



The antecedents of moral identity: A meta-analytic review

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Accepted: 6 May 2023 / Published online: 3 June 2023
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Abstract

Moral identity is an important self-concept. Taking a social cognitive perspective, we propose an integrative framework to examine the relationships between moral identity and its antecedents, including demographic variables, personality traits, and organizational contexts (specifically leadership style and ethical climate). An analysis of the effect sizes in 110 studies involving 44,441 participants shows that gender, personality traits, and organizational context are strongly associated with moral identity. The moral identity measure used, cultural tendencies toward individualism or collectivism, and demographic characteristics moderate the relationships between moral identity and its antecedents. The significance and implications of the factors that influence moral identity are discussed.

Keywords Moral identity · Personality trait · Leadership · Organizational context · Individualism-collectivism · Meta-analysis

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Morality is at the heart of what it means to be a person, and scholars of morality have sought to understand its links to moral actions (Aquino & Reed, 2002; Hardy et al., 2014; Narvaez & Lapsley, 2009; Walker, 2004). Moral identity has been described as a key self-regulatory mechanism that motivates moral actions in organizational contexts, and it refers to the extent to which being a moral person is important to an individual's identity (Aquino & Reed, 2002; Hardy & Carlo, 2011; Shao et al., 2008). A strong moral identity is beneficial for an individual's well-being and relationships (Hardy et al., 2013), and moral identity as part of a person's working self-concept is generally associated with moral actions (Aquino et al., 2009; Jennings et al., 2015). Further, the development of moral identity in organizations has received a great deal of attention during the last two decades (e.g., Arain, 2018; Aquino et al., 2009; Cohen et al., 2014; Ete et al., 2020; Jennings, Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019; Jennings et al., 2015; Krettenauer et al., 2016; Wu et al., 2020b).

Two lines of inquiry have generated a rich body of knowledge in the rapidly growing literature on moral identity. In one line of inquiry, scholars have systematically investigated the outcomes of moral identity. Two meta-analyses have shown that moral identity closely and directly influences individuals' moral emotions, affects, and behaviors (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019). Specifically, individuals with a strong moral identity experience three types of moral emotions (guilt, admiration, and empathy) and tend to engage in more prosocial behavior and less antisocial or unethical behavior. The second line of inquiry has focused on the antecedents of moral identity. Studies have shown that personality traits (e.g., the Big Five, the Dark Triad, honesty-humility) (e.g., Cohen et al., 2014; Krettenauer et al., 2016; McAdams, 2009; Zuo et al., 2016) and organizational context (e.g., leadership style, ethical climate) can subtly influence an individual's moral identity (e.g., Arain, 2018; Ete et al., 2020; Jennings et al., 2015; Wu et al., 2020a).

Given the many studies on the antecedents of moral identity, a quantitative review is needed to develop an integrated theoretical model. An up-to-date meta-analysis is important to not only empirically summarize the findings but also provide the empirical building blocks necessary to advance the conversation in the moral identity literature (Hunter & Schmidt, 2004). That is, we follow Aquino and Reed (2002), Aquino et al. (2009), Narvaez and Lapsley (2009), and Shao et al. (2008), who recommended understanding moral identity from a social cognitive perspective, as this perspective uses theoretical mechanisms from social cognition, memory, identity, and information processing to explain the role of moral identity in moral functioning (Bandura, 1999). From the social cognitive perspective, the self-importance of moral identity among individuals and contexts is viewed as central to moral functioning (Aquino & Reed, 2002; Aquino et al., 2009; Forehand et al., 2002; Shao et al., 2008). Considering individual differences, Aquino and Reed (2002) defined moral identity as a self-conception organized around a variety of moral traits, which are related to but distinct from personality traits, that can differ in their importance to an individual's overall self-definition (Aquino & Reed, 2002; Krettenauer & Hertz, 2015; Lapsley & Hill, 2009; Narvaez & Lapsley, 2009; Shao et al., 2008). For context, social cognitive models suggest that situational cues may influence social information processing by activating or deactivating the moral self-concept

(Aquino & Reed, 2002; Aquino et al., 2009; Shao et al., 2008). For instance, studies have shown that a moral exemplar activates individuals' moral self-concept (i.e., moral identity) in the workplace (e.g., Arain, 2018; Ghahremani, 2019). To understand the accessibility of moral identity in the working self-concept, we draw on the social cognitive perspective and integrate the relationships between moral identity and individuals' traits and organizational contexts, including 12 personality traits, 7 leadership styles, and ethical climate. In addition, drawing on previous research about moderator effects (Hertz & Krettenauer, 2016; Jennings et al., 2015; Lefebvre & Krettenauer, 2019), we investigate the roles of demographic characteristics, moral identity measure, national culture to explain any heterogeneity in the findings of the various studies.

The purpose of this meta-analysis is to reveal the antecedents of moral identity and enhance the understanding of the development of moral identity and the magnitude of the relationships within its nomological network. We contribute to the theoretical literature by using a social cognitive perspective to generate a nuanced understanding of moral identity. Our theoretical model focuses on personality traits and organizational contexts as the antecedents of moral identity within the working self-concept, thereby providing a useful framework for enhancing the generalizability of the relationships between moral identity and its antecedents. We contribute to the empirical literature by conducting a comprehensive meta-analysis of the antecedents of moral identity and creating a foundation for a quantitative review of moral identity, complementing the studies of Hertz and Krettenauer (2016) and Lefebvre and Krettenauer (2019). We hope that our findings advance the conversation on moral identity and lay a solid foundation for future research on the topic.

