Ethical Leadership and Followers' Moral Judgment: The Role of Followers' Perceived Accountability and Self-leadership

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Abstract A two stage model was developed and tested to explain how ethical leadership relates to followers' ethical judgment in an organizational context. Drawing on social learning theory, ethical leadership was hypothesized to promote followers' self-leadership focused on ethics. It was found that followers' perceived accountability fully accounts for this relationship. In stage two, the relationship between self-leadership focused on ethics and moral judgment in a dual decision-making system was described and tested. Self-leadership focused on ethics was only related to moral judgment when followers use active judgment as opposed to their intuition. This provides support that a deliberate application of self-leadership focused on ethics leads to higher moral judgment. Theoretical and practical implications as well as future research opportunities are discussed.

Keywords Ethical leadership · Perceived accountability · Self-leadership · Moral judgment

Introduction

The 1970s were dominated by bribery scandals, the 1980s had defense industry scandals, and in the late 1990s and early 2000's accounting scandals dictated the media. For almost 20 years, the U.S. Federal Sentencing Guidelines have encouraged organizations to develop compliance and ethics[1] programs (Izraeli and Schwartz 1998). While more rules and regulations (e.g., Sarbanes–Oxley) have been introduced, unethical behavior in organizations still occurs. In 2009, Bernhard Madoff admitted that he defrauded several thousand investors of billions of dollars with what is now known as the biggest Ponzi scheme in history. In 2012, R. Allen Stanford was sentenced to 110 years in prison for swindling investors out of billions of dollars with his own masterminded Ponzi scheme (Holzer 2012). In addition, Laura Pendergest Holt, Stanford's chief investment officer, was sentenced to 3 years in prison for obstructing Federal investigations of the company (Lozano 2012). These and other scandals were caused by a single business leader who harmed client investors and those who worked with him or her.

Ethical-leadership theory accounts for how business leaders' ethical behavior influences followers' ethical decisions and actions (Brown and Treviño 2006). According to the theory, leaders influence followers' ethical decisions and actions through social learning processes, communicating the importance of ethical standards, social exchange processes, and using performance management systems to make employees accountable for their conduct (Brown and Treviño 2006). Research has demonstrated that ethical-leadership trickles down to affect followers deviant behavior and that ethical climate mediates the relationship between ethical leadership and follower misconduct (Mayer et al. 2009, 2011). Our study extends research on the theorized processes linking ethical leadership to follower ethical conduct in two ways. First, we

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[1] In this article we consider the terms ethical and moral to be synonymous.

investigate followers' perceived accountability as a linking mechanism between ethical leadership and follower self-leadership focused on ethics. We argue that follower self-leadership focused on ethics is a behavioral manifestation of followers' perceived accountability and social learning processes, which are theorized to explain how ethical leadership influences followers' ethical conduct (Neck and Houghton 2006; Neck and Manz 2010; Stewart et al. 2011; VanSandt and Neck 2003).

Second, our study investigates the relationship between ethical leadership and followers' ethical decisions. Brown and Treviño (2006) propose that ethical leadership influences followers' ethical decision-making but do not elaborate on the decision processes followers engage to make ethical decisions. Scholars from various disciplines have developed several ethical decision-making models that attempt to explain the process individuals use to arrive at ethical behavior. The majority of ethical decision-making models utilize Rest's (1979, 1986) four stages of awareness, judgment, intentions, and behavior. These rationalist models focus solely on moral reasoning. However, studies show that this process might be biased and motivated to produce post hoc justification for actions already taken (Haidt 2001; Kuhn 1991; Perkins et al. 1991). In addition, the four stage model does not account for reflexive ethical behavior which is especially important in unstructured or uncertain situations (Greenwald et al. 2009).

Based on these two distinct cognitive processes, Reynolds (2006a) uses a neurocognitive model to explain how individuals make ethical decisions. His model is supported by studies in the area of cognitive psychology and neuroscience that provide evidence that the brain consists of several information processing systems and any behavior is a result of collaboration between these systems (Barbey and Sloman 2007). Even though scholars only recently discovered the dual system approach, it appears to naturally fit observations of intuitive and deliberate human behavior (Rustichini 2008). Recognizing that decision-making includes reflexive and active processes, our study examines how followers' intuitive and deliberative decision-making processes affect the relationship between ethical leadership and followers' ethical judgments. Our findings should contribute to ethical-leadership theory by increasing understanding of how ethical leadership influences followers' ethical judgments and decision-making.

Theoretical Overview

As depicted in Fig. 1, we establish a pathway between ethical-leadership and moral judgment of followers. Definitions for the constructs depicted in the figure can be found in Table 1. We use a two stage approach in which we first draw from social learning theory to establish the relationship between ethical-leadership and followers' adoption of self-leadership focused on ethics. We also hypothesize that followers' perceived accountability links ethical leadership to follower's self-leadership focused on ethics. In the second stage, we use a neurocognitive model of ethical decision-making to explain how self-leadership focused on ethics can improve moral judgment. Most importantly, we show that a conscious application of self-leadership focused on ethics, as defined by VanSandt and Neck (2003) and refined in this paper, will strengthen this relationship leading to improved moral judgment of followers.

