS**

Dweck (1986, see also Dweck & Leggett, 1988) found that people hold lay beliefs about the modifiability of personal attributes and that these lay beliefs or implicit theories have important consequences for directing attitudes, judgments and behavior. People either believe that attributes are fixed and not modifiable (also known as an entity theory) or that they are modifiable and can be changed and improved upon (also known as an incremental theory). Whereas the above mentioned findings have been found with individuals' generalized implicit theories, research has also shown that these theories can be very domain-specific. For instance, people can believe that intelligence is fixed, but that certain personality traits are highly malleable (Dweck, Chiu, & Hong, 1995; Maurer et al., 2003). Furthermore, research has also shown that these domain-specific lay beliefs can be manipulated by providing individuals with an explicit incremental or entity theory (Chiu, Hong, & Dweck, 1997; Trope, Gervy, & Bolger, 2003).

One important consequence of this theory is that people with different lay beliefs pursue very different goals in achievement-related situations. On the one hand, people with an incremental theory exhibit a learning goal orientation to develop competence by acquiring new skills and mastering



new situations. On the other hand, people with an entity theory pursue a performance goal orientation to demonstrate and validate the adequacy of one's competence by seeking favorable judgments and avoiding negative judgments about one's competency. Previous feedback-seeking research has used this goal orientation framework and found that when people believe traits are modifiable, they tend to seek more feedback: Learning goal orientation has been consistently found to be related to the frequency of feedback-seeking (Tuckey, Brewer, & Williamson, 2002; VandeWalle & Cummings, 1997; VandeWalle, Ganesan, Challagalla, & Brown, 2000).

Taken together, this leads to a second mechanism that organizations might use to influence the feedback-seeking of people. Specifically, organizations can influence feedback-seeking decisions by providing employees with explicit modifiability theories for specific competencies. Again, the practical relevance of this mechanism should be clear as it might apply to various assessment, training, and development interventions in organizations. We formulate the following hypothesis.

*Hypothesis 2:* People will seek more feedback about competencies they are told to be modifiable as opposed to competencies they are told to be not modifiable.

Finally, in an exploratory sense, we examined whether importance beliefs interacted with modifiability beliefs in predicting feedback-seeking across performance dimensions. Dutton (1995) examined the impact of trait importance and modifiability on students' task preferences and did not find an interaction effect between trait importance and modifiability. Therefore, no a priori hypothesis was articulated regarding the direction of a possible interaction effect.

### OVERVIEW OF CURRENT STUDY

Previous research has looked almost exclusively at the frequency of feedback-seeking as a dependent variable (e.g., Ang & Cummings, 1994; Ashford, 1986; Ashford & Cummings, 1985; Callister, Kramer, & Turban, 1999; Fedor, Rensvold, & Adams, 1992; Gupta, Govindarajan, & Malhotra, 1999; Levy, Albright, Cawley, & Williams, 1995; Levy, Cober, & Miller, 2002; Morrison, Chen, & Salgado, 2004; Morrison & Cummings, 1992; Northcraft & Ashford, 1990; Renn & Fedor, 2001; Roberson, Deitch, Brief, & Block, 2003; Tuckey et al., 2002; VandeWalle & Cummings, 1997; VandeWalle et al., 2000; Williams, Steelman, Miller, & Levy, 1999). Thus, the topic that has received most attention in the feedback-seeking domain to date, is how employees decide whether to seek feedback or not. However, when feedback is available about multiple tasks and dimensions, employees have different options to seek feedback. Apart from deciding whether to seek feedback or not, employees have to decide on which dimensions they will be seeking feedback. To our knowledge, the current study is the first to examine how people decide about which performance dimensions they will be seeking feedback and how these feedback-seeking decisions can be influenced by communicating performance theories.

As the objective of this study is investigating how feedback-seeking can be directed across different performance dimensions, we adopted a within-persons approach. Participants in the “experimental” condition received information about the supposed importance and modifiability of four different competencies. This enabled us to examine whether participants sought more feedback about important compared to unimportant competencies and modifiable compared to non-modifiable competencies after receiving information about all four competencies. With few exceptions (e.g., Vancouver & Morrison, 1995), research in the feedback-seeking area has focused on between-persons relationships. Yet, social psychological research on self motives and decision making research has shown that it is appropriate that researchers also adopt within-persons designs to study this

kind of decision making (for a review, see Morrison & Vancouver, 2000; Pelham, 1993). Thus, a within-persons examination of feedback-seeking across the dimensionality of performance is relevant because it furthers our understanding about how people make feedback-seeking choices.

However, as it could be argued that observed differences in feedback-seeking across competencies are due to a priori differences in feedback-seeking, independent of importance and modifiability manipulations, we included a baseline condition<sup>3</sup>. In this baseline condition, we examined the normal “base rate” feedback-seeking of people about the four competencies (i.e., feedback-seeking rate about the four competencies without receiving any additional information about them). Thus, a within-persons approach was combined with a between-persons approach. To rule out the possibility that the observed effects are caused by a priori differences and not by the experimental manipulation, an interaction effect between the within-persons factors and the between-persons factor should be observed, indicating that people sought more (or less) feedback when the competencies were manipulated compared to baseline feedback-seeking levels when these competencies were not manipulated.

## **METHOD**

***Participants.*** In exchange for extra credit in a course in Human Resource Management, 184 students from different majors (e.g., medical-social sciences, psychology, economics) voluntarily participated in this session. Participants had an average age of 23.1 years ( $SD = 1.8$ ); 73% were female, 27% male.

---

<sup>3</sup> An alternative strategy to avoid this possible confound would have been to counterbalance or randomly assign competencies to the experimental manipulations. However, practical constraints precluded this strategy.

**Design.** We used a three factor experimental design containing a between-persons factor, consisting of the experimental versus the baseline condition, and two within-person variables that were manipulated, Importance (high vs. low) and Modifiability (high vs. low). A covariate was also included consisting of a measured variable (learning goal orientation).

**Procedure.** Participants were given the task to complete a computerized in-basket that simulated daily work activities. We chose an in-basket as this study's task because it provides participants with a realistic environment that might instigate high involvement and motivation. In addition, in-baskets are often used in selection and development contexts (Thornton & Cleveland, 1990). The in-basket used was developed by Tett, Steele, and Beauregard (2003). They developed this computerized in-basket to measure four elementary managerial competencies that are included in a recently developed competency taxonomy (Tett, Guterman, Bleier, & Murphy, 2000): *Coordinating*, *Decisiveness*, *Problem Awareness* and *Information Management*<sup>4</sup>. Completing the computerized in-basket took participants on average about one hour. Upon completion of the in-basket, participants were told that there would not be time enough to receive feedback about all competencies. Therefore, participants were asked to indicate about which competencies they wanted to receive feedback. Finally, participants received a feedback report with quantitative and narrative feedback about their

---

<sup>4</sup> In a pilot study, 60 master students rated their standing on the four managerial competencies relative to their fellow students on a 10-point scale ranging from 1 (*bottom five percent*) to 10 (*top five percent*). A one-way within-subjects ANOVA revealed no significant differences between the self-ratings on the four competencies  $F(3,57) = 1.77, p > .05$ , indicating that participants on average would have the same performance expectations about the four competencies: *Coordinating* ( $M = 6.10, SD = 1.28$ ), *Decisiveness* ( $M = 5.90, SD = 1.24$ ), *Problem Awareness* ( $M = 5.77, SD = 1.21$ ) and *Information Management* ( $M = 5.22, SD = 1.26$ ). This is important because previous research has shown that performance expectations influence ego costs associated with feedback-seeking and thus, might prevent people from feedback-seeking.

performance on the in-basket. At the end of the session, participants were asked to report their general comments about the computerized in-basket in writing.

***Importance and Modifiability Manipulations.*** Participants were randomly assigned to either the baseline condition or the experimental condition. In the baseline condition, participants were introduced to the computerized in-basket exercise and were given a short definition of the four competencies that would be measured by the in-basket. After that, they could immediately start working on the in-basket. In the experimental condition, participants were also introduced to the in-basket and also received a short definition of the four competencies. However, prior to working on the in-basket exercise, people listened to a briefing, that was given under the pretext of better informing participants about the background of the different competencies, measured in this in-basket.

At this point, participants in the experimental condition were instructed about the supposed importance and modifiability of the four competencies. Each of the four competencies was put high or low on both the importance and modifiability dimensions.

The importance manipulation was adapted from Butler (1993), and Dunning (1995) and consisted of the following instruction: “Being tested on the abilities *Problem Awareness* and *Coordinating* might be of interest to you. Several studies have shown that these competencies determine managerial effectiveness in professional careers. Therefore, tests that measure these two competencies often appear on business schools entrance exams and selection tests for junior managers. Conversely, *Information Management* and *Decisiveness* are not that important in determining managerial effectiveness. Although they are nice to have, they are not of overriding importance. Therefore, these competencies are seldom tested in business schools entrance exams and selection tests for junior managers”.

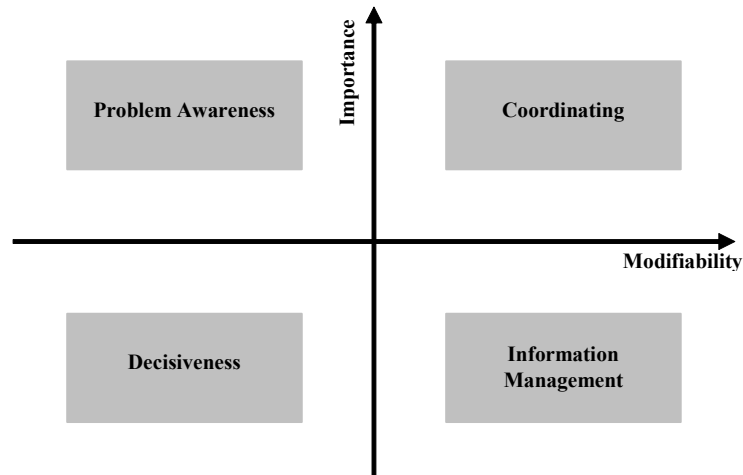


FIGURE 2: MANAGERIAL COMPETENCIES DEPICTED ON THE IMPORTANCE AND MODIFIABILITY DIMENSIONS IN THE EXPERIMENTAL CONDITION

The modifiability manipulation was adapted from Dunning (1995) and Trope et al. (2003) and consisted of the following instruction: “*Coordinating and Information Management* are two managerial competencies that are easy to acquire. They are two of the most changeable, least stable managerial abilities around. Research shows that these two competencies can easily be improved by learning, experience and intensive practice. Conversely, *Decisiveness* and *Problem Awareness* are two managerial competencies that are hard to acquire. They are two of the most stable, least changeable managerial abilities around. Research shows that these managerial competencies are closely related to innate intelligence and personality. Therefore, they are very hard to develop by practice.” As a summary of the manipulations, participants were presented with a figure (see Figure 2) depicting the four competencies on the importance and modifiability dimensions. Finally, participants were told they could start working on the in-basket exercise.

It is important to emphasize that to ensure the external validity, the aforementioned manipulation instructions were specifically constructed to be

highly consequential to the participants. Laboratory experiments in I/O psychology have been criticized because participants typically do not take their role very seriously and do not perceive their actions as important since those actions are likely to have few, if any, enduring consequences (Sackett & Larson, 1998). For instance, suppose we had instructed participants about the importance and modifiability beliefs of the company in the computer simulation. As this company was entirely fictitious, participants would have had little reason to adapt their feedback-seeking decisions. Therefore, we used manipulations that might have important implications for the participants in their future careers. Furthermore, previous studies have already shown that the used manipulations were successful in changing people's importance and modifiability beliefs (Butler, 1993; Dunning, 1995, Trope et al., 2003).

***Measures.***

*Feedback-seeking.* The measure of feedback-seeking was taken from Swann, Pelham, and Krull (1989). Upon completion of the computerized in-basket, participants were given the opportunity to seek feedback about specific competencies. To this end, the experimenter simply suggested that each participant ranked the four managerial competencies on the basis of how much he/she wanted to receive feedback regarding each one (1st rank = most preferred, 4th rank = least preferred). This way, we obtained an indication of feedback-seeking preference for each competency. Given that participants were told that time constraints precluded the provision of feedback on all competencies, these measures reflect feedback-seeking in a computerized environment. As noted above, participants also received actual feedback about the competencies.

Given that the use of ipsative data such as rankings has been criticized (see Vanleeuwen & Mandabach, 2002), a subsample of 41 participants in each condition also completed another measure of feedback-seeking, taken from Trope and Neter (1994). These participants indicated how much they wanted

feedback for each of the four competencies on a 7-point scale ranging from *not at all* (1) to *very much* (7). Results of the analyses with this measure of feedback-seeking as dependent variable were very similar to the reported analyses with rankings as dependent variable.

*Learning goal orientation.* Prior to working on the in-basket exercise, participants filled out the academic learning goal questionnaire (VandeWalle, Cron, & Slocum, 2000). This questionnaire included four 7-point scale items ( $\alpha = .71$ ). People with a learning goal orientation have a general belief that traits are modifiable and have been found to seek feedback more frequently (Tuckey et al., 2002; VandeWalle & Cummings, 1997; VandeWalle et al., 2000). Because our manipulation was aimed at influencing these modifiability beliefs, it was possible that this individual difference variable would interact with the within-subjects variables. Therefore, we included learning goal orientation as a covariate.

*Analyses.* Our two hypotheses were analyzed using analysis of covariance (ANCOVA) with Importance and Modifiability as the within-persons factors, Baseline condition as the between-persons factor and Learning Goal Orientation as a covariate. The dependent variable consisted of the feedback-seeking measure. Although it is generally assumed that non-parametric tests (e.g., Kruskal-Wallis) should be substituted for the  $F$  test whenever the initial data are ranks, research has shown that parametric significance tests are equivalent to their non-parametric counterparts performed on ranks (Zimmerman, 1995, see also Velleman & Wilkinson 1993). In any event, alternative non-parametric approaches to the analysis of these data corroborated the results of the ANCOVA. In addition, analyses with feedback-seeking ratings as a dependent variable instead of feedback-seeking rankings yielded the same results.



## RESULTS

**Check of Internal Validity of Manipulations.** Participants in the experimental condition were asked to rate the perceived importance (1 = *not important*; 7 = *very important*) and modifiability (1 = *very hard to modify*; 7 = *very easy to modify*) of the four managerial competencies at the start and at the end of the session (thus, before and after the manipulation). In support of the manipulation, a repeated measures ANOVA with the importance ratings of the competencies as dependent variables indicated that *Coordinating* ( $M = 5.76$  vs.  $6.32$ ,  $p < .001$ ) and *Problem Awareness* ( $M = 6.11$  vs.  $6.41$ ,  $p < .01$ ) were rated as more important after the manipulation, whereas *Decisiveness* ( $M = 6.00$  vs.  $4.65$ ,  $p < .001$ ) and *Information Management* ( $M = 5.87$  vs.  $4.22$ ,  $p < .001$ ) were rated less important after the manipulation. A repeated measures ANOVA with the modifiability ratings as dependent variables indicated that *Coordinating* ( $M = 5.14$  vs.  $6.11$ ,  $p < .001$ ) and *Information Management* ( $M = 5.90$  vs.  $6.24$ ,  $p < .05$ ) were rated as more modifiable after the manipulation, whereas *Problem Awareness* ( $M = 4.02$  vs.  $3.30$ ,  $p < .01$ ) and *Decisiveness* ( $M = 3.87$  vs.  $3.13$ ,  $p < .01$ ) were rated less modifiable after the manipulation, indicating that the modifiability manipulation was also successful. No Importance and Modifiability questionnaires were administered in the baseline condition because we did not want to influence the feedback-seeking levels about the different competencies.

We also disposed of an indication of possible demand characteristics. When asked about their general comments after the session, none of the participants in the experimental condition wrote down a comment that was in any way related to the manipulation or the nature of the competencies. All comments concerned possible improvements in the task (e.g., less items, different lay-out, more process feedback, items in different order...), indicating that people had no suspicions about the objective of the study.

**Check of External Validity of Experimental Task.** Participants completed an additional questionnaire measuring their involvement in the task (in-

basket) on the basis of six items on a 7-point scale, with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale included items such as, “The background information we received was realistic”, “I was motivated to perform well on this exercise”, and “I received sufficient information to perform well on this exercise”. The mean for this scale was 5.70 ( $SD = .63$ ,  $\alpha = .70$ ), indicating that participants were highly involved in the session.

**Hypothesis 1.** The descriptive statistics for the specific managerial competencies across the two conditions are given in Table 1. Feedback-seeking in the baseline condition reflects the average influence of the participants’ various lay beliefs, whereas feedback-seeking in the experimental condition reflects the influence of the importance and modifiability manipulations.

	Feedback-seeking ( $n = 184$ )			
	Baseline Condition		Experimental Condition	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Decisiveness	2.14	1.00	2.43	.88
Information Management	2.71	1.07	3.46	1.05
Problem Awareness	2.92	1.17	2.15	1.09
Coordinating	2.22	1.06	2.11	.93

*Note:* Lower Ranks Represent Higher Feedback-seeking

TABLE 1: MEANS AND STANDARD DEVIATIONS OF DEPENDENT MEASURES FOR SPECIFIC MANAGERIAL COMPETENCIES IN BASELINE AND EXPERIMENTAL GROUPS.

Hypothesis 1 posited that people would seek more feedback about competencies they are told to be important as opposed to competencies they are told to be unimportant. As can be seen in Table 2, we found a significant Importance x Condition interaction effect,  $F(1,183) = 31.32$ ,  $p < .001$ ,  $\eta^2 = .15$ .

Source	df	Feedback-seeking (ranking)	
		F	$\eta^2$
Between subjects			
Learning Goal Orientation (LGO)	1	1.00	.01
Condition	1	2.32	.01
Error	183	(.11) <sup>a</sup>	
Within subjects			
Importance (I)	1	.16	.00
I x LGO	1	.99	.01
I x C	1	31.32***	.15
Modifiability (M)	1	2.44	.01
M x LGO	1	3.84	.02
M x C	1	11.55***	.06
I x M	1	.59	.00
I x M x LGO	1	.04	.00
I x M x C	1	.32	.00
Error	183	(1.52) <sup>a</sup>	

Note: <sup>a</sup> Equals the Mean Square Error. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

TABLE 2: ANALYSIS OF VARIANCE FOR THE FULL FACTORIAL MODEL WITH FEEDBACK-SEEKING AS DEPENDENT VARIABLE.

Results		Feedback-seeking (n = 184)	
		Baseline Condition	Experimental Condition
Importance	Low	2.39	2.95
	High	2.55	2.13
Modifiability	Low	2.51	2.29
	High	2.44	2.79

Note. Lower ranks represent higher feedback-seeking

TABLE 3: MEAN FEEDBACK-SEEKING RANKINGS FOR IMPORTANCE AND MODIFIABILITY DIMENSIONS.

Table 3 presents mean feedback-seeking rankings on the basis of the Importance dimensions for the baseline and the experimental condition. A planned comparison indicated that people in the experimental condition sought more feedback about the important competencies as compared to the unimportant competencies,  $F(1,183) = 46.10, p < .001$ . Then, to examine whether these differences were not caused by a priori differences in feedback-seeking preferences, we compared feedback-seeking choices in the experimental condition with feedback-seeking choices in the baseline condition. A planned comparison indicated that people sought less feedback about unimportant competencies in the experimental condition as compared to the level of feedback-seeking about these competencies in the baseline condition,  $F(1,183) = 37.89, p < .001$ , as can be seen in Figure 3.

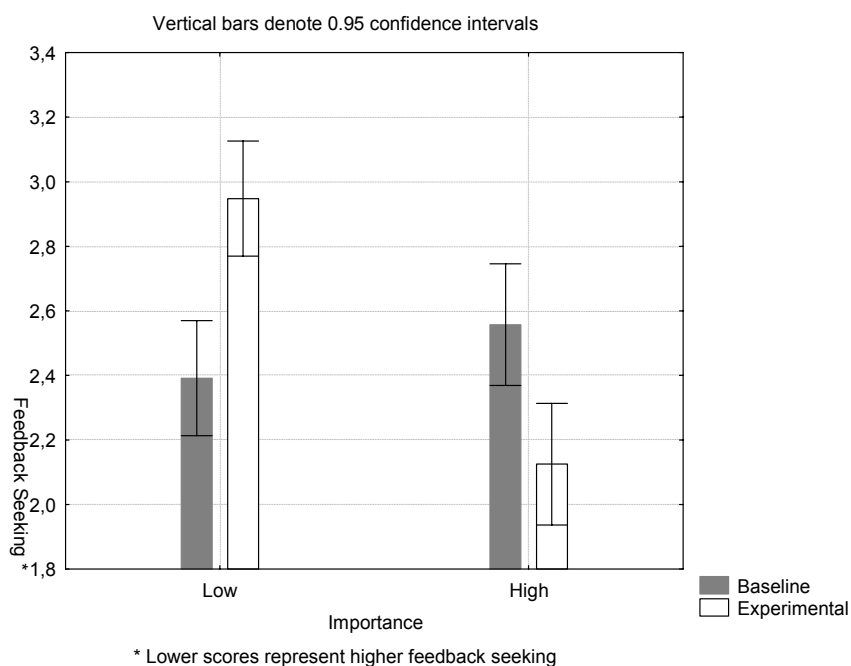
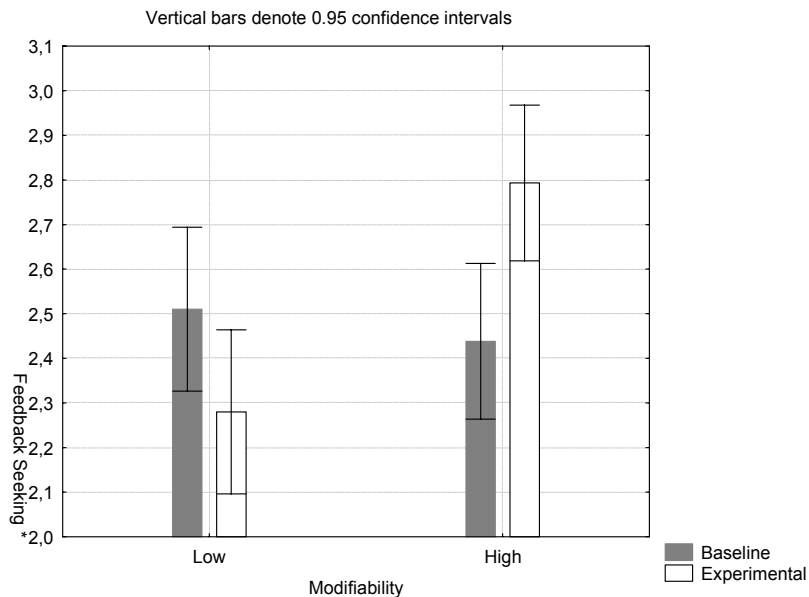


FIGURE 3: FEEDBACK-SEEKING AS A FUNCTION OF IMPORTANCE IN THE BASELINE AND THE EXPERIMENTAL CONDITION

Conversely, people sought more feedback about the important competencies in the experimental condition as compared to the level of feedback-seeking about these competencies in the baseline condition,  $F(1,183) = 20.41$ ,  $p < .001$ . As shown in Figure 3, a reversal in feedback-seeking took place in the experimental condition. The competencies that received least feedback interest in the baseline condition, received most feedback interest in the experimental condition. So, Hypothesis 1 was supported.

**Hypothesis 2.** Hypothesis 2 stated that people would seek more feedback about competencies they were told to be modifiable as opposed to competencies they were told to be non-modifiable. As shown in Table 2, we found a significant Modifiability  $\times$  Condition interaction effect,  $F(1,183) = 11.55$ ,  $p < .001$ ,  $\eta^2 = .06$ . We first looked at the within-persons effects in the experimental condition. People in the experimental condition sought more feedback about the competencies that were said to be non-modifiable as

compared to the competencies that were said to modifiable,  $F(1, 183) = 18.92, p < .001$ . Thus, as can be seen in Figure 4, the effects of the Modifiability manipulation were in the opposite direction as was expected. This pattern was confirmed when we compared feedback-seeking choices in the baseline and experimental condition. On the one hand, people sought more feedback about those competencies that were said to be non-modifiable as compared to the baseline condition,  $F(1,183) = 6.09, p < .05$ . On the other hand, participants sought less feedback about those competencies that were said to be modifiable as compared to the baseline condition,  $F(1,183) = 16.05, p < .001$ . Again, a reversal in feedback-seeking values in the experimental condition could be observed as compared to the baseline condition, but not in the hypothesized direction. Thus, hypothesis 2 was not supported. As can be seen in Table 2, the Importance and Modifiability manipulations did not interact to predict feedback-seeking. The Importance x Modifiability x Condition interaction effect was not statistically significant,  $F(1,183) = .32, p > .05$ .



\* Lower scores represent higher feedback seeking

FIGURE 4: FEEDBACK-SEEKING AS A FUNCTION OF MODIFIABILITY IN THE BASELINE AND THE EXPERIMENTAL CONDITION.

## DISCUSSION

The goal of this study was to examine how people decide about which performance dimensions they will be seeking feedback. Insight in this decision process is important because it can assist organizations in designing strategies that direct employee feedback-seeking towards the specific performance dimensions that are valued in the organization. It is also crucial for individuals because it might help them to seek feedback about those competencies that are of key importance for advancing their careers. On the basis of theoretical developments in social psychology, we proposed that feedback-seeking decisions are based on an individuals' lay theory of performance and thus, strategies to direct feedback-seeking decisions should be aimed at influencing these lay theories.

Our findings indicate that strategies to communicate specific aspects of a desired theory of performance were very effective in influencing feedback-seeking. Participants who received information about the modifiability and importance dimensions exhibited a significantly different feedback-seeking pattern than participants who did not receive information about the underlying dimensions of the competencies. A reversal in feedback-seeking values could be observed in the experimental condition as compared to the baseline condition, illustrating the strength of these strategies. This seems to suggest that individuals' lay beliefs or implicit theories are indeed one of the main factors underlying feedback-seeking decisions.

Although affecting lay beliefs was successful in influencing feedback-seeking decisions, the direction of feedback-seeking was not always as hypothesized. First, the effect of highlighting or downplaying the importance of specific dimensions on feedback-seeking was in the hypothesized direction. Individuals sought more feedback about competencies from which the importance was highlighted as compared to competencies from which the importance was played down, thus confirming previous social psychological

research that demonstrated how importance beliefs guide behavior in self-evaluative situations (e.g., Pelham, 1991).

Second, emphasizing the modifiability or non-modifiability of specific competencies resulted in a feedback-seeking pattern that was in the opposite direction as was expected. Individuals sought more feedback about non-modifiable competencies as opposed to modifiable competencies. This is surprising, given that previous research indicated that people are driven by self-improvement concerns and seek more feedback when they believe traits are modifiable (Dweck & Legget, 1988; VandeWalle, 2003). One possible explanation is the activation of a self-assessment motive instead of a self-improvement motive in this specific context. In self motives research, two different but conceptually related motives are distinguished. People who are driven by self-assessment strivings are interested predominantly in the diagnosticity of self-relevant information, that is, the extent to which the information can reduce uncertainty about an aspect of the self, whereas people who are driven by self-improvement strivings are motivated to improve their traits, abilities, and skills (Sedikides & Strubbe, 1997; Tayler, Neter, & Wayment, 1995). In this study, it is plausible that participants were not highly motivated by self-improvement strivings, because they knew they would not be assessed again on these competencies in the immediate future. Instead, the ambition of most graduate students to obtain a management position in the future might have instigated a self-assessment motive. The non-modifiable competencies are more diagnostic in providing information about their potential as future managers. That is, if feedback indicated that they did not dispose of the non-modifiable competencies at the time of the experiment, this meant that they probably would never obtain a management position. In contrast, the modifiable competencies are not that diagnostic about their management potential, because they may still acquire these competencies in the future. When people are looking for diagnostic information, self-assessment concerns have been found to motivate behavior in self-evaluative situations (e.g. Trope, 1975, 1979). Thus, the higher

interest in feedback about the non-modifiable competencies might be explained by self-assessment strivings.

Finally, our results indicate that importance and modifiability beliefs independently affect feedback-seeking across performance dimensions. No significant interaction effect was observed, which replicates the absence of interaction effects between trait importance and modifiability in predicting task preference reported by Dunning (1995).

These results have several practical implications for organizations. Organizations are increasingly designing various HR practices (e.g., performance appraisal, compensation, selection, and training systems) in order to encourage the development of the KSAOs or competencies that are highly valued in the organizations. For instance, in the strategic management literature it is proposed that “individual competencies” should be aligned with the “core competences” of the organization in order to obtain a strategic benefit (Becker, Huselid, & Ulrich, 2001; Schippmann et al., 2000). This study demonstrates that, as an additional mechanism, organizations can also encourage feedback-seeking to develop highly valued KSAOs or competencies in their organization. We would recommend that organizations take special steps to communicate which competencies are most important for successful performance. This can be done by circulating mission statements on a wide scale (e.g., on the intranet), by emphasizing important competencies in recruitment advertisements, performance appraisal approaches, and employee development plans, and by consistently and explicitly promoting employees on the basis of important competencies.

On the other hand, the findings concerning the role of modifiability beliefs suggest caution in emphasizing the modifiability of specific competencies in practice (e.g., in training and development). Our results seem to indicate that people seek less feedback about competencies that are believed to be modifiable. The explanation we provided for this unexpected finding suggests that this is the case when people are dealing with momentary



assessments of their abilities. For instance, the design of our task corresponds closely to organizational practice where people are provided with feedback about their competencies on one single occasion, for instance in performance appraisal, developmental assessment centers, 360-degree feedback, and after completing self-assessment tools. This study seems to suggest that, on these occasions, organizations should emphasize that competencies are non-modifiable to encourage feedback-seeking. However, given that these findings were in contradiction with theoretical predictions, these results await further confirmation in future research.

Our results also extend results from research on frame-of-reference training. This type of rater training has been found to be quite successful in imposing a performance theory on *raters* (e.g., supervisors). Specifically, frame-of-reference training is effective in clarifying to raters what the relevant performance dimensions and effectiveness levels for rating employees are (Lievens, 2001; Schleicher & Day, 1998; Sulsky & Day, 1994; Woehr, 1994). Our study fits nicely in this literature because we found it is possible to tell individuals which performance dimensions are important so that they ask their supervisors feedback about these specific competencies.

#### **BOUNDARY CONDITIONS AND FUTURE RESEARCH**

Despite the advantages laboratory studies afford in terms of statistical control, they are often criticized on external validity grounds. For instance, the task and participants in this study do not completely mimic tasks and employees in an organization. Generalizability concerns of the current investigation were specifically focused at obtaining a high experimental realism (Berkowitz & Donnerstein, 1982). The task was carefully designed to be interesting, realistic, motivating and within the scope of the participants' abilities (see involvement ratings). Furthermore, we believe that the most important theoretical components of situations where people can seek feedback across performance dimensions were included in the design,

which makes it possible to increase our understanding of the mechanisms and processes involved (Dobbins, Lane, & Steiner, 1981).

Although efforts were made to create a situation that was as real as possible, it was far less complicated than most feedback situations in organizations. For instance, in this study we looked at feedback-seeking decisions across performance dimensions, while keeping all other feedback-seeking decisions constant. In an organizational environment, employees have to decide whether they will seek feedback or not (*frequency*), whether they will seek direct or indirect feedback (*strategy*), and from whom they will request feedback (*source*). A second factor that was held constant in this study was feedback-seeking costs. Previous research has repeatedly shown that employees in a real feedback environment are constantly balancing the desire for feedback against the costs associated with seeking (e.g., Ashford & Cummings, 1986; VandeWalle & Cummings, 1997). In this study, participants experienced very little feedback-seeking costs. First, participants requested feedback in a private context (a computer) where face-loss costs were minimal (Levy et al., 1995). Second, if people have low performance expectations, this represents a high ego cost (e.g., Northcraft & Ashford, 1990). The pilot study ensured that performance expectations were on average the same for all competencies.

The current findings present several issues for future research. One potentially fruitful avenue focuses on feedback-seeking decisions across performance dimensions in combination with other feedback-seeking decisions (e.g., sources and strategy). For instance, we would expect that employees will use different feedback sources for seeking feedback about different performance dimensions. It is likely that employees will turn to experts with high credibility when seeking feedback about competencies that are deemed to be important. Furthermore, the strategy that is used might also interact with the performance dimensions when seeking feedback. For instance, employees will probably seek more indirect feedback (*monitoring*) about competencies that are believed to be unimportant in an organization,

whereas they probably will seek more direct feedback (*inquiry*) about important competencies.