A social cognitive model of moral identity

Moral identity is rooted in specific moral traits and based on a social-cognition-oriented conception of the self (Aquino & Reed, 2002; Aquino et al., 2009). From a social cognitive perspective, moral identity is the cognitive schema of a person's moral character that interacts with other personality factors and contextual/situational factors (Aquino & Freeman, 2009; Aquino et al., 2009; Bandura, 1999). Specifically, a key aspect of moral identity is that it can be activated by individual differences or contextual and situational variables (Aquino & Reed, 2002; Aquino et al., 2009; Forehand et al., 2002). In terms of individual differences, moral identity is a self-schema and is thus accessible via stable individual characteristics that are based on the individual's social and developmental history (Lapsley & Hardy, 2017). Multiple longitudinal studies have demonstrated that personalities systematically change (Lucas & Donnellan, 2011; Roberts et al., 2008) as individuals mature (Roberts & Wood, 2006). As individuals mature, the traits defined as moral characteristics become increasingly important (Krettenauer et al., 2016). Therefore, to understand individual differences in moral identity, we propose that personality traits relate to moral identity. Furthermore, situational factors play an important role in making a particular identity salient, meaning that some situations can affect the accessibility of the moral self-schema (Aquino & Freeman, 2009). Our model

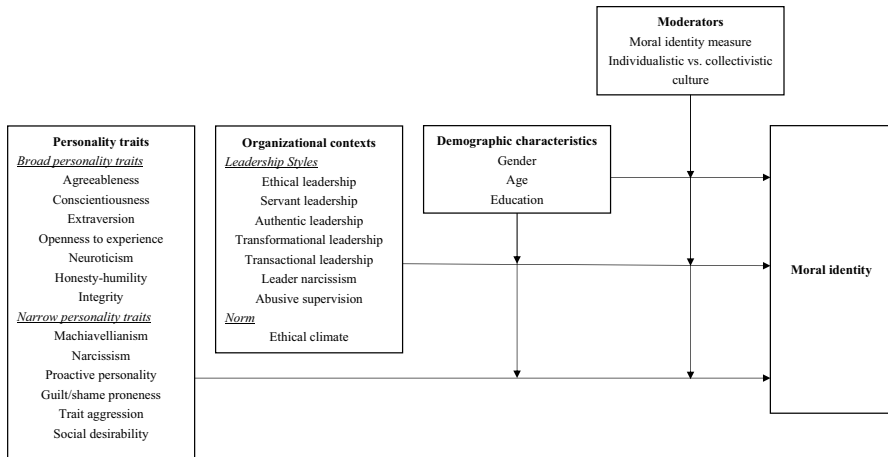


Fig. 1 A social cognitive model of moral identity

considers two situational factors that might influence the salience of moral identity within the working self-concept: role models and norms. Role models are those who others emulate (Avolio, 1999). Saints, honorable leaders, and ordinary people who exhibit great virtue can evoke experiences of moral elevation among those who witness their actions, and those experiences can cause followers to personally identify with them (Aquino & Freeman, 2009). In the workplace, leaders have the power to influence their followers and are often viewed as role models and as the most legitimate source of learning (Arain, 2018; Ete et al., 2020; Jennings et al., 2015; Yukl, 2002). A normative climate that expresses morality can activate the moral self-schema (Aquino & Freeman, 2009). In other words, those exposed to an ethical climate learn that their group members or organization use morality and ethics as a basis for self-definition, which can influence how a person defines him/her ideal self and follows the norm to fit in.

First, we discuss the link between personality traits and moral identity. Then, we discuss how leadership styles and ethical climate relate to moral identity. Finally, we propose some factors (i.e., demographic characteristics, the moral identity measure used, and individualistic or collectivistic culture) as moderators. Our model based on social cognitive perspective is illustrated in Fig. 1.

Link between personality traits and moral identity

Personality traits can be broad or narrow, which can help provide a fine-grained understanding of individual differences and their predictive validity (Kim & Cohen, 2015; Ones & Viswesvaran, 1996; Sitser et al., 2013). Broad personality traits are general and inclusive, such as the Big Five (i.e., agreeableness, conscientiousness, extraversion, openness to experience, and neuroticism), honesty-humility, and integrity. Narrow personality traits are concrete and localized traits with clear propensities, such as Machiavellianism, narcissism, proactive personality, guilt/shame proneness, trait aggression, and social desirability.