Hypotheses Development

Ethical Leadership and Followers' Self-leadership Focused on Ethics

Ethical leaders set the tone in an organization by displaying, communicating and reinforcing appropriate behavior. They treat their followers fairly, lead by example, vigorously manage morality and have an internalized moral perspective that enables them to exert idealized influence (Brown et al. 2005; Walumbwa et al. 2008). Scholars have long acknowledged the importance of ethical leadership on followers' behavior since followers look for ethical role models who provide guidance in organizations (Kohlberg 1969; Treviño 1986). However, only a few studies have empirically confirmed the effect ethical leaders have on their followers' decision-making and conduct (Mayer et al. 2012; Toor and Ofori 2009). Due to the progress in construct development by Brown et al. (2005), scholars such as De Hoogh and Den Dartog (2008), Detert et al. (2007), Mayer et al. (2009), Piccolo et al. (2010), Treviño et al. (2003), Walumbwa et al. (2011), and Walumbwa and Schaubroeck (2009) have started to address this shortcoming. However, the underlying processes are still widely unexplored.

Ethical-leadership exerts its influence through social learning (Bandura 1977, 1986); that is, learning by observing desired behaviors, verbal instructions, and interpretation of symbols. Social learning depends on attention, motivation, and the ability to retain information and reproduce behavior. Due to their position power (e.g., rewarding ethical and penalizing unethical conduct) ethical leaders have the ability to set normative appropriate behavior. This enforces social learning by extrinsically motivating followers to pay attention to proper conduct. Ethical leaders also emphasize followers' developmental needs and offer them training opportunities that increase their skills and confidence to make ethical decisions (Treviño et al. 2003; Zhu 2008; Zhu et al. 2004). Last, ethical leaders provide a meaningful work environment, act
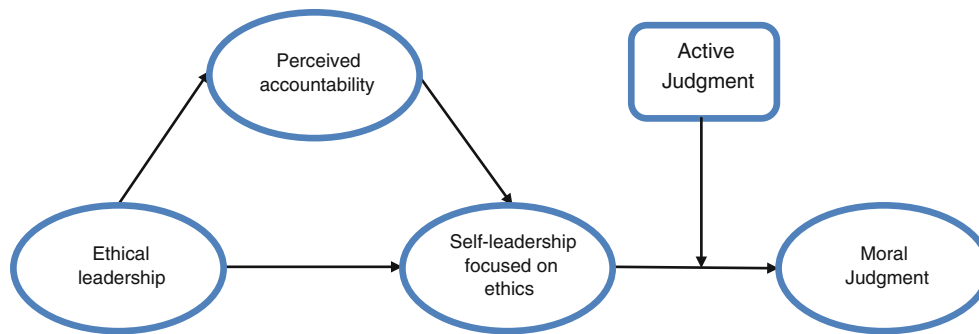
Fig. 1 Hypothesized model

Table 1 Definitions

Ethical conduct	…is, using a deontology view, an act that is accepted by society based on compliance with standards of behavior (Jones 1991; Rest 1986).
Ethical-leadership	…is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (Brown et al. 2005, p. 120).
Self-leadership	…is the process of leading, motivating, and controlling one's own behavior in order to achieve self-defined goals (Anderson and Prussia 1997; Manz 1986).
Perceived accountability	…is an individual's expectation to possibly be required to defend or justify actions or beliefs to others that possess reward or punishment powers (Lerner and Tetlock 1999; Scott and Lyman 1968)
Rule base	…is an individual's library of abstract rules used to make conscious decisions and determine a course of action. These rules can include e.g. utilitarian rules (e.g. greatest good for the greatest number) or any other principle of conduct (Reynolds 2006a).
Prototypes	…consist of information related to previous experiences (e.g. sounds, language, objects, context, etc.) stored in the brain that is readily available and required for action (Reynolds 2006a).
Active judgment	…is the result of a conscious mental process that coordinates, weighs, and evaluates relevant information about individuals or situations based on an individual's rule base (Galotti 1989; Reynolds 2006a). Since this is an intentional process that requires effort and control the individual is aware of the process and the results (Bargh et al. 2001).
Reflexive judgment	…is the result of an unconscious and reflexive decision based on individuals' prototypes such that only the outcome but not the process is available to the individual (Haidt 2001; Reynolds 2006a).

as role models and treat followers not as means to an end, fostering vicarious learning (Brown et al. 2005; Mayer et al. 2012). Due to the reciprocal determinism as described by Bandura (1977, 1986) and Sims and Manz (1982) followers feel obligated to improve their ethical conduct (Treviño et al. 2003). A well-known and well-studied approach for influencing oneself to think and behave in desired ways that is based on social learning theory, is self-leadership (Neck and Houghton 2006; Stewart et al. 2011).