A second avenue for future research is taking the influence of feedback-seeking costs in account when studying feedback-seeking across performance dimensions. One important variable in this context is feedback sign. Previous research has shown that people tend to seek more feedback, when they expect that positive feedback will be obtained (Northcraft & Ashford, 1990). We expect that importance and modifiability beliefs will interact with feedback sign to predict feedback-seeking. For instance, as people typically wish to maintain a favorable image of the self, employees will probably be more likely to seek positive feedback about non-modifiable competencies and negative feedback about modifiable competencies (e.g., Dunning, 1995). A second factor that is proposed to affect feedback costs, are feedback-seeking patterns of colleagues. Previous research has shown that individuals seek more feedback when their peers also seek feedback (Williams et al., 1999). What would happen if an employee believes a specific competency is unimportant, but all his colleagues openly seek feedback about this competency? Thus, peer feedback-seeking seems another promising organizational strategy for directing feedback-seeking across performance dimensions. A third factor that could influence feedback-seeking costs is accessibility. In organizations, it is likely that feedback about some competencies (e.g., profitability) takes more effort to acquire than feedback about other competencies (e.g., timeliness). One question that comes to mind is whether emphasizing the importance of these inaccessible competencies will be sufficient to overcome the difficulties associated with seeking feedback about these competencies.

In conclusion, although an important aspect of feedback-seeking is the decision about which performance dimensions to ask feedback, past research has paid little attention to the characteristics of performance dimensions that drive seeking behavior. This study demonstrated that two aspects of someone's lay theory of performance affect the likelihood of seeking

feedback, namely the beliefs about the importance and modifiability of the various performance dimensions. By communicating an explicit theory of performance, these individual beliefs and subsequent feedback-seeking decisions can be influenced. These findings can assist organizations in designing strategies that direct employee feedback-seeking towards the specific performance dimensions that are valued in the organization.

## REFERENCES

- Ang, S., & Cummings, L. L. (1994). Panel analysis of feedback-seeking patterns in face-to-face, computer-mediated, and computer-generated communication environments. *Perceptual and Motor Skills, 79*, 67-73.
- Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal, 29*, 465-487.
- Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management, 29*, 773-799.
- Ashford, S. J., & Cummings, L. L. (1985). Proactive feedback seeking: The instrumental use of the information environment. *Journal of Occupational Psychology, 58*, 67-79.
- Ashford, S. J., & Northcraft, G. B. (2003). Robbing Peter to pay Paul: Feedback, division of attention, and goal attainment. *Human Resource Management Review, 13*, 537-559.
- Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal, 34*, 251-280.
- Becker B. E., Huselid M. A., & Ulrich D. (2001). *The HR scorecard. Linking people, strategy, and performance*. Boston: Harvard Business School Press.
- Berkowitz, L., & Donnerstein, E. (1982). External validity is more than skin deep: Some answers to criticisms of laboratory experiments. *American Psychologist, 61*, 441-445.
- Borman, W. C. (1987). Personal constructs, performance schemata, and folk theories of subordinate effectiveness: Explorations in an army officer sample. *Organizational Behavior and Human Decision Processes, 40*, 307-322.
- Butler, R. (1993). Effects of task- and ego-achievement goals on information seeking during task engagement. *Journal of Personality and Social Psychology, 65*, 18-31.
- Callister, R. R., Kramer, M. W., & Turban, D. B. (1999). Feedback seeking following career transitions. *Academy of Management Journal, 42*, 429-438.
- Cascio, W. (1995). Whither industrial and organizational psychology in a changing world of work? *American Psychologist, 50*, 928-939.
- Chiu, C., Hong, Y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology, 73*, 19-30.

- Dobbins, G. H., Lane, I. M., & Steiner, D. D. (1988). The role of laboratory methodologies in applied behavioral research: Don't throw out the baby with the bath water. *Journal of Organizational Behavior, 9*, 281-286.
- Dunning, D. (1995). Trait importance and modifiability as factors influencing self-assessment and self-enhancement motives. *Personality and Social Psychological Bulletin, 21*, 1297-1306.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040-1048.
- Dweck, C. S., & Leggett, E. L. A. (1988). A social-cognitive approach to motivation and personality. *Psychological Review, 95*, 256-273.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry, 6*, 267-285.
- Fedor, D. B., Rensvold, R. B., & Adams, S. M. (1992). An investigation of factors expected to affect feedback seeking: A longitudinal field study. *Personnel Psychology, 45*, 779-805.
- Gupta, A. K., Govindarajan, V., & Malhotra, A. (1996). Feedback-seeking behavior within multinational corporations. *Strategic Management Journal, 20*, 205-222.
- Huselid, M. A. (1995). The impact of human resources management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal, 38*, 635-672.
- Levy, P. E., Albright, M. D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes, 62*, 23-37.
- Levy, P. E., Cober, R. T., & Miller, T. (2002). The effect of transformational and transactional leadership perceptions on feedback-seeking intentions. *Journal of Applied Social Psychology, 32*, 1703-1720.
- Lievens, F. (2001). Assessor training strategies and their effects on accuracy, interrater reliability, and discriminant validity. *Journal of Applied Psychology, 86*, 255-264.
- Maurer, T. J., Wrenn, K. A., Pierce, H. R., Tross, S. A., & Collins, W. C. (2003). Beliefs about 'improvability' of career-relevant skills: relevance to job/task analysis, competency modeling, and learning orientation. *Journal of Organizational Behavior, 24*, 107-131.
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal, 36*, 557-589.

- Morrison, E. W., Chen, Y. R., & Salgado, S. R. (2004). Cultural differences in newcomer feedback seeking: A comparison of the United States and Hong Kong. *Applied Psychology: An International Review*, *53*, 1-22.
- Morrison, E. W., & Cummings, L. L. (1992). The impact of feedback diagnosticity and performance expectations on feedback seeking behavior. *Human Performance*, *5*, 251-264.
- Morrison, E. W., & Vancouver, J. B. (2000). Within-person analysis of information seeking: The effects of perceived costs and benefits. *Journal of Management*, *26*, 119-137.
- Morrison, E. W., & Weldon, E. (1990). The impact of an assigned performance goal on feedback seeking behavior. *Human Performance*, *3*, 37-50.
- Northcraft, G. B., & Ashford, S. J. (1990). The preservation of self in everyday life: The effects of performance expectations and feedback context on feedback inquiry. *Organizational Behavior and Human Decision Processes*, *47*, 42-64.
- Pelham, B. W. (1991). On confidence and consequence: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology*, *60*, 518-530.
- Pelham, B. W. (1993). The idiographic nature of human personality: Examples of the idiographic self-concept. *Journal of Personality and Social Psychology*, *64*, 665-677.
- Petty, R. E., & Cacioppo, J. T. (1979). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, *46*, 69-81.
- Renn, R. W., & Fedor, D. B. (2001). Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *Journal of Management*, *27*, 563-583.
- Roberson, L., Deitch, E. A., Brief, A. P., & Block, C. J. (2003). Stereotype threat and feedback seeking in the workplace. *Journal of Vocational Behavior*, *62*, 176-188.
- Sackett, P. R., & Larson, J. (1990). Research strategies and tactics in I/O psychology. In M. D. Dunnette and L. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd). Palo Alto, CA: Consulting Psychologists Press.
- Schleicher, D. J., & Day, D. V. (1998). A cognitive evaluation of frame-of-reference rater training: Content and process issues. *Organizational Behavior and Human Decision Processes*, *73*, 76-101.

- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 29, pp. 209-269). New York: Academic Press.
- Schippmann, J. S., Ash R. A., Battista M., Carr L., Eyde L. D., & Hesketh B. (2000). The practice of competency modeling. *Personnel Psychology*, 53, 703-740.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth: Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology*, 57, 782-791.
- Sulsky, L. M., & Day, D. V. (1992). Frame-of-reference training and cognitive categorization: An empirical investigation of rater memory issues. *Journal of Applied Psychology*, 77, 501-510.
- Taylor, S. E., Neter, E., & Wayment, H. A. (1995). Self-evaluation processes. *Personality and Social Psychology Bulletin*, 21, 1278-1287.
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human Performance*, 13, 205-251.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior*, 24, 335-356.
- Thornton, G. C., & Cleveland, J. N. (1990). Developing managerial talent through simulation. *American Psychologist*, 45, 190-199.
- Trope, Y. (1975). Seeking information about one's ability as a determinant of choice among tasks. *Journal of Personality and Social Psychology*, 32, 1004-1013.
- Trope, Y. (1979). Uncertainty-reducing properties of achievement tasks. *Journal of Personality and Social Psychology*, 37, 1505-1518.
- Trope, Y., Gervy, B., & Bolger, N. (2003). The role of perceived control in overcoming defensive self-evaluation. *Journal of Experimental Social Psychology*, 39, 407-419.
- Trope, Y. (1986). Self-enhancement and self-assessment in achievement behavior. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 350-378). New York: Guilford.
- Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology*, 75, 195-216.



- Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes*, 62, 276-285.
- VandeWalle, D. (2003). A goal orientation model of feedback-seeking behavior. *Human Resource Management Review*, 13, 581-604.
- VandeWalle, D., Cron, W. L., & Slocum, J. W., Jr. (2001). The role of goal orientation following performance feedback. *Journal of Applied Psychology*, 86, 629-640.
- VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation on the feedback-seeking process. *Journal of Applied Psychology*, 82, 390-400.
- VandeWalle, D., Ganesan, S., Challagalla, G. N., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context, and cognition. *Journal of Applied Psychology*, 85, 996-1003.
- Vanleeuwen, D. M., & Mandabach, K. H. (2002). A note on the reliability of ranked items. *Sociological Methods and Research*, 31, 87-105.
- Velleman, P. F., & Wilkinson, L. (1993). Nominal, ordinal, interval, and ratio typologies are misleading. *American Statistician*, 47, 1-7.
- Visser, P., Krosnick, J. A., & Simmons, J. P. (2003). Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis. *Journal of Experimental Social Psychology*, 39, 118-141.
- Williams, J. R., Steelman, L. A., Miller, C. E., & Levy, P. E. (1999). Increasing feedback seeking in public contexts: It takes two (or more) to tango. *Journal of Applied Psychology*, 84, 969-976.
- Woehr, D. J. (1994). Understanding frame-of-reference training : The impact of training on the recall of performance information. *Journal of Applied Psychology*, 79, 525-534.
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of Management*, 27, 701-721.
- Zimmerman, D. W. (1995). Increasing the power of the ANOVA *F* test for outlier-prone distributions by modified ranking methods. *Journal of General Psychology*, 122, 83-94.



# CHAPTER 3

## A CLOSER LOOK AT THE RELATIONSHIP BETWEEN UNCERTAINTY AND FEEDBACK-SEEKING

*Manuscript submitted for publication<sup>1, 2</sup>*

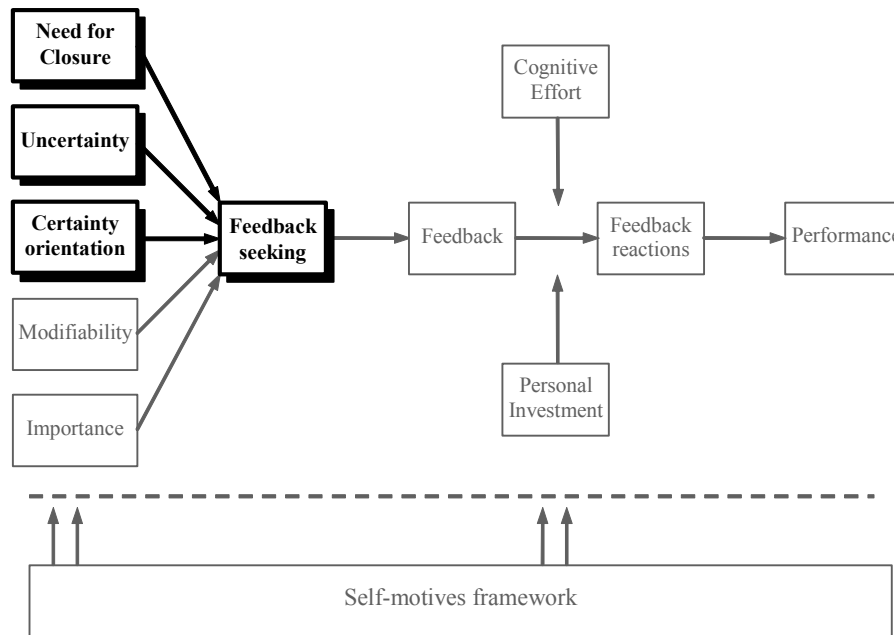


FIGURE 1: CHAPTER 3 SITUATED IN THE WORKING MODEL OF THIS DISSERTATION

---

<sup>1</sup> This paper was co-authored by Filip Lievens

<sup>2</sup> The authors would like to thank Eric Day for his valuable comments on an earlier version of this manuscript.

### ABSTRACT

The relationship between uncertainty and feedback-seeking was investigated in two studies (a laboratory and a field study). Results showed that the relationship between uncertainty and feedback-seeking is less simple than previously thought. First, both studies found support for a curvilinear relationship. People sought more indirect feedback at high and low levels of uncertainty as opposed to moderate levels of uncertainty, indicating the activation of both uncertainty reduction and self-verification motives in a private context. Second, the field study indicated that Certainty orientation moderated the uncertainty – direct feedback-seeking relationship. People were more motivated by self-verification versus uncertainty reduction strivings depending on their Certainty orientation. Third, this relationship varied according to the feedback-seeking strategy (direct versus indirect) used.

### INTRODUCTION

The past two decades of research in the performance feedback domain have demonstrated that employees in organizations are more than passive recipients of feedback. Employees have a genuine interest in obtaining feedback and initiate in a wide range of actions to acquire feedback about their performance (see Ashford, Blatt, & VandeWalle, 2003, for a review). Employees seek feedback either by directly asking their supervisors for feedback (*inquiry*) or by observing their environment and others for cues that might serve as feedback information (*monitoring*). By seeking feedback, employees can better assess their capabilities (Williams & Johnson, 2000), adjust their goal-directed behavior (Morrison & Weldon, 1990) and "learn the ropes" of a new job (Morrison, 1993).

Research has shown that employees constantly balance the costs associated with seeking feedback (e.g., hearing negative feedback about oneself or exposing one's uncertainty to colleagues) against the desire for feedback. When desire for feedback exceeds cost perceptions, people proceed to action and actually seek feedback (Ashford & Cummings, 1986; VandeWalle & Cummings, 1997). Scholars have proposed that employees' feelings of uncertainty are the primary determinant of the desire for feedback (Ashford & Cummings, 1983; Ashford et al., 2003; Morrison, 2002; Morrison et al., 2004). This is in line with uncertainty reduction theory which predicts that people have an aversion to uncertainty and will gather information to reduce uncertainty feelings. Although uncertainty reduction is generally acknowledged as one of the main motives driving feedback-seeking behavior, little empirical or theoretical work has directly focused on the role of uncertainty in determining feedback-seeking (Morrison, 2002; Tuckey, Brewer, & Williamson, 2002).

This study challenges the traditional uncertainty reduction perspective in feedback-seeking research. Specifically, the basic premise of this study is that the relationship between uncertainty and feedback-seeking is less simple than previously thought. From a theoretical point of view, we draw on recent developments in the broader domain of self motives in social psychology (Bernichon, Cook, & Brown, 2003; Morling & Epstein, 1997; Sedikides & Strube, 1997) to identify other theoretical perspectives about the relationship between uncertainty and feedback-seeking. To examine these different perspectives, two empirical studies (a laboratory experiment and a field study) are conducted. The remainder discusses four possible theoretical perspectives that might underpin the relationship between uncertainty and feedback-seeking and delineates two different research approaches (within-persons versus between-persons design) that will be used to study this relationship.

## THEORETICAL BACKGROUND

### UNCERTAINTY REDUCTION THEORY

Uncertainty reduction has been identified as the leading motive behind the study of feedback-seeking in organizations (Morrison, 1995, 2002). For instance, people with a high tolerance for ambiguity have been found to seek less feedback because they suffer less from feelings of uncertainty (Ashford & Cummings, 1985; Fedor, Rensvold & Adams, 1992; Gupta, Govindarajan, & Malhotra, 1999). More indirect empirical evidence comes from research on organizational socialization. Due to changes in expectations and needed skills newcomers in organizations often struggle with uncertainty. Hence, they seek more feedback for reducing these high levels of uncertainty (Ashford & Black, 1996; Brett, Feldman, & Weingart, 1990; Morrison, Chen, & Salgado, 2004; Wanberg & Kammeyer-Mueller, 2000). Following the same line of thought, some studies showed that more experienced and tenured employees suffer less from uncertainty and seek less feedback (Ashford, 1986; Ashford & Cummings, 1985; Brown, Ganesan, & Challagalla, 2001; VandeWalle, Ganesan, Challagalla, & Brown, 2000).

The uncertainty reduction motive in feedback-seeking is also echoed in the self-assessment motive in the self motives domain in social psychology (Sedikides, 1993; Sedikides & Strube, 1995). According to self-assessment theory, people are motivated to obtain an accurate evaluation of the self. Therefore, people are interested predominantly in the diagnosticity of self-relevant information, that is, the extent to which information can reduce uncertainty about an aspect of the self (see Sedikides & Strube, 1997, for a review of empirical evidence). In sum, self-assessment theory predicts – like uncertainty reduction theory – that people are motivated to reduce uncertainty when they seek feedback.

*Hypothesis 1<sub>a</sub>: There is a positive relationship between uncertainty and feedback-seeking.*

**SELF-VERIFICATION THEORY**

Self-verification theory suggests that people are motivated to maintain consistency between their self-views and new self-relevant information. According to self-verification theory, people work to confirm their self-conceptions because of a wish for psychological coherence and feelings of control and stability in their social environment (Swann, Rentfrow, & Guinn, 2002; Swann, Stein-Seroussi, & Giesler, 1992). First, self-verifying information is comforting because it convinces and reassures people that they know themselves and their environment. Second, self-verifying information means that individuals' social partners perceive them "correctly" and that these partners will treat them in familiar and understandable ways.

More specifically, this theory predicts that the more an individual is certain of a particular self-perception, the more that individual will work at verifying and maintaining that self-perception (Chen, Chen, & Shaw, 2004; Pelham, 1991; Pelham & Swann, 1994; Swann & Pelham, 2002). As people acquire more information concerning their perceptions about themselves and the environment, they become more certain about these self-perceptions. After time, these certain and stable self-perceptions are a prerequisite to preserve order and stability for the self in the environment. Therefore, people are motivated to maintain consistency between these firmly held self-perceptions and new self-relevant information. One way of preserving this consistency consists of soliciting self-verifying feedback (Bosson & Swann, 1999; Sanitioso & Wlodarski, 2004; Swann, Pelham, & Krull, 1989). In sum, self-verification predicts that people will seek feedback in order to confirm perceptions that are held with high certainty, and thus will seek more feedback when uncertainty is low.

Although uncertainty reduction has been the main motive researched in feedback-seeking, close inspection of the feedback-seeking literature also reveals a couple of findings that are inconsistent with uncertainty reduction theory and are consistent with self-verification theory. In fact, several studies

reported significant negative correlations between uncertainty and inquiry (Ashford, 1986; Fedor et al., 1992) and uncertainty and monitoring (Ashford, 1986; Gupta et al., 1999), indicating that high levels of uncertainty lead to *less* feedback-seeking.

*Hypothesis 1<sub>b</sub>: There is a negative relationship between uncertainty and feedback-seeking.*

### **UNCERTAINTY REDUCTION AND SELF-VERIFICATION THEORY**

The third theoretical perspective reconciles both previous theories. This perspective posits that both uncertainty reduction and self-verification motives can drive feedback-seeking. When employees are highly certain about their perceptions about appropriate behavior in the organization, they seek feedback to verify these perceptions. However, when employees are highly uncertain about behavior that is deemed appropriate in the organization, they also seek feedback to reduce uncertainty about these views. When employees are moderately uncertain about their perceptions, none of the two motives becomes activated so that employees seek less feedback. So, a key conceptual point of this perspective is that people can try to satisfy both motives when they seek feedback. This proposition is consistent with recent research on self motives in social psychology. Several studies have demonstrated that people often try to satisfy different and opposite motives at the same time when seeking feedback (Bernichon et al., 2003; Morling & Epstein, 1997; Sedikides, 1993; Swann et al., 1989).

Although conceptually meaningful, no studies in the feedback-seeking literature have actually tested for a curvilinear relationship between uncertainty and feedback-seeking. However, we did find evidence for a curvilinear relationship in the information seeking literature. Boynton, Gales, and Blackburn (1993) examined information-seeking behavior of managers and found support for a curvilinear relationship. The highest levels of search activity were observed when uncertainty was either high or low. At



intermediate levels of uncertainty, managers engaged in less search activity. All of this leads to the following hypothesis:

*Hypothesis 1<sub>c</sub>: There is a curvilinear relationship between uncertainty and feedback-seeking. Feedback-seeking will be higher at low and high levels of uncertainty as opposed to intermediate levels of uncertainty.*

### **INTEGRATING UNCERTAINTY REDUCTION AND SELF-VERIFICATION**

Recent research on self motives in social psychology has moved beyond broad questions such as "do each of these self-evaluations motives exist?" and "which of these motives is dominant in predicting behavior?", acknowledging a more complicated interplay between the different motives. This is reflected in questions such as "under what circumstances do the motives operate?" and "who are the people in whom a given motive is more prevalent than other motives?" (Sedikides & Strube, 1995, 1997).

Whereas situational variables have been primarily researched as possible moderators (e.g., Dunning, 1995; Sedikides, Herbst, Hardin, & Dardis, 2002; Tice, Butler, Muraven, & Stillwell, 1995), recent social psychological studies have proposed that individual difference variables might moderate the activation of the self-assessment and the self-verification motives (Roney & Sorrentino, 1995; Sedikides & Strube, 1997). Depending on individual differences, some people might be more motivated by uncertainty reduction strivings, whereas other people might be more motivated by self-verification strivings. To date, the role of these individual difference variables has remained unexplored.

This study tests two individual difference variables as possible moderators of the uncertainty – feedback-seeking relationship, namely Need for closure and Certainty orientation. These specific individual difference variables were

chosen because we expected them to be conceptually related to the uncertainty reduction or self-verification motive.

Kruglanski and his colleagues (Kruglanski, 1989) introduced *Need for closure* as the desire for "an answer on a given topic, any answer, as compared to confusion and ambiguity" (p.14). Need for closure reflects the desire for clear, definite, or unambiguous knowledge that will guide perception and action, as opposed to the undesirable alternative of ambiguity and confusion (for a review, see Kruglanski & Webster, 1996). Hence, people with a high Need for closure typically show an aversion for high-uncertainty situations and engage in various activities in order to reduce this uncertainty. For instance, people with a high Need for closure request more information in job interviews (Ellis, 1996) or seek more information in novel purchase situations (Vermeir, Van Kenhove, & Hendrickx, 2002). We expect that the same will happen in the feedback-seeking domain. Therefore, we hypothesize the following:

*Hypothesis 2<sub>a</sub>: Employees with a high Need for closure will seek more feedback when uncertainty is high than people with a low Need for closure.*

Whereas the aforementioned individual difference variable was theoretically linked to the uncertainty reduction motive, we related the second variable to the self-verification motive. *Certainty orientation* is conceptualized as a general orientation toward approaching and dealing with information. Sorrentino, Short, and Raynor (1984) proposed that certainty-oriented people are primarily motivated to avoid ambiguity by maintaining existing beliefs. In addition, Roney and Sorrentino (1995) reviewed a number of studies suggesting that self-verification is an important motive for certainty-oriented people. For instance, certainty-oriented people chose more task items that reaffirmed what they already knew with high certainty (Sorrentino & Hewitt, 1984). If people with a high Certainty orientation are more motivated by self-verification strivings, we expect them to seek more

feedback when uncertainty is low than people with a low Certainty orientation. Thus, we expect that Certainty orientation will interact with uncertainty to predict feedback-seeking.

*Hypothesis 2<sub>b</sub>: Employees with a high Certainty orientation will seek more feedback when uncertainty is low than people with a low Certainty orientation.*

### **BETWEEN- AND WITHIN-PERSONS APPROACHES**

Traditionally, studies examining feedback-seeking in organizations have adopted a between-persons approach wherein respondents are asked to provide self-reports of the frequency of their feedback-seeking (e.g., Ashford & Cummings, 1985; Renn & Fedor, 2001; Roberson et al., 2003; VandeWalle et al., 2000). Despite the usefulness of a between-persons approach, this perspective shows only one part of the equation. First, people's everyday evaluations and decisions are typically made from their own frame of reference rather than from the perspective of researchers (who typically compare evaluations and decisions with those made by other people). Research on self motives in social psychology and decision-making has shown that within-person designs are well-suited to investigate this kind of idiographic decision making (for a review, see Pelham, 1993; Morrison & Vancouver, 2000). For example, consider a student who has an opportunity to seek feedback after completing an in-basket exercise. Let us assume that on a 9-point scale with a theoretical mean of 5, the average uncertainty rating for college students is 7 for their *Decisiveness* and 3 for their *Problem Awareness*. Now, consider Jane who rates her uncertainty about *Decisiveness* as a 6 (above the scale mean but below the group average) and *Problem Awareness* as a 4 (below the scale mean but above group average). Which competency should Jane seek feedback about to reduce uncertainty? From Jane's perspective, she is most uncertain about *Decisiveness* and thus to reduce uncertainty, she should seek feedback about this competency.

However, from a between-persons perspective, Jane should seek feedback about *Problem Awareness* because she is more uncertain about this competence than the group average, whereas her uncertainty about *Decisiveness* is below group average.

Second, a within-persons perspective is relevant in an organizational context because in organizations developmental feedback is typically built around specific performance elements (London, 1997). For instance, the context of the present study mirrors a context in which individuals seek feedback about specific competencies upon completion of a computerized assessment instrument (in-basket).

Thus, between- and within-person designs represent two complementary approaches that can paint a more complete picture about the role of uncertainty in feedback-seeking choices in organizations. Therefore, we tested the relationship between uncertainty and feedback-seeking in two studies, each adopting a different approach. Study 1 was a laboratory experiment wherein I/O psychology students could choose about which performance elements (competencies) they wanted feedback after completing an in-basket exercise. In this study, a within-persons approach was adopted to study the relationship between uncertainty about competencies and feedback-seeking. In Study 2, we used a more traditional between-persons design to examine the relationship between general perceptions of uncertainty and frequency of feedback-seeking in a field setting. By conducting both a laboratory and a field study, using different design strategies, we aimed to provide a strong test about the role of uncertainty in the feedback-seeking process.

## STUDY 1

### METHOD

**Participants.** One hundred twenty-six I/O psychology master's students participated in this study. They were given extra course credit for their voluntary participation. Participants had an average age of 22.9 years ( $SD = 1.8$ ); 70% were female, 30% male.

**Procedure.** We adapted a research paradigm for examining feedback-seeking choices in social psychology to a work-related context (i.e., a context in which people seek feedback about their performance on a computerized assessment instrument). This research paradigm was created and used by Swann and colleagues (e.g., Swann et al., 1989; Swann, Wenzlaff, Krull, & Pelham, 1992; see also Cassidy et al., 2003). First, participants rated themselves in a self-assessment questionnaire on eight competencies that are included in a recently developed taxonomy of managerial competence (Tett, Guterman, Bleier, & Murphy, 2000), namely *Coordinating*, *Decisiveness*, *Task Focus*, *Composure*, *Information Management*, *Problem Awareness*, *Quantity Concern*, and *Trustworthiness*. Next, participants worked on a computerized in-basket that simulates daily work activities. Tett, Steele, and Beaugard (2003) developed this computerized in-basket to measure these eight competencies. Completing the computerized in-basket took participants on average one hour. Finally, participants were offered an opportunity to seek feedback about their performance related to these specific competencies. Upon completion of the in-basket, participants were told that there would not be time enough to receive feedback about all competencies. Therefore, participants were asked to indicate about which competencies they wanted to receive feedback. Finally, two weeks later participants received a feedback report with quantitative and narrative feedback about their performance on the in-basket.

**Measures.** In the self-assessment questionnaire, students first rated their standing relative to their colleagues on each of the eight competencies. Then, participants reported how certain they were of their standing on each of these competencies using scales anchored at the endpoint by 1 (*not at all certain*) to 9 (*extremely certain*). Wording and rating format for self- and certainty ratings were taken from the Self-Attribute Questionnaire (Pelham & Swann, 1989), which measures similar self-attributes and has shown high test-retest reliability (.77). Mean correlation between participant's self-assessed standing and certainty about these self-assessed standings was moderate ( $M = .40$ ) and similar to previous research, indicating that self-assessed standing and uncertainty ratings hold relatively well as different constructs (Krosnick et al., 1993; Pelham & Swann, 1989).

We used an abbreviated version of the Need for closure Scale (Kossowska, Van Hiel, Chun, & Kruglanski, 2002). The 15 items used 7-point Likert-type response scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency equaled .81. Research showed that the Need for closure scale possesses high test-retest reliability ( $r = .86$ ) (Webster & Kruglanski, 1994).

Participants were also administered a widely-used 11 item Certainty orientation measure (Brouwers & Sorrentino, 1993; Roney & Sorrentino, 1995). The items used 7-point response scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Internal consistency was .72. In prior research, the scale demonstrated good test-retest reliability ( $r = .90$ ) (Walker & Sorrentino, 2000), indicating that Certainty orientation is a temporally stable individual difference measure.

The measure of feedback-seeking was taken from Trope and Neter (1994). Upon completion of the computerized in-basket, participants were given the opportunity to seek feedback about specific competencies. To this end, they indicated how much they wanted feedback for each of the eight competencies on a 7-point scale. Given that participants were led to believe

that they would not receive feedback on all competencies due to time constraints, this measure reflects feedback-seeking in a private (computerized) setting. As noted above, participants also received actual feedback about the competencies.

*Analyses.* The hypotheses were tested with a one-way analysis of variance (ANOVA) with Level of Uncertainty as a within-subjects factor and feedback-seeking as a dependent variable. The procedure that was followed to make up the within-persons factor is described in detail in the Appendix. Planned comparisons were conducted to test for competing hypotheses. Tests of the interactions between the individual difference measures and the within-subjects factor were conducted using general linear model procedures in which the individual difference measures were treated as continuous variables.

## RESULTS AND DISCUSSION

*Preliminary analyses.* We checked how important each of these competencies was to the participants, with responses ranging from 1 (*not important*) to 9 (*very important*). Participants indicated that all of these eight competencies would be potentially important to them ( $M = 7.03$ ,  $SD = 1.31$ ), illustrating that they were interested to know more about their standing on each of these competencies. We also disposed of an indication of possible demand characteristics. When asked about their general comments after the session, none of the participants in the experimental condition wrote down a comment that was in any way related to the feedback-seeking measure. All comments concerned possible improvements in the task (e.g., less items, different lay-out, items in different order...), indicating that people had no suspicions about the objective of the study.

*Test of Hypotheses.* We found a significant effect of uncertainty on feedback-seeking,  $F(2,236) = 4.34$ ,  $p < .05$ ,  $\eta^2 = .03$ . Using planned comparisons, we tested for a linear and a curvilinear trend in the relationship

between uncertainty and feedback-seeking. No support was found for a linear relationship between uncertainty and feedback-seeking,  $F(1,118) = 0.00$ ,  $p > .05$ . However, the quadratic contrast was significant,  $F(1,118) = 13.50$ ,  $p < .001$ . As can be seen in Figure 2, people sought more feedback about competencies that were held with high uncertainty ( $M = 5.79$ ,  $SD = 1.35$ ) and low uncertainty ( $M = 5.78$ ,  $SD = 1.39$ ) as opposed to competencies that were held with moderate uncertainty ( $M = 5.43$ ,  $SD = 1.20$ ).