The big five The Big Five traits are the most basic personality traits (Sitser et al., 2013) and are responsible for the broad and pervasive individual differences in personality that are linked to morality (McAdams, 2009; McFerran et al., 2010). In particular, agreeableness is characterized by being friendly, gentle, forgiving, and cooperative and is related to loyalty (McCrae & Costa, 1997; McAdams, 2009). Individuals with a high degree of agreeableness have stronger senses of fairness, justice, and reciprocity (Matsuba & Walker, 2004; McFerran et al., 2010). Conscientiousness, which encompasses being dependable, responsible, organized, and goal oriented, can predict honesty and engagement in prosocial activities (Lodi-Smith & Roberts, 2007; McAdams, 2009). Openness to experience encompasses being broad-minded, imaginative, and creative. McAdams (2009) suggested that a high level of openness to experience is a prerequisite for valuing tolerance and diversity in society, for understanding multiple perspectives, and for principled moral reasoning, which is the foundation of individual morality. Researchers have combined these three personality traits into a single variable, moral personality, that is related to high moral functioning and affects one's moral ideology (McFerran et al., 2010; Yang, 2013). Extraversion is characterized by being active, energetic, enthusiastic, outgoing, talkative, and sociable. Extraverts are more likely than others to seek social interaction (McCrae & John, 1992). Waal (1996) contended that group life is moral life. Humans have evolved to be moral animals, expressing moral feelings and attitudes and developing moral codes for social interaction (McAdams, 2009). Thus, to build high quality relationships, extroverts exhibit moral characteristics that constitute moral identity (Aquino & Reed, 2002), because being a moral person is important in social interactions. Finally, neuroticism involves being anxious, fearful, dependent, and sentimental (McCrae & John, 1992). Individuals with high neuroticism tend to focus on self-perceptions and to experience negative emotions and events. For instance, meta-analyses show that neuroticism is positively related to interpersonal and organizational deviance (Berry et al., 2007), workplace harassment (Nielsen et al., 2017). These relationships imply neuroticism accompanied by a sense of immorality, it is presumed that a neurotic person may have a low moral identity. Overall, each of the Big Five traits has a slightly different moral function and may relate differently to an individual's moral schema. Thus, we propose the following hypothesis.

Hypothesis 1 (a) Agreeableness, (b) conscientiousness, (c) openness to experience, and (d) extraversion are positively related to moral identity, whereas (e) neuroticism is negatively related to moral identity.

Honesty-humility Honesty-humility is defined as “the tendency to be fair and genuine in dealing with others, in the sense of cooperating with others even when one might exploit them without suffering retaliation” (Ashton & Lee, 2007: 156). Honesty-humility is characterized by sincerity, fairness, and modesty and a tendency to avoid greed, and it is an important indicator of moral character (Cohen et al., 2014; Kim & Cohen, 2015). Employees with the honesty-humility personality trait are less deviant and delinquent and more moral and ethical (Cohen et al., 2014) than others. As defined by Aquino and Reed (2002), moral identity is rooted in a set of moral

traits. Thus, we propose that honesty-humility contributes to the formation of moral self-centrality (i.e., moral identity).

Hypothesis 2 Honesty-humility is positively related to moral identity.

Integrity Integrity is a steadfast commitment to ethical principles and is indicative of “honesty, trustworthiness, fidelity in keeping one’s word and obligations, and incorruptibility, or an unwillingness to violate principles regardless of the temptations, costs, and preferences of others” (Schlenker, 2008: 1081). Individuals with a high degree of integrity have a strong personal commitment to moral identity and believe that people should be ethical (Clouse et al., 2017; Schlenker, 2008). Thus, we propose the following hypothesis.

Hypothesis 3 Integrity is positively related to moral identity.

Machiavellianism and narcissism Machiavellianism and narcissism are two of the Dark Triad personality traits (O’Boyle et al., 2012; Paulhus & Williams, 2002). Machiavellianism refers to a predisposition to achieve self-oriented goals by manipulating others and acting deceptively and amorally (Christie & Geis, 1970). Individuals high in Machiavellianism are concerned for the self, amoral, and dishonest; humility and honesty are not central to their self-concept. Narcissism is less dark than Machiavellianism (Furnham et al., 2013; Hart et al., 2019; Zuo et al., 2016) and is characterized by entitlement and grandiosity (Raskin & Terry, 1988). Although narcissists feel superior to others, they must maintain their inflated but fragile self-concept through external validation, such as admiration. Displaying a high level of personal morality is a preferred tactic for attaining social appreciation and maintaining a sense of superiority (Fossati et al., 2010). Zuo et al. (2016) reported that narcissism is positively related to moral identity, so being moral is thus central to narcissists’ self-concepts. Therefore, we hypothesize the following.

Hypothesis 4 (a) Machiavellianism is negatively related to moral identity, whereas (b) narcissism is positively related to moral identity.

Guilt/shame proneness Guilt proneness refers to “a predisposition to experience negative feelings about personal wrongdoing, even when the wrongdoing is private” (Cohen et al., 2012: 355) and is a key element of moral character (Cohen et al., 2012, 2014; Kim & Cohen, 2015). Individuals high in guilt proneness are inclined to correct a mistake or transgression and tend to consider others. Therefore, they are some of the most moral and cooperative members of a society (Cohen et al., 2014; Tangney & Dearing, 2002). Shame proneness refers to the tendency to feel bad and make negative self-evaluations after committing a public transgression (Cohen et al., 2012; Kim & Cohen, 2015). Schmader and Lickel (2006) found that individuals with a high degree of shame proneness also tend to make amends, as seen with guilt proneness. Shame prone individuals are more likely to be humble, conscientious,

and altruistic, which can influence moral self-concept and the tendency to behave morally (Cohen et al., 2011). Thus, we propose the following hypothesis.

Hypothesis 5 (a) Guilt proneness and (b) shame proneness are positively related to moral identity.