Self-leadership is the process of leading, motivating, and controlling own behavior to achieve self-defined goals (Anderson and Prussia 1997; Manz 1986). Previous empirical research has applied the self-leadership concept to team performance improvements (Neck and Manz 1994), entrepreneurial performance (Neck et al. 1997), work quality (Neck and Manz 1996), employee effectiveness (e.g., Godwin et al. 1999; Neck 1996; Neck and Manz 1992), and performance appraisal outcomes (Neck et al. 1995). In addition, VanSandt and Neck (2003) propose that self-leadership can be utilized to increase individuals' ethical behavior in organizations. Specifically, the authors explain how self-goal setting, self-reward, self-punishment, natural rewards, management of cues, proactive networking, mental imagery, and self-talk can be modified to improve ethical behavior.

Supporting their followers to learn and master self-leadership focused on ethics seems to be part of what ethical leaders do (VanSandt and Neck 2003). In addition, due to the influence of social learning, followers will seek to actively apply self-leadership focused on ethics to align their behavior with the ethical leader's behavior. Hence, we hypothesize that

Hypothesis 1 Ethical leadership is positively associated with followers' self-leadership focused on ethics.

Linking Role of Perceived Accountability

Perceived accountability is individuals' expectation that they are possibly required to defend or justify their actions or beliefs to others who possess reward or punishment

powers (De Cremer and Van Dijk 2009; Lerner and Tetlock 1999; Scott and Lyman 1968). Evidence exists that it has positive effects on performance (Yarnold et al. 1988) and employee satisfaction (Haccoun and Klimonski 1975). More to the point, empirical research has found that perceived accountability is an important element of ethical behavior (Schwartz 1968). Jones and Ryan (1997) linked responsibility and ethical behavior in their moral approbation model which is supported by several studies (e.g., Ashton and Severy 1976; Beu and Buckley 2001; Stephens and Lewin 1992; Weber 1996). Thus, employees will be more motivated to improve their ethical behavior when they are personally accountable for their ethical conduct and face severe consequences for unethical behavior (Beu and Buckley 2001; Jones and Ryan 1997; Rest 1986).

Ethical leaders communicate expectations and provide followers with room to make their own decision. At the same time they also hold them accountable for their decisions (Brown et al. 2005; Brown and Treviño 2006; Treviño and Brown 2004). The "moral manager dimension of ethical leadership means that the leader openly and explicitly talks about ethics and also empowers employees to be just and seek justice" (Toor and Ofori 2009, p. 535). The accountability dimension of ethical leadership was also confirmed by Treviño et al. (2003), who interviewed 20 executives and 20 chief ethics offices and found agreement between the two groups that ethical leaders have to hold their followers accountable for their ethical decisions.

Individuals are especially sensitive to being perceived as unethical or immoral (Jordan and Monin 2008). Hence, if followers are accountable for their ethical decision they will be strongly motivated to improve their behavior and make ethical decisions (Hardy and Van Vugt 2006). While Beu and Buckley (2001) propose a direct relationship between accountability and ethical behavior, followers' need to first find a way through which they can improve their ethical decision-making. Hence, in order to translate their heightened motivation to behave ethically and make ethical decision, followers are hypothesized to engage in self-leadership that focuses on setting ethical goals, monitoring progress in achieving ethical goals, and motivating themselves to continuously improve their ethical behavior and decisions (VanSandt and Neck 2003). Therefore, we hypothesize

Hypothesis 2 Perceived accountability accounts for the relationship between ethical leadership and followers' self-leadership focused on ethics. Specifically, ethical-leadership is positively associated with followers' perceived accountability and followers' perceived accountability is positively associated with adaptation of self-leadership focused on ethics.

Next, we focus our attention on the ethical decision-making process which represents stage two of our model.

We will further elaborate on the dual system and the neurocognitive approach to ethical decision-making and, most importantly, use the neurocognitive approach to demonstrate how self-leadership focused on ethics can be utilized to improve the foundation of ethical decision-making.

Self-leadership and the Neurocognitive Model of Ethical Decision-Making

Scholars long followed a rationalistic approach and assumed that morality is a trait-like cognitive skill. These supporters argued that moral standards are comparable to rules that are built and refined from the day we are born and dictate our everyday moral reasoning (see Darley 1993 for review). Cognitive and social psychology however, favor a dual system that is able to solve everyday problems unconsciously and, at the same time, is able to make conscious decisions (Chaiken and Trope 1999). Specifically, the unconscious processes that protect cognitive resources from depletion gained importance (Bargh and Chartrand 1999; Greenwald and Banaji 1995; Haidt and Bjorklund 2008).