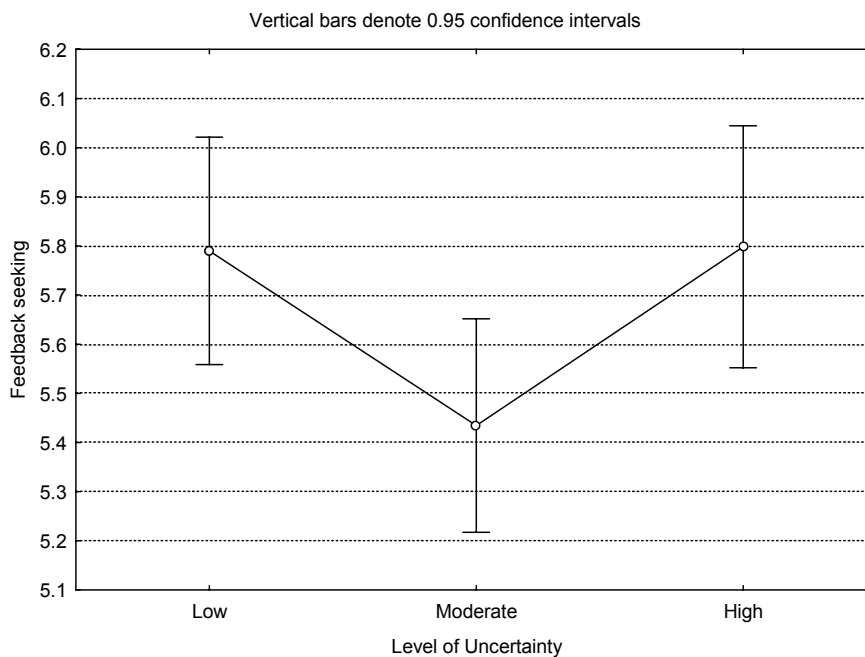


FIGURE 2: THE EFFECT OF LEVEL OF UNCERTAINTY ON FEEDBACK-SEEKING IN STUDY 1.

Although the effect sizes were small (Cohen's  $d = 0.2$ , for feedback-seeking about high vs. moderate uncertain competencies), paired t-tests revealed that feedback-seeking about the moderate uncertainty level significantly differed from feedback-seeking about both high and low uncertainty levels ( $p < .01$ ), whereas feedback-seeking about high and low uncertainty levels did not differ ( $p > .05$ ). Thus, among the three competing hypotheses, the results from this study support hypothesis 1<sub>c</sub>: apparently, people are motivated to



seek feedback about competencies that are held with both high and low uncertainty<sup>3</sup>.

Concerning hypothesis 2<sub>a</sub>, no interaction effect was found between Need for Closure and Level of Uncertainty,  $F(2, 232) = 0.48, p > .05$ . Also, no interaction effect was found between Certainty orientation and Level of Uncertainty,  $F(2, 232) = 0.88, p > .05$ . So, hypothesis 2<sub>a</sub> and 2<sub>b</sub> were not supported.

Two key findings emerge from Study 1. First, the relationship between uncertainty and feedback-seeking was best characterized by a curvilinear relationship. Our results suggest that people seem to seek more feedback when uncertainty is low and when uncertainty is high, reconciling the uncertainty reduction and self-verification theories. Second, this relationship was not moderated by individual difference variables. In contrast to recent theoretical propositions in social psychology (Sedikides & Strubbe, 1997), Certainty orientation and Need for closure did not interact with uncertainty to predict feedback-seeking. Still, Study 1 seems to suggest that the traditional positive linear relationship that has been proposed may provide a

---

<sup>3</sup> As self-assessed standing on the competencies and uncertainty ratings were moderately correlated, it could be argued that the observed curvilinear effect reflects performance expectations instead of uncertainty. For instance, it is possible that participants merely sought feedback about their best competencies (e.g., for increasing self-worth) and their worst competencies (e.g., for improving performance). Therefore, we also conducted analyses with self-assessed standing included as a second within-persons factor (see also, Pelham, 1989). This analysis yielded the same results for the relationship between uncertainty and feedback-seeking. Results concerning self-assessed standing showed that people sought more feedback about their best ( $M = 5.84$ ) and moderate competencies ( $M = 5.66$ ) than about their worst competencies ( $M = 5.10$ ),  $p < .01$ , indicating that there was a *positive linear* relationship between self-assessed standing and feedback-seeking. This supports previous research demonstrating that people seek more feedback when performance expectations are high (Morrison & Weldon, 1991). In sum, the *curvilinear relationship* between uncertainty and feedback-seeking seems to be independent of the influence of self-assessed standing on the competencies.

too simplistic view of the relationship between uncertainty and feedback-seeking.

## STUDY 2

One might question whether the results obtained in Study 1 will generalize to more traditional feedback-seeking designs. We propose that if both uncertainty reduction and self-verification motives determine feedback-seeking choices as suggested in Study 1, this should also be reflected with frequency of feedback-seeking as a dependent variable. Therefore, in study 2 we gathered self-reports of frequency of feedback-seeking in a field setting, thus adopting a between-persons approach. In line with prior research, we examined two feedback-seeking strategies, feedback inquiry and feedback monitoring. We used a different measure of uncertainty as compared to the first study. People were asked to give a general appraisal of perceived uncertainty about appropriate behaviors and potential evaluations in their environment. This was in line with prior field studies, which also employed more global measures of uncertainty (Ashford & Cummings, 1985; Ashford, 1986; Gupta et al., 1999).

## METHOD

***Participants and Procedure.*** Data were collected in a local division of a multinational manufacturer of agricultural machinery. Four hundred thirty-eight employees were emailed a cover letter discussing the study and containing a link to the actual questionnaire. Study participation was voluntary. One hundred forty employees filled out the questionnaire (10.2% female), yielding a response rate of 32%. Their ages ranged from 21 to 59 years ( $M = 42.1$  years,  $SD = 10.1$ ). The participants had an average tenure of 19.1 years ( $SD = 11.6$ ) in the company and an average experience of 9.2 years ( $SD = 8.5$ ) in their current position. In addition, 68.6% held at least an

undergraduate degree and 29.2% of the participants had a supervisory or management position.

We examined whether respondents were different from nonrespondents. To this end, we retrieved archival data from the organization on key demographic variables from the target population (all 438 employees who were originally surveyed). T-tests for continuous variables and  $\chi^2$ -tests for categorical variables indicated that the means of the respondents were not significantly different from the target population on age ( $M = 43.7$  years), gender (9.4% female), and position (28.8% supervisory or management position). Respondents had a significantly shorter tenure than the target population ( $M = 21.6$  yrs,  $p < .05$ ). However, given the small difference in tenure, the response rate did not seem to be a major threat to the representativeness of our results.

**Measures.** The same measures as in Study 1 were used for Need for closure ( $\alpha = .73$ ) and Certainty orientation ( $\alpha = .81$ ). For the other variables, we used measures that have been used in prior field-based research about feedback-seeking. Specifically, respondents' perceptions of uncertainty about appropriate behaviors and potential evaluations in their organizational environment were assessed with a 4-item scale developed by Ashford (1986). The items used 7-point Likert-type response scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale included items as "I really get little useful information about performance standards within my department." Internal consistency equaled .76.

Finally, the dependent variable (feedback-seeking) was measured with two different scales from Roberson, Deitch, and Block (2003) (see also Ashford, 1986; Ashford & Tsui, 1991; Morrison, 1993; VandeWalle & Cummings, 1997). Respondents were asked how frequently they engaged in various feedback-seeking strategies, using a 7-point Likert scale (1 = *very infrequently*; 7 = *very frequently*). A 4-item scale measured direct feedback-seeking (inquiry) and included items such as, "How frequently do you

directly ask your manager for information concerning your performance?". A 7-item scale measured indirect feedback-seeking (monitoring) and included items such as, "How often do you observe what behaviors your manager rewards and use this as feedback on your own performance?". As shown in Table 1, internal consistency coefficients for these two measures were good.

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.
1. Tenure	19.14	11.58	(--)					
2. Uncertainty	4.16	1.30	-.13	(.76)				
3. Need for closure	4.55	.64	.23**	.03	(.73)			
4. Certainty orientation	4.02	.88	.23**	-.31**	.39**	(.81)		
5. Frequency of Monitoring	3.34	1.04	-.05	-.10	-.23*	-.11	(.84)	
6. Frequency of Inquiry	2.41	1.15	-.02	-.35**	.08	.20*	.38**	(.84)

*Note.* *N* = 140. Cronbach's Alphas are Reported in Parentheses on the Diagonal.  
\*  $p < .05$  \*\*  $p < .01$

TABLE 1: DESCRIPTIVE STATISTICS AND CORRELATION COEFFICIENTS OF STUDY 2 VARIABLES.

As mentioned before, some studies have found that organizational tenure was negatively related to feedback-seeking (e.g., Ashford, 1986), supposedly because experienced employees suffer less from uncertainty. However, several studies failed to support these findings (e.g., Roberson et al., 2003). Given these previous findings, organizational tenure was included as a control variable in our analyses. It was assessed with a single item that asked the participants how many years and months of tenure they had in the organization.

## RESULTS AND DISCUSSION

Descriptive statistics, correlations, and internal consistency reliabilities of Study 2 variables are provided in Table 1. To examine our hypotheses, we conducted a hierarchical multiple regression analysis. First, organizational tenure was entered as a control variable. In the second step, perceived uncertainty was entered in the equation. In the third step, we entered the hypothesized quadratic effect of uncertainty to test for a curvilinear

relationship between uncertainty and feedback-seeking. The fourth step entered the two individual difference variables. Finally, in the fifth step we entered the hypothesized interactions between the individual difference variables and perceived uncertainty. To minimize collinearity between the main effects of perceived uncertainty, Need for closure, and Certainty orientation with the interaction terms, we mean-centered the three main effect variables, prior to computing cross-product terms (Aiken & West, 1991). The change in  $R^2$ , associated with each set of terms, indicated which of the hypotheses were supported in this study. As shown in Table 2, different results were obtained for the two dependent variables. Therefore, results are reported for monitoring (indirect feedback-seeking) and inquiry (direct feedback-seeking) separately.

	Frequency of Monitoring					Frequency of Inquiry				
	$b^a$	SE (b)	t	p	$\Delta R^2$	$b^a$	SE (b)	t	p	$\Delta R^2$
<b>Step 1</b>										
Organizational tenure	.00	.01	-.53	.60	.01	-.01	.01	-1.57	.12	.00
<b>Step 2</b>										
Uncertainty	-.10	.08	-1.27	.21	.01	-.32	.07	-4.29	.00***	.14***
<b>Step 3</b>										
Uncertainty x Uncertainty	.09	.05	1.72	.09	.04*	.02	.05	.39	.70	.01
<b>Step 4</b>										
Need for closure	-.25	.17	-1.48	.14	.04	.31	.16	1.95	.05	.03
Certainty orientation	-.13	.13	-1.06	.29		.06	.12	.50	.62	
<b>Step 5</b>										
Uncertainty x Need for closure	.11	.12	.93	.36	.01	.06	.11	.54	.59	.04
Uncertainty x Certainty orientation	-.07	.11	-.67	.51		-.23	.10	-2.30	.02*	

Note: Parameter Estimates are for Final Step, not Entry. <sup>a</sup> In Order to Interpret The *a Priori* Standardized Variables as Correctly as Possible, the *B* Coefficients in this Table are Unstandardized Regression Coefficients (Aiken & West, 1991; Jaccard et al., 1990). \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

TABLE 2: HIERARCHICAL REGRESSION OF FREQUENCY OF FEEDBACK-SEEKING (INQUIRY AND MONITORING) ON UNCERTAINTY, HYPOTHESIZED QUADRATIC EFFECT, INDIVIDUAL DIFFERENCES, AND HYPOTHESIZED INTERACTIONS.

As shown in Table 2, uncertainty was not related to monitoring ( $b = -.10, p > .05$ ) and thus explained no significant variance (1%),  $F(1,107) = .90, p > .05$ . Thus, neither Hypothesis 1<sub>a</sub> nor Hypothesis 1<sub>b</sub> were supported. The quadratic term, entered in the third step, was responsible for a significant additional variance of 4%,  $F(1,106) = 4.77, p < .05$ . As can be seen in Figure 3, people sought more feedback when they perceived high levels and low levels of uncertainty in their organization. Yet, they sought less feedback when they perceived intermediate levels of uncertainty. This finding supports hypothesis 1<sub>c</sub> and seems to indicate that people satisfy both self-verification and uncertainty reduction strivings when seeking feedback through monitoring.

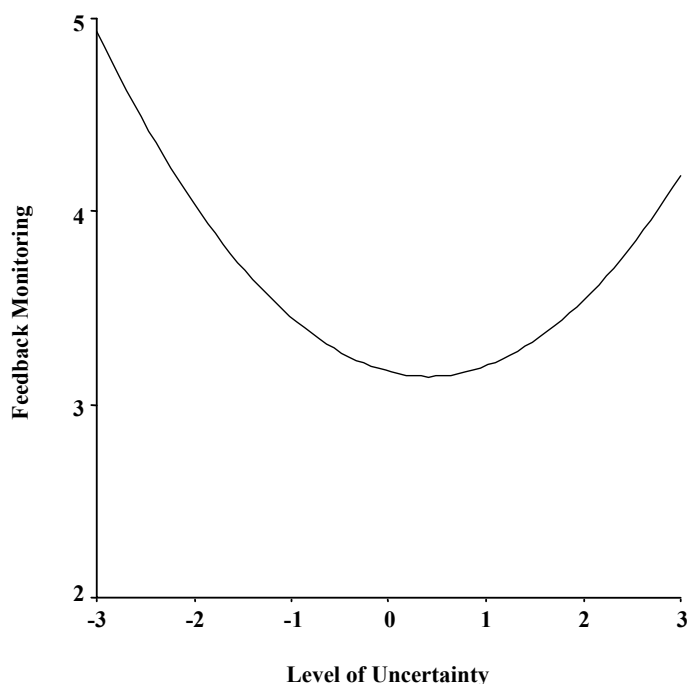


FIGURE 3: THE CURVILINEAR RELATIONSHIP BETWEEN UNCERTAINTY AND INDIRECT FEEDBACK-SEEKING (MONITORING) IN STUDY 2.

The individual difference variables, entered in the fourth step, did not explain any significant additional variance (4%),  $F(2,104) = 2.41, p > .05$ . The fifth step of the analysis revealed that adding the hypothesized interaction terms did not explain any significant additional variance (2%),  $F(3,99) = .685, p > .05$ . So, Hypotheses 2<sub>a</sub>, and 2<sub>b</sub>, were not supported for indirect feedback-seeking.

As shown in table 2, a different pattern of results arose for inquiry (direct feedback-seeking). Uncertainty explained 14% of the variance for inquiry,  $F(1,125) = 19.88, p < .001$ . Uncertainty was negatively related to inquiry ( $b = -.32, p < .001$ ), thus disconfirming hypothesis 1<sub>a</sub> and supporting hypothesis 1<sub>b</sub>: employees who perceived higher levels of uncertainty, sought less direct feedback. As can be seen in Table 2, entering the quadratic uncertainty term in the equation did not explain any additional variance,  $F(1,124) = 1.57, p > .05$ . Thus, hypothesis 1<sub>c</sub> was not supported for direct feedback-seeking. The individual difference variables, entered in the fourth step, did not explain any significant additional variance,  $F(2,122) = 1.85, p > .05$ .

The fifth step of the analysis revealed that adding the hypothesized interaction terms between the individual difference variables and perceived uncertainty increased the variance explained by 4%. This additional explained variance of 4% was not significant,  $F(2,120) = 2.75, p = .07$ . However, caution is needed by interpreting this non-significant finding. Detecting reliable moderator effects in field studies is often difficult due to low power (Aguinis, Beaty, Boik, & Pierce, in press; Aguinis & Stone-Romero, 1997; Zedeck, 1971). Even if interactions are theoretically defensible, large samples will be needed to detect them. Furthermore, controlling first for quadratic effects in the moderated multiple regression can eliminate interactions that are statistically significant (Judd & McClelland, 1989). Indeed, if we did not first control for quadratic effects but only for the linear effects in the hierarchical multiple regression, the change in  $R^2$  associated with the respective interaction terms was 6% and reached significance,  $F(2,121) = 3.53, p < .05$ . Therefore, as argued by

McClelland and Judd (1993), the increment in  $R^2$  is not the most useful effect size index in this context. Inspection of the regression coefficients of Table 2 reveals that one of the two hypothesized interaction terms was significant. Certainty orientation moderated the effect of uncertainty on direct feedback-seeking ( $b = -.23, p < .05$ ).

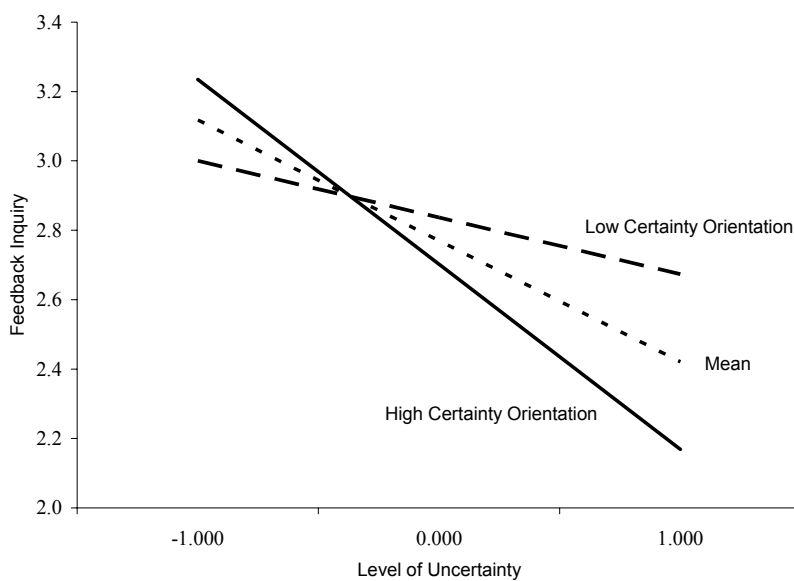


FIGURE 4: THE INTERACTION OF CERTAINTY ORIENTATION AND UNCERTAINTY ON DIRECT FEEDBACK-SEEKING (INQUIRY) IN STUDY 2.

To determine if this interaction was consistent with our hypothesis, we plotted the overall form from the full equation  $\pm 1$  standard deviation units around the mean of Certainty orientation (Aiken & West, 1991). As predicted by Hypothesis 2<sub>b</sub>, Figure 4 reveals that there is a stronger negative relationship between perceived uncertainty and feedback-seeking for those people with a high Certainty orientation. This seems to support the notion that people with a high Certainty orientation are driven by a self-verification motive and thus, are more inclined to seek feedback when they experience low levels of uncertainty. For people with a low Certainty orientation, there is still a small negative relationship between perceived uncertainty and feedback-seeking.



## GENERAL DISCUSSION

Traditionally, uncertainty reduction has been proposed as the primary motive behind feedback-seeking (Ashford & Cummings, 1983; Ashford et al., 2003; Morrison, 2002; Morrison et al., 2004). Our study did not invalidate uncertainty reduction as a *possible* motive behind feedback-seeking. However, the general conclusion of our two studies is that the relationship between uncertainty and feedback-seeking is more complicated than previously thought. Specifically, we found evidence for (a) a curvilinear relationship, (b) the importance of the feedback strategy (inquiry versus monitoring) used, and (c) the moderating effect of certainty orientation. The remainder delves deeper into these three main contributions of our studies.

### CURVILINEAR RELATIONSHIP

In both the laboratory study and the feedback monitoring part of the field study, we found support for a curvilinear relationship between uncertainty and feedback-seeking. People sought more feedback at low and high levels of uncertainty as compared to intermediate levels of uncertainty. Research about self motives in social psychology offers a theoretical framework for understanding these findings: When people find themselves in self-evaluative situations, different motives are activated and guide the information-processing of individuals. Our results indicate that – apart from the uncertainty reduction motive – a self-verification motive is activated in the feedback-seeking process. Social psychological research on self-verification processes has repeatedly shown that the more people are certain of specific perceptions, the more they go out of their way to obtain confirmation of those perceptions (e.g., Pelham & Swann, 1994; Swann & Ely, 1984; Swann, Pelham, & Chidester, 1988; Visser, Krosnick, & Simmons, 2003). Apparently, the same mechanism is observed in the feedback-seeking process in organizations. People try to satisfy both

uncertainty reduction and self-verification needs and therefore seek feedback when uncertainty is high and low.

This self-verification perspective on the role of uncertainty can shed a new light on previous inconsistent findings in the feedback-seeking domain. For instance, Fedor et al. (1992) did not find a significant correlation between feedback uncertainty and feedback monitoring. Similarly, Gupta et al. (1999) reported a non-significant relationship between role ambiguity and direct feedback-seeking. These scholars tested only for linear relationships and not for a curvilinear relationship. The simultaneous and opposite activation of both uncertainty reduction and self-verification motives might have obscured the relationship between uncertainty and feedback-seeking in these studies.

In any case, our study should encourage a renewed attention for the relationship between uncertainty and feedback-seeking in future research. In this study, uncertainty was considered to have a rather static role in determining feedback-seeking. One particular interesting direction would be to examine whether the role of uncertainty changes during the feedback-seeking process. It is possible that uncertainty reduction and self-verification motives come into play at different stages in the feedback-seeking process as do other feedback-seeking motives (Levy, Albright, Cawley, & Williams, 1995).

### **FEEDBACK-SEEKING STRATEGIES**

Our study revealed that the relationship between uncertainty and feedback-seeking might be different for indirect and direct feedback-seeking strategies. In the laboratory study as well as in the field study with feedback monitoring as dependent variable, there was evidence for a curvilinear relationship. However, a negative relationship between uncertainty and feedback-seeking was found with direct inquiry as dependent variable. How can these findings be explained? We believe that the context in which feedback was sought might play an important role here. In the laboratory

study as well as in the field study with feedback monitoring as dependent variable, the nature of the feedback-seeking of the participants can be characterized as an unobtrusive strategy where no interaction with other individuals was required. When people are able to seek feedback in such a *private context* (e.g., by monitoring the behavior of others as in Study 2 or by requesting feedback from a computer as in Study 1), face-loss costs and impression management concerns are minimal for the feedback-seeker (Levy et al., 1995; Fedor et al., 1992; Williams, Miller, Steelman, & Levy, 1999). Our results suggest that in this context, people feel safe to satisfy both uncertainty reduction and self-verification needs.

Another feedback-seeking pattern appeared when people sought feedback by direct inquiry. Direct feedback is typically sought in a *public context*, where feedback-seeking costs are much higher (Fedor et al., 1992). In that case, a negative relationship between uncertainty and feedback-seeking was found. Other researchers have also reported negative zero-order correlations between uncertainty and direct feedback-seeking (Ashford, 1986; Fedor et al., 1992). Two plausible explanations for these findings can be proposed. First, when people are highly uncertain, they may refrain from seeking feedback through inquiry because they do not know the standards used to judge them and so, there is a greater risk to seek feedback, as the feedback may be negative. Thus, it is possible that for highly uncertain employees the costs associated with overtly seeking feedback are too high. Another possible explanation is that only a self-verification motive is activated. This would be in line with one of the main tenets of self-verification theory. Self-verification theory assumes that people develop self-confirmatory social environments through social interaction in order to acquire a sense of stability, predictability and coherence (Swann et al., 2002). For instance, students choose to live together with room mates that have confirmed their self-image in the past (Swann, Bosson, & Pelham, 2002). By publicly seeking feedback about self-views that are held with high certainty, employees can convey a clear picture of their core self-views and convince their boss and colleagues to see them as they see themselves. As we did not

dispose of direct measures of feedback-seeking costs or self-verification motives, these two explanations that might account for the negative relationship between uncertainty and feedback-seeking await further research.

### **INDIVIDUAL DIFFERENCES AS MODERATORS**

Evidence for the moderating role of individual difference variables in the relationship between uncertainty and feedback-seeking was limited. No moderating effects were found in Study 1. In Study 2, we found a moderating effect of certainty orientation with direct feedback-seeking (inquiry) as a dependent variable. This finding suggests that people with a high certainty orientation seek more direct feedback when they are certain than people with a low certainty orientation. Apparently, people with a high certainty orientation are more driven by self-verification strivings than by uncertainty reduction strivings.

Recently, several scholars have examined how various self-motives interact to guide behavior (for a review, see Sedikides & Strube, 1997). Yet, these studies have focused on identifying situational moderators (e.g., Dunning, 1995; Sedikides, Herbst, Hardin, & Dardis, 2002; Tice, Butler, Muraven, & Stillwell, 1995) that might reconcile the activation of different motives in self-evaluative situations. The current study is one of the first to examine if the activation of the uncertainty reduction (self-assessment) and self-verification motive is moderated by individual difference variables. However, given the limited evidence about the moderating role of individual difference variables in the present study, more research is needed in this domain. We believe that the study of individual difference variables can be a fruitful avenue for studying the interplay between various seemingly conflicting self-evaluation motives. So far, most feedback-seeking research has addressed how different motives might separately affect feedback-seeking. Yet, we need more studies that investigate how those motives work

in concert (see Ashford et al., 2003; Morrison, 2002). Research on self motives in social psychology might provide a well-suited theoretical framework for studying this interplay and outlining other individual difference variables (e.g., self-consciousness, Sedikides & Strube, 1997).

### **PRACTICAL IMPLICATIONS**

Our findings suggest that the widespread notion that employees seek feedback to reduce uncertainty and improve performance is not completely accurate. This has some practical implications for both organizations and individuals.

From an *organizational* point of view, this insight is troubling. When people seek feedback guided by a self-verification motive, the effects could be detrimental for individual and organizational performance. According to Kluger and DeNisi's (1996) feedback intervention theory, the effectiveness of any feedback depends on where the feedback intervention focuses one's attention. When attention is focused on the task (e.g., tasks on which the person needs to improve) individuals focus on shrinking the gap between their actual performance and their performance goals. Alternatively, when feedback focuses attention on the self, (e.g., how a person views his/her self image or concept), feedback interventions often produce strong affective reactions that can interfere with task performance. Thus, self-verification driven feedback-seeking can divert attention away from the task to questions of who we really are, resulting in a decrease in performance (Kluger & DeNisi, 1996). Organizations might consider looking for strategies to deal with the possible negative effects of self-verification driven feedback-seeking. For example, managers could be made aware of self-verifying tendencies and could be trained and encouraged to provide additional feedback about ambiguities in times of increased uncertainty (crisis, change, mergers, and socialization periods). Furthermore, in order to promote feedback-seeking directly aimed at uncertainty-reduction and performance

improvement, organizations should try to identify factors that may influence the feedback-seeking motives. For instance, DeNisi and Kluger (2000) have proposed that normative feedback should be avoided, because it directs attention to ego-motives which makes a decline in performance more likely. Supervisors and managers could also pay more attention to the self-verification strivings of employees in day-to-day informal conversations. When self-verification needs are already fulfilled in these low-stake interactions, chances are that uncertainty reduction needs gain the upper hand when a feedback-seeking opportunity presents oneself. Finally, employees can be trained in seeking feedback about uncertainty by emphasizing the benefits of feedback as a tool for self-development. This might help employees to overcome their natural proclivities toward seeking feedback in a biased way (Larson, 1989).

From an *individual* point of view, our results highlight the importance of feedback-seeking as a self-regulation strategy for employees in their organizational environment. Whereas previous research mainly described feedback-seeking as a means of increasing individual and organizational performance, this study suggests that employees also use feedback-seeking as a strategy to increase individual wellbeing. This is illustrated in recent work by Swann et al. (2002) showing that people who acquired a sense of coherence through self-verifying strategies demonstrated higher levels of psychological and physical health. Thus, by seeking feedback when experiencing low levels of uncertainty employees can increase feelings of control and stability in their social environments. However, these self-verifying tendencies do not have to lead to rigidity. As illustrated in these studies, when people experience high levels of uncertainty, people will also seek feedback to reduce this uncertainty. So, it seems that individuals use feedback-seeking as a subtle self-regulatory strategy to find a balance between their personal need for coherence and the need for reducing uncertainty caused by changes in organizational environments.

### LIMITATIONS

One reason for conducting both a lab and a field study was to address the weaknesses inherent in the use of any single research design. When two designs are combined in one investigation to test the same hypotheses, the strengths of one design can help compensate for the weaknesses of the other (Sackett & Larson, 1990). Nevertheless, limitations to the present research should be considered. In the lab study, participants were students, not employees, and sought feedback from a computer. Although we ensured that the task was realistic and important to the participants (see importance ratings in Study 1), this study lacks contextual realism in comparison to an organizational setting where employees can seek feedback from different sources and feedback-seeking costs and impression management concerns come into play. A second concern is that we did not measure *actual* feedback-seeking *behavior* in Study 1, but rather the preference of participants for receiving feedback about their competencies. However, as participants were lead to believe that they only could receive feedback on a limited number of competencies, we believe this preference measure closely resembles actual behavior in this computerized setting. Another limitation might be that in the field study, we collected data at a single point in time from a single source, which introduces the possibility of common method variance. Although common method bias is an unlikely explanation for results that are convergent across the two studies, the effects of such bias cannot be ruled out. A final limitation of this study is that we had no self-report measure of the different motives driving feedback-seeking in comparison to previous research (Tuckey et al., 2002). However, research has shown that the use of self-report measures is not the best method for assessing more implicit motives of behavior (McClelland, Koestner, & Weinberger, 1989; Winter, John, Stewart, Klohnen, & Duncan, 1998). Therefore, we inferred the activation of the uncertainty reduction and self-verification motives from the feedback-seeking of the participants.

### **CONCLUSION**

Feedback-seeking has been identified as one of the main self-regulation strategies of employees in organizations. This study tested various theoretical perspectives that might explain the relationship between uncertainty and feedback-seeking. We found that people might be motivated by both uncertainty reduction and self-verification strivings. Future research along these lines is needed to better understand how the various motives work in concert in the feedback-seeking process.



## REFERENCES

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (in press). Effects size and power in assessing moderating effects of categorical variables using multiple regression: A 30-year review. *Journal of Applied Psychology*.
- Aguinis, H., & Stone-Romero, E. F. (1997). Methodological artifacts in moderated multiple regression and their effects on statistical power. *Journal of Applied Psychology, 82*, 192-206.
- Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal, 29*, 465-487.
- Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology, 81*, 199-214.
- Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management, 29*, 773-799.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance, 32*, 370-398.
- Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal, 34*, 251-280.
- Bernichon, T., Cook, K. E., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology, 84*, 194-204.
- Bosson, J. K., & Swann, W. B. (1999). Self-liking, self-competence and the quest for self-verification. *Personality and Social Psychology Bulletin, 30*, 412-422.
- Boynnton, A. C., Gales, L. M., & Blackburn, R. S. (1993). Managerial search activity: The impact of perceived role uncertainty and role threat. *Journal of Management, 19*, 725-747.
- Brett, J. M., Feldman, D. C., & Weingart, L. R. (1990). Feedback-seeking behavior of new hires and job changers. *Journal of Management, 16*, 737-749.
- Brouwers, M. C., & Sorrentino, R. M. (1993). Uncertainty orientation and protection motivation theory: The role of individual differences in health compliance. *Journal of Personality and Social Psychology, 65*, 102-112.

- Brown, S. P., Ganesan, S., & Challagalla, G. (2001). Self-efficacy as a moderator of information-seeking effectiveness. *Journal of Applied Psychology, 86*, 1043-1051.
- Cassidy, J., Ziv, Y., Mehta, T. G., & Feeney, B. C. (2003). Feedback seeking in children and adolescents: Associations with self-perceptions, attachment representations, and depression. *Child Development, 74*, 612-628.
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self-definition. *Journal of Personality and Social Psychology, 86*, 77-94.
- DeNisi, A. S., & Kluger, A. N. (2000). Feedback effectiveness: Can 360-degree appraisals be improved? *Academy of Management Executive, 14*, 129-139.
- Dunning, D. (1995). Trait importance and modifiability as factors influencing self-assessment and self-enhancement motives. *Personality and Social Psychology Bulletin, 21*, 1297-1306.
- Ellis, S. (1996). Selecting job-content versus job-context information: A field study of the roles of need for closure and prior preferences. *Journal of Applied Social Psychology, 26*, 1510-1528.
- Fedor, D. B., Rensvold, R. B., & Adams, S. M. (1992). An investigation of factors expected to affect feedback seeking: A longitudinal field study. *Personnel Psychology, 45*, 779-805.
- Gupta, A. K., Govindarajan, V., & Malhotra, A. (1999). Feedback-seeking behavior within multinational corporations. *Strategic Management Journal, 20*, 205-222.
- Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Newbury Park: Sage.
- Judd, C. M., & McClelland, G. H. (1989). *Data analysis: A model-comparison approach*. San Diego, CA: Harcourt Brace Jovanovich.
- Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*, 254-284.
- Kossowska, M., Van Hiel, A., Chun, W. Y., & Kruglanski, A. W. (2002). The Need for Cognitive Closure Scale: Structure, cross-cultural invariance, and comparison of mean ratings between European-American and East Asian samples. *Psychologica Belgica, 42*, 267-286.
- Kruglanski, A. W. (1989). *Lay epistemic and human knowledge: Cognitive and motivational bases*. New York: Plenum.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: "Seizing" and "Freezing". *Psychological Review, 103*, 263-283.