Proactive personality Proactive personality is defined as a behavioral tendency to change one's environment (Bateman & Crant, 1993; Fuller & Marler, 2009). Individuals with a highly proactive personality tend to identify opportunities, show initiative, persevere until meaningful environmental change happens, and set high standards (Crant, 2000). A meta-analysis indicated that proactive personality is positively related to moral traits (e.g., conscientiousness) and yields positive results (e.g., career success) (Fuller & Marler, 2009). As the desire to be one's ideal self, morality may be the foundation for taking initiative and acting successfully. Therefore, we propose the following hypothesis.

Hypothesis 6 A proactive personality is positively related to moral identity.

Trait aggression Trait aggression is defined as an individual's disposition to engage in physical and verbal aggression and to express anger and hostility, and it is highly related to different types of aggressive behavior (Buss & Perry, 1992). Trait aggression is positively associated with neuroticism and negatively associated with agreeableness, openness, and conscientiousness (Barlett & Anderson, 2012). It is strongly related to aggressive behavior, such as bullying (Anderson & Dill, 2000; Teng et al., 2020). Further, one longitudinal study indicated that a moral ideal self is negatively related to aggression (Hardy et al., 2014). Thus, we propose the following hypothesis.

Hypothesis 7 Trait aggression is negatively related to moral identity.

Social desirability Social desirability, defined as the tendency to suppress socially undesirable traits and behaviors and to present socially desirable ones, is considered a personality characteristic (Crowne & Marlowe, 1960; Randall & Fernandes, 1991; Zerbe & Paulhus, 1987). Social norms require people to exhibit acceptable moral beliefs and behaviors, such as helping the poor (Chung & Monroe, 2003). Individuals who value social desirability tend to have positive self-descriptions and present a favorable self-image. They may use self-deception and impression management to appear ethical and leave a positive impression on others (Chung & Monroe, 2003; Hertz & Krettenauer, 2016; Randall & Fernandes, 1991). Moral identity is susceptible to this type of self-presentation bias (Hertz & Krettenauer, 2016). Hence, we argue that social desirability may lead individuals to represent their moral self, and we hypothesize the following.

Hypothesis 8 Social desirability is positively related to moral identity.

Influence of leadership styles on followers' moral identity

The leadership literature suggests that leaders' virtues are highly valued and manifest in a variety of leadership styles (Hackett & Wang, 2012), such as ethical leadership (Brown et al., 2005) and servant leadership (Greenleaf, 2002). According to social cognitive theory (Bandura, 1986, 1991), individuals learn social and moral norms from important role models. Moral and ethical leadership models the rightness or wrongness of a particular action in leader–follower dyadic interactions, which strongly influences followers' moral identity (Fairholm & Fairholm, 2009; Ghahremani, 2019; Hackett & Wang, 2012; Jennings et al., 2015; Zhu et al., 2016). Seven leadership styles have been linked to moral identity: ethical leadership, servant leadership, authentic leadership, transformational leadership, transactional leadership, leader narcissism, and abusive supervision.

Ethical leadership 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: 120). The virtues of courage, fairness, honesty, integrity, trustworthiness, patience, persistence, pride, prudence, and responsibility are essential for ethical leadership (Brown & Treviño, 2006; Hackett & Wang, 2012). Ethical leaders practice these virtues, transmit ethical values, attitudes, and behaviors and commit to building an ethical organization. All of these characteristics have a strong and positive influence on followers (Spangenberg & Theron, 2005; Zhu et al., 2016). Followers observe their leaders and learn their desirable characteristics and then emulate them to develop a good and moral self. Therefore, ethical leadership can encourage followers to form a moral identity, and we hypothesize the following.

Hypothesis 9 Ethical leadership is positively related to followers' moral identity.

Servant leadership Servant leadership consists of seven dimensions: emotional healing, creating value for the community, conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, and behaving ethically (Liden et al., 2008, 2014). Servant leaders are highly ethical individuals who are by nature disposed to help others become healthier, wiser, freer, and more autonomous and who can help others move in constructive directions (Greenleaf, 2002). As servant leaders behave in moral and virtuous ways, showing loyalty, benevolence, and putting concern for their followers ahead of their self-concern, followers are willing to follow and are likely to view their leaders as role models, which facilitates the development of followers' moral identity (Arain, 2018). We therefore hypothesize the following.

Hypothesis 10 Servant leadership is positively related to followers' moral identity.

Authentic leadership Authentic leadership is defined as “a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development” (Walumbwa et al., 2008: 94). Authentic leaders are true to themselves and apply moral principles to their leadership practice (Shamir & Eilam, 2005; Walumbwa et al., 2008). In leader–follower interactions, authentic leaders transmit moral values and standards to their followers. In turn, those followers internalize their leaders’ moral principles. The learning process can influence the development of and enhance followers’ moral identities (Zhu, 2006). Thus, we hypothesize the following.

Hypothesis 11 Authentic leadership is positively related to followers’ moral identity.

Transformational leadership Transformational leadership has four dimensions: charisma or idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Avolio, 1999; Bass, 1985, 1998). Transformational leaders have strong moral values and standards for ethical conduct (Avolio, 2005). For example, as ethical role models or moral exemplars, leaders encourage their followers to form their own moral principles and ideals, which can help followers form a basis for their moral identity (Avolio, 2005; Zhu, 2006). Leaders’ individualized considerations demonstrate care for followers’ needs and feelings and the development of their morality. They can help followers understand their moral perspective by offering positive feedback about moral behavior (Avolio, 2005; Zhu, 2006). Thus, we argue that transformational leadership can develop followers into moral people and hypothesize the following.

