

**Creative Deviance:
Its Antecedents and Outcomes in the Workplace**

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A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
in
Management

The Chinese University of Hong Kong

September 2013

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**Creative Deviance:
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Abstract

Existing literature on creative deviance has focused exclusively on theoretical development of the construct. Empirically, very little work has been done to test the construct. The dissertation intends to fill in this gap by developing the nomological network for creative deviance. Drawing on self-determination and leadership theories, my dissertation asks the following three questions: 1) How to operationalize creative deviance at individual level? 2) What will make people engage in creative deviance? 3) How does creative deviance render people more creativity or deviance? To answer these questions, three studies were carried out to (1) develop the measurement of creative deviance, (2) build the antecedent model, and (3) develop the outcome model.

In Study 1, which is designed to develop the measurement, I conducted semi-structured interviews with managers, employees, and directors of human resource management departments in two advertising firms. After distilling these qualitative insights and according to the definition of creative deviance, I developed items with a panel of three judges, including a researcher of creativity, a researcher of workplace deviance, a Design Director of the advertisement company. To gain empirical evidence on structural validity of the items that would be used in the later formal survey using the Chinese sample, I pre-tested them using 79 respondents in China. Results validated the measurement.

In Study 2, which is to develop and test the antecedent model, I investigated the motivational mechanisms for creative deviance based on self-determination (SDT) and self-efficacy (SET) theories. Results from 146 matched data over a 3-month time-lagged survey supported that intrinsic motivation and creative self-efficacy toward rejected ideas mediate the effect of autonomy on creative deviance. I also tested the indirect effect of intrinsic motivation on the condition of job involvement for creative deviance in the second stage of the mediation. The results supported the hypotheses.

In Study 3, which is to develop and test the outcome model, I posit that creative deviance is positively related to five leader responses: punishing, rewarding, forgiving, ignoring and manipulating. Using 226 leader-employee dyads from two advertising firms in China, I examined how leaders' responses to creative deviance affect employees' subsequent creative deviance and creative performance. Results demonstrated that creative deviance was positively related to five leader responses: punishing, rewarding, forgiving, ignoring and manipulating. As hypothesized, rewarding, manipulating, and punishing conveyed the effect of creative deviance on creative performance, while forgiving, ignoring and manipulating conveyed the effect of creative deviance on subsequent creative deviance. Supportive supervision for creativity moderated the relationships between creative deviance and rewarding, as well as between creative deviance and forgiving.

By developing measurement at the individual level and testing the above two models for nomological network, my research sheds light on the micro-level knowledge of creative deviance and facilitates related research in the field of organizational behavior. Implications for theory and managerial practices, limitations, and directions for future research are discussed.

Keywords: creative deviance, creativity, deviance, leadership, intrinsic motivation

创新中的抗令行为——其在工作环境中的原因和结果

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摘要

现有的关于“创新中的抗令行为”的社会科学文献都只是这个构念进行了理论探讨，而缺乏实证研究。为弥补这个不足，本论文将在实证上进一步发展其逻辑关系网络。基于自我决定和领导力理论，本论文提出以下三个研究问题：1. 如何在个人层面操作化“创新中的抗令行为”？2. 为什么人们会在创新中出现抗令行为？3. 创新中的抗令行为怎样使人们做出更多的创新业绩或做出更多抗令行为？为了解答这些问题，作者对应地进行了三个研究：1. 发展“创新中的抗令行为”的量表，2. 建立前因模型，3. 建立结果模型。

研究一，量表设计与建立。作者先在两家广告公司中的中层经理、雇员、人力资源部门总监中进行半结构化面谈。根据这些定性的材料和构念的定义，作者和三位专家一起设计量表的条目，这三位专家包括一位研究创新行为的学者，一位研究不良行为的学者，和一位广告公司的设计总监。然后，作者在中国的 79 位被试中测试新量表的结构效度，研究结果支持了这个量表的结构有效性。

研究二，前因模型。作者基于自我决定和自我效能理论提出了人们做出创新中的抗令行为的动机机制。作者采用的研究设计是在以 3 个月为间隔的时间延迟调查，146 个匹配样本分析结果表明，内在动机和创新自我效能都能中介从工作自由度到创新中的抗令行为的主效应。数据结果同时还支持了关于调节变量的假设：工作投入度在中介路径的第二阶段发挥调节作用。

研究三，结果模型。作者基于领导力理论提出创新中的抗令行为将带来五种领导反应行为：奖励、惩罚、原谅、忽略和操控行为。在 226 对领导-下属对应样本中，作者检验了这五种领导反应行为所带来的下属的创新业绩或后续的抗令行为。数据结果与假设相一致：奖励、惩罚和操控能传递创新中的抗令行为的效应带来创新业绩，而原谅、忽略和操控能使抗令者继续做其他创新中的抗令行为。

通过发展量表和构建逻辑关系网络，本论文的研究为创新中的抗令行为的实证研究打下建立基础，有利于在组织行为学领域中下一步的研究。本研究中的大部分假设得到了支持，本文最后讨论了该研究对理论的贡献和管理实践中的意义，以及研究中不足和今后的研究方向。

关键词：创新中的抗令行为，创新业绩，不良行为，内在动机

CHAPTER 1

INTRODUCTION

Over the past decades, organizational science has witnessed a proliferation of research on workplace creativity -- production of novel and useful ideas (Madjar, Oldham, & Pratt, 2002). In contrast, research that explores the nomological network of creative deviance is lacking.

Creative deviance refers to a worker's violation of a managerial order to stop pursuing a new idea (Mainemelis, 2010). This definition presupposes that the employee has already generated a nascent new idea and has asked for a manager's permission to further develop it, but that following the manager's order to stop working on it: the employee violates that order and continues working on the new idea. Creative deviance, therefore, occurs in the idea elaboration stage of the creative process, which follows the idea generation stage but precedes the idea implementation stage (cf., Csikszentmihalyi, 1997). Creative deviance allows motivated employees who lack legitimate means to pursue new ideas illegitimately, and it allows the organization to experiment informally with a larger number of new ideas, some of which can result in creative products, while at the same time maintaining considerable flexibility in terms of how it can respond ex post to these illegitimate pursuits of new ideas (Mainemelis, 2010).

Mainemelis (2010) theorized creative deviance as an individual behavior but primarily in relation to other organization-level variables from a sociological perspective. He

suggested that while creative deviance is usually socially ascribed only to the violator, its rate depends on the organization's overarching social structure. Drawing on Merton's (1968) structural strain theory, he argued that creative deviance is more likely to occur when structural strain is present and when an organization places a relatively greater emphasis on creativity than on conformity.

Creative deviance is an important behavior for creativity and reaps organizations with more radical ideas (Mainemelis, 2010). I believe that the study of this nonconforming behavior will advance our knowledge of creativity, deviance and leadership, and has valuable implementations for them all.

With respect to creativity, creative deviance actually filters what the history of creativity often rewards—individuals who demonstrate their faith in an uncertain new idea by taking a risk to keep it alive and evolving (Csikszentmihalyi, 1997; Gardner, 1993; Gruber & Davis, 1995). Researchers have argued that the greater the number of new ideas, the higher the likelihood creative products will be generated (Campbell, 1960; Simonton, 1999; Staw, 1990). Creative products depend on the quality of ideas, which is a direct function of the quantity of ideas. Diehl and Stroebe (1987) reported a correlation of .82 between quantity and quality of ideas, and Frese et al. (1999) concluded that a company that wants to have good ideas should do everything to promote an increase in the number of proposed new ideas. Because the creative process is uncertain and ambiguous, creative deviance may or may not result in a creative product. However, creative deviance always allows employees to further pursue, and often develop and refine the rejected new idea, albeit through illegitimate means.

Consequently, this behavior will probably lead to a larger number of new ideas once the formal selection process omits the potential of the idea.

With respect to deviance literature, the study of this field has been dominated, to date, by two research streams that focus on inherently positive or negative deviant behaviors (Warren, 2004). This has led to the exclusion of deviant behaviors such as creative deviance, which are not inherently positive or negative (Staw & Boettger, 1990). The conceptualization of creative deviance suggests that the a priori classification of some deviant behaviors as either positive or negative is shortsighted; that the same deviant behavior in the same context and the same time period may produce both positive and negative outcomes (Mainemelis, 2010).

With respect to leadership literature, several studies have shown that in order to foster the generation of creative ideas, leaders must encourage employees to be creative and they also must provide them with a supportive social context that nurtures creative engagement (for reviews, see George, 2007; Shalley & Gilson, 2004). Leadership research to date, however, has overlooked leaders' role in evaluating, filtering, and selecting new ideas (Baer, 2012). As a result, little is known about how leaders handle the relationally intense task of rejecting employees' new ideas, especially after having encouraged employees to strive for creativity. Therefore, the study of how leaders respond to creative deviance would provide a novel investigation of a set of leader-member interactions that ensue after a new idea has been both generated and rejected.

However, creative deviance is relatively under-researched while it is of great importance. Mainemelis' sociological theorization (2010) on social structure factors are only half of the story of creative deviance. The other half story which is still unknown of this individual behavior should include personal antecedents and the outcomes in the dyad between the supervisor and the focal person. I assert that on top of sociological mechanisms at organization level, the mechanisms at individual level of how people are motivated to engage in creative deviance and of how leaders' respond differentially bring about individual subsequent creative performance and deviance are the missing pieces of puzzle of the whole picture of creative deviance. Yet the extant knowledge of creative deviance still stays at the macro-theorization stage without movement to empirical work on operationalization and nomological network at micro-level. Researchers have paid scant attention to the psychological antecedents and personal outcomes through the leaders' responses toward creative deviance. This dissertation fills this void by examining the antecedent and outcome mechanisms of creative deviance at the individual level.

To accomplish the above mission, I designed three studies which focus on relatively independent perspectives and contribute to different streams of literature. In the first study, I developed a scale for creative deviance according to the original definition. I collected the individual level data to validate the measurement of creative deviance. The second study builds the antecedent model of creative deviance. In the study, I draw on self-determination and self-efficacy theories to examine the concurrent mediating mechanisms for creative deviance. In particular, I treat autonomy as an important antecedent in the model. My core

argument is that autonomy allows employees to keep working on rejected ideas, violating a supervisory stop order because of 1) their intrinsic drive toward promoting the ideas and 2) the efficacy of their creative ability to work out the idea. I further propose that job involvement simultaneously moderates both mechanisms, such that both mechanisms would be stronger for an employee with higher job involvement. In the last study, I tested the outcome model of creative deviance. According to Mainemelis' (2010) argument that leaders' responses to creative deviance significantly and differentially influence its consequences, I theorize how leaders' responses to creative deviance affect employees' subsequent creative deviance and creative performance. In particular, creative deviance is positively related to five leader responses: punishing, rewarding, forgiving, ignoring and manipulating. As hypothesized, rewarding, manipulating, and punishing convey the effect of creative deviance on creative performance, while forgiving, ignoring and manipulating translate the effect of creative deviance to subsequent creative deviance. Supportive supervision for creativity moderates the relationships between creative deviance and rewarding, as well as between creative deviance and forgiving.

In sum, this dissertation is devoted to expanding the current literature in four distinct ways. First, while Mainemelis's (2010) theory of creative deviance is sociologically driven and focuses on organizational-level variables, I develop a new, micro-level theory about the antecedents and outcomes of creative deviance. Second, I operationalize creative deviance to make it possible for empirical research to be conducted at the individual level. My dissertation is the first empirical work to investigate creative deviance, not only by

empirically validating its measure but also by exploring the antecedent and outcome model for this specific deviance. Valid measurement and unique antecedents and outcomes are critical for establishing creative deviance, laying a foundation for the larger nomological network that can be further developed and tested in future research. Third, while past deviance research has focused on deviant workplace behaviors that are inherently positive or negative (Warren, 2003), I contribute a study of a deviant behavior that is not inherently positive or negative by itself, but rather, leaders' responses to it can make employees (1) more or less creative, or (2) more or less creatively deviant in the future. Fourth, my study sheds light on the specific differential effects of five types of leader responses to creative deviance. In doing so, more evidence is provided to show the sensitivity and complexity of the leader's role in managing creativity at work.

Here is how the following chapters are structured. Chapter 2 offers an overview of the conceptualization of creative deviance, illustrating what we have known about this behavior. In Chapter 3, I present study one on the development and validation of the measurement of creative deviance. Chapter 4 and 5 introduce two studies on antecedent and outcome models respectively. The two studies focus on relatively independent perspectives and contribute to different streams of literature. As such, they each contain respective sections of literature review, theory development, methodology and results. Specially, Chapter 4 develops a theoretical model based on self-determination and self-efficacy perspectives and explains why autonomy leads to an individual's creative deviance. Chapter 5 illustrates how the five types of leader responses: punishing, rewarding, forgiving, ignoring and manipulating,

differentially lead to subsequent creative performance and subsequent creative deviance.

Finally, Chapter 6 provides a general discussion of this dissertation, including research findings, theoretical contributions, implementation of my exploration, and suggestions for future research.

CHAPTER 2

GENERAL LITERATURE REVIEW

What happens when an employee generates a new idea and wants to further explore it but is instructed by a manager to give it up? Among the various possibilities, the employee could choose to violate the manager's order and pursue the new idea illegitimately. This behavior was conceptualized as creative deviance, *the violation of a managerial order to stop working on a new idea* (Mainemelis, 2010). In the following sections, I introduce the creative and deviant components, presumption, occurrence, consequences and value of creative deviance.

2.1 The Creative Component

Creativity is the process that results in a novel product (e.g., product, service, technology) that the social context accepts as useful or otherwise appropriate at some point in time (Stein, 1953).

Creative process refers to the steps involved in the creation of novel work, whereas creative product refers to a final work that the social context accepts as novel and useful (Amabile, 1996). The creative process is less linear and more recursive; that is, individuals usually move back and forth between various steps, often in a non-orderly way (Gardner, 1993; Gruber & Davis, 1995; Russ, 1993). In creative process, elaboration follows the generation of a new idea but precedes its implementation in the work context. Idea generation and idea implementation are the traditional foci of, respectively, creativity and innovation research (Shalley & Zhou, 2008). Idea elaboration has received less attention in organizational science to date. A notable exception is Staw's (1990) evolutionary theory of creativity, which posits that creativity is a function of not only generating new ideas and then carefully selecting

which ones to implement but also elaborating on some of those ideas. This view is consistent with the interdisciplinary literature, which has long argued that creativity involves a great deal of elaboration on nascent ideas (e.g., Campbell, 1960; Csikszentmihalyi, 1997; Gruber & Davis, 1995; Mainemelis, 2002; Russ, 1993; Wallas, 1926).

However, idea exploration is indispensable and important in the creative process, for at least two reasons. First, many situational factors may demolish useful novel ideas at their early stage of introduction. An organization's formal procedure may filter ideas in terms of their degree of risk (Ahuja & Lampert, 2001). Experts or supervisors with a high level of knowledge may not accept new ideas readily, as individuals in these roles are usually associated with mental rigidity in evaluating and selecting novel ideas (Mainemelis, 2010). A proposer who endures, and continues to explore his/her novel ideas in the face of rejection may preserve many potentially useful ideas. Second, very often, there is no well-established criterion for evaluating the potential value of a new idea. It takes time for the idea proposer to prove the value of the idea gradually. If one does not persist in exploring a new idea, the idea may not thrive or reveal its full potential.

2.2 The Deviant Component

Deviance refers to the violation of the normative expectations of the social context (Cohen, 1999; Merton, 1968). Norms consist of basic behavioral standards, such as those prescribed by formal or informal rules, policies, or other codes of conduct (Bennett & Robinson, 2000; Traub & Little, 1999). Conformity to managerial orders is a basic normative expectation of most work organizations (Staw & Boettger, 1990; Warren, 2003). Most of deviant behaviors can be identified a priori as inherently positive or negative. Creative deviance, however, is

not inherently destructive, for it can lead to positive results (e.g., a breakthrough invention), nor is it inherently constructive, for it may lead to negative results (e.g., wasting valuable resources). It is not an act of higher conformity either, for it does not involve hypernorms (the larger society's norms for constructive deviance to occur, Near & Miceli, 1995). Creative deviance is neither destructive nonconformity nor constructive higher conformity but, rather, a potentially positive or negative nonconformity to an organizational-level norm—namely, conformity to managerial orders. That is, creative deviance is not inherently a positive or negative but inherently an uncertain deviance.

2.3 Presumption

Creative deviance presupposes that an employee has already generated a new idea and has evaluated it as worth pursuing but has been instructed by a manager to stop working on it. The conceptualization of creative deviance also assumes that the employee uses some work time, materials, and/or other organizational resources to pursue the idea illegitimately (i.e., in direct violation of an order). Elaboration involves the transfer of a new idea from an individual's mind to its medium (Csikszentmihalyi, 1997) and validation checks, where the individual examines whether the developing work is indeed proceeding as intended (Amabile, 1988). The individual also notices new problems or insights that arise out of its interaction with the medium (Staw, 1990; Wallas, 1926) and then further develops and refines the new idea (Csikszentmihalyi, 1997; Russ, 1993).

Employees do not need permission to observe problems in their work, to incubate information, to generate new ideas, or to privately evaluate whether some of those ideas are worth pursuing (Frese, Ting, & Wijnen, 1999; George, 2007). Sooner or later, however, they need managerial permission to elaborate on new ideas because elaboration usually requires much more than cognitive resources. It requires materials, budgets, work time, or other scarce resources that organizations provide their employees to limited degrees and usually under

permission (Staw, 1990). Consistent with the recursive model of the creative process, this elaboration may help the violator generate fresh insights, reframe the problem, refine the new idea, and so forth.

2.4 Occurrence

Creative deviance may entail a single or multiple violations, whether successive or not, of managerial orders; the creative deviant may violate the order of a direct manager and/or a higher-ranked manager; and the illegitimate pursuit of an idea may be either covert or overt. Creative deviance may entail any of these situational possibilities.

2.5 Consequences

The creative process is uncertain and risky and offers no guarantee that a new product will result or that it will be accepted by the work context (Drazin, Glynn, & Kazanjian, 1999; Ford, 1996). As a result, an act of creative deviance may fail to produce a product, may result in an outcome that the organization accepts or rejects, and/or may result in a product that either benefits or harms the organization.

In a seminal exception in the literature, Staw and Boettger (1990) suggested that the violation of orders can be either positive or negative, depending on whether the orders are correct. They argued that while the violation of correct instructions can be needless deviance, the violation of incorrect instructions can be immensely valuable and may result in a product that the organization later recognizes as a creative breakthrough. Staw and Boettger found, in a laboratory setting, that people tended to conform to orders that are obviously flawed, and they called for research on the contextual conditions that foster deviant behavior. The conceptualization and studies on creative deviance answers that call specifically in the context of creativity. As Staw (1990) noted, no one can tell for sure whether a new idea will turn out to be successful or not, and, as a result, no one can know for sure whether a

managerial order to stop pursuing an idea is correct or incorrect at the time it is given. In this sense, the consequences of creative deviance can be either positive or negative, inherently uncertain.