- Levy, P. E., Albright, M. D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes*, *62*, 23-37.
- London, M. (1997). *Job feedback: Giving, seeking, and using feedback for performance improvement*. Mahwah, NJ: Lawrence Erlbaum.
- McClelland, D. C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ? *Psychological Review*, *96*, 690-702.
- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, *114*, 376-390.
- Morling, B., & Epstein, S. (1997). Compromises produced by the dialectic between self-verification and self-enhancement. *Journal of Personality and Social Psychology*, *73*, 1268-1283.
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal*, *36*, 557-589.
- Morrison, E. W. (1995). Invited reaction: Comments on Madzar's article. *Human Resource Development Quarterly*, *6*, 351-353.
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research*, *28*, 229-242.
- Morrison, E. W., Chen, Y. R., & Salgado, S. R. (2004). Cultural differences in newcomer feedback seeking: A comparison of the United States and Hong Kong. *Applied Psychology: An International Review*, *53*, 1-22.
- Pelham, B. W. (1989). *On confidence and consequence: The certainty and importance of self-knowledge*. Unpublished doctoral dissertation, University of Texas, Austin, TX.
- Pelham, B. W. (1991). On confidence and consequence: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology*, *60*, 518-530.
- Pelham, B. W. (1993). The idiographic nature of human personality: Examples of the idiographic self-concept. *Journal of Personality and Social Psychology*, *64*, 665-677.
- Pelham, B. W., & Swann, W. B. (1994). The juncture of intrapersonal and interpersonal knowledge: Self-certainty and interpersonal congruence. *Personality and Social Psychology Bulletin*, *20*, 349-357.
- Renn, R. W., & Fedor, D. B. (2001). Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *Journal of Management*, *27*, 563-583.

- Roberson, L., Deitch, E. A., Brief, A. P., & Block, C. J. (2003). Stereotype threat and feedback seeking in the workplace. *Journal of Vocational Behavior, 62*, 176-188.
- Roney, C. J., & Sorrentino, R. M. (1995). Self-evaluation motives and uncertainty orientation: Asking the who question. *Personality and Social Psychology Bulletin, 21*, 1319-1329.
- Sackett, P. R., & Larson, J. R. (1990). Research strategies and tactics in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2<sup>nd</sup> ed., Vol. 1, pp. 419-489). Palo Alto, CA: Consulting Psychologists Press.
- Sanitioso, R. B., & Wlodarski, R. (2004). In search of information that confirms a desired self-perception: Motivated processing of social feedback and choice of social interactions. *Personality and Social Psychology Bulletin, 30*, 412-422.
- Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology, 65*, 317-338.
- Sedikides, C., Herbst, K. C., Hardin, D. P., & Dardis, G. J. (2002). Accountability as a deterrent to self-enhancement: The search for mechanisms. *Journal of Personality and Social Psychology, 83*, 592-605.
- Sedikides, C., & Strube, M. J. (1995). The multiply motivated self. *Personality and Social Psychology Bulletin, 21*, 1330-1335.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. *Advances in Experimental Social Psychology, 29*, 209-269.
- Sorrentino, R. M., & Hewitt, E. C. (1984). The uncertainty-reducing properties of achievement tasks revisited. *Journal of Personality and Social Psychology, 47*, 884-899.
- Sorrentino, R. M., Short, J. A. C., & Raynor, J. O. (1984). Uncertainty orientation: Implications for affective and cognitive views of achievement behavior. *Journal of Personality and Social Psychology, 46*, 189-206.
- Swann, W. B., Bosson, J. K., & Pelham, B. W. (2002). Different partners, different selves: Strategic verification of circumscribed identities. *Personality and Social Psychology Bulletin, 28*, 1215-1228.
- Swann, W. B., & Ely, R. J. (1984). A battle of wills: Self-verification versus behavioral confirmation. *Journal of Personality and Social Psychology, 46*, 1287-1302.

- Swann, W.B., & Pelham, B.W. (2002). Who wants out when the going gets good? Psychological investment and preference for self-verifying college roommates. *Self and Identity, 1*, 219-233.
- Swann, W. B., Pelham, B. W., & Chidester, T. R. (1988). Change through paradox: Using self-verification to alter beliefs. *Journal of Personality and Social Psychology, 54*, 268-273.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth: Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology, 57*, 782-791.
- Swann, W. B., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary and J. Tagney (Eds.), *Handbook of self and identity* (pp. 367-383). New York: Guilford Press.
- Swann, W. B., Stein-Seroussi, A., & Giesler, R. B. (1992). Why people self-verify. *Journal of Personality and Social Psychology, 62*, 393-401.
- Swann, W. B., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). Allure of negative feedback: Self-verification strivings among depressed persons. *Journal of Abnormal Psychology, 101*, 293-306.
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human Performance, 13*, 205-251.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior, 24*, 335-356.
- Tice, D. M., Butler, J. L., Muraven, M. B., & Stillwell, A. M. (1995). When modesty prevails: Differential favorability of self-presentation to friends and strangers. *Journal of Personality and Social Psychology, 69*, 1120-1138.
- Trope, Y., & Neter, E. (1994). Reconciling competing motives in self-evaluation: The role of self-control in feedback seeking. *Journal of Personality and Social Psychology, 66*, 646-657.
- Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology, 75*, 195-216.
- VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation on the feedback-seeking process. *Journal of Applied Psychology, 82*, 390-400.
- VandeWalle, D., Ganesan, S., Challagalla, G. N., & Brown, S. P. (2000). An integrated model of feedback-seeking behavior: Disposition, context, and cognition. *Journal of Applied Psychology, 85*, 996-1003.

- Vermeir, I., Van Kenhove, P., & Hendrickx, H. (2002). The influence of need for closure on consumer's choice behavior. *Journal of Economic Psychology*, *23*, 703-727.
- Visser, P. S., Krosnick, J. A., & Simmons, J. P. (2003). Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis. *Journal of Experimental Social Psychology*, *39*, 101-193.
- Walker, A. M., & Sorrentino, R. M. (2000). Control motivation and uncertainty: Information processing or avoidance in moderate depressives and non-depressives. *Personality and Social Psychology Bulletin*, *26*, 436-451.
- Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology*, *85*, 373-385.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, *6*, 1049-1062.
- Williams, J. R., & Johnson, M. A. (2000). Self-supervisor agreement: The influence of feedback seeking on the relationship between self and supervisor ratings of performance. *Journal of Applied Social Psychology*, *30*, 275-292.
- Williams, J. R., Miller, C. E., Steelman, L. A., & Levy, P. E. (1999). Increasing feedback seeking in public contexts: It takes two (or more) to tango. *Journal of Applied Psychology*, *84*, 969-976.
- Winter, D. G., John, O. P., Stewart, A. J., Klohnen, E. C., & Duncan, L. E. (1998). Traits and motives: Toward an integration of two traditions in personality research. *Psychological Review*, *105*, 230-250.
- Zedeck, S. (1971). Problems with the use of "moderator" variables. *Psychological Bulletin*, *76*, 295-310.

## APPENDIX

The following question was examined in study 1: "If a participant reports to be highly certain on one competency, moderately certain on another and lowly certain on yet another competency, will his or her feedback-seeking vary as a function of those competencies?" Thus, to examine feedback-seeking decisions from the perspective of the participants, we followed a procedure that was developed by Pelham (1989) (see also, Cassidy, Mehta, & Feeney, 2003; Pelham & Swann, 1994; Swann et al., 1989). For each participant, the competency that received the highest certainty rating, the competency that corresponded with a median certainty rating and the competency that received the lowest certainty rating was selected. For instance, consider three participants whose highest, median, and lowest ratings of certainty are 9-5-1, 9-8-7, and 3-2-1, respectively. The high certainty level would have received a rating of 9, 9, and 3 from these participants. The moderate certainty level would have received a rating of 5, 8, and 2 from these three participants, and a low certainty level would have received a rating of 1, 7, and 1 from these participants. As can be noted in this example, not all three participants have a low degree of certainty for their most uncertain competency. Still, for each participant the competency that was selected as most uncertain was the competency that received the lowest certainty rating from their own frame of reference. Accordingly, for each subject, we identified a "least uncertain" ( $M = 7.05$ ,  $SD = 1.20$ ), a "moderate uncertain" ( $M = 5.78$ ,  $SD = 1.29$ ) and a "most uncertain" ( $M = 3.83$ ,  $SD = 1.42$ ) competency, as the three levels of the within-subjects factor Level of Uncertainty. If more than one competency qualified as a participant's most, moderate or least uncertain competency, we consulted group norms (Pelham, 1991). Note that randomly selecting one of the competencies that qualified as a participant's most or least uncertain competency (see Cassidy et al., 2003), yielded the same results as consulting group norms. Mean uncertainty ratings for the three selected competencies

for each participant differed significantly from each other ( $p < .001$ ), indicating that the “uncertainty manipulation” was successful.



**CHAPTER 4**  
**CERTAINTY AS A MODERATOR**  
**OF FEEDBACK REACTIONS:**  
**A TEST OF THE STRENGTH**  
**OF THE SELF-VERIFICATION MOTIVE**

*Manuscript submitted for publication<sup>1,2</sup>*

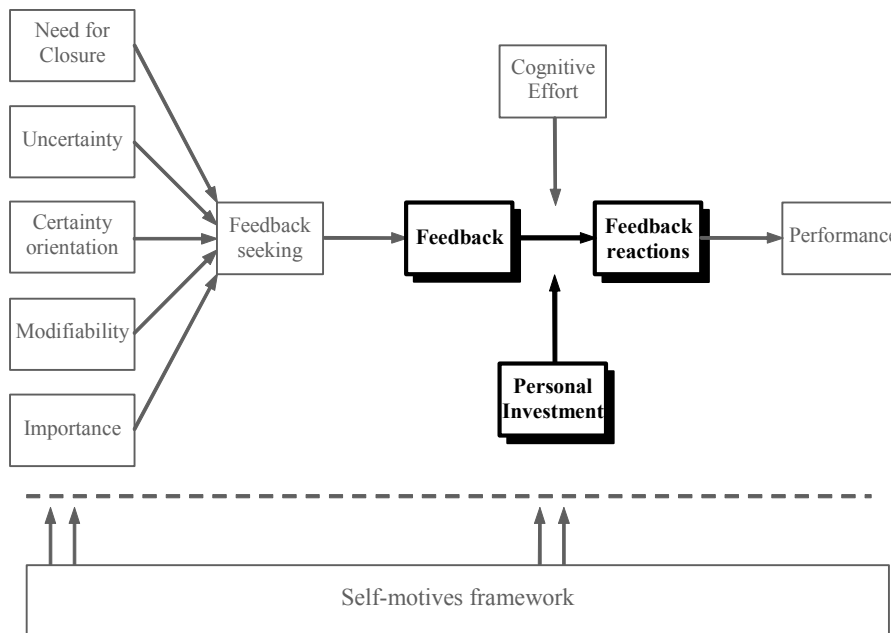


FIGURE 1: CHAPTER 4 SITUATED IN THE WORKING MODEL OF THIS DISSERTATION

<sup>1</sup> This paper was co-authored by Filip Lievens

<sup>2</sup> A previous version of Study 1 was published in the Dutch blind peer-reviewed journal “*Gedrag & Organisatie*”. The full reference is: Anseel, F., & Lievens, F. (2004). Als het bericht goed is: (On)zekerheid als determinant van feedbackreacties in het feedbackproces. *Gedrag & Organisatie*, 17, 414-429.

### ABSTRACT

The present study investigated whether employees are merely interested in hearing good news about themselves, as predicted by self-enhancement theory or are more interested in feedback that confirms their self-concept, as predicted by self-verification theory. In both a lab study and a field study we examined whether self-view certainty would serve as a moderator and would strengthen the relationship between feedback score – self-view congruence and feedback reactions. Results across the two studies showed that people mainly reacted favorably to positive feedback. Prior self-views did not play a key role in explaining feedback reactions. As feedback scores were the main determinant of feedback reactions, it seems that feedback reactions are dominated by self-enhancement strivings and that self-verification strivings are less prominent. Self-view certainty moderated the self-enhancement and self-verification motives in feedback reactions for the competency *Decisiveness*.

### INTRODUCTION

The finding that performance feedback does not uniformly improve performance (Kluger & DeNisi, 1996) has led to a renewed interest in examining feedback processes. One line of research in this area has paid close attention to questions as “When do employees feel satisfied about the feedback they receive?” and “When do employees perceive feedback as accurate and intent to use the feedback obtained?” Research examining these feedback reactions is important for numerous reasons, including (a) that reactions represent a criterion of great interest to practitioners because feedback reactions are vital to the acceptance and use of any feedback system or appraisal system (Cawley, Keeping, & Levy, 1998) and (b) that feedback reactions are included in all theoretical models of the feedback process as the immediate predecessors of performance improvement.

Providing feedback can lead to increased levels of individual and organizational performance only if employees are willing to accept and respond to feedback (Ilgen & Davis, 2000; Ilgen, Fisher, & Taylor, 1979). Given this practical and theoretical importance, reactions to feedback have been studied in different contexts, such as development centers (Jones & Whitmore, 1995), 360-degree and upward feedback programs (Brett & Atwater, 2001; Smither, Wohlers, & London, 1995), management development (Ryan, Brutus, Greguras, & Hakel, 2000), computer-adaptive testing (Tonidandel, Quinones, & Adams, 2002), performance appraisal (Keeping & Levy, 2000), and selection decisions (Bauer, Maertz, Dolen, & Campion, 1998).

One puzzling issue that has emerged across these different contexts is whether employees are merely interested in hearing good news about themselves or are more interested in feedback that confirms their self-concept. Several studies could not provide an unequivocal answer to this question. Some studies (e.g., Brett & Atwater, 2001) found that employees reacted favorably to positive feedback, whereas other studies (e.g., Nease, Mudgett, & Quinones, 1999) reported that employees reacted favorably to feedback that was consistent with their self-ratings.

The current study tries to shed a new light on these mixed findings by introducing a new moderator of feedback reactions. This moderator, self-view certainty, is drawn from self-evaluation theory in social psychology. In two studies, we will examine if people's reactions to feedback are moderated by the certainty of their self-views. Study 1 is a laboratory study wherein I/O psychology students received feedback about their performance on a computerized in-basket. Study 2 is a field study wherein we examined feedback reactions in a realistic work-related context. Specifically, the computerized in-basket was placed online on the website of a governmental service for employment and vocational training. This website is frequently visited by applicants and employees looking for training and coaching in job application skills and various work-related competencies.

### THEORETICAL BACKGROUND

The determinant that has received most attention in feedback reactions research is the feedback valence or feedback sign. Several studies have found that feedback recipients are more likely to accept and use favorable (positive) feedback than unfavorable (negative) feedback (Bannister, 1986; Brett & Atwater, 2001; Fecteau, Fecteau, Schoel, Russel, & Poteet, 1998; Halperin, Snyder, Shenkel, & Houston, 1976; Ilies, De Pater, & Judge, submitted; Stone & Stone, 1984; Tonidandel et al., 2002). This finding corresponds to predictions of self-enhancement theory in social psychology. Self-enhancement theory proposes that people are motivated to view themselves as favorably as possible. Hence, individuals are driven to elevate the positivity of their self-concept and protect themselves from threatening information in order to achieve a high level of personal worth (for a review, see Sedikides & Strubbe, 1997). In the context of the feedback process, this theoretical perspective predicts that reactions are based on a one-step cognitive appraisal of the feedback message: “*If* feedback is unfavorable, *then* dismiss it as inaccurate. *If* feedback is favorable, *then* accept it”.

In addition to the feedback sign, a second important determinant of feedback reactions are people’s perceptions of themselves before they receive feedback. These self-views might modify the general tendency to accept and respond to favorable feedback. In particular, several studies reported that in contrast to self-enhancement theory, feedback reactions were not determined by the feedback sign, but by the degree of congruence between the feedback message and the self-views individuals had before they received feedback. Thus, people are more likely to accept feedback when the feedback message confirms their existing self-concept (e.g., Dauenheimer, Stahlberg, & Petersen, 1999; Jussim, Yen, & Aiello, 1995; Korsgaard, 1996; Markus, 1977; Nease et al., 1999). This finding corresponds to predictions of self-verification theory. This social psychological motivation theory suggests that people go out of their way to maintain consistency between their self-views and new self-relevant information. People are motivated to confirm their

self-views out of a desire to maximize their perceptions of prediction, control, and stability in an often chaotic social environment (for a review, see Swann, Rentfrow, & Guinn, 2002). In the context of the feedback process, this theory predicts that reactions are based on a two-step cognitive appraisal, for example: “*If the feedback is favorable and the particular self-conception is unfavorable, then dismiss feedback as inaccurate. If the feedback is unfavorable and the particular self-conception is unfavorable, then accept the feedback message.*”

#### **INTEGRATING SELF-VERIFICATION AND SELF-ENHANCEMENT MOTIVES**

The above indicates that it remains inconclusive as to which of the two self-evaluation theories is supported when considering feedback reactions in organizations. These mixed findings echo a debate in social psychology between proponents of self-enhancement and self-verification (self-consistency) theory during the 60s. In origin, adherents of both perspectives questioned the existence of the other motive and tried to persuade the opposition (for a review, see Shrauger, 1975). As it could not be established which of these self-evaluation theories was the correct one, scholars have recently proposed that both models might be correct. That is, people might experience a need for both self-enhancement and self-verification, but these needs vary under different conditions. Thus, recently the research question has shifted from "which motive is dominant?" to the search for moderators, that is, "under which conditions do the motives operate?" (Sedikides & Strubbe, 1995, 1997; Swann & Schroeder, 1995).

One important moderator that has been proposed is the nature of feedback reactions. On the basis of a review of empirical findings, Shrauger (1975) proposed that affective reactions to evaluations (e.g., satisfaction) might follow predictions of self-enhancement theory and cognitive reactions (e.g., acceptance) might follow predictions of self-verification theory. Research in the social psychological self-evaluation domain has supported this

hypothesis (Dauenheimer et al., 1999; Jussim et al., 1995; Moreland & Sweeney, 1984; Sweeney & Wells, 1990).

In the current study, we propose a new moderator of the self-enhancement and the self-verification motive in determining feedback reactions, namely the *certainty* with which self-views are held before feedback is received. Swann and Schroeder (1995) identified self-view certainty as one of the main moderators of the self-verification perspective. Empirical research shows that people are most inclined to seek confirmation of their self-views when these self-views are held with high certainty (Chen, Chen, & Shaw, 2004; Pelham, 1991; Pelham & Swann, 1994; Swann & Ely, 1984; Swann, Pelham, & Chidester, 1988). Self-views that are held with high certainty occupy a central position in the cognitive system of people. They are related to a great number of other self-relevant cognitions and therefore possess a high resistance to change (Markus, 1977). When self-concept certainty is high, the more the feedback message is congruent with the corresponding self-view, the more favorably people will react. Thus, higher self-view certainty motivates people to invest time and resources in a two-step cognitive appraisal.

However, when self-view certainty is low, people are more eager to self-enhance (Ungar, 1980). Uncertainty about beliefs implies a low resistance to change (Sorrentino, Bobocel, Gitta, & Olson, 1988). People can change their low-certain self-views more easily in the direction of a more flattering self-image. Thus, when self-view certainty is low, people will use a one-step cognitive appraisal of the feedback. The more positive the feedback message, the more favorably people will react, regardless of the corresponding self-views, as predicted by self-enhancement theory. Briefly stated, we expect a moderating effect of self-concept certainty: As self-concept certainty increases, the relationship between feedback score - self-view congruence and feedback reactions will become stronger.

### UNIQUE CONTRIBUTIONS OF CURRENT STUDY

There are some commonalities between the current study and previous studies in both organizational and social psychology that need to be addressed. Whereas our study is similar in some respects, we also believe that several conceptual and methodological differences make the proposed study unique and justify its importance.

First, it remains unclear whether people prefer favorable or consistent feedback. Based on self-evaluation theory, we introduce "certainty" as a new moderator variable of feedback reactions. In particular, we expect that self-verifying tendencies in feedback reactions will be more pronounced as self-concept certainty increases. However, with decreasing levels of certainty, we expect that the self-enhancement motive will become more dominant in determining feedback reactions. This approach is in line with recent developments in self-evaluation theory that have called for more research examining moderators of self-evaluation motives (Sedikides & Strubbe, 1995, 1997).

Second, examining whether people prefer favorable or consistent feedback is a question of congruence between self-appraisals and feedback scores. In the past, questions of feedback congruence have typically been answered using difference scores (e.g., Ashford & Tsui, 1990; Kernan & Lord, 1990; Vance & Collella, 1990). For instance, Sweeney and Wells (1990) examined whether students preferred favorable or consistent feedback on their exams. On a pre-exam questionnaire, they asked respondents to state how many points they thought they would earn on the upcoming exam and subtracted this value from the actual number of points they earned on the exam. Then, this difference score was regressed on feedback acceptance and support was found for the self-verification perspective. However, Edwards (1994, 2002) noted a number of difficulties with the use of difference scores and developed a regression procedure to resolve these problems. One of the main critiques of typical difference measures is that they conceal the relative

contribution of the component parts of the difference score in the effect on the dependent variable. Conceptually, the contributions of the component parts are of particular interest in this study because we aim to examine whether (a) people only react to the feedback scores and thus, only one component accounts for the variance in feedback reactions (self-enhancement perspective) or (b) people react to the congruence between the feedback scores and their self-ratings and thus, the two components account for the variance in feedback reactions (self-verification perspective). The current study is one of the first in the feedback domain to use the regression procedures recommended by Edwards (1994, 2002), and therefore makes it possible to accurately distinguish self-verifying from self-enhancing feedback reactions.

Third, various studies (e.g., Jussim et al., 1995) examining self-verification and self-enhancement motives in the feedback process have used global self-esteem as a measure of self-concept. However, recent social psychological research has shown that specific self-views instead of global self-esteem predict people's cognitive reactions to success and failure (Bernichon, Cook, & Brown, 2003; Dutton & Brown, 1997). For instance, low self-esteem individuals sometimes choose to self-verify (accept negative feedback) and sometimes to self-enhance (accept positive feedback), depending upon the area of feedback (Swann, Pelham, & Krull, 1989). Therefore, Swann et al. (2002) recommended that the self-enhancement and self-verification motives of individuals should be examined in light of the specific attribute upon which feedback is given and specific self-views should be measured a priori. Therefore, in this study we measured self-ratings for various competencies (instead of global self-esteem) before feedback was given. Note that this approach also parallels common organizational practices where developmental feedback is typically provided about various performance elements upon completion of a 360 degree feedback survey, a development center, or an online assessment instrument and where employees can differently respond to feedback about each of these performance elements.



## STUDY 1

### METHOD

**Participants.** Individuals were 126 I/O psychology master's students<sup>3</sup>. They were given extra course credit for their voluntary participation. Participants had an average age of 22.9 years ( $SD = 1.8$ ); 70% were female, 30% male.

**Procedure.** First, participants rated themselves in a self-assessment questionnaire on four managerial competencies that are included in a recently developed taxonomy of managerial competence (Tett, Guterman, Bleier, & Murphy, 2000), namely *Problem Awareness, Coordinating, Information Management, and Decisiveness*.

Next, participants were required to work on a computerized in-basket that simulated daily work activities and measured these four competencies. The computerized in-basket was adapted from Tett, Steele, and Beauregard (2003) and several efforts were taken to ensure the realism of the in-basket (role descriptions, background information, pictures, e-mail simulation, organizational charts, etc.).

Participants received feedback about their performance on the in-basket via e-mail after two weeks. The feedback report consisted of their scores on each of the 4 competencies and a brief explanatory text. The two-week time interval was chosen to simulate common organizational practice. When employees take part in a 360-degree feedback survey or a development center, it usually takes a couple of weeks before all data are processed and feedback is provided. Responses on the in-basket were scored according to the rules developed by Tett, Menard, Guterman, and Beauregard (2001). The feedback scores on the four competencies ranged from 1 to 10, reflecting

---

<sup>3</sup> This sample consists of the same participants as in Study 1, Chapter 3.

students' performance relative to other students. A questionnaire measuring feedback acceptance and satisfaction per competency was attached to the feedback report. In total, 99 of these questionnaires were returned, yielding a response rate of 77%.

**Measures.** In the self-assessment questionnaire, students rated their standing relative to other students on each of the four competencies on a 10-point scale ranging from 1 (*bottom five percent*) to 10 (*top five percent*). Participants also reported how certain they were of their standing on each of these competencies using scales anchored at the endpoints by 1 (*not at all certain*) to 9 (*extremely certain*)<sup>4</sup>. Wording and rating format for the self- and certainty ratings were taken from the Self-Attribute Questionnaire (SAQ) (Pelham & Swann, 1989), which measures similar self-attributes and has shown high test-retest reliability (.77).

As dependent variables, we measured both feedback satisfaction and feedback acceptance. Feedback satisfaction was measured for each competency with three items developed by Korsgaard (1995), and Sweeney and Wells (1990). The items used 7-point Likert-type response scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale included items such as, "I am satisfied with the score I received on [name competency]". Feedback acceptance was measured for each competency with two items on a 7-point scale developed by Tonidandel et al. (2002). The scale included items as "The feedback I received on [name competency] was an accurate evaluation of my performance."

The distinction between feedback satisfaction and feedback acceptance is conceptually congruent with previous social psychological research

---

<sup>4</sup> Mean correlation between participants' self-ratings and certainty of these self-ratings was moderate (Study 1,  $M = .40$ ; Study 2,  $M = .48$ ) and comparable to previous research (Krosnick, Boninger, Yuang, Berent, & Carnot, 1993; Pelham & Swann, 1989).

examining feedback reactions (Jussim et al., 1995; Shrauger, 1975). However, exploratory factor analyses indicated that all items loaded on one factor. Therefore, the 5 feedback reaction items were combined in one scale “feedback reactions”. Internal consistency for this scale varied between .91 and .95 for the different competencies<sup>5</sup>.

**Involvement.** We also assessed how important each of these competencies was to the participants on a 9-point scale, with responses ranging from 1 (*not at all important*) to 9 (*extremely important*). Participants indicated that all the competencies were important to them ( $M = 7.00$ ,  $SD = 1.29$ ), illustrating that the participants of this study cared about their performance on the in-basket. Directly after the in-basket exercise, we also assessed interest in feedback about each of the competencies on a 7-point scale, with responses ranging from 1 (*not at all interested*) to 7 (*extremely interested*). Participants indicated that they were interested to know more about their standing on each of these competencies ( $M = 5.54$ ,  $SD = 1.52$ ).

**Analyses.** Given the limitations of traditional congruence measures we used analytical procedures recommended by Edwards (1994, 2002). The following quadratic regression equation was used to determine whether predictions of self-enhancement theory or self-verification theory were supported.

$$FR = b_0 + b_1X + b_2Y + b_3X^2 + b_4XY + b_5Y^2 + e \quad (\text{Equation 1})$$

In Equation 1,  $X$  and  $Y$  represent participants' self-ratings and feedback scores on the competencies, respectively, and  $FR$  represents feedback reactions. This equation makes it possible to examine the relative

---

<sup>5</sup> Reliabilities for the feedback satisfaction scale ranged from .93 to .96. Reliabilities for the feedback acceptance scale ranged from .79 to .89. Correlations between the two scales for each competency ranged from .63 to .83 ( $p < .01$ ). All analyses were also conducted with feedback satisfaction and feedback acceptance separately. This yielded similar results as with the combined feedback reactions scale.

contribution of the two components of interest in this study, namely the feedback scores and the self-ratings. If results are in line with self-verification theory, congruence between the feedback scores and the self-ratings will lead to more favorable feedback reactions, regardless whether the feedback scores are negative or positive. Thus, both components (feedback scores and self-ratings) will contribute equally but in opposite directions to feedback reactions. If results are in line with self-enhancement theory, then higher feedback scores will result in more favorable feedback reactions, regardless of their relationship to participants' self-ratings. In this case, only one component (feedback scores) will contribute to feedback reactions. The full constraints and conditions that are statistically tested to support each of the models can be found in Edwards (1994, 2002).

Hierarchical regression analysis was used to test the moderating effects of self-view certainty. For each quadratic equation, the five terms were multiplied by certainty, and the increment in  $R^2$  yielded by these terms was tested, controlling for certainty and the five original quadratic terms (Edwards, 1994; Edwards & Rothbard, 1999). If the increment in  $R^2$  was statistically significant, coefficients from the equation were used to determine whether certainty intensified the effects of the congruence between self-ratings and feedback scores on feedback reactions. Prior to quadratic regression analysis, self-ratings and feedback scores were scale centered by subtracting the scale midpoint to reduce multicollinearity and facilitate interpretation (Edwards, 1994).

The present sample size ( $N = 99$ ) has the statistical power of .85 ( $\alpha = .05$ ) to detect a medium effect size ( $f^2$ ) of .15 (which corresponds approximately to an increase in  $R^2$  of about .13) for the quadratic difference regression. In addition, using the same alpha, we had a power of .87 to detect an increment in  $R^2$  of about .13 for the set of terms in the moderated regression equation.

The relationship between feedback – self-rating congruence and feedback reactions and the moderating effect of certainty was tested for each of the

four competencies separately, yielding eight regression analyses. To control the risk of Type I error associated with these analyses, we used the sequential Bonferroni procedure (Seaman, Levin, & Serlin, 1991). This procedure requires the researcher to define the family of tests for which Type I error is controlled. For our purposes, a family comprised the tests of the  $R^2$  values from the four regression equations. Tests of the four regression equations containing certainty as a moderator were also defined as a separate family (see Edwards & Rothbard, 1999). For each  $R^2$  value that reached significance using this procedure, coefficients from the equation were tested using the nominal alpha level (i.e., .05). This procedure struck a balance between Type I and Type II error by considering only those equations that reached significance at the required familywise alpha while testing coefficients from those equations in the usual manner.

Measure	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
Coordinating																	
1. Self-rating	6.81	1.00															
2. Certainty rating	5.61	1.54	.44														
3. Feedback Score	5.23	1.79	.01	-.13													
4. Feedback Reaction	4.74	1.48	-.03	-.10	.76												
Decisiveness																	
5. Self-rating	6.45	1.10	.23	.11	.13	-.01											
6. Certainty rating	4.92	1.60	.25	.47	.07	.04	.31										
7. Feedback Score	5.04	2.04	.03	.19	.45	.39	.14	.18									
8. Feedback Reaction	4.70	1.61	.03	.09	.36	.43	.15	.14	.83								
Information Management																	
9. Self-rating	6.52	1.34	.14	.01	-.11	-.06	.12	.17	.02	.05							
10. Certainty rating	5.45	1.67	.18	.27	-.17	-.14	.10	.36	.08	-.04	.35						
11. Feedback Score	5.07	1.88	-.05	-.11	.48	.33	-.11	-.11	.19	.15	-.02	-.03					
12. Feedback Reaction	4.50	1.61	-.12	-.11	.35	.38	-.14	-.10	.14	.20	.04	-.10	.83				
Problem Awareness																	
13. Self-rating	6.75	1.50	.04	-.02	.09	.08	.24	.12	-.02	.01	-.03	-.02	-.17	-.14			
14. Certainty rating	5.84	1.63	.08	.33	-.30	-.18	.14	.43	-.15	-.08	.11	.39	-.22	-.19	.33		
15. Feedback Score	5.07	1.85	-.03	.09	.53	.42	.07	.02	.67	.60	-.08	-.14	.50	.43	-.13	-.25	
16. Feedback Reaction	4.62	1.61	-.00	.04	.39	.49	.13	-.02	.53	.63	.01	-.18	.37	.44	-.16	-.22	.82

Note:  $N = 99$ . Correlations greater than or equal to .20 were statistically significant ( $p < .05$ )

TABLE 1: DESCRIPTIVE STATISTICS AND CORRELATION COEFFICIENTS IN STUDY 1

## RESULTS

Descriptive statistics and correlations for all study variables are presented in Table 1. As can be seen in Table 2, none of the results was in accordance

with self-verification theory because none of the coefficients on self-ratings ( $X$  or  $X^2$ ) was significant ( $p > .05$ ). Feedback reactions were in line with predictions of self-enhancement theory for three out of four competencies. For *Coordinating*, *Information Management*, and *Problem Awareness* there were only significant positive coefficients on feedback scores ( $Y$  or  $Y^2$ ). This indicates that participants reacted favorably to positive feedback about their competencies, regardless of their initial self-ratings.