Hypothesis 12 Transformational leadership is positively related to followers’ moral identity.

Transactional leadership Transactional leadership involves contingent reward, active management by exception, and passive management by exception (Judge & Piccolo, 2004). Transactional leaders set up rewards and punishments based on the results of leader–follower interactions. In addition, they monitor their followers and correct their mistakes and errors, which can help followers correctly understand concepts such as moral identity and moral decision intention (Zhu, 2006). Therefore, we hypothesize the following.

Hypothesis 13 Transactional leadership is positively related to followers’ moral identity.

Leader narcissism Narcissistic leadership has five components: charisma, self-interested influence, deceptive motivation, intellectual inhibition, and simulated consideration (Ouimet, 2010). On the one hand, narcissistic leaders are highly charismatic, which can attract followers (King, 2007; Rosenthal & Pittinsky, 2006). On the other

hand, narcissistic leaders have a propensity for aggression to satisfy their needs (Rosenthal & Pittinsky, 2006). Narcissistic leadership usually results in moral disengagement (Zhang et al., 2018a) and deviant behaviors (e.g., Grijalva & Newman, 2015) by followers. According to social cognitive theory, we argue that if followers regard narcissistic leaders as role models, they are more likely to be self-centered than they are to have a high moral self-concept. That is, narcissistic leaders inhibit followers' moral identity. Thus, we hypothesize the following.

Hypothesis 14 Leader narcissism is negatively related to followers' moral identity.

Abusive supervision Abusive supervision refers to followers' perceptions of the extent to which leaders engage in a "sustained display of hostile verbal or nonverbal behaviors" (Tepper, 2000: 178). According to social cognitive theory, perceived abusive supervision leads followers to regard unethical behavior as acceptable and to emulate it (Wu et al., 2020a), which can distort their moral self-concept. Therefore, we argue that abusive supervision has a negative relationship to followers' moral identity and hypothesize the following.

Hypothesis 15 Abusive supervision is negatively related to followers' moral identity.

Influence of ethical climate on moral identity

An ethical climate has five components (caring, rules, law and code, independence, and instrumentality) and refers to shared perceptions of the procedures, policies, and practices relevant to the ethics of an organization (Victor & Cullen, 1988). An ethical climate is the ethical component of organizational culture, and it influences followers' moral values and cognitions of ethical issues (Cullen et al., 1989). An ethical climate establishes high moral standards, allowing followers to learn and to develop their moral identity (Cullen et al., 1993). Therefore, we hypothesize the following.

Hypothesis 16 Ethical climate is positively related to followers' moral identity.

Roles of demographic characteristics

Demographic characteristics such as gender, age, and education are typically used as control variables in moral identity research. The reported correlations between these three demographic characteristics and moral identity are relatively small in most studies. However, Krettenauer et al. (2016) found that the development of moral identity starts in adolescence and continues well into middle age. Age-related differences can influence individuals' conceptions of the importance of their moral values. In addition, Lapsley and Stey (2014) proposed that the aim of education is to develop the moral self, encouraging people to do the right things for the right reasons. Hence, education may affect individuals' moral identity. Similarly, many meta-analyses have found that gender can predict outcomes such as the expression of emotion (Chaplin & Aldao, 2013). Aquino and Reed (2002) found that gender

had no effect on internalization but a modest effect on symbolization. The interpretation is that internalization dimension is private that measures actual self-concept of moral both men and women, symbolization dimension is public that taps a self-presentation to convey that one has moral characteristics, and men are strongly related to symbolization (Aquino & Reed, 2002). Thus, we predict that gender influences moral identity. We hypothesize the following.

Hypothesis 17 Gender, age, and education are related to moral identity.

Studies have suggested that in addition to being antecedents of moral identity, demographic characteristics have moderating effects on the relationships between moral identity and its other antecedents. Skitka and Maslach (1996) suggested that gender can help in understanding the general tendency to differentially process self-relevant information. Men and women have different moral reasoning orientations, with women being more morally concerned than men (Aquino et al., 2009). Additionally, moral identity emerges at a certain age and matures over time (Hertz & Krettenauer, 2016). Accordingly, we hypothesize the following.

Hypothesis 18 Gender and age moderate the relationships between moral identity and its antecedents.

Moderators of the antecedent-moral identity relationships

Moral identity measure Moral identity has two dimensions: internalization and symbolization. The most widely used moral identity measure is the Self-Importance of Moral Identity Questionnaire (SMI-Q), which consists of two scales that measure internalization and symbolization (Aquino & Reed, 2002; Hertz & Krettenauer, 2016). Internalization emphasizes the importance of moral identity as a personal goal (e.g., “I strongly desire to have these characteristics”), and symbolization focuses on presenting these characteristics to others in public (e.g., “The fact that I have these characteristics is communicated to others by my membership in certain organizations,” Aquino & Reed, 2002: 1428). Of the studies included in this meta-analysis, 48.2% used the SMI-Q, 38.2% used the SMI-Q internalization only, .9% used the SMI-Q symbolization only, and 12.7% used other measures, such as the Good Self-Assessment (Arnold, 1994). The use of different measures is a potential problem because each scale measures a particular construct and has a specific empirical approach to moral identity (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019). Correspondingly, we categorize the measures of moral identity into four subgroups: (a) SMI-Q (internalization and symbolization combined), (b) SMI-I (internalization only), (c) SMI-Q (symbolization only), and (d) others. We hypothesize the following.