The social intuitionist model, as proposed by Haidt (2001), supports this dual system approach in which moral judgment is a result of moral intuition or moral reasoning. Moral intuition can lead to instantaneous judgment and reactions and is therefore more influential and final (Reber 1993). Moral reasoning on the other hand, is a multi-step method that coordinates, weighs, and evaluates available relevant evidence to reach a conclusion (Haidt 2001).

The neurocognitive model delivers a more detailed explanation of this dual system. It is based on connectionist theory which explains how neurons in our brains function through a reflexive pattern matching system (X-system) and a conscious system (C-system) (Reynolds 2006a). When information is received, the X-system compares it to previously stored cognitive patterns, so called prototypes. A match results in immediate response with behavior formerly recorded and validated through feedback from the environment (Donaldson and Dunfee 1999). Unfamiliar situations cannot be matched and need to be evaluated by the C-system based on a complex conceptual rule base that reflects an individual's moral identity (Reed et al. 2007; Reynolds 2006a). After actions are taken, the C-system collects feedback from the environment and, over time, establishes new prototypes that link situations with appropriate behavior for future use (Lieberman et al. 2002). If the environment provides unexpected feedback to reflexive behavior, the C-system will also re-evaluate the situation and, if necessary, adapt previously created prototypes. This adaptive process of the neurocognitive model is the basis for learning new and adapting existing ethical behaviors (Reynolds 2006a).

In contrast to traditional moral decision-making systems (e.g., Rest 1986), the neurocognitive approach sees intentions and behavior as the same construct as reflexive and active judgment directly lead to behavior. Any differences are simply a result of additional information leading to different reflexive or active judgments (Reynolds 2006a).

Self-leadership Focused on Ethics and Moral Rule Base and Moral Prototypes

Many scholars have mixed opinions about the effectiveness of ethics education. For example, McKenzie and Machan (2003) noted that ethics is not teachable, while Gautschi and Jones (1998) found support that it is. Based on the neurocognitive model, unethical behavior is a result of wrongly matched or inaccurately specified prototypes, and improperly applied or implemented moral rules (Reynolds 2006a). Since the source of unethical behavior can be identified, ethics education can be directed to adjust and improve the ethical decision-making process. It is important to note that individuals cannot change their reflexive judgment without feedback from their environment, since reasoning is forgone and awareness is impaired. However, as hypothesized in this paper, ethical leaders will increase their followers' confidence and accountability and help them to develop skills required to detect moral elements in daily activities and enhance their moral judgment and conduct (Treviño et al. 2003; Zhu 2008). These skills include self-observation, self-evaluation, self-goal setting, management of cues, self-reinforcement, and natural reward strategies and can be closely linked to the neuro-cognitive model of ethical decision-making (VanSandt and Neck 2003; Reynolds 2006a).

Since moral prototypes and rules are deeply rooted and taken for granted, self-leaders need to create awareness by elevating them from non-conscious processing before they can reassess and refine them appropriately. To do this, self-observation can be utilized to create awareness of the well-established moral prototypes and moral rules (Bandura 1986). It is very important for self-leaders to understand what situations trigger reflexive behavior and what underlying assumptions are taken into consideration when actively evaluating a situation. Since this builds the foundation for self-evaluation and other self-leadership strategies, it is imperative to thoroughly and continually perform this step (Manz and Neck 2004). Once moral prototypes and the moral rules are identified, self-leaders are required to evaluate them based on written and unwritten moral standards of the organization as communicated by the ethical leader (Brown et al. 2005). After inappropriate moral prototypes and moral rules are identified, self-leaders have to set specific and challenging ethical personal-goals in compliance with written and unwritten ethical standards

that accurately represent the desired course of action (Latham and Yukl 1975).

In addition, they need to create awareness for actions or situations that trigger inappropriate behavior. These antecedents can then be marked by self-leaders to redirect inappropriate behavior. By doing so, the self-leaders limit the negative effects of the stimulus and activate conscious to re-evaluate the upcoming situation (Mahoney and Arnkoff 1979). In order to reinforce self-set goals, self-leaders can use self-reward and self-punishment. In general, both types of self-reinforcement have been found to result in positive outcome (Mahoney and Ankoff 1978); however, self-reward strategies are preferred over self-punishment strategies as they are more successful (Thoresen and Mahoney 1974). In the same vein, VanSandt and Neck (2003) suggested that self-rewards such as a nice dinner is favored over self-criticism to improve ethical conduct.

Natural rewards are a result of perceived competence, self-control, and purpose (Manz 1986). As discussed, ethical leaders are concerned about their followers' developmental needs and provide them with growth opportunities through training and empowerment (Zhu 2008; Zhu et al. 2004). Because self-leaders are able to make their own ethical decisions, they will experience a higher sense of purpose and meaning at work (Treviño et al. 2003; VanSandt and Neck 2003), motivating them to continuously improve their behavior.