2.6 Value

Creative deviance encompasses the pursuit of the means that allow an individual to elaborate on a new idea, even just for a short period of time, when a manager has instructed him or her to stop. An employee who pursues a new idea with managerial permission and one who pursues another idea by violating managerial orders are engaged in the same step of the creative process—idea elaboration. The key difference is that the former engages in a conforming and the latter in a nonconforming act. While the conforming behavior is contributing to the creative production, the nonconforming act should also be treasured for its unique value. Surely, an employee's faith in an idea is not a reliable indicator of its value. However, if we take optimal creativity to mean pursuing the highest degree of creativity possible, then we should consider creative deviance as a normal, expected human response.

By inviting creativity, organizations also invite a great deal of uncertainty. The creative process is uncertain because no one can predict whether the pursuit of a new idea will result in a positive outcome. A manager's order to an employee to stop pursuing a new idea is uncertain, for no one can judge whether the order is the best decision at the time. The violation of that order is structurally similar. By tolerating creative deviance, organizations may actually be structurally matching the inherent uncertainty that creativity entails; in turn, maximize the benefit from full human wisdom in creative process.

2.7 Chapter Summary and Research Gap in Previous Literature

The literature review in this chapter delineates the individual's faith of a new idea, his/her behavioral characteristics, uncertain consequences and undoubted value for organization.

However, our knowledge about creative deviance is still very limited, staying at the macro-theorization stage. Conceptualized as an individual's behavior at work, creative deviance has not yet been operationalized at the individual level for empirical work. Without valid measurement and unique antecedent/outcome linkages at micro level, creative deviance can neither be established in the field of organizational behavior, nor used in the future research of how to facilitate the full potential of human creativity.

To close the above research gaps, in the next three chapters, I first introduce how I develop and validate a measurement of an individual's creative deviance (Chapter 3); and then I examine an antecedent and an outcome model (Chapter 4 and 5 respectively), anchored on motivational and leadership theories and in a micro-level perspective, which is distinct from the previous macro-level perspective.

CHAPTER 3

STUDY ONE: SCALE DEVELOPMENT

This chapter reports my work on the development of creative deviance measurement. In Chapter 2, I discussed the limitations of the current literature on creative deviance. Prior studies placed a significant emphasis on theorization at macro level but overlooked the operationalization of this individual behavior, and paid scant attention to the empirical work on the nomological network building at micro level. To fill in these gaps, I conducted an empirical study in May, 2011 and developed the measure for my as study one in my dissertation, and propose the antecedent and outcome models in the following two chapters.

To develop and validate the creative deviance measurement, I employed various approaches in the following five steps. First, I organized semi-structured interviews to acquire the qualitative insights. Second, I developed 12 items which were examined by a panel of scholars and practitioners. Third, I invited 20 employees from creative industries in Hong Kong to assess the content validity of the updated scale. Fourth, I conduct a pilot test on the final scale by data collected from 79 respondents in China to gain empirical evidence on its structural validity. Fifth, using the data from pilot test, I employed exploratory factor analysis (EFA) and confirmatory factor analysis (EFA) to cross-validate the factorial-structure.

3.1 Semi-structured Interviews

In May 2011, I interviewed 14 managers, 12 employees, and two human resource management directors in two advertising firms in Shenzhen, a large city in southern China. The interviews, conducted in the firms' meeting rooms, lasted from 20 to 30 minutes each.

These interviews provided me with rich information about what employees' creative deviance is like and how employees behave creative deviance.

3.2 Item Development

After distilling these qualitative insights and according to the definition of creative deviance, *the violation of a managerial order to stop working on a new idea*, I designed twelve items in English to reflect the magnitude of self-reported creative deviance.

The original items were examined by a panel of three judges, including a researcher of creativity, a researcher of workplace deviance, a Design Director of the advertisement company. The judges were provided with the definition of creative deviance and were asked to indicate (a) to what extent that the definition they thought each item tapped, (b) the clarity of item wording.

After the new items were examined, four items were deleted and three items were revised. Specially, the Design Director deleted three items due to their inappropriateness in the real work setting. The researcher of creativity deleted one item and revised one item to make the scale specific on creative activity. The researcher of deviance revised two items to tap the clear description of nonconforming behavior. Three judges had consensus on all above revisions. The final list included eight items.

3.3 Revision for Content Validity

The eight items were distributed in questionnaire format to 20 employees of an advertising company in Hong Kong for assessment of content validity. English is native tongue for 12 of the 20 participants, and working language for the other 8 ones. The participants were asked to comment in writing on the clarity of the items, as well as their relevance in the context of creativity. I aggregated the scores of items to create a measure of creative deviance. The items were revised based on the inputs from participants.

I chose self-report rather than other-rating report (e.g. supervisor rating or peer rating) because an employee's general perception and experience of his or her own creative deviance may be more subtle than those of supervisor or peer. On one hand, creative deviance is an act of working on new ideas. Self-report is a suitable approach to measure the occurrence of creative deviance in that employees are aware of the subtle events when they work on new ideas. For example, Janssen (2000) used self-report as the source to measure innovative work behavior, arguing that a worker has much more information about various facets of his or her own work behavior. On the other hand, creative deviance is the violation of managerial orders. It is less likely that supervisors or even peer will be aware of creative deviance since employees would be less likely to be open about their non-conforming behavior at least for a period of time.

3.4 Data Collection

To gain empirical evidence on structural validity of the items that would be used in the later formal survey in Chinese sample, I pre-tested them using data from 79 respondents in an advertising company in Guangzhou, China. Since the original scale is in English, Brislin's (1970) back-translation procedure was followed to ensure the accuracy of the translation. Participants were asked to rate their creative deviance in the past one month using the eight items. I also asked these employees to rate their feelings of autonomy, intrinsic motivation toward rejected ideas, and creative self-efficacy of rejected ideas on a 7-point Likert-type scale anchored from 1 (strongly disagree) to 7 (strongly agree).

3.5 Data Analysis and Results

I first conducted an exploratory factor analysis (EFA) on the data using principal components and a cut-off criterion of .40 of factor loadings to decide the items. All items loaded on one factor, explaining 53.93% of the variance, with eigen-value of 4.32. Cronbach's alpha was

.88. Table 1 shows the results of factor loadings. I then performed confirmatory factor analysis (EFA) on the eight items. A good fit was found for the one-factor model ($\chi^2 (20) = 34.71, p < .05; CFI = .94; IFI = .94; TLI = .92; RMSEA = .10$).

----- Insert Table 1 about here -----

3.6 Chapter Summary

I collected qualitative and quantitative data from employees and supervisors to develop and validate the measurement of creative deviance. According to the EFA and then CFA results, I have more confidence on the validity of the creative deviance measure and will use it for the construction of the nomological network of creative deviance.

CHAPTER 4

STUDY TWO: AN ANTECEDENT MODEL

This chapter draws on the self-determination theory and self-efficacy theory to investigate the motivational mechanisms of creative deviance. I posit that intrinsic motivation and creative self-efficacy toward rejected ideas mediate the effect of autonomy on creative deviance. In addition, I explore the moderating effect of job involvement on the above two mediation paths. On the basis of a conceptual framework, I propose four sets of hypotheses. In the following sections, I will start with the basic assumptions of the commonality between deviance and creativity, and then explore how creativity-enhancing factors foster an uncertain deviance -- creative deviance.

4.1 Commonality of Deviance and Creativity

Research on the commonality of workplace deviance and creativity has received only marginal attention in the literature (Agnew, Brezina, Wright, & Cullen, 2002). This may be caused by the fact that these two forms of behavior seem to bear no resemblance to one another intuitively. Workplace deviance is recognized as undesirable and destructive behavior that leads to negative and dysfunctional outcomes (Vardi & Weitz, 2004). Creativity is predominantly perceived as a constructive and desirable performance that produces positive and socially desirable outcomes (Mumford & Gustafson, 1988). However, deviance and creativity share a common defining characteristic — norm-departure (Vadera, Pratt, & Mishra, 2013). Workplace deviance is defined as intentional behavior that departs significantly from normative expectations in organizations (Robinson & Bennett, 1995). Meanwhile, workplace creativity is defined as the production of novel and useful ideas that

depart from normative expectations and extant knowledge (Amabile, Conti, Coon, Lazenby, & Herron, 1996; Cropley, Kaufman, & Cropley, 2008). Creative actions frequently go against established norms of conformity (Ford, 1996). By definition, both deviance and creativity involve departure from the norm in certain domains (Vadera et al., 2013). When the norm refers to the "right" (e.g., obeying an order) or approved behaviors (e.g., using a resource legitimately) for the well-being of an organization (Jackson, 1965), norm-departing behavior is deviance. When the norm represents the current state of the domain or the relative frequency of similar ideas in samples drawn across persons, norm-departing behavior is perceived as an act for creativity (Vadera, et al., 2013).

Because the domains of norms from which people are motivated to depart appear to be unrelated, the theoretical and empirical work of identifying antecedents for the two forms of behavior might appear incompatible. With respect to deviance, the typical antecedents are considered to be negative and detrimental and always warned to avoid, including leadership factors such as abusive supervision; relational factors such as interpersonal conflict, and injustice; and motivational factors such as private grudges and revenge (see Tewksbury, Gagné & Schwartz, 2000, for reviews). With respect to creativity, the usual antecedents are considered to be beneficial and worth encouraging, including leadership factors such as transformational leadership; relational factors such as social exchange, help-seeking, and coworker support; and motivational factors such as intrinsic motivation and creative self-efficacy (Mumford, 2012; Tierney & Farmer, 2011).

However, some research suggested that deviance and creativity share mutual antecedents. For example, Gino and Ariely (2011) found that individuals with a creative personality and a creative mindset tend to think and act "out of the box" and promote their ability to justify their behavior that violates some moral norms, leading to unethical behavior. Moreover, creativity is likely to be higher in work contexts that show at least some tolerance

for deviance (March, 2007; Plucker & Runco, 1999) and lower in work contexts in which sheer conformity is a cardinal value (Nemeth, 1986, 1997). These findings imply that the domains of norms involved in deviance and creativity are not necessarily irrelevant. Indeed, when an organizational norm (such as obeying a managerial order) is relevant to a normal idea that employees are motivated to go against pursuing creativity, creativity-enhancing antecedents may also lead to non-conforming behavior.

Creative deviance is the sensitive example that occurs in the situation discussed above. It refers to the violation of a managerial order to stop working on a new idea (Mainemelis, 2010). As noted in its original conceptualization, it assumes that an employee has generated a new idea and has evaluated this idea as worth pursuing; however, has been given an order to stop working on the new idea by a manager (Mainemelis, 2010). Creative deviance is neither inherently positive nor constructive because it might lead to work resource misuse and property deviance that are indeed "negative" behaviors. Because obeying the order to stop is relevant to the normal ideas that employees are going to reform, antecedents that lead people to pursue something that departs from normal ideas also trigger non-conforming behavior toward the stop order. Although these arguments are plausible, empirical study that reveals the commonality of deviance and creativity in work organizations is lacking. Thus, the objective of the present research is to provide both a theoretical and an empirical examination of how a specific form of deviance shares mutual antecedents with creativity.

4.2 Motivational Mechanisms

To begin, I treat autonomy as an important antecedent of creative deviance. Self-determination theory and self-efficacy theory are proposed as two mechanisms that link autonomy to creative deviance. My basic argument is that autonomy allows employees to keep working on rejected ideas, violating a supervisory stop order because of 1) their intrinsic drive regarding the ideas and 2) the efficacy of their creative ability to work out the idea. I

further propose that job involvement simultaneously moderates both mechanisms, such that both mechanisms would be stronger for an employee with high job involvement. I am going to test these hypotheses in a field study through time-lagged and multiple-source data. Using cross-lagged panel design and accompanying tests, I would also like to offer evidence of the concurrence of two moderated mediation mechanisms underlying creative deviance.

My theoretical perspective and empirical findings thus will offer important contributions to knowledge about deviance and motivation in work organizations. First, my research identifies positively valued factors that foster deviance, which extends the range of antecedents that are intuitively considered detrimental and negative in earlier research. Workplace deviance is generally defined as a set of negative behavior resulted from destructive factors (Griffin & Lopez, 2005). Although antecedents for few special forms of deviance such as constructive deviance and pro-social rule breaking are desirable and worth encouraging, it is mainly because these forms of deviance are inherently positive and beneficial (Morrison, 2006; Spreitzer & Sonenshein, 2004; Warren, 2003). My findings imply that a non-conforming behavior that is not inherently positive may also result from creativity-enhancing antecedents that are encouraged by managers and organizations. In this sense, my research also answers the call for studies on the unique mechanisms through which managers and organizations inadvertently contribute to employees' deviance (Litzky, Eddleston, & Kidder, 2006).

Second, by introducing self-determination and self-efficacy theories to explain the concurrent motivational mechanisms behind creative deviance, I initiate the theoretical application of these two theories in the field of deviance. These two theories are seldom used to explain workplace deviance, whereas considerable theoretical effort has focused on the fields of psychological health, job performance, organizational citizenship behavior and creativity (Gagné & Deci, 2005; Tierney & Farmer, 2011). My theoretical application and

empirical results will offer a more complex understanding of the psychological mechanisms that drive and propel the persistent behavior elaborated in these two theories. My research thus opens up new implications for these theories in the field of deviance, adding more generally to the growing interest in these two theories.

Third, my study design also has the strengths in data collection and analysis. Specially, I used time-lagged data to support the internal validity of antecedent model; then analyzed cross-lagged data of two mediators in structural equation modeling to provide additional evidence for the concurring mediation mechanisms. In so doing, I can have more confidence on the evidence of the antecedent model of creative deviance.

Figure 1 summarizes our theoretical model depicting all the hypothesized relationships, including multiple moderated mediation relationships.

----- Insert Figure 1 about here -----

4.3 Theory and Hypotheses

4.3.1 From Autonomy to Creative Deviance

“Autonomy” refers to the degree of freedom that organizations provide to employees to elaborate on and develop new ideas (Amabile, 1988). It is well established that employee autonomy can lead to more deviance (Coleman & Ramos, 1998; Robinson & Bennett, 1993) and greater creativity (Amabile, 1988; Oldham & Cummings, 1996). Employees with higher degrees of autonomy have more opportunities to engage in creative deviance, not only because they have greater personal discretion (George, 2007), but also because they have easier access to organizational resources. Thus, autonomy plays an important role in the proposers’ non-conforming behavior of exploring rejected ideas.

The criteria of whether a new idea is worth working on are ambiguous by nature (Campbell, 1960). Prospects for new ideas are often uncertain because many ideas fail even with managerial permission. New ideas from employees may be rejected by supervisors because of various reasons that are subjectively assessed by a supervisor. No one can know for sure whether a managerial order to stop exploring an idea is correct or not. With more room and more resources for self-decision making, an employee with high autonomy would be less likely to conform to supervisory stop orders. Greater autonomy thus offers employees more opportunities to work on rejected ideas without encountering substantial supervisory restraints. Therefore, I hypothesize that employees with greater autonomy will more likely violate the stop order on the new ideas:

Hypothesis 1: Autonomy will be positively associated with the occurrence of creative deviance.

4.3.2 Two Theoretical Mediating Mechanisms

Both self-determination theory (SDT) and self-efficacy theory (SET) have been frequently used to explain mechanisms of persistent behaviors (e.g., Tierney & Farmer, 2011; Liu, Chen, & Yao, 2011; Mumford 2012). Specially, when an employee believes that he or she has a certain degree of self-determination over task execution, has the ability to perform a task successfully, and can shape desired outcomes through his or her behavior, the employee is likely to focus on an idea or a problem longer and more persistently (Deci & Ryan, 1991; Spreitzer, 1995). I employ these two theories to explain the persistent behavior in rejected ideas to violate the managerial order.

4.3.3 Mediating Mechanism through Intrinsic Motivation toward Rejected Ideas

Based on SDT, one possible mechanism that explains the effects of autonomy on violating the stop order with respect to rejected ideas is intrinsic motivation toward these ideas (Gagné

& Deci, 2005). “Intrinsic motivation,” the core concept of SDT, involves people undertaking an activity because they find it interesting and because they derive spontaneous satisfaction from it (Gagné & Deci, 2005). According to extant research, intrinsically motivated people are curious and learning-oriented, cognitively flexible in the creative act, and willing to take risks in challenging activities (e.g., Boggiano, Ruble, & Pittman, 1982; Deci & Ryan, 1980, 1985). However, research that directly investigates how the intrinsic motivation mechanism fuels persistence to engage in non-conforming behavior is scarce (Utman, 1997).

SDT contends that the fundamental human need for autonomy—the freedom of choice to engage in activities—ultimately determines the quality of one’s motivation. Autonomy, therefore, is identified as the critical condition that leads to intrinsic motivation (Gagné & Deci, 2005). Intrinsic motivation consists of two dimensions, internal enjoyment and challenge (Amabile, Hill, Hennessey, & Tighe, 1994). With respect to internal enjoyment, a high level of autonomy fuels intrinsic motivation toward volitional choices, through internal enjoyment, without the necessity of additional incentives (Deci & Ryan, 2008). Autonomy involves acting with a sense of volition and having the experience of choice. When people are performing an activity wholly volitionally, they engage in it because they find it interesting and not for any other external incentives. With respect to challenge, autonomy makes the stop order a positive challenge experience and thus enhances intrinsic motivation. The stop order regarding the rejected ideas provides the person with a challenge experience. Because many people perceive a positive challenge in focusing on opportunities for success (Lazarus, 1991; Lazarus & Folkman, 1984), higher autonomy makes the stop order more accomplishable and thus leads people to take risks in challenging activities, i.e., violating the stop order.

In autonomous situations, employees have legitimate latitude to pursue ideas in which they are most interested before the supervisor intervenes with stop orders. Because intrinsic

motivation stems from the internal enjoyment and challenge experience of the employee's personal choice, the maintenance of intrinsic motivation does not necessarily require separable consequences, such as structures, limits, or contingencies (e.g., the supervisor's stop order, reward, or punishment). Instead, continuing to work on new ideas would reinforce and maintain the internal enjoyment and positive challenge per se, which intrinsically motivates the employee's persistence in the rejected ideas that may go against the normal understanding.

Research has shown that intrinsically motivated employees use interest as a guide for determining which ideas to pursue (Amabile et al., 1994; Ryan & Deci, 2000). Intrinsic motivation focuses on individuals' efforts and persistence at maintaining autonomy and control. More autonomy triggers more intrinsic motivation and more internal enjoyment of working on unique ideas that depart from the normal ones. In turn, intrinsic motivation creates a greater reluctance to abandon interest in and enjoyment of going against the normal ideas. In this sense, autonomy leads to creative deviance through the maintenance of intrinsic motivation to go depart from the normal ideas involved in the stop order. I therefore propose that:

Hypothesis 2: Intrinsic motivation toward rejected ideas mediates the effect of autonomy on the occurrence of creative deviance.

4.3.4 Mediating Mechanism through Creative Self-Efficacy of Rejected Ideas

Another important mediation mechanism linking autonomy and creative deviance is creative self-efficacy, the self-view that one has the ability to produce creative outcomes (Tierney & Farmer, 2002, p. 1138). Employees violate supervisory orders concerning rejected ideas because of strong intrinsic motivation and because of a strong belief in their ability to work out the new idea.

Theoretically, self-efficacy underpins an attempt to conquer challenges that are

encountered because it is an invincible belief not to be deterred so long as a person feels efficacious (Bandura, 1986). Furthermore, SET proposes that self-efficacy in a specific creative domain involves a confidence in adopting nonconforming perspectives (Bandura, 1977; Maddux, 1995). Therefore, self-efficacy specific to creative activity domain, namely creative self-efficacy, is most instrumental in predicting the non-conforming behavior of exploring some new ideas (Bandura, 1986).