Hypothesis 19 The scale used to measure moral identity moderates the relationships between the antecedents and moral identity.

National culture (individualism vs. collectivism) Hofstede (2001) defined national culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another” (p. 9). The configuration of cultural values is an important cultural feature, and individualism and collectivism are typical examples (Rockstuhl et al., 2012; Triandis, 1995; Tsui et al., 2007; Zhang et al., 2021). Whether a culture emphasizes individualism or collectivism plays a crucial role in the construction of a person’s moral self (Hertz & Krettenauer, 2016; Jennings et al., 2015). Morality is culturally relative, and the concept of moral identity has developed in the Western cultural context to emphasize individualism and independence (Hertz & Krettenauer, 2016; Leavitt et al., 2012). However, many studies have investigated moral identity in countries with a high degree of collectivism, such as China (e.g., Liu et al., 2016; Wu et al., 2020a; Zuo et al., 2016). It is an open question whether the development of moral identity differs between individualistic and collectivistic cultures.

In an individualistic culture, individuals tend to be independent from others and form their self-concepts through their unique configurations of internal attributes, such as traits, motives, and values (Markus & Kitayama, 1991). In collectivistic cultures, individuals have an interdependent self-concept, seeing themselves as part of a social network, and thus, they are influenced by others in society (Hertz & Krettenauer, 2016; Markus & Kitayama, 1991). Accordingly, individuals in collectivistic cultures tend to pay more attention to moral concerns than do those in individualistic cultures. We therefore hypothesize the following.

Hypothesis 20 The relationships between moral identity and its antecedents are moderated by the cultural characteristics of individualism and collectivism.

Method

Literature search and inclusion criteria

An initial literature search was conducted to find empirical studies that examine the relationship between personality traits/leadership/cultural context and moral identity. We used three search approaches to find studies published from 2002 to August 2020. First, we searched abstracts in *Web of Science*, *PsycINFO*, *EBSCO*, and *ProQuest Dissertations/Theses* for the term “moral identit*.” Moral identity was selected as the primary search term because it best represents the focal construct of interest (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019). Then, we conducted separate supplemental searches for the terms “moral identit*” AND “personality” / “leadership” / “ethical climate” / “social desirability.” Second, we screened the reference lists of two quantitative reviews of moral identity (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019). Third, to address potential publication bias, we searched the Academy of Management (AOM) 2016–2020 Annual Meeting and Society for Industrial and Organizational Psychology (SIOP) 2016–2020 Annual Conference programs. We used the

lookup function to locate conference papers that included the key variable moral identity and then wrote to the authors to ask for copies of their unpublished or in press manuscripts.

The first search returned 743 sources from Web of Science, 42 sources from PsycINFO, 275 sources from EBSCO, and 1,374 sources from ProQuest, which together yielded an initial list of 2,434 sources. Second, 22 papers related to the content of this study were found in the two meta-analyses. Third, some scholars did not respond to our e-mail request. Our inclusion criteria were as follows: (1) each empirical study must have included the key variables for the relationships of interest in the meta-analysis and have reported the required statistical information (i.e., Cronbach's alpha [α], correlation coefficient [r], and sample size [N]); (2) moral identity must have been assessed using either the SMI-Q (Aquino & Reed, 2002) or a similar measure; and (3) the publications must have been in the fields of psychology, business, or sociology. Combining the results of the searches and our inclusion criteria produced a final list of 110 studies from 81 sources. Specifically, the literature search procedure is presented in Fig. 2 according to a PRISMA 2020 flow diagram.