Overall, self-leadership focused on ethics increases individuals' awareness and improves their judgment by addressing inappropriate moral rules and prototypes. The improved judgment will then, based on the neurocognitive model, directly lead to better behavior. Hence, we hypothesize

Hypothesis 3 Self-leadership focused on ethics is positively associated with moral judgment.

While followers of ethical leaders will improve their self-leadership focused on ethics they may not apply them to every situation. Especially when they encounter very familiar situations, the X-system will be able to find matching prototype immediately and form reflexive judgment resulting in instant behavior. As a result, intuitive responses to common situations will not be based on reasoning as they represent a one step process (Galotti 1989). However, active reasoning is required to apply self-leadership focused on ethics (Neck and Houghton 2006; Stewart et al. 2011). Only when followers use the C-system they can actively evaluate whether it contains questionable ethical aspects and determine a desired course of action that is based on ethical goals they set. As a result, the use of active judgment is required to effectively apply self-leadership focused on ethics and improve moral judgment. Therefore, we hypothesize

Hypothesis 4 Applying active judgment, as compared to reflexive judgment, strengthens the relationship between self-leadership focused on ethics and moral judgment.

Methods

Participants and Procedures

Participants were 101 protégés at the institute for leadership education at a large university in the southeast. The protégés were high profile undergraduate business students recommended by faculty and selected via panel interviews. The average age was 24 years and 59 % of the responding protégés were female. As far as ethnicity indicated on the surveys, 46 % were Caucasian, 27 % African American, 10 % Asian, 5 % Hispanic, and 12 % chose to not disclose their ethnicity. Sixty percent of the protégés were seniors, 29 % juniors, 7 % sophomores, and 4 % freshman and their majors included accounting (27 %), marketing (13 %), international business (13 %), management information systems (10 %), management (9 %) economics (8 %), and others (20 %). Sixty-five percent of the protégés indicated that they have work experience.

The protégés were paired with successful local business leaders ranging from entrepreneurs to executives of international organizations who worked in a wide variety of industries (e.g., paper, banking, courier, hospital, restaurant, retail, education). The average age of mentors in the program was 45 years and they had on average 22 years of work experience. Mentors were 81 % Caucasian, 6 % African American, 6 % Asian, and 3 % Hispanic and 55 % had a masters, 29 % a bachelors, and 16 % a professional degree (e.g. CPA).

At the beginning of the program, protégés and mentors were paired based on the protégé's major (e.g., accounting students matched with leaders in accounting firm or accounting managers). Over a period of 8 months, the dyads interacted at monthly group meetings (leadership education experiences). In addition, protégés and mentors committed to monthly one on one meetings (e.g., work lunch, professional organizational meetings, charity events, volunteer events, job shadowing, etc.). The theme of the program was "values." During the monthly meetings, lectures, and training programs related to the theme were provided by locally and nationally prominent speakers and business leaders to mentors and protégés.

Data were collected at the last group meeting after the protégés and mentors interacted for 8 months. In addition, an email was sent to all protégés not present at the meeting asking for their participation. Overall, 68 usable surveys were collected for a response rate of 67 %. To limit social desirability bias, all protégés were informed that the

information collected was strictly confidential and that participation was entirely voluntary. Additional precautions were taken as explained below.

Measures

Unless otherwise specified, measures utilized a 7-point Likert scale ranging from 1 = "strongly agree" to 7 = "strongly disagree."

Ethical Leadership

We adapted Brown et al. (2005) ten-item ethical-leadership scale (ELS) by exchanging "supervisor" with "mentor". A sample item was "My mentor sets an example of how to do things the right way in terms of ethics." The Cronbach alpha for this scale was .93.

Perceived Accountability

We adapted a single-item measure from Hochwarter et al. (2003) felt accountability scale. Hall et al. (2003) demonstrated the uni-dimensionality of the scale allowing a reduction of items. Wanous et al. (1997) and Youngblut and Capster (1993) showed the usefulness of single-item measures when the construct of interest is uni-dimensional and unambiguous and a general impression is assessed. The item used was "In the grand scheme of things, my efforts at the mentoring program are very important."

Followers' Self-leadership Focused on Ethics

We selected a subset of six self-leadership questions form Houghton et al. (2012) and Houghton and Neck (2002) that represent the self-leadership dimensions of goal setting, self-observation, self-reward, constructive self-criticism, and evaluating beliefs and assumptions and modified them to emphasize a focus on ethics. A sample item was: "I track my progress toward ethical goals." As recommended by Houghton et al. (2012), we used a 5-point Likert scale. The Cronbach alpha for this scale was .77.