As the autonomy of the employee increases, he or she would have more opportunities to think independently without the supervisor's real-time approval. Furthermore, the greater the autonomy, the more reassurance employees receive about their capabilities to make decisions and handle situations (Ford, 1996), which strengthens their perception of having control over their work (Fiske, Morling, & Stevens, 1996). These employees are expected to possess self-confidence in working out new ideas, and to stand firm in the face of competing views, e.g., a supervisor's stop order.

High levels of self-efficacy can cultivate interest and expand choice behavior (Bandura, 1977). When individuals feel efficacious in specific domains, they hunger to grow and exert their full potential in these domains. Confidence about creative ability encourages individuals to set more ambitious goals about new ideas for themselves and increases their commitment to attain the outcomes of these ideas regardless of how far they depart from the normal ideas. Feeling creative competence is also likely to help people to think "out of the box", allowing them to defy norms of conventional understanding that is relevant to the stop order from the supervisor. In this sense, a supervisor's stop order would be less likely to decrease employees' confidence in working out rejected ideas, making it less likely for them to stop working on these ideas. Thus, autonomy would lead to non-conforming behavior towards the stop order through creative self-efficacy with respect to rejected ideas. Empirically, self-efficacy has shown to be highly correlated to autonomy (van Mierlo, Rutte, Vermunt,

Kompier & Doorewaard, 2006; Gist, & Mitchell, 1992) and to be the source of inappropriate task persistence (Whyte, Saks, & Hook, 1998). Based on the theoretical and empirical evidence discussed above, I formulate the following hypothesis:

Hypothesis 3: Creative self-efficacy of rejected ideas mediates the effect of autonomy on the occurrence of creative deviance.

4.3.5 The Moderating Role of Job Involvement

Since voluntary, self-imposed goals are the basic assumptions of both SDT and SET (Deci & Ryan, 2000). I expect that a systematic moderator of these two mechanisms would be related to the centrality of self-set goals with respect to new ideas at work in the employee's self-identity. Job involvement is identified as a construct that represents these characteristics of creative employees. It refers to the cognitive energy that individuals invest to maintain self-identities related to work (Kanungo, 1982). It serves as an individual characteristic reflecting the psychological identification with one's work (Lodahl & Kejnar, 1965).

Both SDT and SET are relatively independent aspects of self-regulation theory, a theory assuming that people initiate and persist at behaviors to the extent that they believe the behaviors will lead to desired outcomes (Latham & Locke, 1991). The core idea of self-regulation is that individuals set goals. SDT and SET use different rationales to explain how people set goals and regulate subsequent behaviors. SDT highlights the importance of humans' evolved inner resources for personality development in one's goal to self-regulate behavior (Ryan, Kuhl, & Deci, 1997). SET emphasizes the cognitive process of gauging the capability to accomplish the goals of self-regulation processes (Bandura, 1997). Thus, both theories assume that the centrality of goals in the person's self-identity influences the magnitude of the relationship between the motivation toward self-set goals and the subsequent behavior (Latham & Locke, 1991)

With respect to goals, many work situations require juggling the simultaneous pursuit of multiple goals

(Schmidt & DeShön, 2007), but a high degree of job involvement will make central the goal of finding the best ideas and highest quality new ideas at work. When employees are intrinsically motivated or self-efficacious in working on rejected ideas, this is their self-set goal. Employees highly involved in their job would more likely highlight the exploration of new ideas as their central goals among multiple goals at work (Brown, 1996). That is, individuals with high job involvement would interpret persistence in working on rejected ideas in their self-set goals as opportunities to perform work activities better, which is a central goal that requires extra effort (Hillman, Nicholson, & Shropshire, 2008). In this sense, job involvement helps justify their intention of violating the stop order that hinders their effort of going depart the normal ideas; in turn, job involvement kindles the subsequent nonconforming behavior. Thus, intrinsic motivation and creative self-efficacy toward rejected ideas would lead to increased creative deviance for employees with high job involvement. Taken together, I propose the hypotheses:

Hypothesis 4a: Job involvement moderates the relationship between autonomy and creative deviance via intrinsic motivation toward rejected ideas, such that high job involvement strengthens the path from intrinsic motivation to creative deviance.

Hypothesis 4b: Job involvement moderates the relationship between autonomy and creative deviance via creative self-efficacy of rejected ideas, such that high job involvement strengthens the relationship between creative self-efficacy and creative deviance.

4.4 Methods

4.4.1 Data Collection

To test the hypotheses, I collected time-lagged data in two advertising companies in South China. These two companies have similar business structure. All participants have similar work tasks, such as graphic design and brand advertising. They worked on designs, plans, or schemes, and submitted to supervisors. It is common for these employees that some of their submissions would be rejected by their supervisors. To efficiently deliver questionnaires to

all participants, I used an online survey system. The system allows researchers to build panels with embedded information so as to match participants' data when the questionnaires are anonymous.

Data were collected in two rounds with a three-month interval. At Time 1, online questionnaires including autonomy, intrinsic motivation and creative self-efficacy were distributed to 303 employees who had worked in the organization for at least one month. All variables and demographic information collected at Time 1 were self-reported. I received 289 valid responses (95.4%). Three months later, I conducted Time 2 survey for these 289 employees and their supervisors. In Time 2, employees were asked to rate intrinsic motivation, creative self-efficacy again; and are also asked to rate their judgment of job involvement and creative deviance in the past three months. Due to turnover, email address change, and other certain reasons, I received 157 valid responses (54.3%) from employees. 169 supervisors were asked to rate their subordinates' creative performance in the past three months. Each supervisor rated one or two subordinates who submitted the questionnaires at Time 1. Finally, I got 146 matched data across two waves of surveys.

4.4.2 Measures

Autonomy. I used a 3-item scale to measure autonomy. The items were adapted from the "autonomy" subscale of Job Diagnostic Survey (Hackman & Oldham, 1975). An example item was, "My job lets me be left on my own to do my own work." Cronbach alpha of the scale was .85.

Intrinsic motivation towards rejected ideas. I adapted Tierney, Farmer, and Graen's (1999) 5-item Intrinsic Motivation scale in this study. The target in each item was changed to the "rejected ideas". An illustrative item was, "I enjoy finding solutions for the new ideas rejected by my supervisor." Cronbach alpha of this scale was .78.

Creative self-efficacy of rejected ideas. I measured employees' self-efficacy on creative

work using Houghton and DiLiello's (2010) 6-item scale. Again, we rephrased the target to represent creative self-efficacy in each item. A sample item was, "I feel that I can work out some rejected ideas." Cronbach alpha for this measure was .92.

Job involvement. I used Kanungo's (1982) 10-item scale to measure job involvement. A sample item was, "I have very strong ties with my present job which would be very difficult to break." The Cronbach alpha was .85.

Creative performance. I measured creative performance using George and Zhou's (2001) 13-item scale of creativity. A sample item was "Suggests new ways to achieve goals or objectives". Cronbach alpha of the 13 items was .95. All items in my questionnaire were responded on a 7-point scale ranging from 1 (disagree strongly) to 7 (agree strongly).

Control variables. I collected the demographic information of participants' age, gender, education, and tenure.

4.4.3 Analytical Strategy

My analytical process consists of three steps as I used multiple tools for specific purposes respectively. First, I conducted CFA to examine the factorial structure of the measured constructs. Second, I used hierarchical multiple regression analyses (Baron & Kenny, 1986) to test main and mediation effects. Gender, age, education, and tenure were included in the regression as control variables. To offer more evidence of concurrent mechanisms, I also tested the indirect effects of the two mediators respectively using Preacher and Hayes's (2004) macro program. Meanwhile, I used Time 1 data of two mediators (intrinsic motivation and creative self-efficacy) in all hypothesis tests to reflect the time-lagged design between mediators and dependent variable (creative deviance). Third, I used Mplus 6.0 to test the multiple moderated mediation effects. Basing on analytical strategies advised by Preacher, Rucker, and Hayes (2007) and Edwards and Lambert (2007), I examined conditional indirect effect of autonomy on creative deviance through intrinsic motivation and creative self-

efficacy towards the rejected ideas at plus and minus one standard deviation of job involvement.

In addition, I conducted cross-lagged analyses to rule out alternative explanations on the causal relationship between intrinsic motivation and creative self-efficacy. In my model, I proposed intrinsic motivation and creative self-efficacy as concurrent mechanisms linking autonomy to creative deviance. However, collecting data at the same time point might bring about an alternative explanation of reciprocal causality of two concurring mechanisms. In other words, it is possible that intrinsic motivation leads to creative self-efficacy or vice versa. To rule out this alternative explanation, I used a cross-lagged design to examine whether any causal serial pattern appears between intrinsic motivation and creative self-efficacy (Burkholder & Harlow, 2003; Lang et al., 2011). Specially, I used structural equation modeling (SEM) via AMOS 17.0 to test the cross-lagged model (Burkholder et al., 2003). The steps of model specification are as follow. First, in the full model, I added data of two mediators at both Time 1 and Time 2 between autonomy (independent variable) and creative deviance (dependent variable). Second, I linked Time 1 intrinsic motivation to Time 2 creative self-efficacy versus Time 1 creative self-efficacy to Time 2 intrinsic motivation. Third, I included regression paths between the data of same mediator that were measured at two time points. Fourth, I set correlation links between the disturbance errors of the two mediators measured at the same time. Similarly, measurement errors of the same indicator across two times were also set to be correlated. Finally, I specified a common factor as a second-order factor for each pair of mediators measured at the same time point, setting correlation between the common factors at Time 1 and Time 2 (Lang et al., 2011). The results are reported in the section of additional analysis.

4.5 Results

4.5.1 Preliminary Analysis

I conducted two preliminary analyses before examining my hypotheses. First, the means, standardized deviations, correlations, and reliability of the variables of the combined sample are presented in Table 2.

----- Insert Table 2 about here -----

Second, I conducted CFA to examine the distinctiveness of creative deviance. I parceled the items to form three indicators for each construct. I first averaged the highest and lowest loadings to establish the first indicator, and then averaged next highest and lowest loadings to establish the second indicator, and so forth until all items were assigned to one of the indicators (Mathieu & Farr, 1991). Using chi-square difference tests, we compared the fit of eight nested models, ranging from the hypothesized six-factor model to a single-factor model. The hypothesized six-factor model treated each construct as distinct. In order to test the distinctiveness of creative deviance and creative performance, I compared the six-factor model with a five-factor model (combining creative deviance and creative performance). In the same way, I combined creative deviance and each of other variables respectively to construct five-factor models. Finally, I combined all the six constructs in a one-factor model. As Table 3 shows, the hypothesized six-factor model had a good fit ($\chi^2 = 142.00$; $df = 120$; $CFI = .99$; $TLI = .98$; $RMSEA = .04$). Significant chi-square changes suggested that the six-factor model was better than all five-factor models. The CFA results supported the viability of expected factor structure and provided evidence for the discriminant validity of creative deviance.

----- Insert Table 3 about here -----

4.5.2 Hypothesis Tests

Table 4 shows the results of main and mediating effects using Baron and Kenny's (1986) procedure. Hypothesis 1 was supported as autonomy was positively associated with creative deviance ($\beta = .17, p < .05$). For Hypothesis 2 and 3, I tested simple mediation for each mediator. Intrinsic motivation had incremental predictive validity for creative deviance ($\beta = .36, p < .001; \Delta R^2 = .10, p < .001$). The Sobel test statistic for the indirect effect was .16 ($Z = 3.15, p < .01$; 99% confidence interval was .0480 ~ .3210). The results suggest that intrinsic motivation mediated the relationship between autonomy and creative deviance. Hence, Hypothesis 2 was supported. The regression results also showed that the mediating effect of creative self-efficacy was significant ($\beta = .28, p < .01; \Delta R^2 = .07, p < .01$). The indirect effect through creative self-efficacy by Sobel test was .07 ($Z = 2.02, p < .05$; 95% CI was .0110 ~ .1440). Therefore, Hypothesis 3 was supported. When intrinsic motivation and creative self-efficacy were put together in the model, there was increased variance explained ($\Delta R^2 = .12, p < .001$). However, only intrinsic motivation predicted creative deviance significantly ($\beta = .29, p < .01$). The results indicate that it is meaningful to examine how intrinsic motivation and creative self-efficacy influence creative deviance as two mechanisms, which was described in the section of additional analyses.

----- Insert Table 4 about here -----

To test conditional indirect effect (H4a and H4b), I conducted full model test, involving all variables in the model. Table 5 presents the results. I examined the conditional indirect effect at three levels of job involvement: the mean, one standard deviation above the mean (+

SD), and one standard deviation below the mean (- SD). With regard to the conditional indirect effect through intrinsic motivation toward rejected ideas, the effect was significant when job involvement was at high level (effect = .18, $p < .01$; 95% CI: .083 ~ .320), but not at low level (effect = .02, *n.s.*; 95% CI: -.084 ~ .126). The difference between conditional indirect effects at high and low job involvement was .16 ($p < .05$, 95% CI: .037 ~ .351). The results suggest that the indirect effect through intrinsic motivation was moderated by job involvement. Specifically, the effect was stronger when job involvement was high. Thus, Hypothesis 4a was supported. With regard to creative self-efficacy of rejected ideas, the conditional indirect effect was not significant at any level of job involvement. The difference between the conditional indirect effects at high and low job involvement was not significant either. The results suggest that job involvement did not moderate the indirect effect of autonomy on creative deviance through creative self-efficacy. Thus, Hypothesis 4b was not supported.

----- Insert Table 5 about here -----

4.5.3 Additional Analysis

I also conducted cross-lagged analysis for the concurrent mediation mechanisms and the results provide evidence to rule out reciprocal causality between two mechanisms. Specially, when controlling for intrinsic motivation at Time 1, creative self-efficacy at Time 1 was not related to intrinsic motivation at Time 2, but related to creative deviance. Similarly, when controlling for creative self-efficacy at Time 1, intrinsic motivation at Time 1 was not related to creative self-efficacy at Time 2, but related to creative deviance. Thus, results of additional analysis support that the impact of autonomy does not serially go through two mediators (creative self-efficacy and intrinsic motivation in any order) to creative deviance; but

independently go through one mediator (either creative self-efficacy or intrinsic motivation) in one path to creative deviance.

4.6 Chapter Summary

It is counterintuitive to build a conceptual model that involves "good" factors in explaining deviance. Various factors have been identified to foster deviance; most of these factors (i.e. abusive supervision, injustice, revenge motive, etc.) are considered negative and detrimental by nature. An intuitive assumption of the linkages between these factors and deviance is that "bad" behaviors in organization result from something that is also "bad" in this context (Griffin, & Lopez, 2005; Morrison, 2006). This stance, though appealing, may relatively narrow the range of factors with deviance-fostering potential, constraining my understanding of deviance. With these issues in mind, I examined how "good" factors such as intrinsic motivation, creative self-efficacy, job involvement, jointly lead to creative deviance. Specially, I found that autonomy exerts a positive indirect effect on creative deviance through intrinsic motivation or creative self-efficacy of rejected ideas, and intrinsic motivation towards rejected ideas is the dominant mediator over creative self-efficacy. I also found that the mediation effect of intrinsic motivation was augmented by employee's job involvement. Thereby, my research makes a significant contribution to deviance literature beyond earlier research by identifying unique factors to predict deviance.

However, I do not take leadership factors into account in my study. Given that creative deviance is a non-conforming behavior toward a managerial order, interaction effects between the leader and focal employee should be considered. Several interesting questions that await future research are like: By which approaches the leader would deal with the subordinate's creative deviance, how creative deviance influences the focal employee's subsequent creative performance and subsequent creative deviance, etc. I will answer these

questions by developing an outcome model that will be illustrated in Study 3.

CHAPTER 5

STUDY THREE: AN OUTCOME MODEL

This Chapter introduces the outcome model of creative deviance. In Chapter 4, I did not take into account the leaders responses for creative deviants. However, leaders play a pivotal role to guide the creative deviant to conduct the subsequent acts, e.g. creative performance and creative deviance in the future. To advance the knowledge of how and why creative deviance will bring to the focal person and organization, I integrate insights from research on creativity, leadership, and deviance to build the outcome model. In the following sections, I first propose five leader responses to creative deviance suggested by Mainemelis (2010): rewarding, punishing, forgiving, ignoring and manipulating. Given that creative deviance has two behavioral components—creative and deviant (Mainemelis, 2010)—I then contend that leaders' responses to creative deviance will influence both components. Finally, my outcome model focuses on the differential effects of leaders' responses to creative deviance on two key outcomes, employees' creative performance and their subsequent creative deviance.

5.1 Leaders' Role in Creative Process

Leaders play a pivotal role in either fostering or hindering creativity in the workplace (George, 2007; Shalley & Gilson, 2004). In organizations that strive to increase creativity, leaders are responsible for maximizing, sequencing, and timing two distinct and often antithetical processes — variation and selective retention (Staw, 1990). While variation aims at novelty and is ultimately reflected in the number and diversity of new ideas generated by employees, selective retention aims at utility and results in a subset of new ideas that leaders evaluate as most promising and ultimately channel to implementation (Benner & Tushman,

2003; Ford, 1996; Frese, Teng, & Wijnen, 1999). In theoretical terms, creativity is a function of high variation and high selective retention (Campbell, 1960; Simonton, 1999). In practical terms, this means that leaders must tackle the dual challenge of encouraging employees to generate new ideas and of routinely rejecting most of those ideas.

For most knowledge workers, the generation of a creative idea is among the most meaningful and positive experiences (Kahn, 1990; Mainemelis, 2001). In a seminal study, Amabile, Barsade, Mueller and Staw (2005: 388) found that 86% of incidents of creative insight triggered strong positive emotions, such as “unalloyed happiness,” for employees who generated the insights. On the other hand, the rejection of one’s new idea in the work context is among the most frequent and unpleasant experiences employees encounter in the creative process. In Amabile et al.’s (2005) study, when new ideas were presented to managers and co-workers, 80% of them were rejected or ignored, leaving their originators feeling frustrated, angry, or sad. Such negative emotional reactions to rejection are not surprising, given the extant body of findings about the high degrees of passion and commitment that employees invest in the creative process (Amabile, 1996; Kark & Carmeli, 2009). The high rejection rate is not surprising either, considering that managers have little choice but to routinely reject most new ideas. A more puzzling question is, how do employees react after their managers have rejected their ideas, and how do managers, in turn, respond to their employees’ post-rejection reaction? No empirical study that I am aware of has examined these questions to date.

An obvious possibility is that employees react to rejection by abandoning the rejected new idea and even by decreasing their creative engagement with future work tasks (Amabile et al., 1996; Zhang & Bartol, 2010). However, employees may also react to rejection by increasing rather than decreasing their commitment to the rejected new idea (Nemeth, 1997; Staw, 1990). Following a manager’s rejection of a new idea, employees may engage in

creative deviance (Mainemelis, 2010); that is, they may continue pursuing the rejected new idea in direct violation of their manager’s instruction to stop working on it. Such situations trigger a set of intriguing exchanges between the manager and the creative deviant. How do leaders respond to an employee who has violated orders to stop pursuing a new idea? How do leaders’ responses to creative deviance, in turn, influence employees’ future creative performance and future engagement in creative deviance?