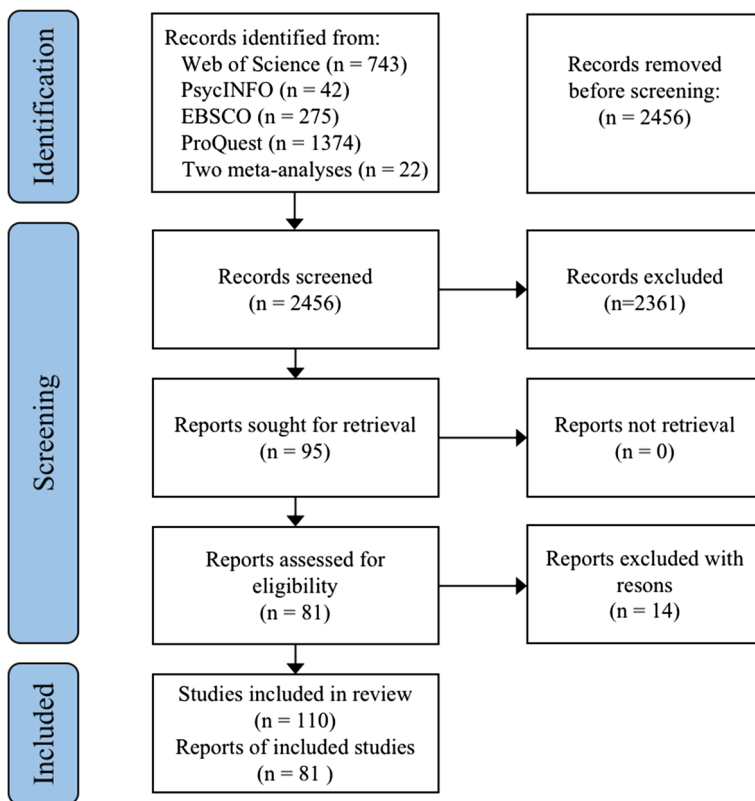


Fig. 2 The literature search procedure

Coding procedure

Two trained researchers worked together to code the data. First, they discussed and generated a coding file that included the categories of the antecedents of moral identity and basic information about the studies (e.g., the measure of moral identity, the origin of the sample, N , r , α , etc.). To satisfy the statistical sample requirement of a meta-analysis, we generally consider moral identity as an outcome variable regardless of the role of moral identity in the primary studies, coding the relevant variables (i.e., personality traits, leadership styles, and ethical climate) as antecedents and moral identity as an outcome. Second, to examine the potential moderators of the relationships of interest, each study was coded in detail for two characteristics: moral identity measure and cultural context. The moral identity measures used in the studies were divided into four categories: SMI-Q with internalization and symbolization combined, SMI-Q internalization only, SMI-Q symbolization only, and other measures. The sample origins were classified into two groups: individualistic and collectivistic cultural configurations (Hofstede et al., 2010; Triandis, 1995). Specifically, the individualistic group included studies using data from the United States, Canada, the Netherlands, Norway, and the United Kingdom, and the collectivistic group included studies using data from China (including mainland China, Hong Kong, and Taiwan), Turkey, the Association of Southeast Asian Nations countries (Thailand, Indonesia, Singapore, and Malaysia), Pakistan, the Kingdom of Saudi Arabia, South Korea, and Nigeria. Last, the two researchers independently coded the effect sizes and other required information and then jointly rechecked the codes every 20 studies. Their consistency was over 95%, and the instances of inconsistent coding were discussed by all of the authors until consensus was reached. Our datasets are stored in the online repository of the Center for Open Science (<https://osf.io/fdwpn/>).

Analysis

We adopted Hunter and Schmidt's (2004) meta-analytic procedure with random effects to compute the results. The independent effect size (k), cumulative sample size (N), sample size weighted mean observed correlation (\bar{r}), mean true score correlation (ρ), standard deviation of the observed correlations ($SD \bar{r}$), standard deviation of the true score correlation ($SD \rho$), 95% confidence interval, 80% credibility interval, percentage of variation in the observed correlations attributable to sampling error, and other factors (% acc) were calculated.

Next, we used the R 4.0.2 metafor package (Viechtbauer, 2010) to test the moderating effects of the moral identity measures and cultural contexts. We calculated separate moderating effects for each relationship and compared the subgroups for each moderator. We also conducted a random effects meta-regression to test the moderating effects of gender and age.

Finally, publication bias is common in empirical studies (Coburn & Vevea, 2015; Vevea & Woods, 2005). To detect and correct for it during our meta-analysis, we

used a variety of statistical techniques including a funnel plot (Light & Pillemer, 1984), trim and fill (Duval & Tweedie, 2000a, b), Egger's linear regression (Egger et al., 1997), and a weight-function model (Vevea & Hedges, 1995). A funnel plot is a scatterplot of effect sizes against a measure of sample size or precision that produces a symmetrical inverted funnel that represents the population mean effect in the absence of publication bias (Coburn & Vevea, 2015). Egger's linear regression is a statistical analogue to a funnel plot (Sterne et al., 2001). It assumes that the effect sizes are homogenous and examines the relationship between study size and estimated effect sizes. If a relationship is significant, there is systematic heterogeneity, which may indicate the presence of publication bias. Additionally, if a funnel plot suggests bias, a trim-and-fill procedure can be used to estimate an average effect size subject to the assumptions of the method to correct for publication bias (Duval & Tweedie, 2000a, b; Vevea & Woods, 2005). The number (k) of missing studies should not be greater than three (Howard et al., 2020). The weight-function model estimates adjusted random meta-analytic effects weighted for specified p -value intervals (e.g., $.05 < p < 1$). A likelihood ratio test compares the adjusted and unadjusted models to determine whether allowing the weights to vary between intervals represents the data more accurately than fixing them all to one value. A significant result indicates publication bias may be present (Coburn & Vevea, 2015; Vevea & Hedges, 1995). The results of the tests for publication bias are presented in Table 1.

Results

Antecedents of moral identity

As shown in Table 2, the personality traits of agreeableness ($\rho = .37$, 95% CI [.30, .45]), extraversion ($\rho = .28$, 95% CI [.21, .36]), conscientiousness ($\rho = .36$, 95% CI [.32, .39]), openness ($\rho = .27$, 95% CI [.18, .35]), moral personality ($\rho = .35$, 95% CI [.18, .51]), honesty-humility ($\rho = .31$, 95% CI [.24, .37]), integrity ($\rho = .56$, 95% CI [.47, .64]), guilt proneness ($\rho = .47$, 95% CI [.41, .53]), shame proneness ($\rho = .31$, 95% CI [.27, .36]), and proactive personality ($\rho = .51$, 95% CI [.36, .67]) were positively and significantly related to moral identity, whereas neuroticism ($\rho = -.18$, 95% CI [-.35, -.01]) was negatively and significantly related to moral identity. Thus, Hypotheses 1, 2, 3, 5, and 6 were supported. However, Machiavellianism ($\rho = -.14$, 95% CI [-.34, .05]), narcissism ($\rho = .15$, 95% CI [-.05, .36]), trait aggression ($\rho = -.10$, 95% CI [-.32, .12]), and social desirability ($\rho = .07$, 95% CI [-.003, .15]) had nonsignificant relationships with moral identity. Thus, Hypotheses 4, 7, and 8 were not supported.