Moral Judgment

We assessed moral judgment using a vignette. Several vignettes were pretested on business undergraduate (47) and graduate (21) students. In addition to analyzing manipulation checks, verbal and written feedback was collected and used to select and improve one vignette. In the final vignette, protégés were asked to imagine that they were scheduled to meet with their mentor for dinner. After waiting for 30 min and trying to call their mentor, they left the restaurant. Two days later, they receive an email from their mentor

explaining that he ran late but ate at the restaurant. Since mentoring meetings are reimbursable, the mentor asks the protégé to sign the attached reimbursement form. Moral judgment was assessed utilizing two items used by Reynolds (2006b) to assess the perceived violation of a rule. In addition, subjects rated their agreement to the following question "My mentor violated one or multiple rules in this scenario." The Cronbach alpha for the three item scale was .65.

Active Judgment/Intuition

We assessed active judgment and intuition by selecting and adapting a single-item from Pretz and Trotz's (2007) intuitive ability measure. While Pretz and Trotz's measure assesses an individual's general tendency to use intuition, we were interested whether protégés used active judgment or intuition when judging the vignette. Again, the assessed construct is uni-dimensional and unambiguous therefore, the use of a single-item measure is deemed to be appropriate (Wanous et al. 1997; Youngblut and Capster 1993). Specifically, we asked whether the participants had to think thoroughly through or relied on intuition when rating the vignette described above.

Social Desirability

To control for social desirability, we selected two items from the Crowne and Marlowe (1960) scale that were also utilized in the social desirability short form A (Reynolds 1982). One item used was: "There have been times when I was quite jealous of the good fortune of others." The Cronbach alpha for this scale was .73.

Results

We used scores that were generated by factor analysis of each multi-item scale rather than using scale averages so that no relationship between the variables is assumed ex ante.[2] All but two items had loadings above .6. Two scale items of followers' self-leadership focused on ethics did not load properly and were removed. The exclusion of the items did not affect the outcomes for any of the analyses. Hence, the results presented in this analysis exclude the non-loading measures. Pearson correlations for the variables are reported in Table 2. Frazier et al. (2004) suggest that variables used in moderation analysis be mean centered. Hence, factors used in the analysis are of mean 0 and variance 1 by construction. The estimated factor scores are used in the Baron–Kenny mediation and moderation

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[2] The results from analysis using averages rather than factors are similar to those presented here.

analyses (Baron and Kenny 1986). The Preacher et al. (2007) macro in SPSS was used to generate bootstrapped confidence intervals for the analysis in hypothesis 2 as well as for testing the moderation effect presented in hypotheses 4 (Preacher et al. 2007). The final path model with standardized path coefficients is illustrated in Fig. 2.

Hypothesis one and two were tested using Barron and Kenny's (1986) three step test for mediation. The results from the Baron–Kenny regression procedure are presented in Table 3. The results of step one indicate that ethical leadership has a significant positive relationship with followers' self-leadership focused on ethics ($p < 0.05$). This provides support for Hypothesis 1. Step two finds that ethical leadership has a significant positive relationship with followers' perceived accountability. Finally, in step three we see that ethical leadership does not have a statistically significant coefficient when both perceived accountability and ethical leadership are regressed on followers' self-leadership focused on ethics ($p > 0.1$). The lack of a statistically significant coefficient in the third regression implies that the relationship between ethical leadership and followers' self-leadership focused on ethics is completely accounted for by followers' perceived accountability. The Preacher et al. (2007) macro in SPSS was used to calculate a bootstrapped confidence interval of hypothesis 2. The effect is calculated using a 95 % confidence interval with 10,000 samples. The result for hypothesis 2 is 0.0116–0.277. The Sobel test for the indirect effect rejects the null hypothesis of no indirect effect with $p = 0.095$. Both tests give evidence that the relationship between ethical leadership and followers' self-leadership focused on ethics is explained by perceived accountability, which provides support for Hypothesis 2. Because the bootstrapped confidence interval is positive, we are given support that the effect of ethical leadership on follower's self-leadership focused on ethics is positive.

Next, we tested the relationship between self-leadership focused on ethics and moral judgment (Hypothesis 3) and the moderating effect of active judgment (Hypothesis 4).