The present study answers the above questions by integrating insights from research on creativity, leadership, and deviance. The five leader responses to creative deviance suggested by Mainemelis (2010): rewarding, punishing, forgiving, ignoring and manipulating will be adopted for the purpose. Given that creative deviance has two behavioral components—creative and deviant (Mainemelis, 2010)—I expect that leaders’ responses to creative deviance will influence both components. My study focuses on the differential effects of leaders’ responses to creative deviance on two key outcomes, employees’ creative performance and their subsequent creative deviance. I suggest that while some leaders’ responses to creative deviance (e.g., rewarding) influence future *creative performance*, other responses (e.g., forgiving) influence future *creative deviance*. I also test the hypothesis that supportive supervision for creativity (Madjar, Oldham, & Pratt, 2002) will moderate the relationship between creative deviance and some leader responses (i.e., rewarding and forgiving).

Figure 2 summarizes my theoretical model depicting all the hypothesized relationships, including multiple conditional indirect paths.

----- Insert Figure 2 about here -----

5.2 Theory and Hypotheses

Creativity is usually defined both as a process and a product (Amabile, 1996), namely the process that results in a novel product that the social context accepts as useful or otherwise

appropriate at some point in time (Stein, 1953). Like previous research (e.g., Amabile et al., 1996; George & Zhou, 2001), I operationalize *creative performance* as the product of an employee's work that his or her manager evaluates as both novel and useful.

5.2.1 Leaders' Responses to Creative Deviance

Leaders may respond to creative deviance in various ways. Mainemelis (2010) identified five primary responses to creative deviance that leaders take: punishing, rewarding, forgiving, ignoring or manipulating it. Because conformity to managerial orders is a basic normative expectation in most work contexts globally (Staw & Boettger, 1990; Warren, 2003), when an employee violates that norm the manager may *punish* him or her with harsh criticism, withholding rewards, writing a negative performance evaluation, increased monitoring of the employee's work, bypassing the employee for tasks that offer opportunities for creative engagement, and so forth. However, since managers may view creative deviance behavior as an effort to achieve a creative outcome in the work context, managers may decide to *reward* that behavior in various ways such as praising the employee's superb passion for creative ideas, by commending her or him for not giving up on the idea, by signaling respect for the risk taken to protect an idea, or by providing the creative deviant with greater autonomy and more challenging creative tasks going forward.

A third option for managers is to *forgive* the creative deviant; that is, they may caution the employee without punishing him or her. Forgiving comprises making clear to the employee that in the future he or she should abstain from violating orders but with an explicit remark that this nonconformity is excused because of the well-intentioned motive to develop a creative idea that could benefit the organization. A fourth possibility for leaders is to *ignore* the creative deviance act. The manager does not confront the employee or otherwise discuss the incident with her or him, nor does the manager indirectly provide a reward or a punishment. As a fifth option, managers may respond to creative deviance by attempting to

manipulate it. At first sight this response is similar to ignoring the creative deviance because this passive action does not entail reward, punishment, or forgiveness. However, with the manipulation response, the manager acts in a calculated manner (Mainemelis, 2010) and waits to see whether the creative deviant's unsanctioned pursuit of the new idea will result in a valuable final product or outcome. If a positive outcome results, the manager can intervene at that point, and publically recognize and legitimize the new idea so as to obtain personal benefits from the creative success of a team member. Conversely, if the illegitimate pursuit of the new idea does not result in any useful outcome, the manager can either punish or ignore the creative deviant act. In either case, a core motive of manipulation is to deflect the risk of failure of the new idea from the manager, so that the creative deviant is the only person responsible for the potential failure of the new idea, and to receive credit if it is successful.

Researchers have found that managers respond to deviant behavior in a uniform and punishing manner when the organization prescribes explicit policies for sanctioning specific deviant behavior (Beyer & Trice, 1984), and when the organization punishes managers who fail to impose the prescribed sanctions (Kendal, Feldman, & Aoki, 2006). However, organizations that encourage creativity are less likely to prescribe rigid penalties for employees who violate orders in order to develop new ideas (Mainemelis, 2010; see also Lehman & Ramanujam, 2009). Without clear and consistent organizational prescriptions, managers are more likely to be influenced by various personal and situational factors and to respond to various acts of creative deviance with the five response types mentioned above.

5.2.2 Leaders' Responses Leading to Subsequent Creative Performance

Leaders have traditionally been conceptualized as an important contextual factor that cultivates or stifles employee creativity (George, 2007; Liu, Liao, & Loi, 2012). Leaders' responses to creative deviance can affect employees' subsequent creative behavior in four ways. First, leaders can affect employees' internal emotional and motivational resources (e.g.,

intrinsic motivation, sense of safety, emotional vitality and thriving), by enhancing or decreasing their motivation and drive to further invest in their ideas. Second, leaders can affect employees' external practical resources (e.g., time, space, seed budgets) in ways that can enable them to invest more or less in developing creative ideas. Third, leaders can affect the relational resources of employees through the quality of leader-employee interaction (e.g., trust, justice, feedback and communication). Lastly, leaders can legitimize employees' actions and ideas or undermine their legitimacy within the organization. This entails the leaders' evaluation of employees' creative deviance and creative performance.

Rewarding. Expected rewards hinder creativity because they have a general detrimental effect on employees' motivation and performance (Deci, Ryan & Koestner, 1999). When conventional performance is rewarded it decreases intrinsic motivation and creativity. However, rewards for novel and unexpected performance increase intrinsic motivation and creativity (Eisenberger & Shanock, 2003). Research suggests that the more an activity conducted in a reward-based system becomes internalized, then the more it represents self-determined behavior (Deci & Ryan, 1996; Deci, Eghrari, Patrick, & Leone, 1994; Ryan, Connell, & Plant, 1990). Consequently, creative performance should be higher for greater levels of internalization. This suggests that some types of rewards are more effective for creative performance than others. Individuals who act in the presence of a performance-contingent reward should be more controlled by the reward and therefore produce less qualitatively creative responses compared to individuals who act in the presence of an engagement-contingent reward (Nordstrom, Kuvaasc & Takemura, 2008). When leaders reward creative deviance, they are rewarding an unconventional and unexpected behavior, not only because of its outcomes, but also because of its underlying creative motivation. This strengthens the employees' intrinsic motivation and creative performance.

Rewarding is also likely to influence the employee's perception that the leader is trustworthy, which strengthens the employee's creative engagement and increases his/her creative performance (Janssen, 2001). In addition, rewards strengthen the leader-employee interactions, enabling the leader and the employee to communicate better. This further enhances leaders' ability to provide feedback, the employee's perspective-seeking behavior, and leader-employee mutuality in raising and sharing ideas, all of which lead to the employees' higher creative performance (Grant & Berry, 2011).

Rewarding contributes practical resources as well. When a leader rewards a risky act of creative deviance he/she is likely to provide tangible resources such as time, space, and funding, which enable the employee to attain higher levels of creative performance (Amabile et al., 1996). Last but not least, a leader's reward of acts of creative deviance usually legitimizes its outcomes. This consequently evokes feelings of honor, respect and confidence in the employee which propels him/her forward in developing an idea out in the open, while attaining further feedback. This is likely to subsequently contribute to a higher level of creative performance (Zhou, 1998). Furthermore, rewarding is the leader response that is most likely to be associated with a metanoic effect, where leaders can change their minds about rejecting an idea and now see it under positive light. This is likely to positively influence the leader's evaluation of the employee's creative performance later on.

Hypothesis 5: Leaders' reward of creative deviance is positively associated with employees' subsequent creative performance.

Punishing. Punishment, a form of control, has detrimental effects on employees' emotional resources. Punishment behavior is a strong external signal about what is illegitimate and will not be tolerated by the manager. While punishment may be focused on the violation of orders, the employee may experience it as an impediment to his or her attempt to be creative (Mainemelis, 2010). Although punishment itself may not impede the

employee's creative behavior, it may take an emotional toll that decreases employees' emotional resources, since creativity is highly related to positive emotions such as passion and vitality (Amabile, 1996; Amabile et al., 2005; Kark & Carmeli, 2007). Punishing creative deviance may also be experienced as an abusive behavior, which in turn hurts employees' intrinsic motivation and thus limits their creative performance (Liu, Liao & Loi, 2012).

Moreover, when leaders respond in a punishing manner they frame the situation for employees as a 'loss' or 'no-loss' situation. This type of framing is consistent with a prevention mode of self-regulation (Brockner & Higgins, 2001). According to self-regulatory focus theory, self-regulation via a prevention focus regulates security needs and enhances avoidance tendencies (Higgins, 1997; Higgins & Spiegel, 2004; Scholer & Higgins, 2010), and reduces employees' ability to behave creatively (Kark & Van Dijk, 2007; Lanaj, Chang, & Johnson, 2012). In addition, punishment is likely to limit employees' relational resources. Punishment should trigger a negative leader-employee interaction, lower employees' sense of trust and justice, hinder the communication between the leader and employee, and limit constructive and helpful feedback. This is likely to lower employee intrinsic and prosocial motivations (Grant & Berry, 2011), lower creative engagement (Amabile et al., 1996), and to possibly negatively influence the leader's evaluation of the employee's creative performance.

Punishment also limits employees' external resources. Leaders may respond to creative deviants by closing off access to opportunities for creative work (Mainemelis, 2010). For example, in an advertising firm, a manager may punish creative deviance behavior by bypassing the creative deviant when assigning more creative projects, which results in a lower creative contribution from the employee. In addition, punishment may involve the withholding of free time for experimentation, autonomy, and seed money, all of which should decrease creative performance (Mainemelis & Ronson, 2006).

Hypothesis 6: Leaders' punishment of creative deviance is negatively associated with employees' subsequent creative performance.

Manipulating. Manipulation is considered a strong form of leader control over employee behavior. Due to their unpredictable, inconsistent, and instrumental nature, manipulative responses may arouse a sense of learned helplessness among followers, and can be experienced as highly controlling, which prompts employee resentment. Leaders who react in a manipulative manner are likely to discourage subsequent creative behavior for several reasons.

First, because manipulation has an opportunistic and instrumental tone, it depletes the employee's relational resources. Followers' trust in a manipulating manager should be lowest in comparison to all other leader responses to creative deviance. Lack of trust undermines followers' sense of psychological safety (Edmondson, 1999, 2004; Kahn, 1990), which is a reliable predictor of employees' ability to act in a creative manner (Edmondson, 2003; Gilson & Shalley, 2004; Kark & Carmeli, 2009). Second, manipulative responses may diminish employees' emotional resources. Manipulation is experienced by employees as a form of abusive supervision (Hoobler & Brass, 2006; Tepper et al., 2009). Manipulation is likely to make employees feel that, even if they manage to create a winning creative product, the leader will likely claim the glory for it. This poses an ongoing, negative cognitive distraction in their creative process, as employees constantly watch over the backs so that the manipulating leader does not hurt them. Past research has found that exposure to abusive supervision reduces intrinsic motivation, results in subordinates' unwillingness to 'go the extra mile' to perform behaviors that benefit the organization (e.g., Zellars et al., 2002), and harms employee creativity (Liu, Liao, & Loi, 2012). This suggests that employees may attribute negative intentions of abusiveness to leaders' manipulative behavior, which leads in turn to a decline in their general tendency to engage in creative behavior.

Moreover, leaders who respond to creative deviance in a manipulative manner are unlikely to actively encourage employee creativity by offering psychological resources (e.g., providing an uplifting vision or inspiration, and emotional support) or generous practical resources (e.g., money, space, connections). Thus, with limited resources, employees are less likely to perform creatively when the leader responds in a manipulative manner.

Hypothesis 7: Leaders' manipulation of creative deviance is negatively associated with employees' subsequent creative performance.

Finally, I do not expect a leader's forgiving response to creative deviance to influence creative performance because, unlike rewarding, forgiving does not entail either the legitimization of a previously rejected idea, or a generous increase of practical resources for creativity. Similarly, I do not expect the leader's ignoring behavior to influence creative performance because, unlike punishment and manipulation, ignoring is not relationally intense or conflictual, and although it can be frustrating or disappointing, it is less likely to be perceived as a form of abusive or controlling supervision.

5.2.3 Leaders' Responses Leading to Subsequent Creative Deviance

A focus of deviance research is the deterring effect of normative enforcement, the extent to which a reaction to a deviant behavior lowers or otherwise affects its future occurrence (Feldman, 1984; Tenbrunsel & Messick, 1999; Trevino, 1992). Punishment is an effective means to reducing deviant behavior when managers uniformly punish most incidents of a specific deviant act that the work context explicitly identifies as threatening (Beyer & Trish, 1984). Organizations that highly value creativity, however, occasionally reward, forgive or ignore some acts of creative deviance. As a result, managers cannot single-handedly deter creative deviance by punishing it, especially when employees observe that some acts of creative deviance are not being punished (Mainemelis, 2010). Therefore, punishment should not influence subsequent creative deviance in such work contexts. Rewarding behavior

should not affect future creative deviance either because it provides employees a legitimate means to pursue their ideas without having to re-engage in creative deviance. On the other hand, I suggest that forgiveness, ignoring and manipulation affect the occurrence of subsequent creative deviance.

Forgiving. Forgiveness has been described as an “intra-individual, prosocial change toward a perceived transgressor that is situated within a specific interpersonal context” (McCullough, Pargament, & Thoresen, 2000: 9). When individuals forgive, motivations for revenge and avoidance give way to benevolent and pro-social motivations. A range of corresponding emotional and cognitive changes are associated with these shifts, including a release from anger and a reduced tendency to ruminate over the offense (Fehr, Gelfand, & Nag, 2010; Karremans & Van Lange, 2008). Importantly, forgiveness does not imply condoning, excusing, forgetting, or denying the perceived harmful actions of an offender (Coyle & Enright, 1997), including the violation of managerial orders (Mainemelis, 2010).

Prior research has linked the notion of forgiveness to leaders who make a genuine effort to get to know, understand, and support others in the organization (Fehr & Gelfand, 2012), and attend to employee growth and well-being (Liden, Wayne, Zhao, & Henderson, 2008). When employees fall short in their duties, forgiving is a compassionate reaction and can inspire them to realize their full potential (Liden et al., 2008; Walumbwa, Hartnell, & Oke, 2010). When leaders forgive creative deviance, they likely enrich employees’ emotional resources, help them build resilience, and encourage them to persist in pursuing new ideas. This calibrates their motivation and makes it more likely that they will engage in non-conforming behaviors going forward (Mainemelis, 2010; Staw, 1990). In addition, forgiveness builds relational capital and strengthens high-quality leader-employee relationships and employee trust in the leader-follower relationship, making them more likely to take interpersonal risks (Edmondson, 1999) by re-engaging in creative deviance.

Furthermore, according to rational-choice theories of deviance, when a deviant act is not consistently punished by an organization, individuals perceive a low probability of being punished if they commit the same deviant act going forward (Klepper & Nagin, 1989; Ward, Stafford, & Gray, 2006). The low degree of ‘deterrence’ in that case further weakens when individuals observe that similar deviant acts are forgiven or rewarded in the work context. Forgiving, thus, decreases the perceptual certainty that a future incident of creative deviance will be punished, a fact that increases its likelihood (Mainemelis, 2010). Forgiving does not alter employees’ extant practical resources for pursuing new ideas and it does not legitimize their rejected ideas either. Rather, it signals both encouragement for creativity and some tolerance for nonconformity, which should increase creative deviance in the future.

Hypothesis 8: Leaders’ forgiving of creative deviance is positively associated with employees’ subsequent creative deviance.

Ignoring. Leaders can respond to creative deviance also by ignoring it. This signals to employees that creative deviance behavior will not be rewarded or punished. However, it may also signal to employees that the leader is disinterested in them and their ideas so much so that the leader does not even make the effort to address the deviant’s violation of her/her orders. Since creativity is a cultural value (with some cultures valuing it more than others) individuals must internalize it as a part of their identities in order to pursue it (Farmer, Tierney, & McIntyre, 2003; Jaussi, Randel, & Dionne, 2007). Rewarding and forgiving nurture creativity identity, while ignoring may actually be more detrimental to creative behavior than punishment. Modern culture constantly reminds people that throughout history, creative people are celebrated, punished, or both, but they are not ignored (e.g., Apple’s famous and successful 1998 advertisement, “Think Different,” made this very point). An individual whose creative efforts are consistently ignored may find it difficult to sustain a creative identity (Hackley & Kover, 2007; Merton, 1968). Put it in another way, if an

employee fails to get his or her manager's attention even through creative deviance, she/he may stop trying to get the manager's attention in any way. The leader's behavior of ignoring hinders the vitality, energy and thriving forces that evolve in high-quality relationships (Dutton, 2003; Dutton & Heaphy, 2003). Because creative deviance is fed by a strong drive and passion, ignoring should lower its likelihood.

Hypothesis 9: Leaders' ignoring creative deviance is negatively associated with employees' subsequent creative deviance.

Manipulating. Besides hindering creative performance, manipulation also tends to increase creative deviance. The leader's manipulative behavior harms the relationship between leader and employee and reduces the relational capital of the leader. Manipulation is perceived by the employee as a self-serving, unjust, and abusive behavior. This perception is likely to destroy the moral grounds upon which the employee is expected to conform to the manager's orders. As a result, the employee is likely to feel less committed to the leader and less obliged to honor the latter's orders, which should increase the likelihood of creative deviance. In some cases the leader's manipulative behavior may in fact trigger the social justification of creative deviance (Mainemelis, 2010). If a manager is perceived as self-serving and abusive, she or he may lose credibility and legitimacy in the organization. This is likely to make employees feel that they have more inner as well as more external legitimacy to engage in acts of creative deviance against an abusive and manipulative leader.

Hypothesis 10: Leaders' manipulation of creative deviance is positively associated with employees' subsequent creative deviance.

In summary, like previous research (e.g., Mainemelis, 2010; Staw & Boettger, 1990), I view creative deviance as a risky, uncertain, and ambiguous behavior that may or may not lead to subsequent creative performance and subsequent creative deviance. I propose that the five leader responses to creative deviance channel, in different ways, the indirect effects of

creative deviance to creative performance or/and creative deviance.

Hypothesis 11a: Creative deviance has an indirect effect on followers' subsequent creative performance through leaders' rewarding, punishing, and manipulating responses.

Hypothesis 11b: Creative deviance has an indirect effect on followers' subsequent creative deviance through leaders' forgiving, ignoring, and manipulating responses.

5.2.4 The Moderating Role of Supportive Supervision for Creativity

A long-standing construct in creativity research, supportive supervision for creativity, is considered an essential work-climate factor for fostering employee creativity (Amabile et al., 1996; George, 2007; Shalley & Gilson, 2004). Supportive supervision for creativity refers to the extent to which leaders encourage employees to be creative, and includes providing employees with autonomy, developmental feedback and sufficient resources, and boosting their intrinsic motivation and positive moods (Amabile et al., 1996; Frese et al, 1999; Madjar et al., 2002; Scott & Bruce, 1996; Zhou, 1998). The five leader responses examined in my study are not global work-climate factors but specific behavioral reactions to a particular form of behavior (creative deviance). As such, I expect them to be influenced by the degree of the leader's supportive supervision for creativity offered to his or her employees.