Competency	Quadratic regression						Moderated Regression	
	$X$	$Y$	$X^2$	$XY$	$Y^2$	$R^2$	$Fm$	$\Delta R^2$
Coordinating	.19	.56**	-.09	.00	-.05*	.60**	1.28	.03
Decisiveness	.01	.56**	.06	.08*	-.02	.71**	3.30	.05*
Information Management	-.02	.74**	.04	-.06	-.03	.71**	.45	.01
Problem Awareness	-.07	.70**	.00	.00	.00	.68**	.68	.01

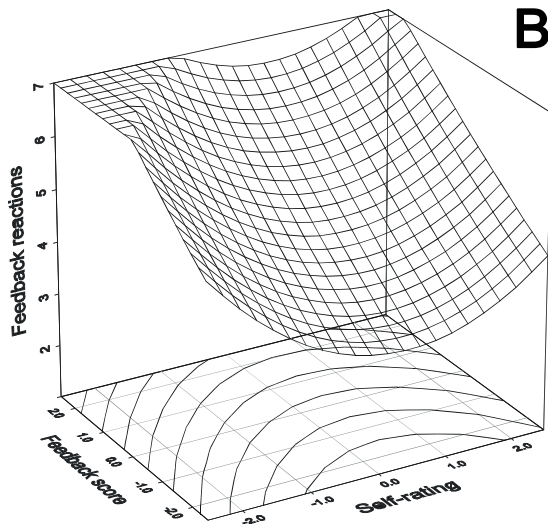
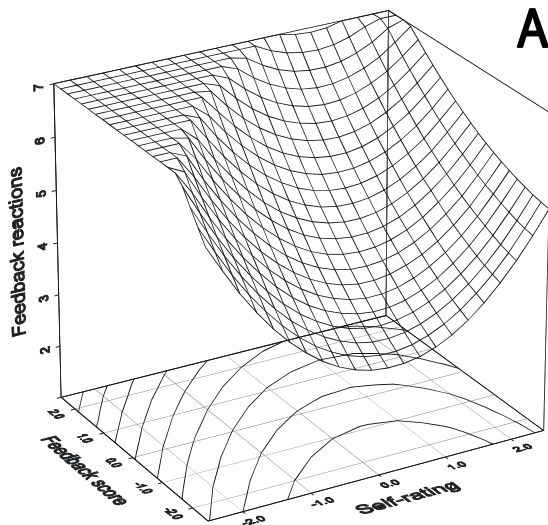
Note. Sample size is 99. For columns labeled  $X$ ,  $Y$ ,  $X^2$ ,  $XY$ , and  $Y^2$ , Table entries are unstandardized regression coefficients for equations with all predictors entered simultaneously ( $X$  = self-ratings,  $Y$  = feedback scores). The column labeled  $R^2$  indicates the variance explained by the predictors. The column labeled  $Fm$  contains  $F$ -ratios for the hierarchic test of the moderation terms ( $CX$ ,  $CY$ ,  $CX^2$ ,  $CXY$ ,  $CY^2$ ), controlling for the five quadratic terms and certainty ( $C$ ). The column  $\Delta R^2$  contains incremental variance explained by the five moderator terms. None of the higher-order terms was significant.  
\*  $p < .05$ . \*\*  $p < .01$ .

TABLE 2: RESULTS OF QUADRATIC REGRESSIONS OF FEEDBACK REACTIONS ON SELF-RATINGS AND FEEDBACK SCORES IN STUDY 1.

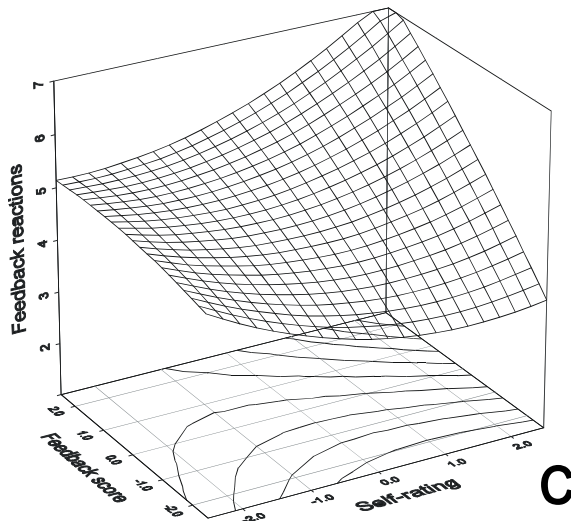
For *Decisiveness*, we found a significant interaction effect between self-ratings and feedback scores ( $XY$ ,  $p < .05$ ), indicating that self-ratings played a role in determining feedback reactions for this competency. Furthermore, hierarchical regression analyses revealed that these effects of feedback scores and self-ratings were moderated by self-view certainty for the competency *Decisiveness*. As can be seen in column  $\Delta R^2$  in Table 2, the additional set of moderator terms explained 5% variance above the original quadratic terms and the moderator variable. For interpretation of this moderation effect, we plotted estimated congruence surfaces for three levels of self-view certainty (Edwards, 1994; Edwards & Rothbard, 1999).

As can be seen in Figure 2-A, for low self-view certainty feedback reactions were highest when feedback scores were high and lower when feedback scores were low. This is in line with the self-enhancement perspective. People reacted favorably to positive feedback, regardless of self-ratings. When feedback scores were low, a curvilinear effect of self-ratings on feedback reactions could be observed. Apparently, people did not like to

receive very negative feedback about moderate self-ratings when certainty was low. The same self-enhancement pattern can be seen in Figure 2-B. When certainty was moderate, feedback reactions were highest when feedback scores were high and feedback reactions were lowest when



feedback scores were lowest. However, support for the self-verification perspective was found in Figure 2-C, when certainty was high. If we look along the line of congruence ( $X = Y$ ) in Figure 2-C, we see that feedback reactions were most favorable when self-ratings and feedback scores were high. The  $X=Y$  - line also slightly increased when both self-ratings and feedback scores were very low. If we look along the line of incongruence ( $X = -Y$ ), we see that feedback reactions were more unfavorable when self-ratings and feedback scores were incongruent than when they were congruent. The most



Note: For Reasons of Interpretability, Scale Points on X and Y Axis in Range from -2.5 to 2.5. 75% of Observations Fell in this Range

FIGURE 2: ESTIMATED SURFACES RELATING FEEDBACK – SELF-RATING CONGRUENCY TO FEEDBACK REACTIONS AT THREE LEVELS OF CERTAINTY FOR DECISIVENESS IN STUDY 1: (A) CERTAINTY LOW. (B) CERTAINTY MODERATE. (C) CERTAINTY HIGH

unfavorable feedback reactions could be observed when feedback scores were low and self-ratings were high. This pattern is consistent with predictions of self-verification theory. Thus, the hypothesis that feedback reactions are moderated by self-view certainty is supported for *Decisiveness*. For this competency, it seems that the self-verification motive gets stronger as certainty increases.

## STUDY 2

### METHOD

**Participants.** A total of 389 individuals (50% male, 50% female) completed the web-based in-basket. Only individuals that entirely completed the in-basket and all measures were included in the sample. Their ages ranged from 17 to 59 years ( $M = 31.1$  yrs,  $SD = 10.7$ ). The participants had an average working experience of 8.5 years ( $SD = 10.7$ ) in their company and an average experience of 3.1 years ( $SD = 4.9$ ) in their current position. 87%



held a bachelor's degree and 56% had earned an advanced or professional degree.

**Procedure.** The computerized in-basket exercise of Tett et al. (2003) was slightly modified to be able to provide immediate feedback to the participants. This was because the in-basket exercise was put on the website of a governmental service for employment and vocational training. The in-basket exercise was advertised as a preparation test for job applicants providing feedback about general managerial competencies. Upon completion of a short questionnaire measuring demographic variables, people received a password that gave immediate access to the exercise. On the basis of their responses to the in-basket, people received feedback about the same four competencies (*Coordinating, Decisiveness, Information Management, and Problem Awareness*) immediately after completing the in-basket. Feedback reports were similar to the reports used in Study 1.

**Measures.** The self-assessment questionnaire was the same as in Study 1. As dependent variables, we measured both feedback satisfaction and perceived utility of feedback. Because feedback satisfaction and feedback acceptance were highly correlated in Study 1, we used a different measure of cognitive feedback reactions in Study 2, namely feedback utility. Previous research has shown that affective reactions and utility judgments are independent from each other and have different outcomes (Alliger, Tannenbaum, Bennet, Traver, & Shotland, 1997; Keeping & Levy, 2000).

Feedback satisfaction was measured for each competency with two items adapted from Korsgaard (1995). The items used 7-point Likert-type response scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale included items such as, "I am satisfied with the score I received on [name competency]". Internal consistencies for this scale varied between .93 and .97 for the different competencies. Feedback utility was measured for each competency with two items on a 7-point scale adapted from Greller (1978). The scale included items as "The feedback I received on [name competency]

helped me learn how I can improve my performance.” Internal consistencies for this scale varied between .82 and .90 for the different competencies. Correlations between the two scales for each competency ranged from -.10 to .18. Exploratory factor analyses indicated that satisfaction and utility items clearly loaded on two different factors.

**Involvement.** As in Study 1, participants indicated that all four competencies were important to them ( $M = 7.25$ ,  $SD = 1.16$ ), illustrating that the participants of this study cared about their performance on the in-basket. A sub sample of 100 participants also completed an additional questionnaire measuring involvement with six items on a 7-point scale, with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale included items such as, “The background information we received was realistic”, “I was motivated to perform well on this exercise”, and “I carefully followed all instructions”. The mean for this scale was 5.80 ( $SD = 0.76$ ,  $\alpha = 0.78$ ), indicating that participants were highly involved.

**Analyses.** We used the same analytical approach as in Study 1. The sample size of the present study ( $N = 389$ ) had the statistical power of .80 ( $p = .05$ ) to detect a small effect size ( $f^2$ ) of .03 (which corresponds approximately to  $R^2$  of .03) for the quadratic difference regression. In addition, using the same alpha, we had a power of .80 to detect an increment in  $R^2$  of about .03 for the set of terms in the moderated regression equation. Analyses of the squared regression equations and the moderated regression equations for the two dependent variables were treated as separate families when correcting for Type I error (Edwards & Rothbard, 1999).

## RESULTS

Descriptive statistics and correlations for all study variables are presented in Table 3. As can be seen in Table 4, results for the competency *Information Management* were in line with self-enhancement theory. Only the coefficient on feedback scores was significant ( $p < .01$ ). This indicates that people were

satisfied with positive feedback about *Information Management*, regardless of self-ratings. For the other three competencies, both coefficients on feedback scores and self-ratings were significant and in opposite directions. We tested if coefficients on *X* and *Y* were equal in magnitude, but opposite in sign (see Edwards, 1994, 2002). Results showed that although coefficients on feedback scores and self-ratings had an opposite sign, the effects of feedback scores were greater in magnitude ( $p < .01$ ).

Measure	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
Coordinating																					
1. Self-rating	6.36	1.10																			
2. Certainty rating	6.41	1.43	.53																		
3. Feedback Score	6.09	.96	.10	.07																	
4. Feedback Satisfaction	3.46	1.64	-.12	-.03	.58																
5. Feedback Utility	5.50	1.30	.04	.07	.01	-.10															
Decisiveness																					
6. Self-rating	5.88	1.41	.44	.41	.03	-.04	-.03														
7. Certainty rating	6.41	1.39	.35	.61	.09	.02	.09	.44													
8. Feedback Score	6.11	1.02	.10	.08	.30	.08	.12	.06	.04												
9. Feedback Satisfaction	3.78	1.74	-.05	.00	.12	.37	.09	-.10	-.02	.61											
10. Feedback Utility	5.53	1.28	.04	.09	.00	-.06	.79	.03	.10	.18	.10										
Information Management																					
11. Self-rating	6.26	1.31	.32	.32	.05	.00	-.03	.21	.27	.00	-.08	.01									
12. Certainty rating	6.42	1.41	.33	.59	.11	.03	.04	.32	.60	.09	.01	.08	.52								
13. Feedback Score	6.97	.90	.02	.02	.14	.05	.14	-.01	.01	.03	-.01	.12	-.01	-.02							
14. Feedback Satisfaction	4.82	1.63	-.08	-.03	-.07	.21	.07	-.08	-.07	-.17	.11	.03	-.14	-.13	.58						
15. Feedback Utility	5.49	1.30	.03	.06	.01	-.03	.79	-.03	.09	.14	.09	.85	.01	.03	.17	.08					
Problem Awareness																					
16. Self-rating	6.50	1.19	.33	.35	.10	-.02	.09	.37	.28	.10	-.08	.07	.33	.31	.07	-.07	.07				
17. Certainty rating	6.44	1.32	.41	.66	.09	.01	.10	.36	.53	.06	-.02	.11	.29	.56	-.00	-.05	.09	.46			
18. Feedback Score	7.32	.84	.04	-.01	.17	-.02	.15	.03	-.01	.17	-.01	.15	.02	.03	.26	.04	.18	.11	.07		
19. Feedback Satisfaction	5.27	1.50	-.10	-.09	-.06	.12	.13	-.09	-.10	-.06	.16	.10	-.06	-.11	.19	.36	.13	-.10	-.06	.59	
20. Feedback Utility	5.52	1.30	-.01	.05	-.02	-.05	.79	-.02	.09	.15	.10	.84	.04	.06	.09	.03	.87	.06	.07	.18	.15

Note. N = 389. Correlations greater than or equal to .10 were statistically significant ( $p < .05$ )

TABLE 3: DESCRIPTIVE STATISTICS AND CORRELATION COEFFICIENTS IN STUDY 2

Competency	Quadratic regression						Moderated Regression	
	X	Y	X <sup>2</sup>	XY	Y <sup>2</sup>	R <sup>2</sup>	F <sub>m</sub>	ΔR <sup>2</sup>
Coordinating	-.27**	.85**	.00	.00	.15**	.38**	.95	.01
Decisiveness	-.22**	.98**	.02	.05	.03	.40**	1.16	.01
Information Management	-.18	1.08**	-.02	.03	-.02	.36**	.26	.00
Problem Awareness	-.29*	1.36**	-.03	.08	-.10	.38**	2.01	.02

Note. Sample size is 389. For columns labeled X, Y, X<sup>2</sup>, XY, and Y<sup>2</sup>, Table entries are unstandardized regression coefficients for equations with all predictors entered simultaneously (X = self-ratings, Y = feedback scores). The column labeled R<sup>2</sup> indicates the variance explained by the predictors. The column labeled F<sub>m</sub> contains F-ratios for the hierarchic test of the moderation terms (CX, CY, CX<sup>2</sup>, CXY, CY<sup>2</sup>), controlling for the five quadratic terms and certainty (C). The column ΔR<sup>2</sup> contains incremental variance explained by the five moderator terms. None of the higher-order terms was significant. \* $p < .05$ . \*\* $p < .01$ .

TABLE 4: RESULTS OF QUADRATIC REGRESSIONS OF FEEDBACK SATISFACTION ON SELF-RATINGS AND FEEDBACK SCORES IN STUDY 2

The combined effects of feedback scores and self-ratings on feedback satisfaction for the competency *Coordinating* are depicted in Figure 3. Figure 3 shows that feedback scores were more dominant in determining feedback satisfaction than self-ratings. As can be seen in column *Fm* in Table 4, self-view certainty did not moderate the relationship between feedback – self-rating congruence and feedback satisfaction for any of the four competencies.

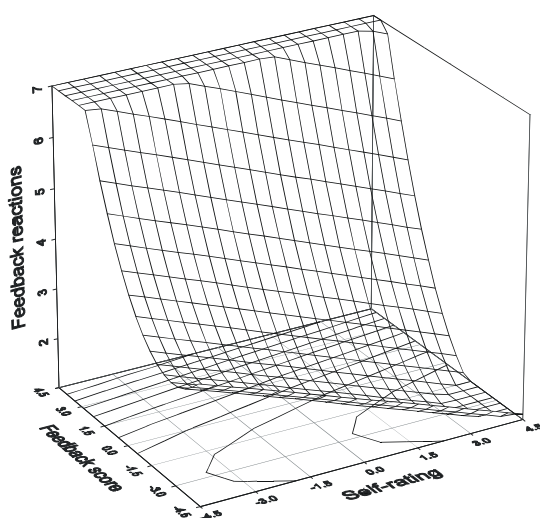


FIGURE 3: ESTIMATED SURFACE RELATING FEEDBACK – SELF-RATING CONGRUENCY TO FEEDBACK SATISFACTION FOR COORDINATING IN STUDY 2

Results of the analyses with perceived utility of feedback as a dependent variable show that the equation for the competency *Decisiveness* was in line with predictions of self-enhancement theory. As can be seen in Table 5, there was a significant positive coefficient on feedback scores. However, as hypothesized, this main effect of feedback scores was moderated by self-view certainty.

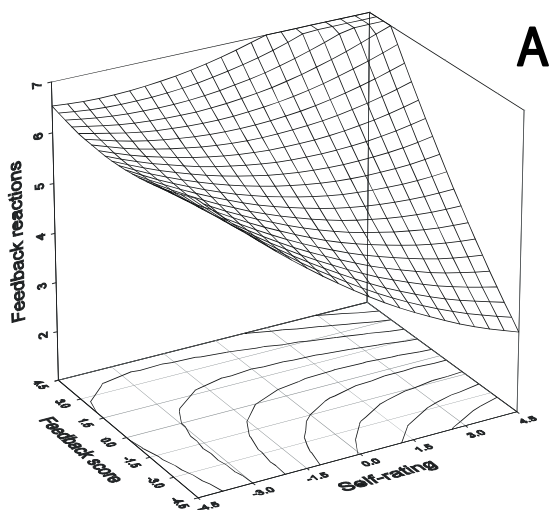
Competency	Quadratic regression					$R^2$	Moderated Regression	
	X	Y	$X^2$	XY	$Y^2$		<i>Fm</i>	$\Delta R^2$
Coordinating	.03	.03	.00	.02	-.03	.00	1.17	.02
Decisiveness	.05	.16*	-.01	-.05	.07	.04**	3.49**	.04
Information Management	.16	.01	-.03	-.08	.10	.04**	1.79	.02
Problem Awareness	.10	.35	.05	-.08	-.00	.04**	2.19	.03

Note. Sample size is 389. For columns labeled X, Y,  $X^2$ , XY, and  $Y^2$ , Table entries are unstandardized regression coefficients for equations with all predictors entered simultaneously (X = self-ratings, Y = feedback scores). The column labeled  $R^2$  indicates the variance explained by the predictors. The column labeled *Fm* contains *F*-ratios for the hierarchic test of the moderation terms ( $CX$ ,  $CY$ ,  $CX^2$ ,  $CXY$ ,  $CY^2$ ), controlling for the five quadratic terms and certainty (*C*). The column  $\Delta R^2$  contains incremental variance explained by the five moderator terms. None of the higher-order terms was significant.  
\*  $p < .05$ . \*\*  $p < .01$ .

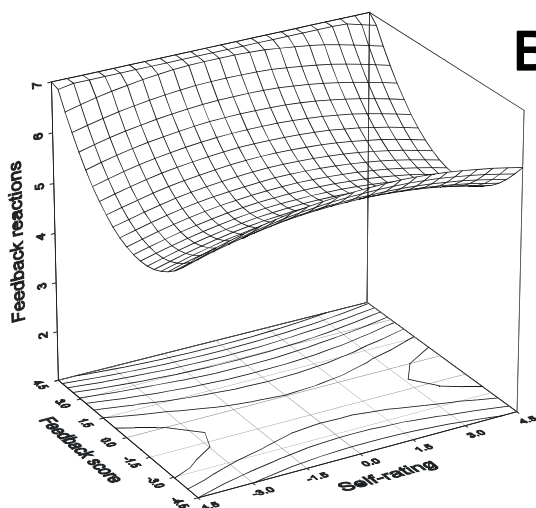
TABLE 5: RESULTS OF QUADRATIC REGRESSIONS OF FEEDBACK UTILITY ON SELF-RATINGS AND FEEDBACK SCORES IN STUDY 2.

As can be seen in column *Fm* in Table 5, the additional set of moderator terms explained an additional variance of 4% ( $p < .05$ ) when controlling for the quadratic terms and certainty.

If we look along the line of congruence ( $X = Y$ ) in Figure 4-A (low certainty), we see a curvilinear relationship indicating that feedback utility was most favorable when self-ratings and feedback scores were congruent at their extremes. This is in line with self-verification theory. However, if we

**A**

look along the  $X = -Y$  line, we see that feedback utility increased as feedback scores got higher and self-ratings got lower. This is more in line with self-enhancement theory. If we look at Figure 4-B (moderate certainty), we see a curvilinear relationship between feedback scores and feedback utility, independent of self-ratings. This indicates that people intent to use feedback about *Decisiveness* in the future when scores were very high or very low, regardless of self-ratings. This effect was even more pronounced when certainty was high (Figure 4-C). Thus, although the

**B**

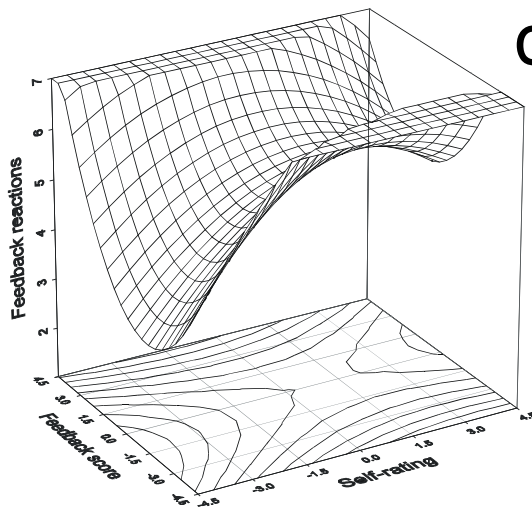


FIGURE 4: ESTIMATED SURFACES RELATING FEEDBACK – SELF-RATING CONGRUENCY TO FEEDBACK UTILITY AT THREE LEVELS OF CERTAINTY FOR DECISIVENESS IN STUDY 2: (A) CERTAINTY LOW. (B) CERTAINTY MODERATE. (C) CERTAINTY HIGH.

relationship between feedback score – self-rating congruency and feedback utility was moderated by self-view certainty, the observed effect was not in the hypothesized direction.

For the three other competencies, none of the theoretical perspectives was supported with feedback utility as a dependent variable.

Although a significant

amount of variance was explained ( $p < .01$ ), none of the coefficients reached significance.

## GENERAL DISCUSSION

The aim of this study was to clarify mixed results from previous research concerning feedback reactions. Two competing perspectives in social psychology, self-enhancement and self-verification theory, served as conceptual underpinnings of this study. Our basic premise was that none of them was dominant in guiding feedback reactions. Instead, we hypothesized that self-view certainty would serve as a moderator and would strengthen the relationship between feedback – self-rating congruency and feedback reactions.

We tested this idea in both a lab study and a field study, using a stringent analytical procedure recommended by Edwards (1994). This procedure was

especially suited to examine our hypothesis because it enabled us to test if feedback reactions were based on a two-step appraisal versus a one-step appraisal of the feedback. If both components (i.e. feedback scores and self-ratings) accounted for an equal amount of variance, feedback reactions were characterized by a two step-appraisal and self-verification theory was supported. When only one component (feedback scores) was significant, feedback reactions were characterized by a one-step appraisal and self-enhancement theory was supported.

Results of Study 1 showed strong support for self-enhancement theory, as people reacted favorably to positive feedback, regardless of self-ratings. Only one component (feedback scores) accounted for all variance in feedback reactions. Self-view certainty moderated feedback reactions for the competency *Decisiveness*. As hypothesized, feedback reactions were more in line with predictions of self-enhancement theory when certainty was low and were more in line with predictions of self-verification theory when certainty was high.

In Study 2, we also found that people perceived greater utility of feedback when feedback scores were high, regardless of self-ratings, for the competency *Decisiveness*. This effect was also moderated by self-view certainty, although the effect was not in the predicted direction. Different results were observed for feedback satisfaction as a dependent variable in study 2. For three competencies both components (feedback scores and self-ratings) accounted for a significant amount of variance, indicating that feedback satisfaction was determined by a two-step appraisal of feedback. This seems to be in line with predictions of self-verification theory. However, self-verification theory also predicts that both opposite effects are equally strong. This was not the case. Feedback scores were stronger in predicting feedback satisfaction, indicating that self-enhancement strivings were also more dominant than self-verification strivings in guiding feedback satisfaction in Study 2. The notion that both motives influence feedback satisfaction at the same time is consistent with recent findings in social

psychology that people often try to satisfy self-enhancement and self-verification motives at the same time when processing feedback (Bernichon et al., 2003; Sedikides, 1993; Swann et al., 1989). Certainty of self-ratings did not moderate feedback satisfaction in Study 2.

Thus, self-enhancement strivings were dominant in both studies, although support was found for a two-step appraisal of feedback in Study 2. One possible explanation for the divergent findings in Study 1 and Study 2 is the two-week time interval between the self-ratings and the feedback report in Study 1. People are probably more likely to react to information they have just received (the feedback report) as compared to self-ratings they have provided two weeks ago. In study 2, people received immediate feedback about their competencies. This suggests that when people receive instant feedback upon their performance a two-step appraisal of feedback, with attention for both feedback scores and self-ratings, determines feedback satisfaction although self-enhancement strivings remain predominant.

In general, very little evidence was found for self-verification as a motive guiding feedback reactions. Furthermore, it seems that certainty does not play a key role as a moderator of feedback reactions and thus, does not strengthen the self-verification motive. This is rather surprising given previous findings in social psychological research that people tend to seek and accept information that is consistent with central self-views across a wide range of contexts (Dauenheimer et al., 1999; Dutton & Brown, 2003; Markus, 1977; Stahlberg, Petersen, & Dauenheimer, 1999) and that certainty serves as a moderator of the self-verification motive (Bui & Pelham, 2000; Chen et al., 2004; Pelham & Swann, 1994; Seta, Donaldson, & Seta, 1999; Swann & Pelham, 2002).

Why is there only evidence for self-enhancement in organizational psychology? Or to put it differently, why is no support found for self-verification in organizational psychology? Several explanations seem plausible. First, careful inspection of the literature shows that no research



using congruence analyses (Edwards, 1994) has examined self-verification theory. The results of the present study illustrate the importance of using this stringent regression procedure: If we used an algebraic difference score (e.g., Sweeney & Wells, 1990) as a dependent variable, results showed that the algebraic difference was a significant predictor ( $p < .01$ ) of feedback reactions in both studies. This would have led us wrongfully to conclude that self-verification theory was supported in all analyses. Also, more recent research supporting self-verification theory continues to use difference scores (e.g., Polzer, Milton, & Swann, 2002). It is possible that many alleged self-verification effects in the literature conceal unequal effects in magnitude of the different components.

Second, consistency effects are not easily obtained or replicated (Cialdini, Trost, & Newsom, 1995). Therefore, researchers have often used specific strategies to make self-verification strivings more pronounced. For instance, self-verification effects have been observed when an oversampling strategy was used by only selecting subjects that scored in the top and bottom quartiles of an independent variable (e.g., Bosson & Swann, 1999; Giesler, Josephs, & Swann, 1996) or when dependent variables were made more extreme by multiplying self-ratings with certainty and importance ratings (e.g., Korsgaard, 1995; Stahlberg et al., 1999)<sup>6</sup>. Although these studies provide important insights in the underlying mechanisms and consequences of the self-verification motive, the present study suggests that self-verification strivings are maybe not that dominant in a natural context.

A third possible explanation is the task that is used to provide feedback to participants. Studies in social psychology that support the self-verification perspective on feedback reactions typically use laboratory tasks such as

---

<sup>6</sup> Research has shown that extremity, certainty, and importance of self-ratings reflect different constructs and have different cognitive and behavioral consequences (Krosnick et al., 1993; Pelham, 1991; Visser, Krosnick, & Simmons, 2003). Thus, it is not advisable to combine these three constructs in one measure.

anagrams, block designs, and concept formation (e.g., Jussim et al., 1995; Stahlberg et al., 1999). In organizational research which supports the self-enhancement motive, employees received feedback about job performance (e.g., Brett & Atwater, 2001; Illies et al., submitted). As shown by Jones (1973), self-verification effects are less likely (as opposed to self-enhancement effects) to occur when people are highly involved and care about their task performance. Thus, it is possible that self-enhancement is more dominant in guiding feedback reactions in a natural work context.

This study is not without limitations. First, both self-ratings and certainty ratings were self-report one-item measures which possibly threatens the reliability of these self-ratings. However, in this online setting it was practically not feasible to use extensive questionnaires to measure self-views because participants would not proceed with the in-basket when the preceding questionnaire was too long. However, future research could use other measures of self-view certainty for instance by marking uncertainty intervals graphically (Baumgardner, 1993) or by measuring reaction times (Molden & Higgins, 2004). Second, moderator effects in multiple regression are often small and difficult to detect due to power problems (Aguinis, Beaty, Boik, & Pierce, in press; McClelland & Judd, 1993; Zedeck, 1970). In Study 1, we had adequate power to detect medium effect sizes. However, we lacked statistical power to detect small increases in effect size. This could explain why only one moderator effect was found. However, in Study 2 we had statistical power to detect small effect sizes and still only one moderating effect was observed. Third, due to the online research setting, we had no control on self-selection and participant dropout in Study 2. Therefore, future research should examine whether these findings generalize to specific populations.

This study has important implications for organizations. The procedure corresponds closely to the use of self-assessment instruments that often precede the actual development process. For instance, as part of a development program, employees are asked to complete self-assessment

questionnaires or to participate in a development center or a 360-degree feedback process. After going through the assessment process, people receive a feedback report with narrative and quantitative feedback on several managerial competences, as did the participants in this study. Our results suggest that people who receive negative feedback and thus, are most in need of improvement and development, tend to be dissatisfied and reject feedback because it appears inaccurate. Thus, after receiving negative feedback, chances are high that these below-average employees will be no longer motivated to develop their competences, which is detrimental for their future performance. Therefore, practitioners should seek for strategies to increase acceptance of negative feedback. An example of such a strategy is the use of feedback coaches and feedback workshops that assist people in analyzing feedback reports and formulating development plans. Recent research shows that managers who participated in a feedback workshop after multi-source feedback changed their behavior accordingly, whereas managers who only received a feedback report did not (Seifert, Yukl, & McDonald, 2003).

In terms of future research, the problem of acceptance of negative feedback is an important and potentially fruitful area of research. Future research should examine specific strategies that organizations might adopt to increase acceptance of negative feedback. Especially elaboration of feedback seems to be a promising variable for designing specific acceptance strategies. Social psychological research shows that self-enhancement prevails when people lack the time and cognitive resources to analyze the obtained feedback. However, when people are motivated or requested to actively process and elaborate feedback, self-enhancement strivings go down, possibly leading to higher levels of feedback acceptance (Hixon & Swann, 1993; Paulhus, Graf, & Van Selst, 1989; Swann, Hixton, Stein-Seroussi, & Gilbert, 1990). Future research should also investigate if an emphasis on the developmental nature of feedback leads to higher feedback acceptance. For instance, it is possible that acceptance of negative feedback in developmental assessment centers is higher because of the developmental nature of the

feedback process. Finally, future studies should also pay attention to possible determinants of perceived utility of feedback. The results of this study indicate that very little variance (about 4 %) in feedback utility is explained by feedback scores and self-ratings. As feedback utility perceptions about the different competencies were highly correlated, it is possible that individual difference variables (e.g., learning goal orientation, openness to experience) underlie these utility perceptions.

In sum, our findings suggest that feedback reactions are dominated by self-enhancement strivings and that self-verification strivings are less prominent. Support for the role of self-view certainty as a moderator of the self-enhancement and self-verification motives in feedback reactions was found for the competency *Decisiveness*. The general finding that people seem to be dissatisfied after receiving negative feedback and tend to reject unfavorable feedback shows that the study of feedback reactions continues to be an important and fruitful avenue for future research.

## REFERENCES

- Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (in press). Effects size and power in assessing moderating effects of categorical variables using multiple regression: A 30-year review. *Journal of Applied Psychology*.
- Alliger, G. M., Tannenbaum, S. I., Bennet, W., Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel Psychology, 50*, 341-358.
- Ashford, S. J., & Tsui, A. S. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. *Academy of Management Journal, 34*, 251-280.
- Bauer, T. N., Maertz, C. P., Dolen, M. R., & Campion, M. A. (1998). Longitudinal assessment of applicant reactions to employment testing and test outcome feedback. *Journal of Applied Psychology, 83*, 892-903.
- Bannister, B. D. (1986). Performance outcome feedback and attributional feedback: Interactive effects on recipient responses. *Journal of Applied Psychology, 71*, 203-210.
- Baumgardner, A. H. (1990). To know oneself is to like oneself: Self-certainty and self-affect. *Journal of Personality and Social Psychology, 58*, 1062-1072.
- Bernichon, T., Cook, K., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology, 84*, 194-204.
- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology, 86*, 930-942.
- Bui, K. V. T., & Pelham, B. W. (1999). Cognitive and affective reactions to social comparison. *Journal of Social Behavior and Personality, 14*, 569-583.
- Cawley, B.D., Keeping, L.M., & Levy, P.E. (1998). Participation in the performance appraisal process and employee reactions: A meta-analytic review of field investigations. *Journal of Applied Psychology, 83*, 615-633.
- Cialdini, R. B., Trost, M. R., & Newsom, J. T. (1995). Preference for consistency : The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology, 69*, 318-328.
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self-definition. *Journal of Personality and Social Psychology, 86*, 77-94.