Table 2 Pearson correlation matrix

	1	2	3	4	5
1 Moral judgment	1				
2 Active judgment	0.316**	1			
3 Self-leadership focused on ethics	0.196	0.181	1		
4 Perceived accountability	0.020	0.115	0.332**	1	
5 Ethical leadership	−0.054	0.064	0.234	0.284*	1

Correlations are based on estimated factor scores for multi-item scales and item scores for single-item scales

* Correlation is significant at 0.05 level for a two tailed test

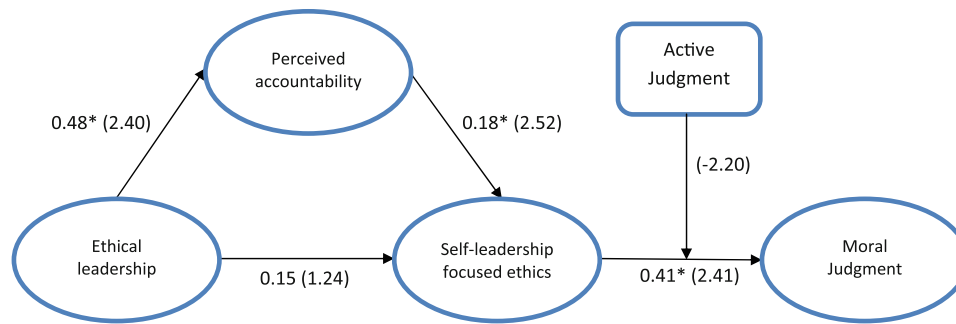** Correlation is significant at 0.01 level for a two tailed test

Fig. 2 Final path model. Standardized path coefficients are provided with *t*-values in *parenthesis*. *Significance at $\alpha = 0.05$ level for a two tailed test

Table 3 Results for Barron and Kenny's (1986) mediation analysis

Dependent variable	Independent variables	β estimate	Standard error	T-stat
1. Self-leadership focused on ethics	Ethical leadership	0.238*	0.121	1.960
2. Perceived accountability	Ethical leadership	0.479*	0.199	2.403
3. Self-leadership focused on ethics	Ethical leadership	0.151	0.122	1.239
	Perceived accountability	0.182*	0.116	2.519

* Significance at $\alpha = 0.05$ level for a two tailed test

The results from this analysis are given in Table 4. The results from the first regression show that the relationship between the self-leadership focused on ethics and moral judgment is not statistically significant ($p = 0.106$). Therefore, Hypothesis 3 is not supported. However, the multiplicative interaction term for active judgment with self-leadership focused on ethics is statistically significant, providing support for Hypothesis 4 ($\beta = -0.200$, $p = 0.031$).

The plot of the interaction between decision type and self-leadership focused on ethics is shown in Fig. 3. The plot illustrates that self-leadership focused on ethics is more strongly and positively related to moral judgment when deliberative decision processes are used than when intuitive decision processes are used.

We noted earlier that individuals are sensitive to being perceived as unethical or immoral (Jordan and Monin 2008). This could lead to social desirable responses. We reanalyzed our model controlling for social desirability (Crowne and Marlowe 1960). The inclusion of the control variable did not affect the sign of any coefficient nor did it affect the statistical significance of any coefficient estimate. Thus, we conclude that the results presented are not driven by social desirability.

Discussion

We developed and tested a two stage model to explain how ethical leadership relates to followers' ethical judgment in an

organizational context. We found that ethical leadership is positively related to followers' self-leadership focused on ethics and that followers' perceived accountability fully accounted for this relationship. In addition, we found that followers' self-leadership based on ethics was positively associated with followers' ethical decision-making only when followers' used a deliberative approach to decision-making. Our findings have important theoretical and practical implications.

Theoretical Implications

Our findings contribute to ethical-leadership theory by providing initial empirical evidence that perceived accountability links ethical leadership to followers' ethical conduct. The importance of holding followers accountable for their actions is deeply embedded in the conceptualization of ethical leadership (Brown et al. 2005; Brown and Treviño 2006; Toor and Ofori 2009; Treviño and Brown 2004). However, to date, there has been little empirical support for this hypothesized relationship. Our study not only provides important initial evidence for the role of accountability in the theory but also demonstrates that accountability appears to promote followers' self-leadership focused on ethics. We speculate that the fear of being perceived as unethical or immoral motivates followers to use self-leadership focused on ethics to improve their ethical decisions and conduct (Hardy and Van Vugt 2006; Jordan and Monin 2008).

Our study also contributes to ethical-leadership theory by showing that ethical leadership relates positively to

Table 4 Hierarchical moderated regression results

Dependent variable	Independent variables	β estimate	Standard error	T-stat
Moral judgment	Self-leadership focused on ethics	0.195	0.119	1.640
Moral judgment	Self-leadership focused on ethics	0.405*	0.164	2.407
	Active judgment	0.119†	0.063	1.893
	Active judgment * self-leadership focused on ethics	−0.2*	0.09	−2.203