Leaders who support employee creativity are more eager and willing to support employees' unpopular ideas and actions in the organization (Madjar et al., 2002). Because supportive leaders are consciously involved in fostering employee creativity, they are more likely to realize that the motivation behind creative deviance is often a byproduct of employees' high creative motivation, which leaders strive to stimulate and nurture (Mainemelis, 2010). As a result, they are more likely to reward or forgive creative deviants. Because supportive leaders tend to be more playful (Mainemelis & Ronson, 2006) and more

open to learning about their employees' new ideas (Madjar et al., 2002), they are more likely to change their minds about the value of a new idea after having initially rejected it. Among the five leader responses to creative deviance, this reversal of decision is most likely associated with rewarding, whereby a leader reevaluates his or her earlier decision to reject a new idea, rewards the employee who has persisted with the new idea against orders, and thereafter practically supports the employee's efforts to carry the idea to fruition. Moreover, supportive supervision has been linked to the toleration of errors or employees' unconventional behaviors during the creative process (Edmondson, 1999; Frese et al. 1999; Madjar et al., 2002). Among the five responses, this is more likely to be associated with forgiving, whereby the leader does not reconsider his or her rejection decision, but forgives the creative deviant's act, signaling tolerance to it as well as encouragement to the employee to keep on striving for creativity. Therefore, supportive supervision for creativity should positively moderate the relations between creative deviance and rewarding and forgiving.

Hypothesis 12a: The relation between creative deviance and rewarding is the strongest when supportive supervision for creativity is high rather than low.

Hypothesis 12b: The relation between creative deviance and forgiving is the strongest when supportive supervision for creativity is high rather than low.

5.3 Methods

To test the hypotheses, I first conducted a scale validation study (preliminary study) for leaders' responses scale and then a hypothesis-testing study (main study) in three advertising firms in China through Internet-based surveys. Prior to developing the leaders' responses to creative deviance scales, I conducted semi-structured interviews with 14

managers, 12 employees, and two human resource management directors in two advertising firms in Shenzhen, a large city in southern China. The interviews, conducted in the firms' meeting rooms, lasted from 20 to 30 minutes on average. These interviews provided me with rich information about how leaders respond to employees' creative deviance and how employees behave after different leader responses. After distilling these qualitative insights, I conducted a scale validation study (preliminary study) and then a hypothesis-testing study (main study) in three advertising firms in China through Internet-based surveys.

5.3.1 Preliminary Study

To measure leaders' responses to creative deviance, I adopted items from previously validated scales and also developed some new items. For the punishing scale I adopted five items from the Leader Reward and Punishment Questionnaire (LRPQ) (Podsakoff, Todor, Grover, & Huber, 1984) and composed six additional items. For the rewarding scale I adopted four items from the LRPQ and composed four additional items. For the ignoring scale I adopted three items from the Omission scales of the Multifactor Leadership Questionnaire (MLQ) (Hinkin & Schriesheim, 2008) and composed three additional items for this study. The scales of forgiving and manipulating consisted each of five items written for this study.

I pre-tested the structural validity of the initial pool of 35 items in a sample of 159 ad designers in an advertising firm in Shenzhen. Because the original items were in English, I followed the back-translation procedure (Brislin, 1970) to translate them into Chinese. Respondents were asked to respond to a 7-point Likert-type scale, anchored from 1 (strongly disagree) to 7 (strongly agree), about their leaders' responses to their creative deviance in the past two months.

I conducted an exploratory factor analysis (EFA) using principal components and a cutoff criterion of .40 for factor loadings. Four items with low loadings and high cross-loadings were eliminated. A five-factor structure emerged explaining 64% of the variance, with an Eigenvalue of 4.42. Factors 1 and 2, representing punishing and rewarding, with eight items loaded on each factor, and factors 3, 4, and 5, indicating ignoring, forgiving, and manipulating, with five items loaded on each factor. All factor loadings were larger than .75.

I then performed a series of confirmatory factor analyses (CFA) using Mplus 6.0. A good fit was found for the five-factor model ($\chi^2 = 779.18$, $df = 424$; CFI = .95; TLI = .94; RMSEA = .06), with all 31 items loading strongly on their expected factors. The final five scales with the 31 items appear in the Appendix.

5.3.2 Main Study

I collected longitudinal and multisource data in two advertising firms in Guangzhou, the capital city of Guangdong, China. The two companies had a similar business structure. All participants had similar work tasks, such as graphic design and brand advertising, and all were at the same hierarchical level. Their work involved conceiving and developing various advertising designs and advertising plans, which they submitted to their supervisors. These employees commonly experienced their immediate supervisors' rejection of their designs. A core responsibility of the supervisors (besides overseeing the work of these employees) was to select what they considered to be the best of their designs to be presented to the firms' clients.

I used an online survey system to build panels with embedded information so as to match participants' data when the questionnaires were anonymous. Each participant received

an email with a link to the questionnaire. Data were collected in three waves. At Time1 (T1), online questionnaires including creative deviance, supportive supervision for creativity, and demographic questions, were distributed to 343 employees who had been working in the organization for at least one month. I received 327 valid responses (95.3%). Two months later, I conducted the Time 2 survey (T2) for these 327 employees with the questionnaire with the five leaders' responses scales. I received 257 valid responses (78.6%) in this wave. All variables collected at T1 and T2 were self-reported. Time 3 survey (T3) was conducted two months after T2 with these 257 employees who rated their creative deviance at T3, and with their immediate supervisors (total 169) who rated their subordinates' creative performance over the previous two months. Each supervisor rated one or two subordinates. I received 226 matched data sets (65.9%) across three waves of surveys. The average supervisor–subordinate relationship length was 274.42 days (s.d. = 90.87). Subordinates' average age was 28.27 years (s.d. = 4.71); 171 subordinates were male (75.7% of the matched data sample). I did not find any significant difference between the final sample (n = 226) and the target sample (n = 343) in terms of gender, age, tenure, and education.

5.3.3 Measures

All items in my questionnaires were rated on a 7-point scale ranging from 1 (strongly disagree strongly) to 7 (strongly agree).

Creative deviance. I measured creative deviance with the Chinese scale of Lin, Law, and Chen (2012), consisting of eight items (in English in the Appendix); this scale has shown acceptable levels of reliability in previous studies, $\alpha = .81$ (Lin et al., 2012) and $\alpha = .84$ (Lin, Wong, & Fu, 2012). I asked employees to rate the eight items about their creative deviance in

the past two months. The instructions made clear that the items exclusively refer to one or more of their ideas rejected by their immediate supervisor and not by other leaders or colleagues. Cronbach's α at the individual level was .79 at T1 and .87 at T3.

Leaders' responses to creative deviance. I used the 31-item scale validated in my preliminary study to measure employees' perceptions of leaders' responses to creative deviance. The items are shown in the Appendix. In the main study, Cronbach's α were .78 for the rewarding scale, .86 for punishing, .91 for ignoring, .73 for forgiving, and .81 for the manipulating scale.

Creative performance. I asked supervisors to rate their subordinates' creative performance using George and Zhou's (2001) 13-item scale. A sample item was "Suggests new ways to achieve goals or objectives". For this scale Cronbach's α was .95.

Supportive supervision for creativity. I measured supportive supervision for creativity with 4 items adopted from the support for creativity scale of Madjar et al. (2002). A sample item was "My supervisor is almost always supportive when I come up with a new idea about my job." Cronbach's α was .84.

Control variables. I collected data on participants' age, gender, education, and years employed at the organization.

5.3.4 Analytical Strategy

Because my model included two conditional indirect paths and three indirect paths, I conducted full model testing using path-analytic methods. An advantage of full model testing is that it can simultaneously estimate total indirect effect and specific indirect effect through

one mediator in the context of a multiple mediation model. Path analytic methods have displayed the greatest statistical performance among various approaches of testing multiple conditional indirect path models (Edwards & Lambert, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002). I also used the Sobel test (Sobel, 1982) and the bootstrapping technique to examine the total and specific conditional indirect effects. Bootstrapping methodologies are powerful in testing indirect effects in mediation models (Shrout & Bolger, 2002) and moderated mediation models (Edwards & Lambert, 2007). I analyzed my data using Mplus 6.0 (Muthén&Muthén, 2007) because it accommodates all of the above analytical methods in one program (cf. Bamberger, 2008; Graves, Ruderman, Ohlott, & Weber, 2012).

My analysis consisted of three steps. First, I conducted EFA and CFA to examine the factorial structure of the measured constructs. I assessed the model fit using Hu and Bentler's (1999) two-index presentation strategy, with the following cutoff values: values greater than .90 for the comparative fit index (CFI) and Tucker–Lewis indices (TLI), .06 or below for the root mean squared error of approximation (RMSEA), and .08 or below for the standardized root mean square residual (SRMR). Second, I centered all variables prior to full model testing and used the maximum-likelihood algorithm with robust standard errors to derive parameter estimates. Third, I used the Mplus bootstrapping function to estimate standard errors and 95% confidence intervals (CIs) for all indirect estimates and conditional indirect effects. The criteria needed to support conditional indirect effects included the significant difference of

the indirect effects at various levels of conditions and 95% CIs for the indirect effect that did not include zero at least one level of one condition.

5.4 Results

5.4.1 Preliminary Analysis

I conducted two preliminary analyses prior to testing my hypotheses. First, we compared the mean and standard deviation of all variables from all respondents from the two companies and found no significant differences. Therefore, we combined the data from all respondents from the two companies in my subsequent analyses. The means, standard deviations, correlations, and reliabilities of the variables of the combined sample are presented in Table 6.

----- Insert Table 6 about here -----

Second, I conducted CFA to examine the discriminant validity of the five leader response scales and other variables in my model, including creative deviance, creative performance and supportive supervision for creativity. I parceled the items to form three indicators for each construct since my sample size was moderate ($n = 226$). I first averaged the highest and lowest loadings to establish the first indicator, and then averaged the next highest and then the lowest loadings to establish the second indicator, until all items were assigned to one of the indicators (Mathieu & Farr, 1991). Because creative deviance was measured at T1 and T3, data from these two time points represented one factor. I thus hypothesized an eight-factor model for CFA to accommodate all nine variables in my data

collection. Using chi-square difference tests, we compared the fit of alternative nested models, ranging from the hypothesized eight-factor model to the single-factor model.

The hypothesized eight-factor model treated each construct as distinct. First, to validate the distinctiveness of creative performance and the five leader responses, I combined creative performance and each leader's response scale to build seven-factor models, and compared each seven-factor model to the eight-factor model. Second, I combined creative deviance and creative performance into a seven-factor model and compared this with the eight-factor model. In the third step, I combined supportive supervision for creativity with either leader rewarding or leader forgiving. In so doing, I differentiated supportive supervision for creativity from these two leader responses. Finally, I combined all eight constructs in a one-factor model. As Table 2 shows, the hypothesized eight-factor model has a good fit ($\chi^2 = 427.54$; $df = 271$; CFI = .94; TLI = .92; RMSEA = .05; SRMR = .06). Significant chi-square changes suggest that the eight-factor model is better than any other model. In addition, although all supervisors rated one or two subordinates' creative performance, the shared variance generated by the supervisor responding to questions about their subordinates was also addressed via CFA. In summary, the CFA results supported the expected factorial structure and provided evidence to support the validity of the leader responses.

----- Insert Table 7 about here -----

5.4.2 Hypotheses Tests

Figure 3 shows all standardized path coefficients in the full model testing. The paths from rewarding and manipulating to creative performance are statistically significant, with coefficients $-.17$ ($p < .01$) for manipulating and $.12$ ($p < .05$) for rewarding. The path from punishing to creative performance is marginally significant ($-.07$, $p = .07$). In contrast, the paths from ignoring and forgiving are not related to creative performance. Therefore, Hypotheses 5 and 7 are supported, while Hypothesis 6 is partially supported.

----- Insert Figure 3 about here -----

As shown in Figure 3, the beta of the path from forgiving to creative deviance, T3, is statistically significant ($.26$, $p < .01$). The paths from ignoring and manipulating to creative deviance at T3 are marginally significant ($.07$, $p = .07$, for manipulating and $-.06$, $p = .08$, for ignoring). In contrast, the paths from rewarding and punishing are not related to creative deviance at T3. Therefore, Hypothesis 9 is supported, while Hypotheses 9 and 10 are partially supported.

Hypothesis 11a posits that rewarding, punishing, and manipulating at T2 translate the effect of creative deviance at T1 into creative performance at T3. I tested both the hypothesized indirect effects of these three leader responses and the non-hypothesized indirect effects of ignoring and forgiving in the Sobel test and bootstrapped sampling. Manipulating and rewarding have significant indirect effects ($-.05$ and $.02$, respectively) from

creative deviance to creative performance, while punishing has a marginally significant indirect effect ($-.01, p = .08$). The 95% CI for the indirect effect of manipulating and rewarding (CIs $[-.018, -.002]$ and CIs $[.005, .058]$) did not contain zero. In contrast, ignoring and forgiving have no significant indirect effects from creative deviance to creative performance. The 95% CIs for the indirect effects of these two leader responses contained zero. Thus, Hypothesis 11a is supported. The effect of creative deviance at T1 on creative performance at T3 was translated by rewarding, manipulating and punishing (marginally), rather than by ignoring or forgiving.

Hypothesis 11b posits that forgiving, ignoring and manipulating at T2 translate the effect of creative deviance at T1 into creative deviance at T3. Again, we tested both the hypothesized indirect effects of these three leader responses and the non-hypothesized indirect effects of rewarding and punishing. Forgiving had a significant indirect effect ($.06$) from creative deviance at T1 to subsequent creative deviance, while manipulating and ignoring had marginally significant indirect effects ($.02, p = .08$ and $-.01, p = .07$). The 95% CI for the indirect effects of manipulating and forgiving (CIs $[.0001, .062]$ and CIs $[.011, .104]$) did not contain zero whereas the indirect effects of the other three leader responses contained zero. These results suggest that the effect of creative deviance at T1 on creative deviance at T3 was translated by manipulating and forgiving, rather than by ignoring, rewarding, or punishing, thus partially supporting Hypothesis 11b. Table 8 summarizes the specific indirect effects of the five leader responses.

----- Insert Table 8 about here -----

Hypotheses 12a and 12b proposed two moderating effects of supportive supervision for creativity on two paths, creative deviance–rewarding, and creative deviance–forgiving. As shown in Figure 3, in the full model testing, the interaction of supportive supervision and creative deviance significantly and positively predicted rewarding ($\hat{a} = .25, p < .01$) and forgiving ($\hat{a} = .09, p < .05$). Both rewarding and forgiving were strengthened when supportive supervision was high rather than low. These results support Hypothesis 9a and 9b.

Taken together, Hypotheses 11 (a & b) and 12 (a & b) also indicate two conditional indirect paths, so that supportive supervision for creativity at T1 positively moderates the indirect effect of rewarding at T2 in the relationship between creative deviance at T1 and creative performance at T3, as well as the indirect effect of forgiving at T2 in the relationship between creative deviance at T1 and creative deviance at T3. I used the Sobel test and bootstrapping method to examine the conditional indirect effects of rewarding and forgiving.

In the Sobel test, rewarding had a conditional indirect effect from creative deviance at T1 to creative performance at T3; the indirect effect was positive (.03) in the condition of high supportive supervision (+ SD). Similarly, forgiving had a conditional indirect effect from creative deviance at T1 to creative deviance at T3; the indirect effect was positive (.08) in the condition of high supportive supervision (+ SD). Using the bootstrapping technique, I estimated and tested indirect effects for three values of supportive supervision corresponding to the mean as well as one standard deviation above and below the mean. These values, at the bottom half of Table 8, show the signs of conditional indirect effects. At the mean levels of supportive supervision and at one standard deviation above the mean, both indirect effects of

rewarding on creative performance at T3 and forgiving on creative deviance at T3 were statistically significant. The indirect effects were not significant at one standard deviation below the mean. Therefore, when supportive supervision is low, rewarding does not channel the effect of creative deviance to creative performance at T3, while forgiving does not channel the effect of creative deviance into creative deviance at T3. The results of the Sobel and bootstrapping tests provide additional support for Hypotheses 11 (a & b) and 12 (a & b).

5.5 Chapter Summary

Leaders routinely reject employees' new ideas, and some employees violate leaders' orders in order to keep their rejected ideas alive. This study builds up a model of leaders' responses to employees' creative deviance. I examined how leaders' responses to creative deviance affect employees' subsequent creative deviance and creative performance. The overarching argument is that leaders' responses to creative deviance significantly and differentially influence its consequences. Specially, creative deviance is positively related to five leader responses: punishing, rewarding, forgiving, ignoring and manipulating. Rewarding, manipulating, and punishing convey the effect of creative deviance on creative performance, while forgiving, ignoring and manipulating convey the effect of creative deviance on subsequent creative deviance. Supportive supervision for creativity moderated the relationships between creative deviance and rewarding, as well as between creative deviance and forgiving.

CHAPTER 6

GENERAL DISCUSSION

The above three studies provide a counter-intuitive cross-pollination of wisdoms from the creativity, deviance and leadership literature, and offers implications for all three. In this Chapter, I first summarize the results and then discuss the theoretical and practical implications, and also present the limitations of this dissertation and future directions.

6.1 Summary of Results

In Study 1, I developed and validated a measurement for creative deviance. By using this new scale, I examined the antecedent mechanism in Study 2 and outcome model of creative deviance in study 3. In Study 2, results from 146 matched data over a 3-month time-lagged survey supported that intrinsic motivation and creative self-efficacy toward rejected ideas mediate the effect of autonomy on creative deviance. I also found that intrinsic motivation toward the rejected ideas is the dominant mediator and tested the indirect effect of intrinsic motivation on the condition of job involvement for creative deviance in the second stage of the mediation. The results supported the hypotheses. In Study 3, consistent with my expectations, creative deviance at T1 was positively related to the five leader responses at T2. The indirect effect from creative deviance at T1 to creative performance at T3 was through rewarding and manipulating (H7a) instead of ignoring and forgiving. In contrast, forgiving (H7b), rather than punishing and rewarding, translated the effect of creative deviance at T1

into creative deviance at T3. Manipulating channeled the effect from creative deviance at T1 to both creative performance at T3 and creative deviance at T3 (the latter, H7b, being marginally significant and supported by bootstrapped sampling). Both conditional indirect paths were simultaneously supported in a full model test, so that supportive supervision for creativity positively moderated the relationship between creative deviance (T1) and creative performance (T3) via rewarding; and also positively moderated the effect of creative deviance at T1 on creative deviance at T3 through forgiving (H8 a & b). Taken together, these results support my overarching argument that leaders' responses to creative deviance differentially affect employees' subsequent creative deviance and creative performance.

6.2 Theoretical Implications

My research generates some interesting theoretical implications. First, my research on creative deviance initiates the empirical study that directly examines the commonality between creativity and deviance in work organization. Although this commonality has been theorized, studied, and debated in the fields of education, sociology, criminality, social psychology, and several other disciplines for decades, its empirical study and application to organizational work settings is relatively rare. For example, in psychology literature, Sternberg and Lubart's (1995) investment theory of creativity argued that creative people have to "defy the crowd." The perceived risks associated with buying into a unique idea may simply be too high, and most people will not take the risk of being treated as "deviants." In sociology literature, Merton's (1938) classic strain theory proposed that resource-deprived individuals bypass the normal approaches to achieve desired goals by novel means, and thus

conduct deviant behavior. Interestingly, Merton labeled these individuals as "innovators". In education literature, many studies provide evidence that teachers view creative students as nonconformists and potential troublemakers (e.g. Chan & Chan, 1999; Guencer & Oral, 1993; Scott, 1999). In contrast to the proliferation of research in other disciplines, empirical study that explores the commonality of creativity and deviance in literature of organizational behavior is scant. My study will fill this gap by identifying creativity-enhancing factors (e.g. intrinsic motivation and creative self-efficacy) to bring about creative deviance, indicating that creativity and deviance may covary in some specific situations. Thus, my study will contribute to integration of the knowledge of creativity and deviance applied in work organizations.