- Dauenheimer, D., Stahlberg, D., & Petersen, L.-E. (1999). Self-discrepancy and elaboration of self-conceptions as factors influencing reactions to feedback. *European Journal of Social Psychology, 29*, 725-739.
- Dutton, K. A., & Brown, J. D. (2003). Global self-esteem and specific self-views as determinants of people's reaction to success and failure. *Journal of Personality and Social Psychology, 73*, 139-148.
- Edwards, J. R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes, 58*, 51-100.
- Edwards, J. R. (2002). Alternatives to difference scores: Polynomial regression analysis and response surface methodology. In F. Drasgow & N. Schmitt (Eds.), *Measuring and analyzing behavior in organizations: Advances in measurement and data analysis* (pp. 350-400). San Francisco, CA: Jossey-Bass/Pfeiffer.
- Edwards, J. R., & Rothbard, N. P. (1999). Work and family stress and well-being: An examination of person-environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes, 77*, 85-129.
- Facteau, C. L., Facteau, J. D., Schoel, L. C., Russel, J. E. A., & Poteet, M. L. (1998). Reactions of leaders to 360-degree feedback from subordinates and peers. *Leadership Quarterly, 9*, 427-448.
- Greller, M. M. (1978). Nature of subordinate participation in appraisal interview. *Academy of Management Journal, 21*, 646-658.
- Halperin, K., Snyder, C. R., Shenkel, R. J., & Houston, B. K. (1976). Effects of source status and message favorability on acceptance of personality feedback. *Journal of Applied Psychology, 61*, 85-88.
- Hixon, J. G., & Swann, W. B. (1993). When does introspection bear fruit? Self-reflection, self-insight, and interpersonal choices. *Journal of Personality and Social Psychology, 64*, 35-43.
- Ilgen, D. R., & Davis, C. A. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology: An International Review, 49*, 550-565.
- Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.
- Illies, R., De Pater, I.E., & Judge, T. A. (submitted). Affective reactions to performance feedback: The role of self-esteem. *Journal of Applied Social Psychology*.
- Jones, R. G., & Whitmore, M. D. (1995). Evaluating developmental assessment centers as interventions. *Personnel Psychology, 48*, 377-388.

- Jones, S. C. (1973). Self – and interpersonal evaluations: Esteem theories versus consistency theories. *Psychological Bulletin*, 79, 185-199.
- Jussim, L., Yen, H., & Aiello, J. R. (1995). Self-consistency, self-enhancement, and accuracy in reactions to feedback. *Journal of Experimental Social Psychology*, 31, 322-356.
- Keeping, L. M., & Levy, P. E. (2000). Performance appraisal reactions: Measurement, modeling, and method bias. *Journal of Applied Psychology*, 85, 708-723.
- Kernan, M. C., & Lord, R. G. (1990). Effects of valence, expectancies, and goal-performance discrepancies in single and multiple goal environments. *Journal of Applied Psychology*, 75, 194-203.
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119, 254-284.
- Korsgaard, M. A. (1996). The impact of self-appraisals on reactions to feedback from others: The role of self-enhancement and self-consistency concerns. *Journal of Organizational Behavior*, 17, 301-311.
- Krosnick, J. A., Boninger, D. S., Yuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology*, 65, 1132-1151.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63-78.
- McClelland, G.H., & Judd, C.M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114, 376-390.
- Molden, D. C., & Higgins, E. T. (2004). Categorization under uncertainty: Resolving vagueness and ambiguity with eager versus vigilant strategies. *Social Cognition*, 22, 248-277.
- Moreland, R. L., & Sweeney, P. D. (1984). Self-expectancies and reactions to evaluations of personal performance. *Journal of Personality*, 52, 156-176.
- Nease, A. A., Mudgett, B. O., & Quinones, M. A. (1999). Relationships among feedback sign, self-efficacy, and acceptance of performance feedback. *Journal of Applied Psychology*, 84, 806-814.
- Paulhus, D., Graf, P., & Van Selst, M. (1989). Attentional load increases the positivity of self-presentation. *Social Cognition*, 7, 389-400.
- Pelham, B. W., & Swann, W. B. (1989). From self-conceptions to self-worth: The sources and structure of self-esteem. *Journal of Personality and Social Psychology*, 57, 672-680.

- Pelham, B. W. (1991). On confidence and consequence: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology*, *60*, 518-530.
- Pelham, B. W., & Swann, W. B. (1994). The juncture of intrapersonal and interpersonal knowledge : Self-certainty and interpersonal congruence. *Personality and Social Psychology Bulletin*, *20*, 349-357.
- Polzer, J. T., Milton, L., & Swann, W. B. (2002). Capitalizing on diversity: Interpersonal congruence in small work groups. *Administrative Science Quarterly*, *47*, 296-324.
- Ryan, A. M., Brutus, S., Greguras, G., & Hakel, M. D. (2000). Receptivity to assessment-based feedback for management development. *Journal of Management Development*, *19*, 252-276.
- Seaman, M. A., Levin, J. R., & Serlin, R. C. (1991). New developments in pairwise multiple comparisons: Some powerful and practical procedures. *Psychological Bulletin*, *110*, 577-586.
- Sedikides, C., & Strube, M. J. (1995). The multiply motivated self. *Personality and Social Psychology Bulletin*, *21*, 1330-1335.
- Sedikides, C., & Strube, M. J. (1997). Self-evaluation: To thine own self be good, to thine own self be sure, to thine own self be true, and to thine own self be better. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 29, pp.209-269). New York: Academic Press.
- Seifert, C. F., Yukl, G., & McDonald, R. A. (2003). Effects of multisource feedback and a feedback facilitator on the influence behavior of managers toward subordinates. *Journal of Applied Psychology*, *3*, 561-569.
- Seta, J. J., Donaldson, S., & Seta, C. E. (1999). Self-relevance as a moderator of self-enhancement and self-verification. *Journal of Research in Personality*, *33*, 442-462.
- Shrauger, J. S. (1975). Responses to evaluation as a function of initial self-perceptions. *Psychological Bulletin*, *82*, 581-596.
- Smither, J. W., Wohlers, A. J., & London, M. (1995). A field study of reactions to normative versus individualized upward feedback. *Group and Organization Management*, *20*, 61-89.
- Sorrentino, R. M., Bobocel, D. R., Gitta, M. Z., & Olson, J. M. (1988). Uncertainty orientation and persuasion: Individual differences in the effects of personal relevance on social judgments. *Journal of Personality and Social Psychology*, *55*, 357-371.



- Stahlberg, D., Petersen, L.-E., & Dauenheimer, D. (1999). Preferences for and evaluation of self-relevant information depending on the elaboration of the self-schemata involved. *European Journal of Social Psychology, 29*, 489-502.
- Stone, D. L., & Stone, E. F. (1985). The effects of feedback consistency and feedback favorability on self-perceived task competence and perceived feedback accuracy. *Organizational Behavior and Human Decision Processes, 36*, 167-185.
- Swann, W. B., & Ely, R. J. (1984). A battle of wills: Self-verification versus behavioral confirmation. *Journal of Personality and Social Psychology, 46*, 1287-1302.
- Swann, W. B., Hixon, G., Stein-Seroussi, A., & Gilbert, D. T. (1990). The fleeting gleam of praise: Behavioral reactions to self-relevant feedback. *Journal of Personality and Social Psychology, 59*, 17-26.
- Swann, W. B., & Pelham, B. W. (2002). Who wants out when the going gets good? Psychological investment and preference for self-verifying college roommates. *Self and Identity, 1*, 219-233.
- Swann, W. B., Pelham, B. W., & Chidester, T. (1988). Change through paradox: Using self-verification to alter beliefs. *Journal of Personality and Social Psychology, 54*, 268-273.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth? Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology, 57*, 782-791.
- Swann, W. B., Rentfrow, P. J., & Guinn, J. (2002). Self-verification: The search for coherence. In M. Leary and J. Tagney (Eds.), *Handbook of self and identity* (pp. 367-383). New York: Guilford Press.
- Swann, W. B., & Schroeder, D. G. (1995). The search for beauty and truth: A framework for understanding reactions to evaluations. *Personality and Social Psychology Bulletin, 21*, 1307-1318.
- Swann, W. B., Stein-Seroussi, A., & Giesler, R. B. (1992). Why people self-verify. *Journal of Personality and Social Psychology, 62*, 393-401.
- Swann, W. B., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). Allure of negative feedback: Self-verification strivings among depressed persons. *Journal of Abnormal Psychology, 101*, 293-306.
- Sweeney, P. D. and Wells, L. E. (1990). Reactions to feedback about performance: A test of three competing models. *Journal of Applied Social Psychology, 20*, 818-834.
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human Performance, 12*, 232-251.

- Tett, R. P., Menard, D., Guterman, H., & Beauregard, R. S. (2001). *Challenges in computerizing work sample measures: Testing the equivalence of an in-basket exercise*. Paper presented at the 16th conference of the Society for Industrial and Organizational Psychology, San Diego.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior, 24*, 335-356.
- Tonidandel, S., Quiñones, M. A., & Adams, A. A. (2002). Computer-adaptive testing: The impact of test characteristics on perceived performance and test takers' reactions. *Journal of Applied Psychology, 87*, 320-332.
- Ungar, S. (1980). The effects of the certainty of self-perceptions on self-presentation behaviors: A test of the strength of self-enhancement motives. *Social Psychology Quarterly, 43*, 165-172.
- Vance, R. J., & Colella, A. (1990). Effects of two types of feedback on goal acceptance and personal goals. *Journal of Applied Psychology, 75*, 68-76.
- Visser, P., Krosnick, J. A., & Simmons, J. P. (2003). Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis. *Journal of Experimental Social Psychology, 39*, 118-141.
- Zedeck, S. (1971). Problems with the use of "moderator" variables. *Psychological Bulletin, 76*, 295-310.

**CHAPTER 5**  
**DOES ELABORATION OF FEEDBACK ENHANCE THE**  
**FEEDBACK – TASK PERFORMANCE RELATIONSHIP?**

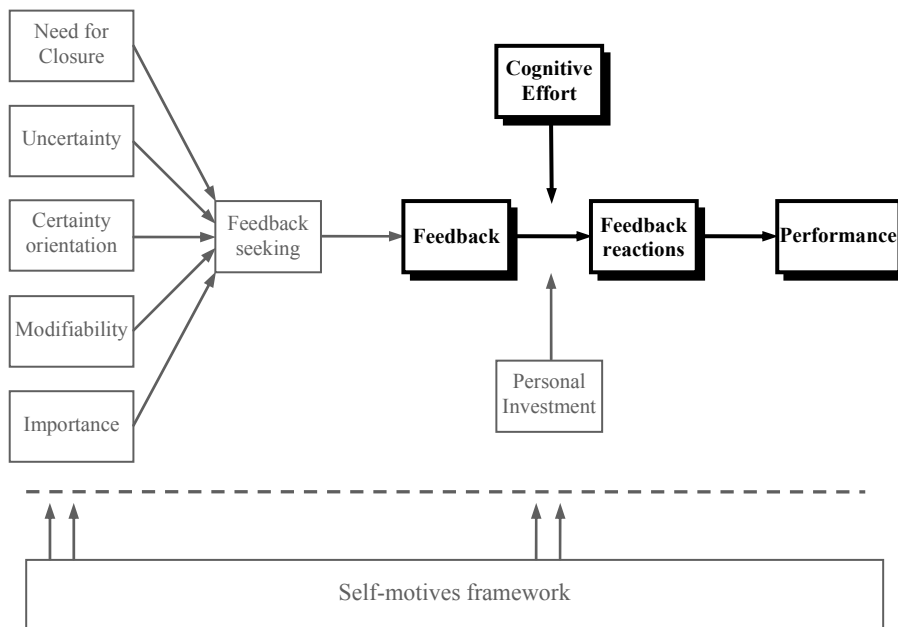


FIGURE 1: CHAPTER 5 SITUATED IN THE WORKING MODEL OF THIS DISSERTATION

### **ABSTRACT**

The current study investigated the impact of requiring individuals to elaborate on feedback messages on task performance. This strategy for enhancing feedback interventions in organizations was grounded in recent dual-process models in cognitive and social psychology, suggesting that thoughtful information-processing leads to stronger learning effects. Results in both a student and an employee sample showed that mean performance on a web-based in basket improved more when participants elaborated on feedback as compared to when feedback was not elaborated upon. These findings point to the importance of effortful cognitive processing of feedback and suggest several practical strategies for enhancing feedback interventions in organizations.

### **INTRODUCTION**

Few beliefs in organizations are so widespread as the assumption that giving feedback to employees is beneficial for individual and organizational performance. Feedback is believed to direct, motivate, and reward behavior in organizations (London, 2003). Therefore, providing feedback to employees lies at the heart of a wide range of costly performance management tools in organizations (e.g., performance appraisal, assessment and development centers, 360-degree feedback, computerized assessment, coaching, and training).

Contrary to these common sense beliefs, a meta-analytic review of the feedback literature revealed that feedback interventions do not produce unequivocal positive effects on performance (Kluger & DeNisi, 1996). Feedback interventions improved performance on average, but over one third of feedback interventions decreased performance (see also Alvero, Bucklin, & Austin, 2001; Balcazar, Hopkins, & Suarez, 1985). Furthermore,

results showed that there is no general principle that can predict the effectiveness of feedback interventions (Kluger & DeNisi, 1996, 1998). One of the main conclusions of the meta-analysis was that the major culprit of these troubling findings was the lack of solid theoretical underpinnings to guide feedback interventions.

So far, no research has looked at dual-process models in the broader psychological literature to examine strategies for enhancing feedback interventions. However, as noted by Fedor (1991), these cognitive processing models bear specific relevance to the feedback process, as they suggest that different modes of information-processing might determine other cognitive, attitudinal and behavioral outcomes (e.g., Stanovich & West, 2000; Petty & Cacioppo, 1990). Drawing on these dual-process theories, we propose a new strategy to improve feedback interventions in organizational settings. More specifically, the aim of this study was to examine if requiring employees to elaborate on feedback messages might enhance the effects of feedback on performance. In the remainder, we discuss recent findings about the feedback - performance relationship and introduce the theoretical and practical basis of the proposed strategy.

## **BACKGROUND**

### **RECENT RESEARCH ON THE FEEDBACK-PERFORMANCE RELATIONSHIP**

Since the seminal article of Kluger and DeNisi (1996), several new research streams examining the feedback – performance relationship have emerged. These new research perspectives have paid less attention to external factors that might be used to enhance feedback interventions, but instead, have attributed a more prominent role to the feedback recipient in the feedback process.

One stream of feedback research has acknowledged that employees do not passively wait for feedback, but that feedback interventions can be initiated by employees themselves by actively seeking performance feedback in order to reduce uncertainty and improve performance (Ashford, Blatt, & Vandewalle, 2003; Morrison, 2002). In this line of work, it is hypothesized that employee feedback-seeking will lead to improved job performance. Whereas some studies supported this hypothesis (Morrison & Weldon, 1990; Renn & Fedor, 2001), other studies failed to support it (Ang, Cummings, Straub, & Early, 1993; Ashford & Black, 1996) or even reported a negative relationship between feedback-seeking and performance (Brown, Challagalla, & Ganesan, 2001; Fedor, Rensvold, & Adams, 1992).

A second research stream did not longer look at single feedback interventions, but started examining the feedback environment, which is conceptualized as a continually changing dynamic system that is shaped by the actions of the feedback recipient (Herold & Fedor, 1998; Steelman, Levy, & Snell, 2004). Studies found that individuals' perceptions of the feedback environment were positively related to contextual performance (Norris-Watts & Levy, 2004) and to job performance (Becker & Klimoski, 1989).

A third research stream paid specific attention to how employees actively evaluate the veracity and utility of the feedback message, and decide to respond to the feedback message (Brett & Atwater, 2001; Fedor, Davis, Maslyn, & Mathieson, 2001; Lam, Yik, & Schaubroeck, 2002). One recent study showed that a set of cognitive responses (e.g., perceived accuracy, desire to respond, and intended response) completely mediated the relationship between an employee's receipt of feedback after a performance appraisal and job performance one year later (Kinicki, Prussia, Wu, & McKee-Ryan, 2004).

Whereas these three recent research streams certainly improved our understanding of the active role of the feedback recipient throughout the

various stages of the feedback process, they have not provided much information to practitioners regarding how feedback interventions might be enhanced to improve individual and organizational performance. In this study, a practical strategy to enhance the effects of feedback interventions on performance in organizations is proposed. We hypothesize that requiring people to elaborate on the feedback messages they receive, might improve task performance. This easily applicable and cost-effective strategy was prompted by insights from dual-process models in cognitive and social psychology, suggesting that thoughtful information-processing might lead to stable, and long-lasting learning effects.

#### **THEORETICAL BASIS OF ELABORATION**

When people perform tasks as diverse as solving logical problems, evaluating persuasive arguments, and forming impressions of other persons, they can make use of different processing strategies. People can (and in everyday life often do so) use a sort of “quick-and-dirty” approach, arriving at usually reasonable answers efficiently and effortlessly. People also, when given enough time and freedom from distraction, can try hard to think deeply about these tasks, sometimes arriving at qualitatively different answers.

These kind of *dual-process models* have been developed in numerous areas of cognitive (Sloman, 1996) and social psychology (Chaiken & Trope, 1999). An early and well-known rendition of such a model in cognitive psychology is the *levels of processing* or *depth of processing* framework ( Craik & Lockhart, 1972; see also Craik, 2002), wherein it is proposed that stimuli, which receive only incidental attention, are only processed to a very “shallow” level in memory. Other stimuli are subjected to more intentional and meaningful processing. This deeper processing elaborates the representation of that information in memory by drawing relationships

between already-known information and the information that is currently processed, leading to better storage of the information in memory.

Dual-process models in social psychology have been especially influential in the field of persuasion and attitude change. For instance, the Chaiken model (Chaiken, 1980, see also the Elaboration Likelihood Model, Petty & Cacioppo, 1986) assumes that two types of processing are possible. *Heuristic* processing is said to involve the use of simple, well-learned, and readily accessible decision rules like “experts are always right,” “the majority is correct,” or “statistics don’t lie.” However, under certain conditions, people go beyond heuristic processing and perform systematic processing. This involves the active, elaborate, and effortful scrutiny of all relevant information and therefore demands considerable cognitive capacity. A wealth of studies has shown that attitudes formed or changed as a result of effortful thinking are more predictive of behavioral intentions and actions and, are more persistent over time (for reviews, see Cacioppo, Petty, & Feinstein, 1996; Petty, Wegener, & Fabrigar, 1997).

The common thread throughout these models is that they make a distinction between, on the one hand, cognitive processing strategies that are, automatic, holistic, relatively undemanding of cognitive capacity, and relatively fast and, on the other hand, cognitive processing strategies that are controlled, analytic, demanding of cognitive capacity, and relatively time-consuming (Evans & Over, 1996; Smith & DeCoster, 2000). A particularly striking feature of these dual-process models is that the effortful, elaborate thinking mode often yields different outcomes in comparison to the sparse, economic thinking mode (e.g., other solutions to problem solving and reasoning, deeper memory storage, more likely attitude and behavior change, less use of stereotypes in judgments). The most significant ability of the effortful processing mode seems to be learning a new fact or rule, and immediately applying those facts in situations where they are relevant, suggesting that thoughtful information-processing might be an appropriate strategy to ensure long-lasting learning effects (Smith & DeCoster, 2000)



On the basis of this fine-grained look on different modes of cognitive processing, we hypothesized that extensive elaboration of the feedback message will lead to deeper cognitive processing of the feedback message and consequently, will more likely lead to behavior change and performance improvement. The specific elaboration strategy that was used in this study was grounded in an experimental paradigm in the persuasion domain, which has yielded particularly powerful persuasion effects and which seems especially appropriate to apply in an organizational setting. In these studies, the level of elaboration is directly manipulated by asking individuals to generate a number of arguments supporting a certain point of view. By thinking about possible arguments and examples, individuals extensively elaborate on the persuasive message, leading to enduring changes in attitudes and behavior in the direction of the persuasive message (e.g., Gordijn, Postmes, & de Vries, 2001; Tormala & Petty, 2004; Tormala, Petty, & Brinol, 2002).

We applied this same strategy to elicit elaboration of feedback in an organizational setting. After receiving feedback about their performance on a web-based in-basket, participants were asked to give specific examples of behavior that was in line with the feedback message they received, instigating a deeper processing of the feedback message. Because it still unclear whether negatively or positively framed arguments have a stronger persuasive effect on attitude change (e.g., Petty et al., 1997; Shiv, Britton, & Payton, 2004), we asked participants to provide the same number of positively framed (“What did I do correct?”) as negatively framed (“Where did I go wrong?”) arguments.

#### **PRACTICAL BASIS OF ELABORATION**

Apart from this theoretical basis, the elaboration principle may offer organizations a general strategy for enhancing feedback interventions. Requiring people to elaborate on the received feedback message should be

an easily applicable, inexpensive and efficient tool for more thoughtful feedback processing and for improving performance across a wide range of feedback situations. Especially in settings where organizations have little control about the feedback recipient's environment and responses (e.g., web-based testing and on-line training programs), this strategy may offer organizations assistance in ensuring that the provided feedback is well received and processed. For instance, in this study, we used a web-based assessment instrument that automatically generated feedback messages. After participants read the feedback messages, they were instructed to give behavioral examples in specially designed text boxes on their computer screen. Next, their answers were submitted via the Internet to a central server, where elaboration could be verified.

We envision that the elaboration strategy should be particularly appealing to practitioners as it corresponds closely to current organizational practice. In many organizations, taking part in a feedback workshop after going through a development center, or a 360-degree feedback program, has become an integral part of the performance management cycle (Yukl & Lepsinger, 1995; DeNisi & Kluger, 2000). Feedback workshops provide managers with uninterrupted time to analyze and interpret their feedback and develop improvement plans, often with the assistance of an executive coach or feedback facilitator (Bracken, 1994). Recent research indicates that the use of these feedback workshops is beneficial for improving performance and changing behavior after a 360-degree feedback program (Seifert, Yukl, & McDonald, 2003; Smither et al., 2003). The strategy for increasing feedback elaboration that was used in the current study, might be easily included in the design of a feedback workshop, for example by asking feedback recipients to note down and discuss examples of correct and faulty past behavior on the basis of the received feedback report. In this vein, the practical application of the proposed elaboration strategy bears some similarity to recent work on required elaboration of biodata items to reduce faking (Schmitt et al., 2003; Schmitt & Kuncze, 2002).

Taken together, this study seeks to extend the performance feedback domain with a practical intervention developed to enhance the effects of feedback on performance. On the basis of insights on dual-process models of cognitive processing, we investigated whether eliciting individuals to extensively elaborate feedback messages might enhance the effect of feedback interventions on task performance. This objective was examined by using an experimental design wherein two different samples (final-year students and experienced employees) completed parallel versions of a web-based in-basket exercise.

## STUDY

### METHOD

**Participants.** Two samples were used. The first sample consisted of 436 final-year students from different majors (e.g., engineering, agricultural and plant sciences, communication, education) participating in exchange for course credit. Participants had an average age of 22.2 years ( $SD = 2.0$ ); 67% were female, 33% male.

The second sample consisted of 517 individuals (58% male, 42% female). Their ages ranged from 17 to 60 years ( $M = 36.6$  yrs,  $SD = 10.5$ ). The participants had an average working experience of 13.7 years ( $SD = 10.5$ ) in their company and an average experience of 4.9 years ( $SD = 5.6$ ) in their current position. 79% held a bachelor's degree and 45% had earned an advanced or professional degree.

Because of problems typically associated with the use of web-based data collection strategies, the obtained data were carefully screened. The following precautions were taken, as recommended by Stanton and Rogelberg (2001). First, only individuals that entirely completed the in-basket exercise and all measures, were included in the two samples.

Furthermore, responses not matching a master list with valid identifiers were discarded. Finally, when multiple identical responses were detected in the data, all data in the multiple-response group were dropped.

**Design.** We conducted a 2 (feedback vs. no feedback) x 2 (elaboration vs. no elaboration) x 2 (trial 1 vs. trial 2) factorial design with repeated measures on the last factor and performance on an in-basket exercise as dependent variable. Participants were randomly assigned to one of four treatment conditions and consecutively completed two parallel versions of the in-basket exercise. The manipulations are described below.

**Task.** Participants completed a computerized in-basket exercise that was adapted from Tett, Steele, and Beauregard (2003). The in-basket exercise places the individual in a managerial role in responding to a set of realistic e-mails designed to capture key work demands. Several efforts were taken to ensure the realism of the in-basket (role descriptions, background information, pictures, e-mail simulation, organizational charts, etc.). The adapted exercise comprises of a set of ten e-mails, constructed to measure four managerial competencies that are included in a recently developed taxonomy of managerial competence (Tett, Guterman, Bleier, & Murphy, 2000), namely *Problem Awareness*, *Coordinating*, *Information Management*, and *Decisiveness*. After each e-mail, participants received four possible responses to the e-mail and had to rate the effectiveness of each response. On the basis of the scoring rules developed by Tett et al. (2003), participant's effectiveness ratings on each e-mail response were scored on one of the four competencies and a total score on each competency (1-20) was computed. Correlations between total scores on the four performance dimensions (competencies) varied between .26 ( $p < .01$ ) and .47 ( $p < .01$ ). Therefore, scores on the four competencies were averaged into a global score representing participant's overall performance on the in-basket.

As it was our aim to examine whether performance on the task improved after receiving performance feedback, we needed an equivalent version of

the in-basket exercise that could be used to assess performance at Time 2. We used a cloning procedure, outlined by Clause, Mullins, Nee, Pulakos, and Schmitt (1998), to construct a parallel test form of the in-basket exercise. This cloning procedure consists of writing for each original item, a new item measuring the same underlying skill or ability as the original item using the same grammatical style but bearing the surface appearance of a different question. By using this procedure, the composition of the parallel form is identical to that of the original form, in terms of number and type of options and response options. A sample item with its four response options from the original exercise and the corresponding item with its four response options from the alternate form are presented in Appendix A.

A pilot study was conducted to test if mean performance on both test forms was comparable. Given that observed mean differences might also be due to practice effects or fatigue effects, both test forms were presented in random order. In this pilot study, a total of 146 employees (41% women; mean age = 37.5 yrs; organizational tenure = 14.9 yrs; job tenure = 13.0 yrs) completed both in-basket forms in random order. Recruitment of participants in the pilot study was the same as described below for the actual study. A 2 (Order: normal vs. reversed) x 2 (Trial: trial 1 vs. trial 2) mixed ANOVA with repeated measures on the last factor and performance as dependent variable was performed. Results showed no significant main effect of trial,  $F(1,144) = .10$ ,  $\eta^2 = .00$ , nor an interaction effect between trial and order,  $F(1,144) = .00$ ,  $\eta^2 = .00$ , indicating that parallelism was established at the level of the test form and that no practice or fatigue effects were present. To ensure that none of the presumed feedback or elaboration effects were due to different test forms or practice effects, the two alternate test forms were also presented in random order in the actual study.

***Manipulations and Measures.*** In this study, two different variables, feedback and elaboration, were manipulated, creating four different conditions. Participants were randomly assigned to each of the four

conditions. The four conditions are described separately to make the manipulations more apparent to the reader.

*No Feedback – No Elaboration Condition.* After completing the first in-basket exercise, participants received a message that they were halfway the session and that they had ten more e-mails to respond to before they would receive feedback about their performance. After this message, participants could start working on the parallel version of the in-basket exercise. Thus, participants in this condition represent the control group in the experimental design.

*Feedback – No Elaboration Condition<sup>1</sup>.* After completing the first version of the in-basket exercise, participants received feedback about their performance. A short feedback report was presented for each competency separately, including their scores (1-20) on these specific performance dimensions and a brief explanatory text. These texts outlined in general terms the behavior of individuals who tend to score very high on a specific dimension. An example of the feedback reports that were provided to the participants can be found in Appendix B. Feedback on each performance dimension was presented on a separate screen. After participants indicated they had read each of the four feedback texts (by clicking the “next” button), they were directed to a screen measuring their cognitive responses to feedback.

*Feedback – Elaboration Condition.* After completing the first version of the in-basket exercise, participants received the same kind of performance feedback as in the previous condition. However, after having read the feedback reports, participants were directed to a screen that was designed to elicit elaboration of the provided feedback. Participants were asked to reflect on their past task performance on the basis of the feedback. For each

---

<sup>1</sup> Participants in the Feedback – No Elaboration condition were also part of the sample used in Study 2, Chapter 4.

competency, participants had to write down one example of an item they thought to have answered incorrect and one example of an item they thought to have answered correct. Thus, in total, participants were asked to give eight examples of items, four correct and four incorrect. Participants had to type their examples in the appropriate text boxes on their screen. After participants had given behavioral examples for each competency, they could start working on the second version of the in-basket exercise.

*No Feedback – Elaboration.* In this last condition, participants did not receive feedback after completing the first exercise, but were still asked to give examples of items that they had presumably answered correct and incorrect for each competency, as described above. This control condition was included because it could be argued that performance improvement in the Feedback – Elaboration condition might not be caused by extensive elaboration of the feedback. Instead, the request to give examples of correct and faulty behavior might have instigated employees to consider and adapt their general test taking strategy, leading to improved task performance. If this is the case, then task performance in both the Feedback – Elaboration and the No Feedback - Elaboration should improve.

***Procedure.*** In the student sample, sessions were conducted in groups of 45 individuals. Participants arrived in a classroom and were seated at a computer. They received a brief description of the proceedings of the session. To increase participants' involvement, they were told that an in-basket exercise as the one they were about to complete, is often used in selection and assessment procedures for junior managers. Participants were informed that they would receive feedback about their performance at the end of the session and were instructed to give their best effort so they would receive an accurate assessment of their managerial competencies. After providing informed consent, they were given a random identifier that provided access to the website with the computerized in-basket exercise.

The sample of experienced employees was contacted via the Internet. The in-basket exercise was put on the website of a governmental service for employment and vocational training. This website is frequently visited by applicants and employees looking for training and coaching in job application skills and various work-related competencies. The in-basket exercise was advertised as a preparation test for job applicants, providing feedback about general managerial competencies. Upon completion of a short questionnaire measuring demographic variables, people received a random identifier that gave access to the website with the computerized in-basket exercise. Before starting the exercise, participants were informed about the study and were introduced to the exercise via their computer screen.

## RESULTS

### *Manipulation Checks*

*Feedback Manipulation.* We measured satisfaction with feedback after feedback about each competency with two items adapted from Korsgaard (1995) ( $\alpha = .80$  and  $.79$ ). If participants have actually read feedback messages, then higher satisfaction should be reported when positive feedback was received, as has repeatedly been shown in previous research (e.g., Brett & Atwater, 2001; Korsgaard, 1995). This hypothesis was supported. Overall Performance on Trial 1 was positively related to overall satisfaction in the student sample ( $r = .24, p < .01$ ) and the employee sample ( $r = .41, p < .001$ ), indicating that participants had read their feedback report.

*Elaboration Manipulation.* Recall that participants in the elaboration condition were requested to write down examples of their behavior on the first trial. We scrutinized their written texts to check whether feedback elaboration had taken place. Whenever participants did not provide behavioral examples, for instance by leaving text boxes blank, or writing down irrelevant comments, these variables were treated as missing data and



corresponding cases were excluded from the analyses. This procedure guaranteed that all participants that were included in the sample, had actually elaborated their feedback reports.

Data from the two samples were analyzed separately to establish generality of the results.

### *Student Sample*

Source	df	Task Performance	
		F	$\eta^2$
Between subjects			
Feedback	1	48.98***	.10
Elaboration	1	1.09	.00
Feedback x Elaboration	1	3.85*	.01
Error	432	(1.95) <sup>a</sup>	
Within subjects			
Trial	1	196.73***	.31
Trial x Feedback	1	182.99***	.30
Trial x Elaboration	1	9.24**	.02
Trial x Feedback x Elaboration	1	10.00**	.02
Error	432	(.64) <sup>a</sup>	

Note. <sup>a</sup> Equals the Mean Square Error. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

TABLE 1: ANALYSIS OF VARIANCE FOR THE FULL FACTORIAL MODEL WITH TASK PERFORMANCE AS DEPENDENT VARIABLE FOR THE STUDENT SAMPLE.