* Significance at $\alpha = 0.05$ level for a two tailed test

† Significance at the $\alpha = 0.10$ level for a two tailed test
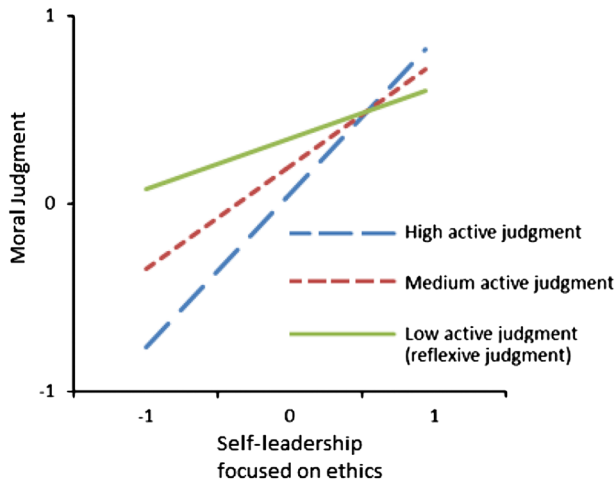
Fig. 3 Interaction effect. Figure 3 shows the effect of self-leadership focused on ethics on moral judgment at three levels of active judgment (+1 standard deviation for high active judgment, mean value for medium active judgment, and −1 standard deviation for low active judgment (reflexive judgment)). As recommend by Frazier et al. (2004), self-leadership focused on ethics and moral judgment scores were mean centered for this analysis

follower's ethical decision-making. The effect that ethical leaders have on followers' ethical decision-making has been proposed by Brown and Treviño (2006) but to our knowledge, empirical studies investigating this hypothesized relationship are absent. By examining the influence of active and reflexive judgment on followers' ethical decision-making, we provide important preliminary evidence that ethical-leadership theory may benefit from incorporating dual systems in ethical decision-making processes (Haidt 2001; Reynolds 2006a). Our results indicate that followers' self-leadership focused on ethics contributes more strongly to improved ethical judgments when followers engage in active decision-making processes than when they use reflexive decision-making processes. This finding is consistent with our argument that active reasoning is required for self-leadership focused on ethics to enhance ethical decisions and conduct (Neck and Houghton 2006; Stewart et al. 2011). Only when followers use the C-system or active decision processes can they actively evaluate whether it contains questionable ethical aspects and determine a desired course

of action that is based on ethical goals they set. Consequently, active judgment is required to effectively apply self-leadership focused on ethics to improve moral judgment.

We also extend self-leadership theory by explaining how specific self-leadership strategies that are focused on ethics can address inaccurately specified prototypes and improper moral rules. By merging self-leadership that focus on ethics with the neurocognitive approach to ethical decision-making and demonstrating its influence on moral judgment we found a way to operationalize VanSandt and Neck's (2003) ideas. Our findings support the idea that self-leadership focused on ethics is capable of improving ethical decisions and conduct.

Practical Implications

Knowing how individuals make ethical decisions and how this process can be modified provides support for the importance of ethics education. Our model explains how organizations can improve ethical judgment of their employees by focusing on ethical-leadership. However, we hypothesize that this relationship works through self-leadership focused on ethics. Organizations can foster this process by providing ethical leadership and self-leadership training to their leaders. Ethical leaders will then influence their followers by acting as role models, holding their employees accountable, and teaching them self-leadership skills to improve their ethical judgment.

Limitations and Future Directions

This study is of course not without limitations. Most notable is the use of single-item measures for perceived accountability and active judgment. This was required due to time and space limitations set by the institute for leadership education. While this places some limitations on our study, previous research effectively used single-item measures to assess job satisfaction (Wanous et al. 1997), quality of life (Zimmerman et al. 2006), big five personality dimensions (Paulhus and Bruce 1992; Woods and Hampson 2005), readiness to change (Williams et al. 2007) or self-esteem

(Gebauer et al. 2008; Robins et al. 2001). We feel confident that our single-item measures are uni-dimensional and unambiguous as suggested by Wanous et al. (1997) and Youngblut and Capster (1993) and therefore correctly reflect the constructs under investigation.

Also, the use of vignettes has been previously criticized due to their simplistic and artificial nature (Weber 1992). We tried to overcome this by tailoring the vignette to a mentoring specific context that all protégés can relate to. We thoroughly pre-tested several vignettes with manipulation checks to validate their conditions. Based on the feedback received we selected and improved one vignette that best fit our research design. Hence, we think that the use of a vignette to assess moral judgment was empirically justified (Cavanagh and Fritzsche 1985).

Conclusion

Organization scholars have a great opportunity to better understand ethical behavior using findings from cognitive psychology and neuroscience. This is especially important since current efforts do not consistently predict ethical decisions or behavior. We believe that self-leadership focused on ethics can enhance ethical behavior more effectively when combined with ethical-leadership. Furthermore, we believe that the neurocognitive approach to ethical decision-making provides a rich explanatory mechanism for how ethical and self-leadership can lead to improved ethical judgment. Organization scholars rely heavily on Rest's (1986) ethical decision-making model. While this four stage model is very similar to the active judgment process of the neurocognitive model, it fails to explain reflexive behavior. By successfully applying specific self-leadership focused on ethics to reflexive and active behavior we demonstrated that neurocognitive models are applicable to the organizational domain.

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