Second, my research identifies a "good" factor -- job involvement, aside from creativity-enhancing factors, to foster creative deviance, offering empirical evidence of the distinctiveness for this specific deviance. Job involvement distinguishes the antecedent model of creative deviance from that of creative behavior when both forms of behavior share the creativity-enhancing factors. Job involvement has been proposed to play a pivotal role in enhancing job performance, rather than creativity. It is because job involvement reflects the desirable quality of "working hard in completing targeted tasks" that is highlighted in job performance; creativity, however, is more concerned with "working smart" in introducing novel, useful ideas (e.g., Simonton, 2003). Obeying a stop order may be a strategy of "working smart" to release the difficulty and risk in exploring the rejected ideas. Although intrinsic motivation and creative self-efficacy encompass the intention to go against the

normal idea relevant to the stop order, violation of this order may not happen without some extent of job involvement that emphasizes stubborn perseverance in working out targeted ideas. In this sense, my study will also contribute to the research of creative deviance by identifying job involvement as the critical boundary condition that stands out creative deviance among all creative behaviors.

Third, my research represents the first attempt to combine SDT and SET together to explain persistent behavior, and thus offers extensions to both theoretical frameworks and important implications of the relationship in between. While most prior studies independently used either SDT or SET to account for job performance, creative performance, psychological health, etc., empirical studies that simultaneously examine both theories in sole phenomenon are absent. I initiate and will test a theoretical model that involves two mediators at the same time, assuming that SDT and SET are concurrent motivational mechanism linking autonomy to creative deviance.

Fourth, my research will contribute to leadership literature. My conceptualization of leaders' responses to creative deviance can help researchers explore leaders' responses to other deviant behaviors and the range of mistakes and mishaps of non-deviant employees. Further, most leadership studies focus on leader behaviors as leadership *styles* (e.g., transformational/ transactional, charismatic/non-charismatic, participative/ authoritative) or in terms of the power bases that leaders use (e.g., coercion, reward, legitimacy) (French & Raven, 1959; Raven, 1965; 1993). These leadership behaviors are usually seen as antecedents of employee behavior, and not as mediators or outcomes. This study conceptualizes leaders'

reaction as a 'response', a behavior that is elicited by employees' actions, thus it's an employee-initiated action. Lastly, I contribute to framing and studying leader behaviors as a relational phenomenon. This allows us to look at follower-leader relationship as a nuanced cyclic effect, in which leaders *respond* to employees' actions and via their responses; they further contribute to shaping follower behaviors.

Fifth, my research extends theoretically the concept by showing that while macro-contextual elements such as the organization's structural strain and its general normative enforcement may influence the overall rate of creative deviance in the work context (Mainemelis, 2010), leaders' reactions to creative deviance play an important role in influencing its effects on the creative performance and subsequent creative deviance of employees. My study also sheds light on the specific differential effects of five leader responses to creative deviance. In doing so, it stresses how sensitive and complex the leader's role is in managing creativity at work.

Researchers have argued that by encouraging creativity, leaders may be unintentionally inviting creative deviance and dissent (Mainemelis, 2010; Nemeth, 1997; Staw, 1990); and that by rejecting some new ideas so as to maximize selective retention and ultimately creativity in the work context, they may be unintentionally hindering employees' creative engagement (Amabile et al., 2005; Zhang & Bartol, 2010). My study empirically captures how a leader's response to creative deviance can exert significant influence in making the employee more or less creative and more or less creatively deviant. Ideally, a manager would want employees to be more creative without engaging in creative deviance,

or/and to engage in creative deviance insofar as the latter contributes to their creative performance. My study offers a compelling illustration of how difficult such a combination of outcomes may be to achieve. Taken together, my findings suggest that some leader reactions to creative deviance can backfire: Managers who attempt to manipulate it so as to extract a personal benefit from an employee's potential creative performance can hinder creative performance; managers who attempt to extinguish creative deviance by punishing it may fail to reduce it; and managers who ignore it, so that nothing happens in the aftermath of a creative deviance incident, end up promoting the sort of behavior where little or nothing happens both in terms of creative performance and creative deviance.

Rewarding creative deviance results in a desirable combination of outcomes but has an obvious limit: Leaders cannot reward all creative deviance acts in the work context. Forgiving was not related to creative performance, but it was positively associated with subsequent creative deviance, which suggests that forgiveness strengthens nonconforming creative engagement. Supportive supervision positively moderated the mediation effects of rewarding and forgiving. This extends past conceptualizations and suggests that supportive leaders effectively yet inadvertently handle the tenuous dynamics related to rejection, nonconformity, and creative engagement, a significant outcome. Overall, while past creativity research focused on idea generation, creative engagement, and leaders' encouragement, my study opens a conceptual door for examining leaders' role in idea elaboration, idea rejection, and creative deviance.

Sixth, my contribution to leadership research is threefold. First, my conceptualization of leaders' responses to creative deviance can help researchers explore leaders' responses to other deviant behaviors and the range of mistakes and mishaps of non-deviant employees. Second, most leadership studies focus on leader behaviors as leadership *styles* (e.g., transformational/ transactional, charismatic/non-charismatic, participative/ authoritative) or in terms of the power bases that leaders use (e.g., coercion, reward, legitimacy) (French & Raven, 1959; Raven, 1965; 1993). These leadership behaviors are usually seen as antecedents of employee behavior, and not as mediators or outcomes. This study conceptualizes leaders' reaction as a "response", a behavior that is elicited by employees' actions, thus it's an employee-initiated action. Lastly, I contribute to framing and studying leader behaviors as a relational phenomenon. This allows us to look at follower-leader relationship as a nuanced cyclic effect, in which leaders *respond* to employees' actions and via their responses; they further contribute to shaping follower behaviors.

Seventh, contributions to deviance research are related to the fact that the study of workplace deviance has been dominated, to date, by two research streams that focus on inherently positive or negative deviant behaviors (Warren, 2004). This has led to the exclusion of deviant behaviors such as creative deviance, which are not inherently positive or negative (Staw & Boettger, 1990). My study suggests that the a priori classification of some deviant behaviors as either positive or negative is shortsighted; that the same deviant behavior in the same context and the same time period may produce both positive and negative outcomes; that the social context's normative gatekeepers (leaders) perceive and

react to the same deviant behavior in varying ways; and that their reactions ultimately influence whether the outcome of deviance is positive or negative. Thus my study offers a less polarized, more nuanced, and more contextually sensitive approach to studying deviant behavior in the workplace.

6.2 Managerial Implications

My research offers important practical implications for organizations and managers. First, I suggest that it is to the appropriate extent that organization and managers should facilitate "good" factors. For example, organization and managers often seek to encourage creativity by offering autonomy and cultivating employees' intrinsic motivation and creative self-efficacy. All these factors are effective approaches to enhance creativity because pursuing new ideas at work involves a considerable investment of time and energy on the part of both the employees and the organization. Employees must be motivated to allocate a large amount of their temporal and cognitive resources to a creative project, and organizations must be willing to provide employees with support and freedom which enables them to invest said resources (Carmeli & Schaubroeck, 2007). However, my research implies that encouraging creativity may also bring to employees opportunities to pursue original ideas and solutions depart from normal ideas that are involved in the organizational norms and managerial orders. As such, I propose that managers need to balance the practice between offering autonomy and monitoring the process of creative projects. Moreover, managers may show some tolerance toward creative deviance to encourage creativity as this specific deviance may maximize the number of new ideas (Mainemelis, 2010).

Second, my study suggests that it is important for managers to clearly convey the rationale behind the stop order toward new ideas. New ideas are often rejected because they

are perceived as weird, inappropriate, unworkable, or too risky. A stop order that appears unconvincing to an employee may reflect that the selection criteria in employees are inconsistent with those in supervisor. Thus, if there is a stop order important for employees to follow, managers need to seek out the discrepancy between their selection criteria and those of employees, and then let employees understand why the stop order reasonable and the potential implications of noncompliance.

Third, leaders' reactions to creative deviance are often habitual, reactive, or otherwise not well thought of. My study informs leaders about what is likely to happen when they respond to creative deviance in one or another ways. In addition, because creative deviance challenges managers, it has the potential to encourage them to switch gears, from administrators primarily concerned with damage control to inventive leaders interested in exploration. The notion of creative deviance, if incorporated into leadership development programs, may allow managers to enhance their leadership capabilities, widen their responses and gain a better understanding of how such responses affect employees. This knowledge can also contribute to leaders' ability to enhance creativity by reacting in ways that further encourage employees' autonomous and somewhat subversive behaviors.

6.3 Limitations and Future Directions

Several limitation and the corresponding future directions should be noted here. First, I only focus on the "good" factors that lead to creative deviance in this research. Some unique factors may be relevant to the persistence in a new idea regardless of the stop order. For instance, it is possible that employees' commitment escalation (Staw, 1981) renders them violate supervisor's stop order in order to recover the sunk cost they have been invested in the rejected idea (Schaubroeck & Davis, 1994). Personal characteristics, such as the tendency toward rebellion versus conformity (Levy, Collins, & Nail, 1998), would dispose the employee's behavior when facing the rejection of the idea.

Second, although I will collect data across three points in time, some of the relationships in my model may take effect in unequal time frames (Mitchell & James, 2001). For instance, if a manager ignores creative deviance, this may achieve its full effect only when it is repeated over long periods of time, while rewarding it can achieve its full effect in shorter time frames. Future studies can collect data in more time phases and over longer periods of time.

Third, I focus on the types of leaders' responses and not on their severity. Future research can investigate whether the severity of a response moderates the relationships in my model. For example, punishment may achieve a stronger negative effect on creative performance when it is highly severe rather moderate. Furthermore, future studies can look closely at the proximal situational elements that may influence the type of response leaders choose. For instance, the degree of risk that creative deviance may have exposed an organization to may influence how leaders' choose to respond to it (Mainemelis, 2010). An equally interesting question for future research is how stable, volatile, or flexible leaders' response to creative deviance is over time and across contexts.

Fourth, employees with different personality structures may have different tendency to engage in creative deviance and may react differently to leaders' responses. This may also affect their outcome behaviors (creative deviance and creative performance). For instance, employees who are promotion oriented may be quite sensitive and attuned to leaders' positive responses (e.g. reward, forgiving), while prevention-oriented individuals may be more attuned to leaders' negative responses (e.g., punishment) (Kark & Van Dijk, 2007; Van Dijk & Kluger, 2004). Also, personality characteristics of leaders may influence their responses to creative deviance. Thus, future research should explore employees' and leaders' personality characteristics as moderators of the relationships explored in the current study.

Fifth, creativity and possibly creative deviance are more central and critical in some

professions. My study will be conducted in the creative context of two advertising firms. It is possible that in such a context leaders' reactions to creative deviance may be different than in other professions (e.g., accounting, medicine, investing, and law). Future research, therefore, should attempt to replicate my findings in professions in which creativity may be a less central component. Future research can also examine how organizational-level factors influence leaders' responses. For example, forgiveness has been recently conceptualized as an organizational-level phenomenon, whereby an organization may be characterized by a climate of forgiveness (Fehr & Gelfand, 2012). It is likely that leaders may react differently to employees' creative deviance in a climate of forgiveness, and that within such a context employees will interpret leaders' reactions differently. This in turn will affect employees' creative behavior and creative deviance.

Sixth, another possibly important moderator is culture. For example, the cultural dimension of power distance (PD) indicates tolerance of inequalities and status differences. PD affects the prototype of the ideal leader, the acceptability of various leader–follower behaviors and the type of common leader–follower relationship (Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004). Thus, it is possible that leaders' reactions to creative deviance may affect people from high PD and low PD cultures differently. That said, the qualitative interviews conducted in my study suggest that in work contexts like advertising agencies, the global, industry-level culture may be at least as important as national culture in informing leaders' and employees' behaviors in relation to creative deviance. Future studies should explore my model, taking into consideration the different aspects of the organization's climate, the industry culture, as well as the national culture.

6.4 Conclusions

My research breaks new ground in the current literature by establishing a connection among creativity, deviance and leadership in the workplace, by setting the stage for further research

and theory progress in understanding how creativity-enhancing factors lead to deviance and by highlighting the pivotal role that leaders play in employee creative deviance. My theories and findings contribute to intriguing implications. It is hoped that these implications will serve as a spark for future research.

REFERENCES

- Ahuja, G., & Lampert, C. M. 2001. Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Management Journal*, 22: 521–543.
- Amabile, T. M. 1988. A model of creativity and innovation in organizations. In B. M. Staw & L. L. Cummings [Eds.), *Research in organizational behavior*, vol. 10: 123-167. Greenwich, CT: JAI Press.
- Amabile, T. M. 1996. *Creativity in context*. Boulder, CO: Westview Press.
- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. 1994. The Work Preference Inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of personality and Social Psychology*, 66(5), 950.
- Amabile, T. M. 1988. How to kill creativity. *Harvard Business Review*, 76(5): 76–87.
- Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. 2005. Affect and creativity at work. *Administrative Science Quarterly*, 50: 367–403.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. 1996. Assessing the work environment for creativity. *Academy of Management Journal*, 39: 1154–1184.
- Bandura, A., 1977. Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bandura, A., 1986. *Social foundations of thought and action: A social cognitive theory*, Englewood Cliffs, N): Prentice-Hall.

- Bandura, A., 1997. *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bandura, A., & Schunk, D., 1981. Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41: 586- 598.
- Baron, R. M., & Kenny, D. A., 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Baumeister, R., & Leary, M. R. 1995. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Boggiano, A. K., Ruble, D. N., & Pittman, T. S., 1982. The mastery hypothesis and the over justification effect. *Social Cognition*, 1, 38–49.
- Brewer, M. B. 2000. Research design and issues of validity. *Handbook of research methods in social and personality psychology*, 3-16.
- Brown, S.P. 1996. A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin*, 120, 235–255
- Baer, M. 2012. Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal*, 55: 1102–1119.
- Bamberger, P. 2008. From the editors beyond contextualization: Using context theories to narrow the micro-macro gap in management research. *Academy of Management Journal*, 51: 839–846.

- Benner, M. J., & Tushman, M. L. 2003. Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Review*, 28: 238–256.
- Bennett, R. J., & Robinson, S. L. 2000. Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85: 349–360.
- Beyer, J. M., & Trice, H. M. 1984. A field study of the use and perceived effect of discipline in controlling work performance. *Academy of Management Journal*, 27: 743–764.
- Brockner, J., & Higgins, T. 2001. Regulatory focus theory: Implications for the study of emotions at work. *Organizational Behavior & Human Decision Processes* 86: 35–66.
- Brislin, R. W. 1986. *The wording and translation of research instruments*. In W. J. Campbell, D. T. 1960. Blind variation and selective retention in creative thought as in other knowledge processes. *Psychological Review*, 67: 380–400.
- Csikszentmihalyi, M. 1997. *Creativity: Flow and the psychology of discovery and invention*. New York: HarperPerennial.
- Coyle, C. T., & Enright, R. D. 1997. Forgiveness intervention with postabortion men. *Journal of Consulting and Clinical Psychology*, 65: 1042–1046.
- Carmeli, A., & Schaubroeck, J. 2007. The influence of leaders' and other referents' normative expectations on individual involvement in creative work. *The Leadership Quarterly*, 18(1), 35-48.
- Campbell, D. T. 1960. Blind variation and selective retention in creative thought as in other knowledge processes. *Psychological Review*, 67: 380–400.

- Coleman, J. W., & Ramos, L. L. 1998. Subcultures and deviant behavior in the organizational context. *Research in the Sociology of Organizations*, 15: 3–34.
- Cropley, A. 2006. In praise of convergent thinking. *Creativity Research Journal*, 18(3), 391-404.
- Deci, E. L., & Ryan, R. M. 1980. The empirical exploration of intrinsic motivational processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. 39–80. New York: Academic Press.
- Deci, E. L., & Ryan, R. M. 1985. *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. 2000. The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior, *Psychological Inquiry*, 11:4, 227-268
- Deci, E. L., & Ryan, R. M. 2008. Self-determination theory: A macro-theory of human motivation, development, and health. *Canadian Psychology*, 49, 182–185. Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. 1994. Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, 62: 119–142.
- Deci, E. L., & Ryan, R. M. 1996. Need satisfaction and the self-regulation of learning. *Learning & Individual Differences*, 8: 165–184.
- Deci, E. L., Ryan, R. M., & Koestner, R. 1999. Meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125: 627–668.
- Dutton, J. E. 2003. *Energize your workplace: How to build and sustain high-quality*

connections at work. San Francisco: Jossey-Bass Publishers.

Dutton, J. E., & Heaphy, E. D. 2003. The power of high-quality connections at work. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive Organizational Scholarship*: 263–278. San Francisco: Berrett-Koehler Publishers.

Edmondson, A. 1999. Psychological safety and learning behavior in work teams.

Administrative Science Quarterly, 44, 350–383.

Edmondson, A. C. 2003. Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies*, 40: 1419–1452.

Edmondson, A. C. 2004. Psychological safety, trust, and learning in organizations: A group-level lens. In R. M. Kramer, & K. S. Cook (Eds.), *Trust and distrust in organizations: Dilemmas and approaches*: 239–272. NY: Russell Sage Foundation.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12, 1-22.

Feldhusen, J. F., & Goh, B. E. 1995. Assessing and accessing creativity: An integrative review of theory, research, and development. *Creativity Research Journal*, 8(3), 231-247.

Fiske, S. T., Morling, B., & Stevens, L. E. 1996. Controlling self and others: A theory of anxiety, mental control, and social control. *Personality and Social Psychology Bulletin*, 22: 115–123.

- Ford, C. M. 1996. A theory of individual creative action in multiple social domains. *Academy of Management Review*, 21: 1112–1142.
- Farmer, S. M., Tierney, P., & Kung-McIntyre, K. 2003. Employee creativity in Taiwan: An application of role identity theory. *Academy of Management Journal*, 46: 618–630.
- Feldman, D. C. 1984. The development and enforcement of group norms. *Academy of Management Review*, 9: 47–53.
- Fehr, R., Michele G. 2012. The forgiving organization: A multilevel model of forgiveness at work. *Academy of Management Review*, 37: 664–688.
- Fehr, R., Gelfand, M. J., & Nag, M. 2010. The road to forgiveness: A meta-analytic synthesis of its situational and dispositional correlates. *Psychological Bulletin*, 136: 894–914.
- Frese, M., Teng, E., Wijnen, C. J. D. 1999. Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior*, 20: 1139–1155.
- George, J. M. 2007. Creativity in organizations. *Academy of Management Annals* 1: 439–477.
- George, J. M., & Zhou, J. 2001. When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology*, 86: 513–524.
- Gilson, L. L., & Shalley, C. E. 2004. A little creativity goes a long way: An examination of teams' engagement in creative processes. *Journal of Management*, 30: 453–470.