A 2 (Feedback vs. No feedback) x 2 (Elaboration vs. No elaboration) x 2 (Trial 1 vs. Trial 2) GLM analysis was conducted with repeated measures on the last independent variable and task performance as dependent variable. As can be seen in Table 1, we found significant effects of Trial,  $F(1,432) = 196.73, p < .001, \eta^2 = .31$ , Trial x Feedback,  $F(1,432) = 182.99, p < .001, \eta^2 = .30$ , and Trial x Elaboration,  $F(1,432) = 9.24, p < .01, \eta^2 = .02$ .

Results		Task Performance ( $n = 436$ )			
		Trial 1		Trial 2	
		M	SD	M	SD
No Feedback	No Elaboration	13.21	1.15	13.24	1.18
	Elaboration	13.13	1.04	13.15	1.14
Feedback	No Elaboration	13.12	1.01	14.28	1.41
	Elaboration	13.07	1.00	14.89	1.11

TABLE 2: MEAN TASK PERFORMANCE AND STANDARD DEVIATIONS ACROSS EXPERIMENTAL CONDITIONS IN THE STUDENT SAMPLE

However, these significant effects were qualified by a three-way Trial x Feedback x Elaboration interaction effect,  $F(1,432) = 9.24, p < .01, \eta^2 = .02$ . Table 2 presents mean task performance scores for the different combinations of the independent variables. Mean task performance on Trial 1 (T1) did not vary across conditions,  $F(3,432) = .30, p = .82$ . Planned comparisons indicated that Trial 2 (T2) Performance in the Feedback/ No elaboration condition was higher than T2 Performance in the No feedback/ No elaboration condition,  $F(1,432)=38.96, p < .001, d = .80$ , and the No feedback / Elaboration condition,  $F(1,432)=47.39, p < .001, d = .88$ . However, T2 performance in the Feedback/ Elaboration condition was still higher than T2 performance in the Feedback/ No Elaboration condition,  $F(1,432)=14.17, p < .001, d = .49$ . Thus, as can be seen in Figure 2, feedback alone significantly improved performance, but performance improved most in the Feedback/ Elaboration condition, indicating that elaboration enhanced the effects of feedback on performance.

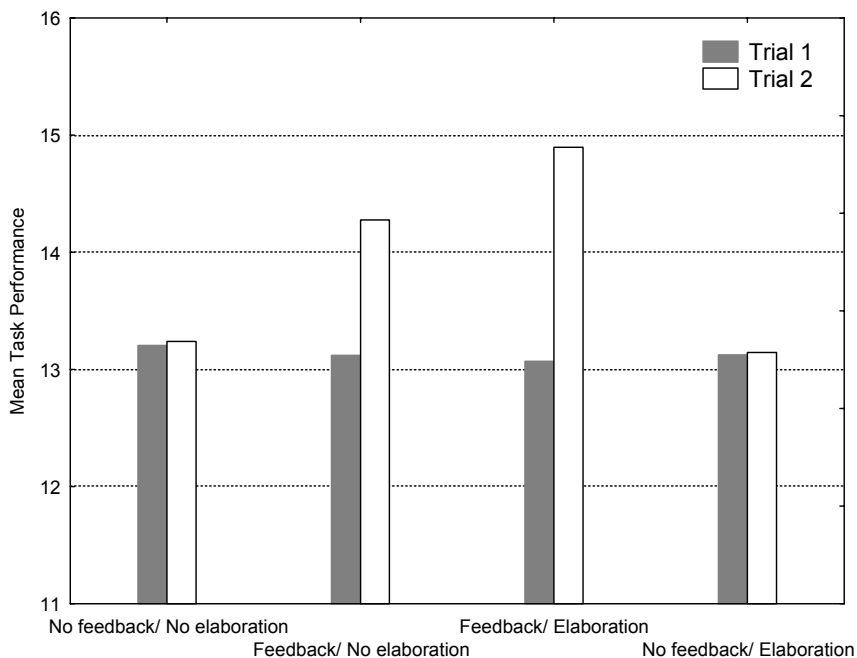


FIGURE 2: EFFECTS OF FEEDBACK AND ELABORATION ON PERFORMANCE IN THE STUDENT SAMPLE.

**Employee Sample**

As can be seen in Table 3, analyses in the employee sample yielded the same pattern of results as in the student sample. The significant Trial, Trial x Feedback, and Elaboration x Feedback effects were qualified by a significant Trial x Feedback x Elaboration interaction effect,  $F(1, 513) = 7.54, p < .01, \eta^2 = .01$ .

Source	df	Task Performance	
		F	$\eta^2$
Between subjects			
Feedback	1	29.53***	.05
Elaboration	1	.67	.00
Feedback x Elaboration	1	1.76	.00
Error	513	(2.58) <sup>a</sup>	
Within subjects			
Trial	1	120.13***	.19
Trial x Feedback	1	113.53***	.18
Trial x Elaboration	1	7.87**	.02
Trial x Feedback x Elaboration	1	7.54**	.01
Error		(.76) <sup>a</sup>	

Note: <sup>a</sup> Equals the Mean Square Error. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

TABLE 3: ANALYSIS OF VARIANCE FOR THE FULL FACTORIAL MODEL WITH TASK PERFORMANCE AS DEPENDENT VARIABLE FOR THE EMPLOYEE SAMPLE.

Results		Task Performance ( $n = 517$ )			
		Trial 1		Trial 2	
		M	SD	M	SD
No Feedback	No Elaboration	13.44	1.22	13.46	1.45
	Elaboration	13.39	1.12	13.41	1.33
Feedback	No Elaboration	13.42	1.22	14.30	1.50
	Elaboration	13.34	1.14	14.81	1.29

TABLE 4: MEAN TASK PERFORMANCE AND STANDARD DEVIATIONS ACROSS EXPERIMENTAL CONDITIONS IN THE EMPLOYEE SAMPLE

Mean task performance on Trial 1 (T1) did not vary across conditions,  $F(3,513) = .21, p = .89$ . As shown in Table 4, T2 Performance in the Feedback/ No elaboration condition was higher than T2 Performance in the No feedback/ No elaboration condition,  $F(1,513) = 23.46, p < .001, d = .57$ , and the No feedback / Elaboration condition,  $F(1,513) = 24.61, p < .001, d = .63$ . As in the student sample, T2 performance in the Feedback/

Elaboration condition was higher than T2 performance in the Feedback/ No Elaboration condition,  $F(1,513) = 8.78, p < .01, d = .37$ . As can be seen in Figure 3, the positive effect of feedback elaboration on performance was replicated in the working sample, although the observed effect size was slightly smaller than in the student sample.

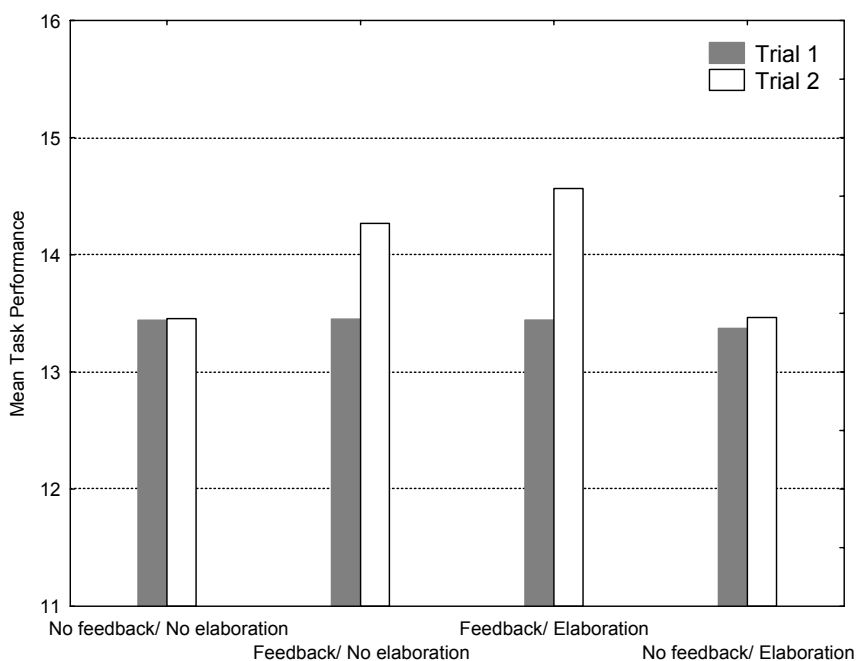


FIGURE 3: EFFECTS OF FEEDBACK AND ELABORATION ON PERFORMANCE IN THE EMPLOYEE SAMPLE

## DISCUSSION

The results of this study support the argument that elaboration of feedback enhances the effect of feedback interventions on task performance. We found that when individuals were requested to elaborate the received feedback, performance significantly improved as compared when feedback was given without additional elaboration. Thus, predictions that were made on the basis of dual-process models of cognitive processing were supported

when students and employees were given feedback on task performance. Furthermore, results revealed that the observed effects are caused by elaboration of the received feedback messages and not by a general reconsideration of test taking strategies due to elaboration, as performance did not improve in the condition where individuals were requested to elaborate without feedback.

The finding that effortful and elaborate cognitive processing of feedback enhances feedback interventions, is consistent with recent theory-building in the feedback domain. In their Feedback Intervention Theory, Kluger and DeNisi (1996) proposed that the effectiveness of feedback interventions depends on the allocation of available cognitive resources. When feedback directs attention to task performance, then individuals' cognitive resources are allocated towards the task and performance improvement is possible, for instance by learning new problem solving strategies. Alternatively, when feedback directs attention away from the task, cognitive resources necessary for task performance are depleted, which may lead to a decrease in performance. For instance, when people receive negative or discrepant feedback, their attention is likely to shift to ego-defensive goals instead of task performance goals. Recent evidence seems to support this cognitive resource conceptualization of feedback interventions (Vancouver & Tischner, 2004). In the present study, by eliciting participants in the elaboration condition to deeply process the feedback messages, attention was shifted towards the task level, ensuring that cognitive resources were available for learning new task strategies, leading to an increase in performance. Thus, elaboration during feedback interventions might play a role in directing cognitive resources towards the task-level resulting in deeper processing, better retention, and hence better learning effects.

Feedback elaboration might also affect task performance through the mediating role of cognitive responses to feedback. Dual-process research in social psychology demonstrated that when people lack the time and cognitive resources to "deeply" analyze information, feedback responses

tend to be ego-defensive and self-enhancing (e.g., negative feedback is poorly remembered, not satisfying and perceived as inaccurate). However, when people are requested to introspect and elaborate on the information, responses to feedback become less self-enhancing, leading to higher levels of feedback acceptance (Hixon & Swann, 1993; Paulhus, Graf, & Van Selst, 1989; Swann, Hixton, Stein-Seroussi, & Gilbert, 1990; Swann & Schroeder, 1995). Thus, the observed performance improvement in the elaboration condition may be caused by higher levels of feedback acceptance after deeper processing of the feedback message. As we had data available on cognitive responses (*feedback acceptance* and *feedback utility*) to feedback before T2 performance, we conducted some additional analyses to examine this mediation hypothesis. Results showed that *feedback utility* partially mediated the elaboration – performance relationship in the employee sample. Feedback elaboration significantly predicted *feedback utility* ( $p < .05$ ) and both *feedback utility* and feedback elaboration independently predicted T2 performance. As feedback elaboration remained a significant predictor of performance after *feedback utility* had been included in the model, there was no “perfect” mediation.

However, this finding was not confirmed in the student sample. Cognitive responses (*feedback acceptance* and *feedback utility*) were not predicted by feedback elaboration. Both feedback elaboration and *feedback acceptance* independently predicted T2 performance ( $p < .05$ ). Thus, the explanation regarding cognitive responses as mediators of the elaboration - performance relationship did not receive convincing support<sup>2</sup>. Our analyses seem to

---

<sup>2</sup> A possible explanation for the lack of support for the mediation hypothesis is that we had no control whether participants’ elaborated upon the feedback message *before* reporting their cognitive responses. Although cognitive responses were measured after the elaboration manipulation on each competency, this happened on the same web page. It is possible that participants first scrolled down to complete the cognitive responses measure and then scrolled back up again to complete the elaboration manipulation (i.e., typing down behavioral examples in the appropriate text boxes).

suggest that elaboration and cognitive responses are two independent processes predicting performance. Clearly, more research is needed on the relation between elaboration and cognitive responses to feedback to shed light on these preliminary findings.

### **PRACTICAL IMPLICATIONS, LIMITATIONS, AND DIRECTIONS FOR FUTURE RESEARCH**

In the current study, we provided a general principle for enhancing the effect of feedback interventions on performance in organizations. If people process the provided feedback at a deeper cognitive level (i.e., by elaborating on past examples of correct and faulty behavior), task performance improved significantly. We propose that, if organizations want feedback to lead to sustained performance improvements, they should try to guarantee this type of effortful processing in feedback interventions. Thus, practitioners should look for concrete strategies that might put the general elaboration principle into practice.

As mentioned, the manipulation used in this experiment should be easily applicable in workshops after 360-degree feedback. However, elaboration of feedback should not only be available in feedback workshops after 360-degree feedback programs. Practitioners should also try to ensure that employees have ample time, and resources available for processing feedback in career development and training programs, in performance appraisal or after computerized assessments. The use of external coaches and mentoring seems an advisable strategy in these settings. However, elaboration of feedback might also be enabled through other strategies. For instance, organizations might consider developing “feedback processing” modules on their intranet or including feedback elaboration moments in training syllabi or interpretive guides that often accompany a feedback report.

In this vein, it is important that future research tries to identify various facilitating conditions concerning the effects of feedback elaboration in

practice by implementing feedback elaboration in feedback workshops. Till now, the key question “why are feedback workshops effective developmental tools ?” has remained unanswered (Brett & Atwater, 2001; Seifert et al., 2003; Smither et al., 2003). It is our hypothesis that feedback workshops lead to performance improvement because they encourage deeper feedback processing in feedback recipients, which is in line with the proposed elaboration principle. Future research should examine this hypothesis by experimentally combining the elaboration strategy with the components that are typically included in a feedback workshop, namely a group discussion, the presence of a facilitator and a goal-setting instruction. The results of this research would be of theoretical importance as they might assist in a better understanding of the mechanism that accounts for the effects of feedback workshops on performance. Furthermore, such studies would be informative to practitioners in identifying the best development strategy in terms of costs and effectiveness to improve performance after feedback interventions.

There are a number of limitations that should be considered when one is interpreting the results of this study. First, we used a computerized task to test our hypothesis. Participants completed a web-based in-basket and received feedback from a computer. The question raises whether these results will generalize to more natural settings, where contextual influences (e.g., other feedback sources, behavior of colleagues, personal contact, competing tasks) might influence feedback responses and performance. However, the use of web-based and computerized feedback reports (e.g., after 360-degree feedback) and computerized tasks is becoming more and more common in organizations. More importantly, a wealth of self-assessment instruments are freely available on the Internet and employees with Internet access who are looking for feedback on their managerial competencies, can complete these self-assessment instruments on their own pace. For instance, the past year about 12.000 people followed an online training via the website of the governmental service for employment and vocational training where our in-basket was put on. In the light of this



evolution, the design of this study actually corresponds very closely to natural work settings and employee practices.

A second limitation that should be noted, is that due to the online research setting, we had no control on self-selection and participant dropout in the employee sample.

Finally, one important observation that might limit the generalizability of the current findings, is that in this particular setting, feedback without elaboration also significantly improved task performance as compared to a no-feedback control condition. With this finding, our study adds to about two-third of the feedback intervention studies that found a positive impact of feedback on performance (Kluger & DeNisi, 1996). The effect sizes found in this study ( $d = .80$  and  $d = .57$ ) were comparable to the mean effect sizes that were reported by Kluger and DeNisi in their meta-analysis ( $d = .41$  and  $d = .92$ , depending on the studies included). In the current study, we found that elaboration of feedback significantly improved performance above this feedback-alone effect. However, we do not know what the effect of feedback elaboration would be in a setting where feedback tends to debilitate performance, as was the case in one third of the feedback interventions reported in Kluger and DeNisi's (1996) meta-analysis.

In this respect, a second important avenue for future research is to examine whether feedback elaboration can shed more light on the effects of feedback sign on performance. Previous research yielded no clear specifications regarding when and how favorable or unfavorable feedback increases and decreases motivation and subsequent performance (Ilgen & Davis, 2000; Kluger & DeNisi, 1996; Van-Dijk & Kluger, 2004). Providing favorable or unfavorable feedback bears strong resemblance to positive or negative framing of persuasive messages. A dual-process approach of persuasion processes demonstrated that the level of elaboration interacts with the effects of message framing. Negative framing of persuasive messages has generally found to be more effective (persuasive) when the level of elaboration is high,

whereas positive framing of messages seems to be more effective when the level of elaboration is low (Levin, Schneider, & Gaeth, 1998; Rothman & Salovey, 1997; but see also Shiv, Britton, & Payne, 2004). On the basis of these findings, it could be expected that positive feedback should be more likely to lead to performance improvement under low elaboration conditions as positive feedback demands less cognitive resources, whereas negative feedback should be more likely to lead to performance improvement under high elaboration conditions as negative feedback demands more cognitive resources. This would be in line with the above described Feedback Intervention Theory, which suggests that more cognitive resources should be allocated to the task-level when negative or discrepant feedback is provided (Kluger & DeNisi, 1996; Vancouver & Tischner, 2004).

### CONCLUSION

There is probably no unequivocal answer to the broad question whether giving employees performance feedback enhances performance. Instead, we believe that research should focus at a wealth of factors that might possibly shape the impact of feedback interventions on employee attitudes, responses and behavior in organizations. Several theoretical perspectives from different disciplinary backgrounds might guide feedback research and seem well-suited to shed additional light on conditions that facilitate feedback interventions. Ultimately, the objective is to identify situations where giving performance feedback to employees is most likely to have a positive impact on performance versus situations where performance feedback is less likely to lead to performance improvement. In the current study, we borrowed from recent dual-process models in cognitive and social psychology to propose a new condition to facilitate the impact of feedback interventions on performance. We found that eliciting feedback elaboration seems an effective and practical strategy for enhancing feedback interventions. On the basis of the observed findings, we believe that general models of cognitive processing in the broader psychological literature deserve more attention in

future feedback research as they might offer various strategies for enhancing feedback interventions in organizations.

### REFERENCES

- Ang, S., Cummings, L. L., Straub, D. W., & Early, C. P. (1993). The effects of information technology and the perceived mood of the feedback giver on feedback seeking. *Information Systems Research, 4*, 240-261.
- Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. *Journal of Applied Psychology, 81*, 199-214.
- Ashford, S. J., Blatt, R., & VandeWalle, D. (2003). Reflections on the looking glass: A review of research on feedback-seeking behavior in organizations. *Journal of Management, 29*, 773-799.
- Alvero, A. M., Bucklin, B. R., & Austin, J. (2001). An objective review of the effectiveness and essential characteristics of performance feedback in organizational settings. *Journal of Organizational Behavior Management, 21*, 3-29.
- Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management, 7*, 65-89.
- Becker, T. E., & Klimoski, R. J. (1989). A field study of the relationship between the organizational feedback environment and performance. *Personnel Psychology, 42*, 343-358.
- Bracken, D.W. (1994). Straight talk about multirater feedback. *Training and Development, 48*, 44-50.
- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology, 86*, 930-942.
- Brown, S. P., Challagalla, G., & Ganesan, S. (2001). Self-efficacy as a moderator of information-seeking effectiveness. *Journal of Applied Psychology, 86*, 1043-1051.
- Cacioppo, J. T., Petty, R. E., & Feinstein, J. A. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin, 119*, 197-253
- Chaiken, S. (1980). Heuristic versus systematic information-processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*, 752-766.
- Clause, C. S., Mullins, M. E., Nee, M. T., Pulakos, E., & Schmitt, N. (1998). Parallel test form development: A procedure for alternate predictors and an example. *Personnel Psychology, 51*, 193-208.

- Craik, F. & Lockhart, R. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning & Verbal Behavior*, *11*, 671-684.
- Craik, F. (2002). Levels of processing: Past, present, and future? *Memory*, *10*, 305-18.
- DeNisi, A. S., & Kluger, A. N. (2000). Feedback effectiveness: Can 360-degree appraisals be improved? *Academy of Management Executive*, *14*, 129-139.
- Evans, J., & Over, D. E. (1996). *Rationality and reasoning*. Psychology Press.
- Fedor, D. B. (1991). Recipient responses to performance feedback: A proposed model and its implications. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel and human resource management* (Vol.9, pp.73-120). Greenwich, CT: JAI Press.
- Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: The roles of power and recipient self-esteem. *Journal of Management*, *27*, 79-97.
- Fedor, D. B., Rensvold, R. B., & Adams, S. M. (1992). An investigation of factors expected to affect feedback seeking: A longitudinal field study. *Personnel Psychology*, *45*, 779-805.
- Gordijn, E. H., Postmes, T., & de Vries, N. K. (2001). Devil's advocate or advocate of oneself: Effects of numerical support on pro- and counterattitudinal self-persuasion. *Personality and Social Psychology Bulletin*, *27*, 395-407.
- Herold, D. M., & Fedor, D. B. (1998). Individuals' interaction with their feedback environment: The role of domain-specific individual differences. In G. Ferris (Ed.), *Research in personnel and human resources management*, vol. 6 (pp. 215-254). Greenwich, CT: JAI Press.
- Hixon, J. G., & Swann, W. B. (1993). When does introspection bear fruit? Self-reflection, self-insight, and interpersonal choices. *Journal of Personality and Social Psychology*, *64*, 35-43.
- Ilgen, D. R., & Davis, C. A. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology: An International Review*, *49*, 550-565.
- Kinicki, A. J., Prussia, G. E., Wu, B., & McKee-Ryan, F. M. (2004). A covariance structure analysis of employees' response to performance feedback. *Journal of Applied Psychology*, *89*, 1057-1069.
- Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*, 254-284.

- Kluger, A. N., & DeNisi, A. S. (1998). Feedback interventions: Toward the understanding of a double-edged sword. *Current Directions in Psychological Science, 7*, 67-72.
- Korsgaard, M. A. (1996). The impact of self-appraisals on reactions to feedback from others: The role of self-enhancement and self-consistency concerns. *Journal of Organizational Behavior, 17*, 301-311.
- Lam, S. S. K., Yik, M. S. M., & Schaubroeck, J. (2002). Responses to formal performance appraisal feedback: The role of negative affectivity. *Journal of Applied Psychology, 87*, 192-201.
- Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All frames are not created equal: A critical review of differences in valence framing effects. *Organizational Behavior and Human Decision Processes, 76*, 149-188.
- London, M. (2003). *Job feedback: Giving, seeking, and using feedback for performance improvement (2<sup>nd</sup> ed.)*. Mahwah, NJ: Lawrence Erlbaum.
- Morrison, E. W. (2002). Information seeking within organizations. *Human Communication Research, 28*, 229-242.
- Morrison, E. W., & Weldon, E. (1990). The impact of an assigned performance goal on feedback seeking behavior. *Human Performance, 3*, 37-50.
- Norris-Watts, C., & Levy, P.E. (2004). The mediating role of affective commitment in the relation of the feedback environment to work outcomes. *Journal of Vocational Behavior, 65*, 351-365.
- Paulhus, D., Graf, P., & Van Selst, M. (1989). Attentional load increases the positivity of self-presentation. *Social Cognition, 7*, 389-400.
- Petty, R. E., & Cacioppo, J. T. (1986). The Elaboration Likelihood Model of persuasion. *Advances in Experimental Social Psychology, 19*, 123-205.
- Petty, R.E., & Cacioppo, J.T. (1990). Involvement and persuasion: Tradition versus integration. *Psychological Bulletin, 107*, 367-374.
- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology, 48*, 609-647.
- Renn, R. W., & Fedor, D. B. (2001). Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *Journal of Management, 27*, 563-583.
- Rothman, A., Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: The role of message framing. *Psychological Bulletin, 121*, 3-19.
- Schmitt, N., & Kuncce, C. (2002). The effects of required elaboration of answers to biodata questions. *Personnel Psychology, 55*, 569-588

- Schmitt, N., Oswald, F. L., Kim, B. H., Gillespie, M. A., & Ramsay, L. J. (2003). Impact of elaboration on socially desirable responding and the validity of biodata measures. *Journal of Applied Psychology, 88*, 979-988.
- Seifert, C. F., Yukl, G., & McDonald, R. A. (2003). Effects of multisource feedback and a feedback facilitator on the influence behavior of managers toward subordinates. *Journal of Applied Psychology, 3*, 561-569.
- Shiv, B., Britton, J. A. E., & Payne, J. W. (2004). Does elaboration increase or decrease the effectiveness of negatively versus positively framed messages. *Journal of Consumer Research, 21*, 199-208.
- Sloman, S. A. (1996). The empirical case for two systems of reasoning. *Psychological Bulletin, 119*, 3-22.
- Smith, E. R., & DeCoster, J. (2000). Dual-process model in social and cognitive psychology: Conceptual Integration and links to underlying memory system. *Personality and Social Psychology Review, 4*, 108-131.
- Smither, J. W., London, M., & Flautt, R., Vargas, Y., & Kucine, I. (2003). Can working with an executive coach improve multisource feedback ratings over time? A quasi-experimental field study. *Personnel Psychology, 56*, 23-44.
- Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate? *Behavioral and Brain Sciences, 23*, 645-665.
- Stanton, J. M., & Rogelberg, S. G. (2001). Using internet/intranet web pages to collect organizational research data. *Organizational Research Methods, 4*, 200-217.
- Stelman, L. A., Levy, P. E., & Snell, A. F. (2004). The feedback environment scales (FES): Construct definition, measurement and validation. *Educational and Psychological Measurement, 64*, 165-184.
- Swann, W. B., Hixon, G., Stein-Seroussi, A., & Gilbert, D. T. (1990). The fleeting gleam of praise: Behavioral reactions to self-relevant feedback. *Journal of Personality and Social Psychology, 59*, 17-26.
- Swann, W. B., & Schroeder, D. G. (1995). The search for beauty and truth: A framework for understanding reactions to evaluations. *Personality and Social Psychology Bulletin, 21*, 1307-1318.
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human Performance, 12*, 232-251.
- Tett, R. P., Steele, J. R., & Beauregard, R. S. (2003). Broad and narrow measures on both sides of the personality-job performance relationship. *Journal of Organizational Behavior, 24*, 335-356.

- Tormala, Z. L., & Petty, R. E. (2004). Resistance to persuasion and attitude certainty: The moderating role of elaboration. *Personality and Social Psychology Bulletin*, *30*, 1446-1457.
- Tormala, Z. L., Petty, R. E., & Briñol, P. (2002). Ease of retrieval effects in persuasion: A self-validation analysis. *Personality and Social Psychology Bulletin*, *28*, 1700-1712.
- Vancouver, J. B., & Tischner, E. C. (2004). The effect of feedback sign on task performance depends on self-concept discrepancies. *Journal of Applied Psychology*, *89*, 1092-1098.
- Van-Dijk, D., & Kluger, A. N. (2004). Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology: An International Review*, *53*, 113-135.
- Yukl, G., & Lepsinger, R. (1995). How to get the most out of 360-degree feedback. *Training*, *32*, 45-50.



**APPENDIX A**  
**EXAMPLE OF AN IN-BASKET ITEM**  
**AND THE CORRESPONDING PARALLEL ITEM**

**Original Item**

<b>Date :</b> Tuesday, 06/17/02	
<b>From:</b> Eric Danforth	
<b>Subject:</b> Upcoming Conference	
<p>Pat,  Last week Mr. Green arranged a meeting for July 2 regarding a new line of wind-resistant paints for use in the aviation industry. I realize my input would be valuable at this stage, but I've been planning since last fall to attend a conference in Boise, Idaho July 1-3 on new paint manufacturing processes. Is there any way the meeting could be postponed until after the 7<sup>th</sup>? I need to know by Tuesday morning</p>	
<p><b>A.</b> It's kind of hard to cancel this meeting as Mr. Green is coming to our plant to attend this meeting. Is it possible to cancel your trip to Boise? Please, be patient, I'll ask Mr. Green and let you know what he thinks.</p>	<p><b>B.</b> Indeed, it is probably more important for our company that you are present at the conference. If I understand correctly, the theme of the conference, "innovativeness", is similar to that of our meeting. So, we can benefit from hearing the results of the conference and arrange the meeting afterwards.</p>
<p><b>C.</b> I don't think that the Boise-conference is that important. It's mostly advertisements of the big companies. I wouldn't worry too much about attending the conference. I guess it's better to proceed as planned.</p>	<p><b>D.</b> I can see that this conference was planned for some time and that it takes priority for you. I will postpone the meeting to the 14<sup>th</sup>. Mr. Green knows our priorities and won't make a problem of this.</p>

**Corresponding Parallel Item**

<b>Date :</b> Thursday, 06/19/02	
<b>From:</b> Glen Benning	
<b>Subject:</b> Exhibition in Chicago	
<p>Pat,</p> <p>You'll probably know we have a meeting arranged with all production supervisors for July 15<sup>th</sup>, where you would also be present. In this meeting, we would discuss how we might improve customized production of industrial coatings. However, at the same day, there's an exhibition in Chicago on applications of coatings in the building industry, which I like to attend. I wondered if it would be possible to schedule our meeting at another day? I would like an answer as soon as possible.</p>	
<p><b>A.</b> It's difficult to reschedule this meeting because all production supervisors have already confirmed to be present. Have you already made appointments with sales people at that exhibition? I'll first check with all other supervisors and then get back to you. So, we'll have to wait and see.</p>	<p><b>B.</b> Customized production of industrial coatings should become one of our core activities in the next years. This exhibition sounds like a good opportunity to follow-up recent trends. I think it's best if we schedule our meeting after the exhibition. You'll input at this meeting is bound to be important.</p>
<p><b>C.</b> I don't think much of these exhibitions. In my experience, you'll find mostly publicity stands at this exhibition. You'll probably won't learn anything you don't already know. So, I think it's better to let our meeting take place as was originally scheduled.</p>	<p><b>D.</b> I understand that this exhibition might be very interesting to you and you'd like to be present. I'll reschedule the meeting to next week (26<sup>th</sup>). The other production supervisors can very well judge the importance of this exhibition and will certainly agree with the rescheduling.</p>

**APPENDIX B**  
**EXAMPLE OF FEEDBACK REPORT**  
**FOR COMPETENCY “COORDINATING”**

<b>Coordinating</b>
<ul style="list-style-type: none"><li>• <b>Definition:</b> This competency indicates that you organize the activities of subordinates and allocate the necessary resources for these activities.</li></ul>
<ul style="list-style-type: none"><li>• <b>Expert:</b> People who score high on this competency typically give specific assignments to their subordinates. They schedule appointments and meetings to promote the productive use of time. They emphasize efficiency by establishing efficient work routines and by integrating multiple tasks.</li></ul>
<ul style="list-style-type: none"><li>• <b>Your score:</b> 15 / 20</li></ul>



## **CHAPTER 6**

### **GENERAL CONCLUSIONS**

#### **ABSTRACT**

The objectives of the studies presented in this doctoral dissertation were threefold. First, on the basis of the self-motives framework, we aimed to identify new antecedents of feedback-seeking behavior. Second, we took a closer look at unresolved issues from previous feedback research by considering the explanatory role of self-motives. Third, we aimed to investigate how self-motives research might contribute to understanding and enhancing the troubling relationship between feedback and performance. In this final chapter, the empirical findings of this dissertation are briefly summarized. Next, the contributions, opportunities, and limitations of this dissertation are delineated from a theoretical, methodological, and practical perspective.

## RESEARCH OVERVIEW

This dissertation started with a review of 20 years of feedback-seeking research. This review of 49 studies showed that previous feedback-seeking studies have encountered a number of limitations. With self-motives research in social psychology as theoretical underpinnings, an alternative model for studying the feedback-seeking process in organizations was proposed. The presented self-motives model outlined a roadmap with several routes for future research. In the empirical studies in this dissertation, I aimed to accomplish three of these research routes, namely (a) identifying new antecedents of feedback-seeking behavior, (b) taking a closer look at unresolved issues in previous research, and (c) understanding and enhancing the troubling relationship between feedback and performance. The remainder briefly recapitulates the main findings in terms of these three objectives.