- Grant, A. M., & Berry, J. W. 2011. The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54: 73–96.
- Graves, L. M., Ruderman, M. N., Ohlott, P. J., & Weber, T. J. (2012). Driven to work and enjoyment of work effects on managers' outcomes. *Journal of Management*, 38: 1655–1680.
- Gagné M. & Deci E. L., 2005. Self-determination theory and work motivation. *Journal of Organizational Behavior*, V. 26, 4: 331-362
- Gist, M. E., & Mitchell, T. R. 1992. Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy Management Review*, 17: 183-211.
- Glick, W. H., Jenkins Jr, G. D., & Gupta, N. 1986. Method versus substance: how strong are underlying relationships between job characteristics and attitudinal outcomes? *Academy of Management Journal*, 441-464.
- Grant, A. M. & Berry, J. W., 2011. The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54(1), 73-96.
- Hackman, J. R. & Oldham, G. R. 1975. Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 159-70.
- Hillman, A. J., Nicholson, G., & Shropshire, C. 2008. Directors' multiple identities, identification, and board monitoring and resource provision. *Organization Science*, 19(3), 441-456.

- Houghton, J. D., & DiLiello, T. C. 2010. Leadership development: The key to unlocking individual creativity in organizations. *Leadership & Organization Development Journal*, 31, 230-245.
- Hackley, C., Kover, A. J., 2007. The trouble with creatives: Negotiating creative identity in advertising agencies. *International Journal of Advertising*, 26: 63–78.
- Higgins, E. T. 1997. Beyond pleasure and pain. *American Psychologist*, 52: 1280–1300.
- Higgins, E. T., & Spiegel, S. 2004. Promotion and prevention strategies for self-regulation: A motivated cognition perspective. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications*: 171–187. NY: Guilford.
- Hinkin, T. R., & Schriesheim, C. A. 1994. An examination of subordinate-perceived relationships between leader reward and punishment behavior and leader bases of power. *Human Relations*, 47: 779–800.
- Hinkin, T. R., & Schriesheim, C. A. 2008. A theoretical and empirical examination of the transactional and non-leadership dimensions of the Multifactor Leadership Questionnaire (MLQ). *The Leadership Quarterly*, 19(5): 501–513.
- Hofstede, G. 2001. *Culture's consequences* (2nd ed.). Thousand Oaks, CA: Sage.
- Hoobler, J. M., & Brass, D. J. 2006. Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology*, 91: 1125–1133.
- House, R. J., Hanges, P. W., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.

- Hu, L. T., & Bentler, P. M. 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Jaussi, K. S., Randel, A. E. & Shelley D. 2007. I am, I think I can, and I do: The role of personal identity, self-efficacy and cross-application of experiences in creativity at work. *Creativity Research Journal*, 19: 247–258.
- Janssen, O. 2000. Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and organizational psychology*, 73(3), 287-302.
- Kanungo, R. N. 1982. Measurement of job and work involvement. *Journal of Applied Psychology*, 67(3), 341.
- Kahn, W. A. 1990. Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33: 692–724.
- Kark, R. & Carmeli, A. 2009. Alive and creating: The mediating role of vitality and aliveness in the relationship between psychological safety and creative work involvement. *Journal of Organizational Behavior*, 30: 785–804.
- Kark, R. & van Dijk, D. 2007. Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *Academy of Management Review* 32: 500–528.
- Karremans, J. C., & Van Lange, P. A. M. 2008. Forgiveness in personal relationships: Its malleability and powerful consequences. *European Review of Social Psychology*, 19: 202–241.

Kendal, J., Feldman, M. W., & Aoki, K. 2006. Cultural coevolution of norm adoption when punishers are rewarded or non-punishers are punished. *Theoretical Population Biology*, 70: 10–25.

Klepper S., & Naggin, D. 1989. The deterrent effect of perceived certainty and severity of punishment revisited. *Criminology*, 27: 721–746.

Lanaj, K., Chang, C-H., & Johnson, R. E. (2012). Regulatory focus and work-related outcomes: A review and meta-analysis. *Psychological Bulletin*, 138: 998-1034.

Lehman, D. W., & Ramanujam, R. 2009. Selectivity in organizational rule violations. *Academy of Management Review*, 34: 643-657.

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. 2008. Servant leadership: Development of a multidimensional measure and multi-level assessment. *Leadership Quarterly*, 19: 161–177.

Lin, B., Law, K., & Chen, C. 2012. *“I love to do it” or “I can do it”?* *Competing mechanisms in explaining creative deviance*. Paper presented at Academy of Management Annual Meeting 2012, Boston.

Lin, B., Wong, Y. N., & Fu, P. 2012. *Consideration of future consequences and thriving in creative work context: A model of dual mechanism*. Paper presented at the 8th Asia Academy of Management Conference, Seoul, Korea.

La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. 2000. Within-person variation in security of attachment: A self-determination theory perspective on

- attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79, 367–384
- Latham, G. P., & Locke, E. A. 1991. Self-regulation through goal setting. *Organizational behavior and human decision processes*, 50(2), 212-247.
- Liu, D., Chen, X. P., & Yao X., 2011. From autonomy to creativity: a multilevel investigation of the mediating role of harmonious passion. *Journal of Applied Psychology*, 96, 294–309
- Litchfield, R. C. 2008. Brainstorming reconsidered: A goal-based view. *Academy of Management Review*, 33(3), 649-668.
- Lodahl, T. M., & Kejnar, M. 1965. The definition and measurement of job involvement. *Journal of applied psychology*, 49(1), 24.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. 2002. A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83–104.
- Madjar, N., Oldham, G. R., & Pratt, M. G. 2002. There's no place like home? The contributions of work and non-work creativity support to employees' creative performance. *Academy of Management Journal*, 45(4), 757–767.
- Mainemelis, C. 2001. When the muse takes it all: A model for the experience of timelessness in organizations. *Academy of Management Review*, 26:548–565.
- Mainemelis, C. 2010. Stealing fire: Creative deviance in the evolution of new ideas. *Academy of Management Review*, 35:558—578.

- Mainemelis, C. & Ronson, S. 2006. Ideas are born in fields of play: Towards a theory of play and creativity in organizational settings. *Research in Organizational Behavior*, 27: 81–131.
- Mathieu, J. E., & Farr, J. L. 1991. Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology*, 76, 127-133.
- McCullough, M. E., Pargament, K. I., & Thoresen, C. E. 2000. The psychology of forgiveness: History, conceptual issues, and overview. In M. E. McCullough, K. I. Pargament, & C. E. Thoresen, (Eds.), *Forgiveness: Theory, research, and practice*: 1–14. New York: Guilford Press.
- Merton, R. K. 1968. *Social theory and social structure*. New York: The Free Press.
- Mitchell, T. R., & James, L. R. 2001. Building better theory: Time and the specification of
- Muthén, L. K., & Muthén, B. O. 2007. 1998–2007. *Mplus User's Guide*. Los Angeles, CA: Muthén & Muthén.
- Nemeth, C. J. 1997. Managing innovation: When less is more. *California Management Review*, 40: 59–74.
- Maddux, J. E. 1995. *Self-efficacy, adaptation, and adjustment: Theory, research, and application*. Plenum: New York.
- Mathieu, J. E., & Farr, J. L. 1991. Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology*, 76, 127-133.

- Mumford, M. D. 2012. (Ed.). *Handbook of organizational creativity*. Academic Press.
- Oldham, G. R., & Cummings, A. 1996. Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39: 607–634.
- Podsakoff, P. M., Todor, W. D., Grover, R. A., & Huber, V. L. 1984. Situational moderators of leader reward and punishment behavior: Fact or fiction? *Organizational Behavior and Human Performance*, 34: 21–63.
- Preacher, K. J., & Hayes, A. F., 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*, 36, 717-731.
- Preacher, K. J., & Hayes, A. F. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185-227.
- Robinson, S.L. & Bennett, R.J.,1997. Workplace deviance: Its definition, its nature and its causes. In R.J. Lewicki, B.H. Sheppard & R.J. Bies (Eds.), *Research on negotiation in organization: 6* (pp. 3-28). Greenwich, CT: JAI.
- Ryan, R. M. & Deci, E. L. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.

- Ryan, R. M., Kuhl, J., & Deci, E. L. 1997. Nature and autonomy: An organizational view of social and neurobiological aspects of self-regulation in behavior and development. *Development and psychopathology*, 9(4), 701-728.
- Scholer, A. A., & Higgins, E. T. 2010. Regulatory focus in a demanding world. In R. H. Hoyle (Ed), *Handbook of personality and self-regulation*: 291–314. MA: Blackwell.
- Selarta M., Nordstrom, T., Kuvaasc, B. & Takemurad, K. 2008. Effects of reward on self-regulation, intrinsic motivation and creativity. *Scandinavian Journal of Educational Research*, 52: 439–458.
- Simonton, D. K. 1999. Creativity as blind variation and selective retention: Is the process Darwinian? *Psychological Inquiry*, 10: 309–328.
- Shrout, P. E., & Bolger, N. 2002. Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7, 422–445.
- Sobel, M. E. 1982. Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology*. pp. 290-312. San Francisco: Jossey-Bass.
- Staw, B. M. 1990. An evolutionary approach to creativity and innovation. In M. West, & J. L. Farr, (Eds.), *Innovation and creativity at work: Psychological and organizational strategies*. Chichester, UK: John Wiley & Sons.
- Staw, B.M., & Boettger, R. D. 1990. Task revision: A neglected form of work performance. *Academy of Management Journal*, 33: 534–559.

- Stein, M. 1953. Creativity and culture. *Journal of Psychology*, 32: 311–322. *Tenbrunsel, A. E., & Messick, D. M. 1999. Sanctioning systems, decision frames, and cooperation. Administrative Science Quarterly, 44: 684-707.*
- Schmidt, A. M., & DeShon, R. P. 2007. What to do? The effects of discrepancies, incentives, and time on dynamic goal prioritization. *Journal of Applied Psychology*, 92(4), 928.
- Shalley, C. E., Gilson, L. L., & Blum, T. C. 2009. Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *Academy of Management Journal*, 52(3), 489-505.
- Shalley, C. E., Zhou, J., & Oldham, G. R. 2004. The effects of personal and contextual characteristics on creativity: where should we go from here? *Journal of management*, 30(6), 933-958.
- Shalley, C. E., & Zhou, J. 2008. Organizational creativity research: An historical overview. In C. E. Shalley & J. Zhou (Eds), *Handbook of Organizational Creativity*: 3–31. New York: Lawrence Erlbaum Associates.
- Simonton, D. K. 1999. The continued evolution of creative Darwinism. *Psychological Inquiry*, 10(4), 362-367.
- Sternberg, R. J., & Lubart, T. I., 1995. *Defying the crowd: Cultivating creativity in a culture of conformity*. New York: Free Press.
- Tewksbury, R. A., Gagné, P., & Schwartz, M. D. 2000. *Deviance and Deviants: An Anthology*. Roxbury.

- Tierney, P., & Farmer, S. M. 2011. Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology*, 96(2), 277.
- Tierney, P., Farmer, S. M., & Graen, G. B. 1999. An examination of leadership and employee creativity: The relevance of traits and relationships. *Personnel Psychology*, 52, 591-620.
- Tierney, P., & Farmer, S. M. 2002. Creative self-efficacy: Potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45, 1137–1148.
- Tepper, B. J., Carr, J., Breaux, D. M., Geider, S., Hu, C., & Hua, W. 2009. Abusive supervision, intentions to quit, and employees' workplace deviance. *Organizational Behavior and Human Decision Processes*, 109: 156–167.
- Trevino, L. K. 1992. The social effects of punishment in organizations: A justice perspective. *Academy of Management Review*, 17: 647–677.
- Utman, C. H. 1997. Performance effects of motivational state: A meta-analysis. *Personality and Social Psychology Review*, 1, 170–182
- Ward, T. B., Smith, S. M., & Finke, R. A. 1999. *Creative cognition*.
- Whyte, G., Saks, A. M., & Hook, S. 1998. When success breeds failure: the role of self-efficacy in escalating commitment to a losing course of action. *Journal of Organizational Behavior*, 18(5), 415-432.
- Van Mierlo, H., Rutte, C. G., Vermunt, J. K., Kompier, M. A. J., & Doorewaard, J. A. M. C. 2006. Individual autonomy in work teams: The role of team autonomy, self-efficacy,

- and social support. *European Journal of Work and Organizational Psychology*, 15(3), 281-299.
- Van Dijk, D., & Kluger, A. N., 2004. Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology: An International Review*, 53(1): 113-135.
- Vardi, Y., & Wiener, Y. 1996. Misbehavior in organizations: A motivational framework. *Organization Science*, 7: 151–165.
- Van Mierlo, H., Rutte, C. G., Vermunt, J. K., Kompier, M. A. J., & Doorewaard, J. A. M. C. 2006. Individual autonomy in work teams: The role of team autonomy, self-efficacy, and social support. *European Journal of Work and Organizational Psychology*, 15(3), 281-299.
- Ward, T. B., Smith, S. M., & Finke, R. A. 1999. *Creative cognition*.
- Whyte, G., Saks, A. M., & Hook, S. 1998. When success breeds failure: the role of self-efficacy in escalating commitment to a losing course of action. *Journal of Organizational Behavior*, 18(5), 415-432.
- Walumbwa, F. O., Hartnell, C. A., & Oke, A. 2010. Servant leadership, procedural justice climate, service climate, employee attitudes, and organizational citizenship behavior: A cross-level investigation. *Journal of Applied Psychology*, 95: 517–52.
- Ward, D. A., Stafford, M. C., & Gray, L. N. 2006. Rational choice, deterrence, and theoretical integration. *Journal of Applied Social Psychology*, 36: 571–585.
- Warren, D. E. 2003. Constructive and destructive deviance in organizations. *Academy of Management Review*, 29: 622–632.

- Zellars, K. L., Tepper, B. J., & Duffy, M. K. 2002. Abusive supervision and subordinates' organizational citizenship behavior. *Journal of Applied Psychology*, 86: 1068–1076.
- Zhou, J. 1998. Feedback valence, feedback style, task autonomy, and achievement orientation: Interactive effects of creative performance. *Journal of Applied Psychology*, 83: 261–276.

TABLE

Table 1. Exploratory Factor Analysis for Creative Deviance

Item	Factor loading
1. I continued to improve some of the new ideas, although they did not receive my supervisor's approval.	.75
2. In my work time, I often thought about how to make the rejected ideas better.	.78
3. Although my supervisor asked me to stop developing some new ideas, I still worked on these ideas.	.69
4. Besides working on ideas that were approved by my supervisor, I also exerted effort in improving the rejected ideas by collecting information and trying again.	.82
5. I spent some of my work time in developing the ideas rejected by my supervisor.	.80
6. Up to this point I still have not given up on some of the rejected ideas.	.70
7. I have improved some rejected ideas in my working hours.	.60
8. Although some ideas were stopped by the supervisor, I worked on the improved versions of these ideas.	.71

Note. N = 79.

Table 2. Descriptive statistics, reliability coefficients, and correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	1.57	.50										
2. Age	25.72	3.22	.07									
3. Education	3.49	.65	.13	-.12								
4. Tenure	4.21	1.10	.04	.39**	-.17*							
5. Autonomy	4.88	1.11	-.04	.01	.07	.12	(.85)					
6. Intrinsic motivation (T1)	4.34	.93	-.07	-.14	.14	-.13	.35**	(.78)				
7. Creative self-efficacy (T1)	4.66	1.01	-.13	-.16	.28**	-.22**	.22**	.50**	(.92)			
8. Creative deviance	4.46	1.08	-.06	.03	-.02	.04	.18*	.35**	.27**	(.88)		
9. Job involvement	3.81	.84	-.12	-.06	-.01	-.00	-.05	.06	.14	.13	(.85)	
10. Creative performance	4.30	.77	-.08	.06	.02	.05	-.01	.07	.02	.18*	.01	(.95)

Note. N = 146. * $p < .05$; ** $p < .01$. Cronbach's alpha reliability estimates appear in parentheses.

Table 3. Model fit summary for confirmatory factor analysis

	χ^2	df	$\Delta\chi^2$ ^a	CFI	TLI	RMSEA
6 factors	142.00	120		.99	.98	.04
5 factors (CD & CP combined)	597.23	125	455.23***	.71	.61	.16
5 factors (CD & IM combined)	289.68	125	147.68***	.90	.87	.10
5 factors (CD & SE combined)	375.40	125	233.40***	.84	.81	.12
5 factors (CD & AU combined)	332.55	125	190.55***	.87	.84	.11
5 factors (CD & JI combined)	326.67	125	184.67***	.87	.85	.11
5 factors (IM & SE combined)	241.18	125	199.18***	.93	.91	.08
1 factor (all combined)	1279.96	135	1137.96***	.29	.19	.24

Note. N = 146. CD = creative deviance; CP = creative performance; IM = intrinsic motivation; SE = creative self-efficacy; AU = autonomy; JI = job involvement; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation.

^a Chi-square difference was compared between the six-factor model and the other models.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4. Results of Hierarchical Multiple Regression

	Intrinsic motivation		Creative self-efficacy		Creative deviance					
	M1	M2	M3	M4	M5	M6	M7	M8	M9	
<i>Control</i>										
Gender	-.08	-.08	-.16	-.16*	-.06	-.06	-.03	-.02	-.02	
Age	-.09	-.07	-.06	-.05	.02	.02	.05	.04	.05	
Education	.13	.09	.27***	.24**	-.00	-.02	-.05	-.09	-.09	
Tenure	-.07	-.15	-.14	-.19*	.04	.01	.06	.06	.08	
<i>Independent variable</i>										
Autonomy		.44***		.25***		.17*	.02	.10	.00	
<i>Mediators</i>										
Intrinsic motivation							.36***		.29**	
Creative self-efficacy								.28**	.17	
ΔR^2	.05	.19	.13	.06	.01	.03	.10	.07	.12	
ΔF	1.68	35.00***	5.44***	10.77***	.19	4.28*	15.70***	9.97**	9.54***	

Note. N = 146. * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 5. Results for Conditional Indirect Effect via Mplus program

<i>Mediator Variable Model</i>				
<i>Predictor</i>	Intrinsic motivation		Creative self-efficacy	
	<i>Estimate</i>	<i>SE</i>	<i>Estimate</i>	<i>SE</i>
Gender	-.10	.13	-.29	.16
Age	-.02	.02	-.02	.03
Education	.14	.10	.38*	.15
Tenure	-.11	.08	-.16*	.08
Autonomy	.30***	.07	.19*	.08

<i>Dependent Variable Model</i>		
<i>Predictor</i>	Creative deviance	
	<i>Estimate</i>	<i>SE</i>
Gender	.00	.18
Age	.02	.03
Education	-.17	.15
Tenure	.08	.09
Autonomy	.07	.09
Intrinsic motivation (IM)	.32**	.12
Creative self-efficacy (SE)	.18	.10
Job involvement (JI)	.19*	.10
IM × JI	.32*	.13
SE × JI	-.12	.12

*Conditional Indirect Effect at Job Involvement = Mean ± 1 SD
(from Autonomy to Creative Deviance)*

<i>Mediator</i>	Moderator: JI	Indirect effect	<i>SE</i>	95% CI	
				Lower	Upper
Intrinsic motivation	-.837 (-SD)	.02	.05	-.084	.126
Intrinsic motivation	.000 (mean)	.10*	.04	.035	.198
Intrinsic motivation	.837 (+SD)	.18**	.06	.083	.320
<i>Difference</i>	<i>High – Low</i>	.16*	.08	.037	.351
Creative self-efficacy	-.837 (-SD)	.06	.04	.005	.159
Creative self-efficacy	.000 (mean)	.04	.03	.000	.100
Creative self-efficacy	.837 (+SD)	.02	.03	-.032	.096
<i>Difference</i>	<i>High – Low</i>	-.04	.04	-.159	.024

Note. N=146. The mediators (intrinsic motivation and creative self-efficacy) and the moderator (job involvement) were centered prior to analysis. Un-standardized regression coefficients are reported. Bootstrap sample size = 1,000.

* $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 6 Means, Standard Deviations, and Correlations^a

	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	1.57	.50	-												
2. Age	28.27	4.71	.07	-											
3. Education	3.49	.65	.13	-.12	-										
4. Tenure	4.21	1.10	.04	.39**	-.17*	-									
5. Creative deviance(T1)	4.88	1.11	-.04	.01	.17**	.12	(.79)								
6. Supportive supervision for creativity	4.34	.93	-.07	-.14	.14	-.13	.15*	(.84)							
7. Manipulating	4.66	1.01	-.13	-.16	.18*	-.22**	.27**	.15*	(.81)						
8. Rewarding	4.46	1.08	-.06	.03	-.02	.04	.36**	.16**	.13*	(.78)					
9. Punishing	3.81	.84	-.12	-.06	-.01	-.00	.12**	-.06	.14*	-.10 [†]	(.86)				
10. Forgiving	4.30	.77	-.08	.06	.02	.05	.30**	.17*	.08	.18*	.07	(.73)			
11. Ignoring	4.74	.99	.09	.02	.02	-.08	.18**	-.03	.06	-.07	.11 [†]	.12*	(.91)		
12. Creative deviance(T3)	4.90	1.18	-.07	-.01	.00	.06	.55**	.17*	.19**	.12*	-.18*	.22**	.11 [†]	(.87)	
13. Creative performance	4.38	1.22	.08	.04	.05	-.07	.11 [†]	.14*	.14*	.20**	-.12*	.16*	.10	.12 [†]	(.95)

^an = 226. Values on the diagonal in parentheses represent the coefficient alpha reliabilities.

[†].05 < p < .1

* p < .05

** p < .01

TABLE 7 Model Fit Summary for Confirmatory Factor Analyses ^a

	χ^2	df	$\Delta\chi^2$ ^b	CFI	TLI	RMSEA	SRMR
8 factors	427.54	271		.937	.918	.054	.060
7 factors (creative deviance & creative performance combined)	533.83	278	106.29***	.881	.861	.068	.075
7 factors (creative performance & rewarding combined)	799.63	278	372.09***	.758	.717	.098	.100
7 factors (creative performance & punishing combined)	799.00	278	371.46***	.759	.718	.098	.099
7 factors (creative performance & ignoring combined)	791.53	278	363.99***	.762	.722	.097	.098
7 factors (creative performance & forgiving combined)	789.47	278	361.93***	.763	.723	.097	.096
7 factors (creative performance & manipulation combined)	790.00	278	362.46***	.763	.723	.097	.095
7 factors (supportive supervision for creativity & rewarding combined)	563.80	278	136.26***	.868	.845	.072	.076
7 factors (supportive supervision for creativity & forgiving combined)	665.80	278	238.26***	.820	.790	.084	.098
1 factor (all variables combined)	1938.96	299	1511.42***	.240	.174	.167	.170

^an = 226. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

^b Chi-square difference was compared between the eight-factor model and the other models.

* $p < .05$;

** $p < .01$;

*** $p < .001$.

TABLE 8 Results of Multiple Indirect Effects and Conditional Indirect Effects ^a

	Indirect Effect	SE	Z	p	Bootstrapping 95% CI	
					Lower	Upper
<i>from Creative Deviance at T1 to Creative Performance at T3</i>						
Punishing	-.01	-.006	1.65	.08	-.014	.000
Manipulating	-.05	.022	2.55	< .05	-.018	-.002
<i>from Creative Deviance at T1 to Creative Deviance at T3</i>						
Manipulating	.02	.012	1.71	.08	.0001	.062
Ignoring	-.01	-.006	1.61	.07	-.003	.000
<i>Conditional Indirect Effects at Supportive Supervision for Creativity = Mean ± 1 SD</i>						
Mediator	Moderator: Supportive Supervision for Creativity		Indirect effect	SE	95% CI	
	Lower	Upper				
<i>from Creative Deviance at T1 to Creative Performance at T3</i>						
Rewarding	-.54 (-SD)		.01	.006	-.004	.048
Rewarding	.00 (mean)		.02*	.007	.005	.058
Rewarding	.54 (+SD)		.03*	.006	.003	.060
<i>Difference</i>	High – Low		.02*	.008	.017	.041
<i>from Creative Deviance at T1 to Creative Deviance at T3</i>						
Forgiving	-.54(-SD)		.04	.031	-.002	.059
Forgiving	.00 (mean)		.06*	.027	.011	.104
Forgiving	.54 (+SD)		.08*	.031	.012	.116
<i>Difference</i>	High – Low		.04*	.019	.014	.048

^an=226. The mediators (rewarding, punishing, manipulating, forgiving, ignoring) and the moderator (supportive supervision) were centered prior to analysis. Unstandardized regression coefficients are reported. Bootstrap sample size = 2,000.

* $p < .05$

** $p < .01$

FIGURES

Figure 1 Theoretical Model in Study Two

H= Hypothesis

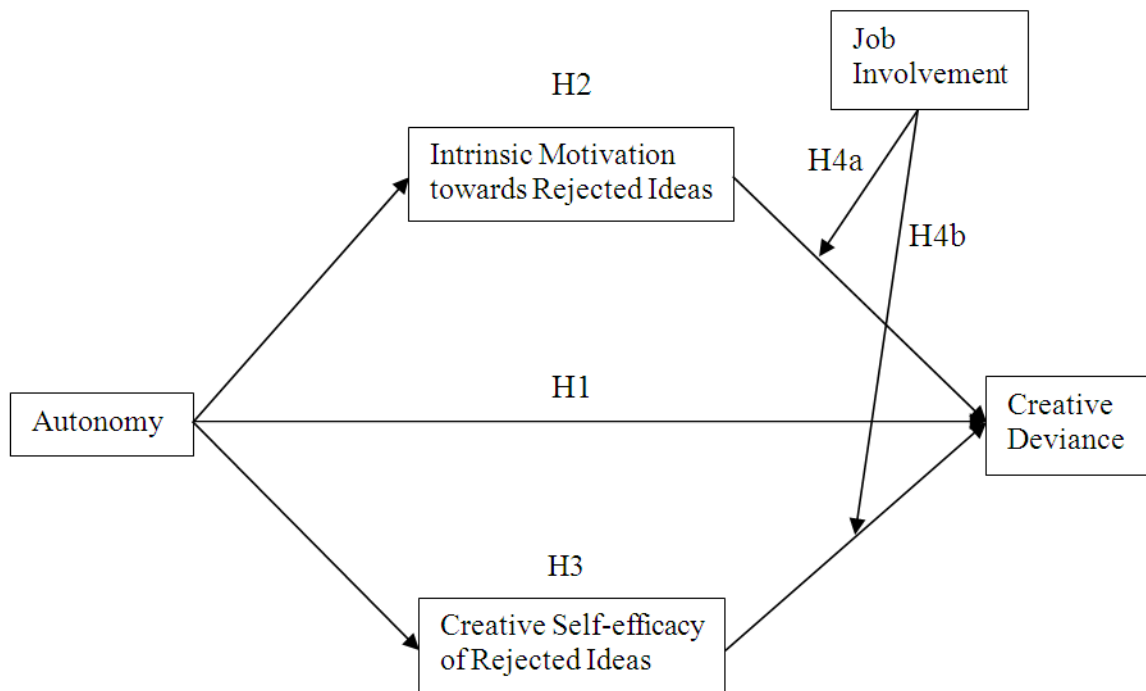


Figure 2 Theoretical Model in Study Three

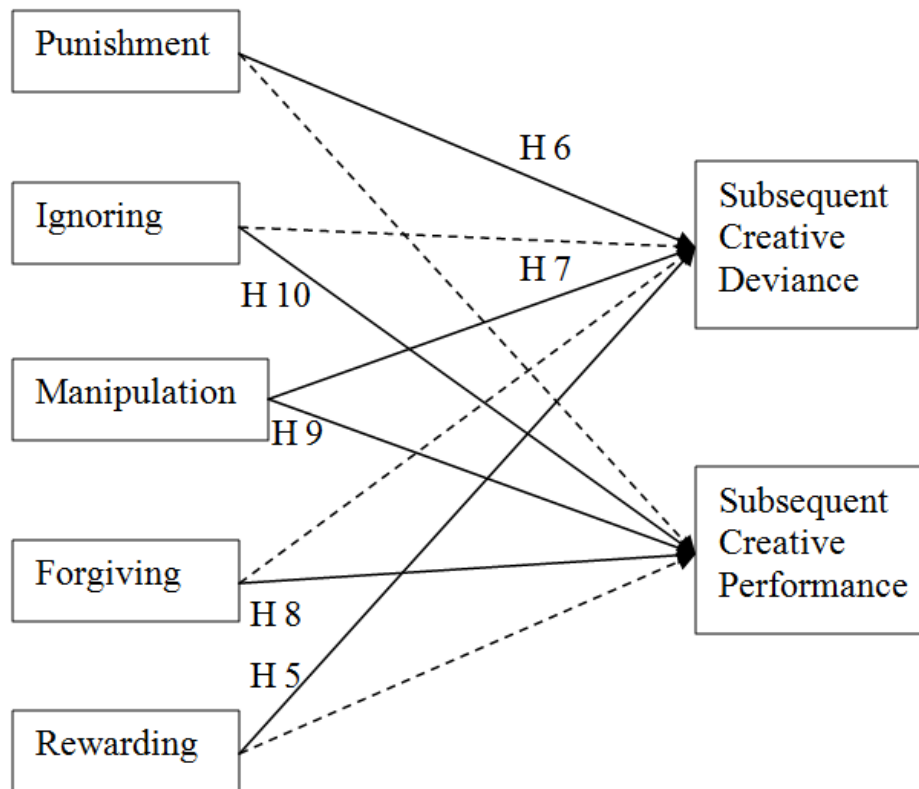
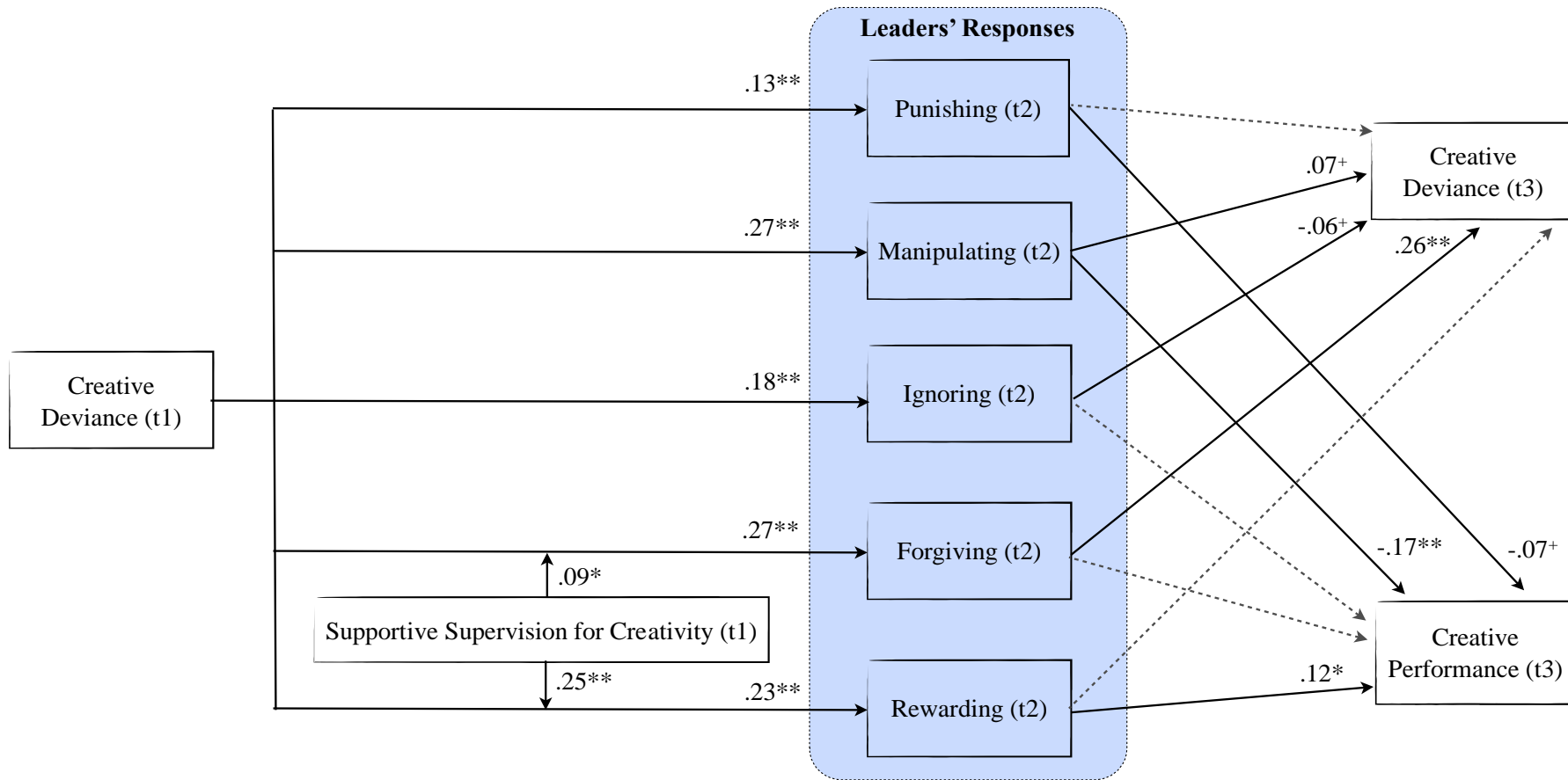


FIGURE 3 Estimated Model with Fully Standardized Coefficients ^a



^an = 226. T2 = T1 + 2 months. T3 = T2 + 2 months. Creative performance was rated by supervisors, all other variables were rated by employees. Solid line paths indicate correlation coefficients that are at least marginally significant ($p < .1$). Dashed line paths indicate correlation coefficients that are not significant ($p > .1$). † $.05 < p < .1$; * $p < .05$; ** $p < .01$.

APPENDIX A

List of Hypotheses

The Antecedent Model

Hypothesis 1 Autonomy will be positively associated with the occurrence of creative deviance.

Hypothesis 2 Intrinsic motivation toward rejected ideas mediates the effect of autonomy on the occurrence of creative deviance.

Hypothesis 3 Creative self-efficacy of rejected ideas mediates the effect of autonomy on the occurrence of creative deviance.

Hypothesis 4a Job involvement moderates the relationship between autonomy and creative deviance via intrinsic motivation toward rejected ideas, such that high job involvement strengthens the path from intrinsic motivation to creative deviance.

Hypothesis 4b Job involvement moderates the relationship between autonomy and creative deviance via creative self-efficacy of rejected ideas, such that high job involvement strengthens the relationship between creative self-efficacy and creative deviance.

The Outcome Model

Hypothesis 5 Leaders' reward of creative deviance is positively associated with employees' subsequent creative performance.

Hypothesis 6 Leaders' punishment of creative deviance is negatively associated with employees' subsequent creative performance.

Hypothesis 7 Leaders' manipulation of creative deviance is negatively associated with employees' subsequent creative performance.

Hypothesis 8 Leaders' forgiving of creative deviance is positively associated with employees' subsequent creative deviance.

Hypothesis 9 Leaders' ignoring of creative deviance is negatively associated with employees' subsequent creative deviance.

Hypothesis 10 Leaders' manipulation of creative deviance is positively associated with employees' subsequent creative deviance.

Hypothesis 11a Creative deviance has an indirect effect on followers' subsequent creative performance through leaders' rewarding, punishing, and manipulating responses.

Hypothesis 11b Creative deviance has an indirect effect on followers' subsequent creative deviance through leaders' forgiving, ignoring, and manipulating responses.

Hypothesis 12a The relation between creative deviance and rewarding is the strongest when supportive supervision for creativity is high rather than low.

Hypothesis 12b The relation between creative deviance and forgiving is the strongest when supportive supervision for creativity is high rather than low.

APPENDIX B

Creative Deviance Scale

Instruction: In the last two months, when my immediate supervisor rejected some of my new ideas:

1. I continued to improve some of the new ideas, although they did not receive my supervisor's approval.
2. In my work time, I often thought about how to make the rejected ideas better.
3. Although my supervisor asked me to stop developing some new ideas, I still worked on these ideas.
4. Besides working on ideas that were approved by my supervisor, I also exerted effort in improving the rejected ideas by collecting information and trying again.
5. I spent some of my work time in developing the ideas rejected by my supervisor.
6. Up to this point I still have not given up on some of the rejected ideas.
7. I have improved some rejected ideas in my working hours.
8. Although some ideas were stopped by the supervisor, I worked on the improved versions of these ideas.

APPENDIX C

Leaders' Responses Scale

Instruction: When I committed one or more acts of creative deviance in the last two months, my supervisor:

Punishing

1. Held me accountable for what I did.
2. Criticized me in a negative way.
3. Started behaving to me in less favorable ways.
4. Has made me pay for disobeying his/her orders.
5. Has punished me for what I did.
6. Has formally evaluated my performance in a negative way.
7. Has withheld organizational rewards from me.
8. Has assigned to me less interesting or/and less important work /projects to do.

Rewarding

1. Quickly acknowledged my passion for pursuing a creative idea.
2. Gave me positive feedback about not giving up on my idea.
3. Praised me for my commitment to my creative ideas against his/her orders.
4. Expressed to other people in the organization that he/she appreciates my strong commitment to creative work, even if I have disobeyed him/her.
5. Showed that he was really pleased that I took a personal risk to keep my creative idea alive and growing.
6. Behaves after this incident as he/she thinks more highly of me as a creative person.
7. After the incident he/she has started giving me more autonomy to do my work.
8. In the end he/she has rewarded me for pursuing my idea despite his/her instructions.

Ignoring

1. Neither praised nor criticized me for the incident.
2. Didn't say or do anything at all about the incident.

3. Completely ignored my disobedient behavior.
4. Didn't inquire at all about why I didn't listen to him/her on that occasion.
5. He/she has overlooked the incident.

Forgiving

1. Criticized my behavior but in a forgiving way.
2. Showed me that he/she was not going to hold up the incident against me in the future.
3. Expressed his/her disappointment about the incident but in the end has forgiven me.
4. Told me that just for this time he/she is going to forgive me.
5. I feel that he/she has truly forgiven me for not listening to him/her.

Manipulating

1. For a while he/she did not say anything to me, probably because he/she was just waiting to see whether my idea was going to work or not.
2. At first he/she did not respond to my disobedience, probably because he/she was unsure whether he/she could extract a benefit from my idea.
3. I felt that he/she was just waiting for my idea to show its value so that he/she could then obtain a benefit from it.
4. I felt that he/she was just waiting for my idea to fail so that he/she could then punish me in some way.
5. Made me feel that his/her reaction to my disobedience was going to be completely determined by the final success or failure of my idea.