### **OBJECTIVE 1: IDENTIFYING NEW ANTECEDENTS OF FEEDBACK-SEEKING BEHAVIOR**

The first objective was addressed in an experimental study wherein participants could seek feedback about a number of performance dimensions after performance on a computerized in-basket exercise (Chapter 2). In this study, beliefs about the modifiability and importance of performance dimensions were examined as antecedents of feedback-seeking behavior because self-motives research has suggested that these variables are related to the self-improvement motive. Results supported our central hypothesis. Affecting participants' modifiability and importance beliefs significantly impacted their feedback-seeking decisions as compared to a baseline condition where modifiability and importance beliefs were not affected. Participants sought more feedback about important dimensions as opposed to unimportant dimensions and sought more feedback about non-modifiable dimensions as opposed to modifiable dimensions. The latter finding was

somewhat unexpected as the observed relationship was in the opposite direction as hypothesized. As discussed, the specific setting might have been responsible for activating a self-assessment motive, leading to increased interest in feedback about non-modifiable dimensions. Notwithstanding this unexpected finding, both hypothesized antecedents were found to be significant predictors of feedback-seeking decisions and may prove to be useful in the future for directing employee feedback-seeking towards specific dimensions in organizations.

A field study in Chapter 3 also identified two new antecedents of feedback-seeking behavior. Although it was not the main focus of this study, we were able to examine whether Need for closure and Certainty orientation were related to feedback-seeking behavior. Self-motives research has previously suggested that these two individual difference variables were related to the self-assessment and self-verification motives, and thus might be related to feedback-seeking. Results of this cross-sectional study showed that employees with a high Need for closure sought less feedback through monitoring, and employees with a high Certainty orientation sought more feedback through inquiry. However, further analyses suggested that these individual differences might only have an indirect influence on feedback-seeking behavior as their effect on feedback-seeking behavior disappeared when we controlled for perceived uncertainty.

Taken together, the self-motives framework showed to be successful in identifying importance and modifiability beliefs as direct antecedents, and Need for closure and Certainty orientation as indirect antecedents of feedback-seeking behavior, as was put forward in the first objective.

## **OBJECTIVE 2: A CLOSER LOOK AT UNRESOLVED ISSUES IN THE FEEDBACK-SEEKING PROCESS**

Throughout this dissertation, I have argued that inconsistent findings in previous research might be explained by taking the role of various self-

motives into account. This hypothesis was tested in a series of empirical studies examining two previously unresolved issues, namely (a) the inconsistent relationship between uncertainty and feedback-seeking and (b) the much debated question whether people prefer favorable feedback or confirming feedback.

First, a laboratory and a field study (Chapter 3) were conducted to shed more light on the inconsistent relationship between uncertainty and feedback-seeking. In both studies, we found a curvilinear relationship between uncertainty and feedback-seeking. Students and employees sought feedback when they were highly uncertain and when they were highly certain, suggesting that both self-assessment and self-verification strivings might motivate feedback-seeking behavior. This finding is consistent with recent research on self-motives showing that different and opposite motives may be simultaneously activated (Bernichon et al., 2003; Morling & Epstein, 1997; Sedikides, 1993; Swann, Pelham, & Krull, 1989). Our hypothesis that the activation of these self-motives might be regulated by individual difference variables, received partial support. Results suggested that people with a high certainty orientation were more driven by self-verification strivings as they sought more direct feedback when certainty was high as compared to people with a low certainty orientation.

Second, previous research was inconclusive regarding whether people prefer favorable feedback or confirming feedback. An in-depth look on this unresolved issue was taken in two studies (Chapter 4) examining people's reactions to feedback about their performance on an in-basket exercise. On the basis of the self-motives framework, prior certainty was proposed as a moderator of feedback reactions. It was expected that people would prefer self-verifying (confirming) feedback about highly certain competencies and self-enhancing (favorable) feedback about uncertain competencies. However, this hypothesis was not supported. Our results showed that people were especially satisfied with favorable feedback and reported higher acceptance and utility of favorable feedback. This means that feedback



reactions were for the most part dominated by self-enhancement strivings, regardless of prior certainty. Our analyses indicated that self-verification strivings were also activated in participants' feedback reactions, but to a much lesser extent than self-enhancement strivings. Thus, the results of these studies also pointed to the simultaneous activation of two different self-motives in the feedback process. Our results further suggested that inconsistent findings in previous research on feedback reactions might also be due to the use of inappropriate statistical procedures and different research paradigms.

In sum, research targeting the second objective increased understanding of some unresolved issues in previous research by shedding additional light on the key role of self-motives in guiding feedback preferences. The common finding throughout the four empirical studies was that different self-motives are simultaneously activated during the feedback process and that feedback recipients' behavior and responses are guided by the interplay of these self-motives.

### **OBJECTIVE 3: UNDERSTANDING AND ENHANCING THE FEEDBACK - PERFORMANCE RELATIONSHIP**

#### ***Indirect Evidence***

The review (Chapter 1) showed that feedback-seeking is not always positively related to performance, in contrast to the dominant assumption that feedback-seeking is instrumental for improving performance (Ashford & Cummings, 1983). In the theoretical outline, we argued that one explanation for these counterintuitive results might be that employees are not always seeking feedback to improve themselves. That is, sometimes people seek feedback because they want to hear good news, they want confirmation of their self-views, or they just want to know how they are doing. When people are looking to satisfy these self-enhancement, self-verification, or self-assessment needs in the feedback process, it is not very likely that the

obtained feedback information will be used for performance improvement. Across the empirical studies of this dissertation, we obtained ample support for this hypothesis. In the empirical study of Chapter 1, we found that people sought more feedback about non-modifiable competencies than about modifiable competencies (self-assessment). In the laboratory study in Chapter 2, results showed that people often seek feedback about competencies that are already held with high certainty (self-verification). Furthermore, additional analyses revealed that people sought more feedback about their best competencies as opposed to their worst competencies (self-enhancement). The field study in Chapter 2 also showed that people frequently sought feedback even when they experienced little uncertainty about their performance in the organization (self-verification). Finally, the studies in Chapter 3 indicated that people did not accept negative feedback and did not intent to use it in the future (self-enhancement). Together, these findings demonstrate that several motives other than the self-improvement are activated during the feedback process. As a result of the activation of these motives, employees exhibit a number of behaviors and responses towards feedback that hold little instrumental value for performance improvement and may even impair performance. In sum, although the relationship with performance was not directly assessed in these studies, the observed results offer a likely explanation for the finding that feedback does not always lead to performance improvement.

### ***Direct Evidence***

As noted, the inconsistent relationship between feedback-seeking behavior and performance echoes a more fundamental problem in the feedback area, namely that there is no general principle that can predict the effectiveness of feedback interventions (DeNisi & Kluger, 2000; Kluger & DeNisi, 1996, 1998). To increase knowledge on the relationship between feedback and performance, a final empirical study (Chapter 5) was conducted directly targeting performance improvement on a web-based in-basket exercise. Participants in a feedback elaboration condition were required to elaborate

on feedback about performance on the first trial of the exercise. We found that performance on the second trial of the in-basket exercise improved more when people elaborated on feedback messages as compared to a control condition where feedback was given without requesting elaboration. Results further showed that performance improvement was due to the elaboration of the feedback message as performance did not improve when people were requested to elaborate on their performance without receiving feedback. These results indicate that elaboration of feedback may be an important facilitating condition in the feedback process and suggest that the level of cognitive processing of feedback may play a key role in determining the effectiveness of feedback interventions.

As put forward in the third objective, the empirical studies of this dissertation increased the current understanding of the relationship between feedback and performance and point to several avenues for enhancing the effects of feedback on performance.

## **CONTRIBUTIONS, LIMITATIONS, AND RESEARCH OPPORTUNITIES**

### **FROM A THEORETICAL PERSPECTIVE**

A first important theoretical contribution for the study of feedback-seeking behavior is that this dissertation systematically listed the various antecedents affecting feedback-seeking behavior, evaluated their effectiveness and identified several inconsistencies concerning these antecedents. A new theoretical model based on self-motives research in social psychology was proposed in lieu of the traditional resource-based perspective on feedback-seeking behavior. By framing previously studied antecedents within this alternative framework, a plausible explanation was provided for the observed inconsistencies. On the whole, the empirical studies of this dissertation supported our central theoretical proposition that motives other than uncertainty reduction are important in guiding feedback-seeking

behavior and that existing inconsistencies can be better understood in light of these motives. Hence, the insights provided by this dissertation contribute to a better theoretical understanding of the feedback-seeking process in organizations. Yet, results also showed that the interplay of the self-motives is very complicated. For instance, we found that feedback reactions were in essence guided by the self-enhancement motive, but that self-verification strivings were simultaneously activated to a certain extent. Inferring motives from behaviors is famously difficult (e.g., Freitas, Salovey, & Liberman, 2001; Tetlock & Levi, 1982). Accordingly, a major challenge for future feedback-seeking research is to establish to which extent and under which conditions each self-motive determines employee behavior and responses towards feedback. Till now, only two studies have examined how motives work in concert to predict feedback-seeking (Levy, Albright, Cawley, & Williams, 1995; Tuckey, Brewer, & Williamson, 2002). Given the current limited knowledge about the motivational basis of feedback-seeking behavior, laboratory studies specifically designed to keep possible confounding variables under control seem the most appropriate research strategy to disentangle the effects of different motives on feedback-seeking.

This dissertation also contributes to broader feedback intervention theories by uncovering the important role of different cognitive processing modes of the feedback recipient in the feedback process. When people are required to use a thoughtful feedback processing strategy, feedback interventions proved to be more effective in improving performance. This finding should encourage researchers to conduct more studies considering factors that might stimulate elaborate cognitive processing of feedback. Dual process research has found that people engage in thoughtful processing when they are *highly motivated* to do so and when they have *the appropriate cognitive capacity* (Smith & DeCoster, 2000). Hence, future research should examine variables that might encourage the motivation to think about feedback (e.g., by emphasizing personal relevance, desire for accuracy, social goals, scarcity of feedback or task accountability) and variables that open up cognitive abilities for elaborate processing (time availability, feedback format,

elimination of distracting factors, task knowledge and experience, and general mental ability).

A third important theoretical contribution is that we examined feedback-seeking across different performance dimensions (competencies). As noted before, almost all previous feedback-seeking studies have looked at feedback-seeking behavior about general job performance. However, in recent years, it has become apparent that the nature of job performance is multi-dimensional (Campbell, McCloy, Oppler, & Sager, 1993; Tett, Guterman, Bleier, & Murphy, 2000). Very different sets of behaviors might define effective performance in the same job, depending on what goals and values are emphasized in the organization and how the work is organized and structured (Murphy, 1994; Murphy & Shiarella, 1997). One implication of the multi-dimensional nature of performance for feedback research is that more strategies should be identified to direct feedback-seeking behavior towards performance dimensions that are valued in an organization. For instance, one of the hallmarks of the changing nature of performance is the increasing shift to the use of teams in organizations. An important question is whether organizations can encourage employees to seek feedback about team performance instead of individual performance by emphasizing the importance of team work (e.g., by rewarding team performance). A second implication is that feedback research should also pay attention to the multi-dimensional nature of performance when examining the effectiveness of feedback interventions. Till now, almost all studies have looked at the effect of feedback interventions on task performance (Kluger & DeNisi, 1996), including our own empirical study (Chapter 5). However, recent research indicates that job performance can be described by three broad performance components. These components include task performance, citizenship performance, and counterproductive performance (Rotundo & Sackett, 2002). Future feedback research might benefit from looking at the effects of providing feedback on citizenship performance and counterproductive performance. The self-motives framework might also be fruitful in guiding these studies. For example, students reported more destructive intentions

after receiving negative feedback, which is in line with the self-enhancement motive (Van de Vliert, Shi, Sanders, Wang, & Huang, 2004; for a theoretical argument, see O'Leary-Kelly & Newman, 2003).

Fourth, the empirical study in Chapter 5 was one of the first studies to empirically document one of the central assumptions of all theoretical feedback process models (Ilgen, Fisher, & Taylor, 1979; Ilgen & Davis, 2000; Fedor, 1991; Taylor, Fisher, & Ilgen, 1984), namely that cognitive responses to feedback (feedback acceptance, and feedback utility) predict subsequent performance. Notwithstanding its key importance in the feedback process, only one recent study has examined and supported this assumption (Kinicki, Prussia, Wu, & McKee-Ryan, 2004). Whereas Kinicki et al. found support for the importance of cognitive responses in predicting job performance a year after employees' performance appraisal, the present study was the first to demonstrate that cognitive responses (feedback acceptance, and feedback utility) are also predictive of short-term task performance. However, a limitation of this dissertation concerning feedback reactions should also be noted. In the self-motives model that was proposed in the first chapter, we argued that feedback reactions could increase understanding of the relationship between feedback-seeking and performance. We found support for the role of feedback reactions in predicting task performance, but did not closely examine the relationship between feedback-seeking and feedback-reactions. We had data available on both feedback-seeking about in-basket performance (first study of Chapter 3) and feedback reactions two weeks later (first study of Chapter 4) of a sample of 126 students. However, additional analyses revealed no relationship between initial feedback preference and subsequent feedback reactions. Similarly, Kluger and Adler (1993) reported no differences in task motivation and performance if feedback was requested by participants themselves or provided without request. Further research is needed to examine under which conditions the proposed relationship between feedback-seeking and feedback reactions in the self-motives model of the feedback-seeking process receives support.

**FROM A METHODOLOGICAL PERSPECTIVE**

The studies conducted in this dissertation also make a number of contributions to a methodologically more sound study of the feedback process. First, in contrast to traditional feedback-seeking studies which have relied almost exclusively on between-person approaches, we adopted a within-person design to examine feedback-seeking behavior in two studies (Chapter 2 and 3). Whereas the traditional approach to feedback-seeking is concerned with the question “How does feedback-seeking behavior varies across persons”, the current approach seeks an answer to the question “How does feedback-seeking behavior varies within persons”. The distinction between the use of between-subjects or nomothetical approaches and within-subjects or idiographic approaches in the study of human behavior is not futile and has been subject to debate for decades (e.g., Allport, 1937, Eysenck, 1954). In recent years, a general consensus has been reached that these different levels of analysis are both legitimate avenues of study and are in fact both necessary for developing a thorough understanding of human behavior (Pelham, 1993; Rosenzweig & Fisher, 1997). For instance, a recent study showed that at least half of the statistical information derived from idiographic ratings of personal constructs was unique when compared to ratings of the nomothetic Big Five items (Grice, 2004). Thus, as suggested by our own empirical studies, a more complete understanding of feedback-seeking behavior may be achieved by taking a within-subjects approach .

A second important methodology-oriented contribution of this dissertation pertains to the statistical approach used for analyzing reactions to feedback. Previous studies in both organizational and social psychology have used difference scores to represent the congruence between feedback scores and self-appraisals on feedback reactions. Typically, this difference score is then treated as a concept in its own right and the impact of this concept on feedback reactions is examined. Despite their widespread use, difference scores suffer from a number of methodological problems, being one of the most important that difference scores confound the impact of the component

parts of the difference score on the dependent variable. These problems can be avoided with polynomial regression analyses, which uses components of difference scores supplemented by higher-order terms to represent the hypothesized congruence effects (Edwards, 1994, 2001). The empirical studies in Chapter 4 were the first to use polynomial regression procedures for studying congruence in feedback research. The obtained results highlight the importance of using the appropriate statistical procedures in feedback research. When traditional difference scores were used, support for self-verification theory was found, whereas polynomial regression results indicated that actually, for the most part, self-enhancement theory was supported. These findings offer a likely explanation for the inconsistencies that were observed in previous research. Many of the alleged self-verification strivings may represent concealed self-enhancement effects. In this vein, it would be interesting to conduct an extensive re-analysis of previous studies examining feedback reactions using polynomial regression procedures instead of difference scores. This finding has important methodological implications for the study of self-verification processes in different domains of psychology. The essence of self-verification theory is that people prefer information that is congruent with their self-conceptions. Thus, one way or the other, analyses always come down to comparing self-ratings with other-ratings. Recent research keeps on using difference scores to analyze self-verification processes (Chen, Chen, & Shaw, 2004; Swann, Kwan, Polzer, & Milton, 2003), whereas our findings indicate that the use of difference scores may sometimes lead to erroneous conclusions.

A third methodological contribution is that we developed and used a web-based in-basket exercise to examine feedback processes. This exercise placed participants in a simulated organizational environment where they were asked to take the role of an actual manager in responding to emails. The management simulation enabled us to take an in-depth look at feedback-seeking decisions, feedback reactions and performance improvement in the feedback process while keeping possible confounds under control and thus, increasing the internal validity of the results obtained (Sackett & Larson,



1991). For instance, in field studies researchers have typically little control about perceived feedback-seeking costs. This makes it difficult to draw strong conclusions about motives underlying feedback-seeking as the intention to seek feedback might have been seriously curtailed by high costs associated with feedback-seeking. In the present management simulation, feedback-seeking took place in a private setting where feedback-seeking costs were minimal, which provides a clear picture of motives underlying feedback-seeking. Furthermore, this management simulation makes it possible to manipulate specific independent variables before the feedback process (e.g., lay beliefs in Chapter 1) and even in the middle of the feedback process (e.g., elaboration in Chapter 5), and draw conclusions regarding their impact on a range of variables (feedback-seeking, feedback reactions, task performance). Thus, the management simulation that was developed in this dissertation should contribute to more process-oriented research of feedback-seeking and feedback interventions, as has been strongly called for in previous feedback research (e.g., Levy et al., 1995). Of course, the use of laboratory simulations in organizational behavior research also has some drawbacks as they might be criticized for their vulnerability to external validity problems. Therefore, it is recommended that both students and working employees participate in these studies as was the case in Chapter 4 and 5. It is also advisable to examine whether the results obtained in the laboratory generalize to more realistic field settings (Dobbins, Lane, & Steiner, 1988; Sackett & Larson, 1991). For instance, this research strategy was adopted in study 1 and 2 of Chapter 3, where the same hypotheses were tested in a laboratory and a field setting, using different research approaches, and generalizability of the findings was supported.

Apart from these methodological contributions, two important limitations should be noted. First, we did not directly measure self-motives in the empirical studies, but instead used the self-motives framework as theoretical underpinnings to guide the choice of relevant antecedents and moderators. Thus, the activation of the self-motives was inferred from observed behaviors and responses, which makes some of the conclusions about the

role of self-motives in the feedback process somewhat tentative. In two studies, not included in this dissertation (Anseel, 2004), we tried to measure the self-motives by using an existing questionnaire (Stark & Sommer, 2000) and by developing a new questionnaire. Although results showed that all self-motives were significantly correlated to direct and indirect feedback-seeking ( $p < .01$ ), the scales measuring feedback-seeking motives were highly correlated. Especially, the self-enhancement and self-verification motives were difficult to discern ( $r > .80$ ), suggesting that these implicit motives may be difficult to measure using questionnaires. Apart from using experimental designs, future research may explore other research strategies to examine the role of feedback-seeking motives, for instance by using diary studies or think-aloud protocols.

Second, the narrative review that we conducted in the first chapter may be criticized on subjectivity and impreciseness grounds. Although we made efforts to prevent these threats by summarizing all reported zero-order correlations in the appendix, a more objective and accurate strategy to review previous feedback-seeking studies would be to conduct a meta-analysis. A meta-analysis might shed additional light on the observed inconsistencies by examining whether these inconsistencies stem from either sampling (and other) artifacts or from real phenomena that require theoretical explanations. A particularly promising route for future research would be to test the basic hypotheses of the self-motives model we proposed by combining the principles of psychometric meta-analysis and structural equation modeling in a theory-driven meta-analysis (Viswesvaran & Ones, 1995).

#### **FROM A PRACTICAL PERSPECTIVE**

On the basis of the comprehensive review provided in Chapter 1, we found that past research examining individual antecedents of feedback-seeking behavior yielded several important insights. These insights are also valuable

to practitioners in organizations as they suggest a number of practical recommendations for improving feedback processes in organizations. In addition, the empirical studies in this dissertation yielded insights which have important practical implications concerning individual antecedents of feedback-seeking behavior. These practical recommendations are summarized below. We indicated the numbers of the empirical studies on which each of these practical recommendations are based in superscript. These studies can be retrieved in the Appendix of Chapter 1. When recommendations were supported in our own empirical studies, the corresponding chapter (CH) is also indicated in superscript.

1. Set specific, unambiguous and realistic goals for employees. Design feedback systems in this way that employees can track their progress towards their goals.<sup>4, 12, 29, 37, 45</sup>
2. In particular, encourage employees with low performance expectations to seek feedback. Emphasize that errors and mistakes are accepted as a normal part of the learning process and encourage continuous development.<sup>1, 3, 4, 15, 25, 31, 33, 34, 42, 43, CH 3</sup>
3. In times of uncertainty (crisis, changes, socialization periods), open up the feedback channels and increase the feedback flow. This makes it possible for employees to seek feedback on one's own initiative. Specifically encourage feedback-seeking during organizational newcomers' socialization period by means of special orientation programs, social events and mentoring.<sup>5, 6, 11, 14, 17, 32, 47, CH 3</sup>
4. Make sure to provide additional feedback to employees that (a) are good at dealing with uncertainty, (b) are self-confident and (c) already have extensive job experience, even when they do not seek feedback themselves (any longer), (d) tend to seek self-verifying feedback and have a high certainty orientation.<sup>4, 6, 10, 16, 26, 34, 39, 43, CH3</sup>

5. Utilize learning goal orientation as a criterion for selecting applicants for complicated and rapid changing jobs. Design training programs in order to develop learning goal orientation of employees (e.g., by changing the attributions employees make about success and failure). Use developmental performance appraisal systems in which behavioral feedback is provided instead of feedback relative to others. Map goal orientations of employees individually and customize feedback systems.<sup>15, 26, 28, 34,35, 44, 45, 47</sup>

6. Increase understanding of employees' implicit beliefs about the importance and modifiability of the different performance dimensions. Communicate which performance dimensions are valued in the organization and set out transparent management policies on the basis of these performance dimensions (e.g., performance appraisal format, reward structures).<sup>CH 2</sup>

A second series of practical implications can be derived from our review (Chapter 1) of research examining contextual antecedents of feedback-seeking behavior. These results are particularly interesting from a practical point of view because they stipulate strategies that organizations might adopt to create rich feedback environments wherein employees are encouraged to seek feedback themselves. Again, we summarized practical recommendations on the basis of the studies included in the Appendix of Chapter 1.

7. Use information technology and communication media in order to encourage feedback-seeking for example by registering, tracking, and displaying performance statistics. Develop feedback systems so that feedback can be sought and given by face-to-face communication. Provide alternative sources for privately seeking feedback (for example email, memo's, helpdesk, intranet, handbooks, FAQ).<sup>2, 3, 7, 19, 23, 28, 34, 43</sup>

8. Develop positive communication norms by making clear that all employees seek feedback. Identify opinion leaders among employees and train them to become role models in feedback-seeking behavior. Encourage and train top-level managers to exhibit feedback-seeking behavior in presence of their subordinates, thus performing the behavior that will be emulated by others.<sup>7, 17, 42, 48</sup>

9. Train managers in different strategies for encouraging feedback-seeking for example by showing consideration and supportiveness, by concealing a bad mood, and using a transformational leadership style.<sup>2, 12, 15, 21, 24, 26, 29, 33, 40, 48</sup>

10. Make expatriate managers aware of cross-cultural differences in feedback-seeking patterns. Minimize face-loss costs in collectivistic cultures by making feedback available through informal and private channels.<sup>13, 22, 30</sup>

11. Design organizations so as to that job roles, responsibilities and expectations are clearly defined for the employees.<sup>11, 41</sup>

Third, in the empirical studies conducted in Chapter 4 and Chapter 5, we highlighted the important role of feedback reactions in the feedback process. In two studies, we found that in general people tend to embrace favorable feedback but reject unfavorable feedback. This finding is especially noteworthy in the light of the results in the last empirical study showing that feedback acceptance and feedback utility predicted task performance. The last study also identified an important facilitating condition for feedback interventions by demonstrating that eliciting people to elaborate upon feedback messages leads to higher performance improvement. Together, these findings suggest some additional recommendations.

12. Consider how delivery of feedback impacts the perceived accuracy and utility of feedback. Train managers in instrumental leader behaviors (e.g., path-goal facilitation) that might improve

perceived accuracy and desire to respond. Spend time and resources to improve the accuracy of the appraisal system. Inform employees on the validity and accuracy of appraisal systems.

13. Help employees interpret and react to negative feedback. Personal coaches, feedback workshops and follow-up sessions may be helpful in focusing on both positive and negative feedback, motivating employees in dealing with inconsistencies, and formulating plans for improvement.

14. Ensure that deep and thoughtful cognitive processing of feedback messages takes place during feedback interventions. For instance, encourage employees to process feedback by providing ample processing time, organizing feedback workshops, or developing “feedback modules” in the feedback report.

Although the web-based in-basket exercise was mainly developed for research purposes, this management simulation has also shown to have great practical value from an employee’s perspective. First, the use of web-based assessment applications has rapidly grown in the last decade (Bartram, 2000; Lievens & Harris, 2003). In contrast to this explosive growth, applicants are often not yet familiar with these recent technological developments in testing and assessment and often feel uneasy with the prospect of having to complete web-based assessment instruments. The management simulation that was developed in the current dissertation, should be particularly useful in training programs that are designed to accustom and prepare applicants for future computerized and web-based assessment procedures. Second, the last decade there has grown a strong emphasis on employees’ responsibility in developing and directing their own careers. In these *protean* careers, the person, not the organization is, in charge. The person’s core values are driving career decisions, and the main success criteria are subjective psychological issues (Hall, 2004). In order to be able to take their careers in own hands, employees have to gain knowledge on their own strengths and

weaknesses. In this context, the web-based management simulation should be a practical and easily accessible self-assessment instrument for assisting people in taking important career decisions as it immediately provides realistic and useful feedback on four basic managerial competencies (Decisiveness, Problem Awareness, Coordinating, and Information Management). The practical value of this instrument is probably best reflected in the fact that the Flemish Public Employment Service (VDAB) recently started to use the management simulation in applicant training programs and for career assessment and career counseling purposes .

Finally, it should be noted that the practical recommendations that we summarized are limited to organizational practices. However, the obtained findings might also have important implications that go beyond organizational applications. Feedback interventions are among the most used mechanisms to enhance learning and development across a wide range of settings. For instance, feedback processes have been found to be of key importance in learning sport skills to athletes, cognitive skill development in children's education, stimulating healthy behavior in health care programs, and for the treatment of depression in clinical settings. We envision that the insights from this dissertation may have practical relevance for all settings where seeking, giving, and receiving feedback are an essential part of the development process.

### REFERENCES

- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- Anseel, F. (2004). [*Measuring motives of feedback-seeking behavior*]. Unpublished Data.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resource: Personal strategies of creating information. *Organizational Behavior and Human Performance*, 32, 370-398.
- Bartram, D. (2001). Internet recruitment and selection: Kissing frogs to find princes. *International Journal of Selection and Assessment*, 8, 261-274.
- Bernichon, T., Cook, K. E., & Brown, J. D. (2003). Seeking self-evaluative feedback: The interactive role of global self-esteem and specific self-views. *Journal of Personality and Social Psychology*, 84, 194-204.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In N. Schmitt & W. C. Borman (Eds.), *Personnel selection in organizations* (pp. 35-70). San Francisco: Jossey-Bass.
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self-definition. *Journal of Personality and Social Psychology*, 86, 77-94.
- DeNisi, A. S., & Kluger, A. N. (2000). Feedback effectiveness: Can 360-degree appraisals be improved? *Academy of Management Executive*, 14, 129-139.
- Dobbins, G. H., Lane, I. M., & Steiner, D. D. (1988). The role of laboratory methodologies in applied behavioral research: Don't throw out the baby with the bath water. *Journal of Organizational Behavior*, 9, 281-286.
- Edwards, J. R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58, 51-100.
- Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, 4, 265-287.
- Eysenck, H. J. (1954). The science of personality: Nomothetic!. *Psychological Review*, 61, 339-342.
- Fedor, D. B. (1991). Recipient responses to performance feedback: A proposed model and its implications. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel and human resource management* (Vol.9, pp.73-120). Greenwich, CT: JAI Press.



- Freitas, A. L., Salovey, P., & Liberman, N. (2001). Abstract and concrete self-evaluative goals. *Journal of Personality and Social Psychology, 80*, 410-424.
- Grive, J. W. (2004). Bridging the idiographic-nomothetic divide in ratings of self and others on the big five. *Journal of Personality, 72*, 204-241.
- Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior, 65*, 1-13.
- Ilggen, D. R., & Davis, C. A. (2000). Bearing bad news: Reactions to negative performance feedback. *Applied Psychology: An International Review, 49*, 550-565.
- Ilggen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.
- Kinicki, A. J., Prussia, G. E., Wu, B., & McKee-Ryan, F. M. (2004). A covariance structure analysis of employees' response to performance feedback. *Journal of Applied Psychology, 89*, 1057-1069.
- Kluger, A. N., & Adler, S. (1993). Person- versus computer-mediated feedback. *Computers in Human Behavior, 9*, 1-16.
- Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin, 119*, 254-284.
- Kluger, A. N., & DeNisi, A. S. (1998). Feedback interventions: Toward the understanding of a double-edged sword. *Current Directions in Psychological Science, 7*, 67-72.
- Levy, P. E., Albright, M. D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes, 62*, 23-37.
- Lievens, F., & Harris, M. M. (2003). Research on internet recruitment and testing: Current status and future directions. In C. L. Cooper & I. T. Robertson (Eds.) *International Review of industrial and Organizational Psychology*, Vol. 18. Chichester, England: John Wiley.
- Morling, B., & Epstein, S. (1997). Compromises produced by the dialectic between self-verification and self-enhancement. *Journal of Personality and Social Psychology, 73*, 1268-1283.
- Murphy, K. R. (1994). Toward a broader conception of jobs and job performance: Impact of changes in the military environment on the structure, assessment, and prediction of job performance. In M. G. Rumsey, C. B. Walker, & J. H. Harris (Eds.), *Personnel selection in organizations* (pp. 85-102). San Francisco: Jossey-Bass.

- Murphy, K. R., & Shiarella, A. H. (1997). Implications of the multidimensional nature of job performance for the validity of selection tests: Multivariate frameworks for studying test validity. *Personnel Psychology, 50*, 823-854.
- O'Leary-Kelly, A. M., & Newman, J. L. (2003). The implications of performance feedback research for understanding antisocial work behavior. *Human Resource Management Review, 13*, 605-629.
- Pelham, B. W. (1993). The idiographic nature of human personality: Examples of the idiographic self-concept. *Journal of Personality and Social Psychology, 64*, 665-677.
- Rosenzweig, S., & Fisher, S. L. (1997). "Idiographic" vis-à-vis "idiodynamic" in the historical perspective of personality theory: Remembering Gordon Allport, 1897-1997. *Journal of the History of Behavioral Sciences, 33*, 405-419.
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology, 87*, 66-80.
- Sackett, P. R., & Larson, J. R. (1990). Research strategies and tactics in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2<sup>nd</sup> ed., Vol. 1, pp. 419-489). Palo Alto, CA: Consulting Psychologists Press.
- Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology, 65*, 317-338.
- Smith, E. R., & DeCoster, J. (2000). Dual-process model in social and cognitive psychology: Conceptual Integration and links to underlying memory system. *Personality and Social Psychology Review, 4*, 108-131.
- Stark, G., & Sommer, S. M. (2000, August). *Pursuing the good, the known or the unknown: Antecedents of feedback seeking motives*. Paper presented at the Academy of Management National Meeting, Toronto, Canada.
- Swann, W. B., Kwan, V. S. Y., Polzer, J. T., & Milton, L. P. (2003). Fostering group identification and creativity in diverse groups: The role of individuation and self-verification. *Personality and Social Psychology Bulletin, 29*, 1396-1406.
- Swann, W. B., Pelham, B. W., & Krull, D. S. (1989). Agreeable fancy or disagreeable truth: Reconciling self-enhancement and self-verification. *Journal of Personality and Social Psychology, 57*, 782-791.
- Taylor, M. S., Fisher, C. D., & Ilgen, D. R. (1984). Individuals' reactions to performance feedback in organizations: A control theory perspective. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 2, pp. 81-124). Greenwich, CT: JAI Press.

- 
- Tetlock, P. E., & Levi, A. (1982). On the inconclusiveness of the cognition-motivation debate. *Journal of Experimental Social Psychology, 18*, 68-88.
- Tett, R. P., Guterman, H. A., Bleier, A., & Murphy, P. J. (2000). Development and content validation of a "hyperdimensional" taxonomy of managerial competence. *Human Performance, 13*, 205-251.
- Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology, 75*, 195-216.
- Van de Vliert, E., Shi, K., Sanders, K., Wang, Y., & Huang, X. (2004). Chinese and Dutch interpretations of supervisory feedback. *Journal of Cross-Cultural Psychology, 35*, 417-435.
- Viswesvaran, C., & Ones, D.S. (1995). Theory testing: Combining psychometric meta-analysis and structural equation modeling. *Personnel Psychology, 48*, 865-885.