Ethical leadership ($\rho = .24$, 95% CI [.19, .29]), servant leadership ($\rho = .52$, 95% CI [.21, .84]), authentic leadership ($\rho = .57$, 95% CI [.41, .74]), transformational leadership ($\rho = .51$, 95% CI [.42, .72]), and transactional leadership ($\rho = .25$, 95% CI [.22, .41]) were positively and significantly related to moral identity, whereas leader narcissism ($\rho = -.10$, 95% CI [-.29, .09]) and abusive supervision ($\rho = .15$, 95% CI [-.53, .08]) had nonsignificant relationships with moral identity. Ethical climate ($\rho = .20$, 95% CI [.02, .37]) was positively and

Table 1 The results of publication bias analyses

| Variable | <i>r</i> | <i>I</i> ² | <i>k</i> | Egger's Test | Implied Missing | | Weight function model | |
|-----------------------------|----------|-----------------------|----------|--------------|-----------------|---------------|-----------------------|--------------------------|
| | | | | | Left of Mean | Right of Mean | .05 < <i>p</i> < 1 | LR <i>X</i> ² |
| Gender | .08 | 79.33 | 55 | -1.02 | 7 | 0 | .51* | 2.17 |
| Age | .03 | 76.54 | 46 | 1.60 | 0 | 8 | 2.70 | 3.03 |
| Education | .02 | 54.01 | 26 | .13 | 4 | 0 | .95 | .007 |
| Agreeableness | .35 | 87.90 | 11 | 2.64* | 0 | 0 | .01 | 1.46 |
| Extraversion | .20 | 83.48 | 8 | -1.32 | 0 | 0 | .26 | .68 |
| Conscientiousness | .29 | 34.74 | 11 | -1.66 | 0 | 0 | .01 | .61 |
| Openness to experience | .17 | 86.84 | 7 | -3.23* | 0 | 0 | 2.97 | .38 |
| Neuroticism | -.14 | 88.42 | 6 | .1 | 0 | 0 | .03 | 2.05 |
| Moral personality | .28 | 87.57 | 5 | -.25 | 0 | 0 | .43 | .19 |
| Honesty-Humility | .24 | 69.61 | 5 | -.01 | 0 | 0 | .01 | .29 |
| Integrity | .42 | 84.59 | 3 | -3.87 | 0 | 0 | .01 | .005 |
| Machiavellianism | -.17 | 97.32 | 7 | -.71 | 0 | 0 | .84 | .01 |
| Narcissism | -.01 | 93.67 | 5 | -2.10 | 0 | 1 | 2.86 | .39 |
| Proactive personality | .41 | 88.10 | 3 | -4.51 | 0 | 0 | .01 | .06 |
| Trait aggression | -.19 | 98.18 | 4 | -.44 | 0 | 1 | .01 | 3.39 |
| Guilt proneness | .42 | 86.09 | 5 | 1.12 | 0 | 0 | .01 | .01 |
| Shame proneness | .24 | 0 | 3 | .77 | 2 | 0 | NA | NA |
| Social desirability | .08 | 89.94 | 28 | .95 | 5 | 0 | .50 | 1.16 |
| Ethical leadership | .24 | 81.55 | 26 | 1.49 | 0 | 0 | .70 | .20 |
| Servant leadership | .46 | 97.68 | 3 | -19.23* | 0 | 0 | .01 | 1.81 |
| Authentic leadership | .58 | 80.46 | 5 | .40 | 2 | 0 | .01 | .50 |
| Transformational leadership | .63 | 93.39 | 8 | .35 | 0 | 0 | .01 | .97 |
| Transactional leadership | .29 | 67.47 | 7 | 1.41 | 2 | 0 | .01 | 4.14* |
| Leader narcissism | -.17 | 91.12 | 3 | -3.68 | 0 | 0 | 16,890.29 | .48 |
| Abusive supervision | -.22 | 93.38 | 4 | 2.46 | 0 | 0 | 38,067.21 | .83 |
| Ethical climate | .16 | 94.35 | 14 | -.56 | 0 | 0 | .97 | .001 |

r estimates of random-effect model; *I*²% of total variability due to heterogeneity; *k* number of independent samples in publication bias analysis; LR is likelihood ratio test

significantly related to moral identity. Thus, Hypotheses 9, 10, 11, 12, 13, and 16 were supported, but Hypotheses 14 and 15 were not.

Gender ($\rho = .09$, 95% CI [.06, .12]) had a positive and significant relationship with moral identity, whereas age ($\rho = .02$, 95% CI [-.01, .04]) and education ($\rho = .02$, 95% CI [-.01, .06]) had nonsignificant relationships with moral identity. Thus, Hypothesis 17 was partially supported.

Table 2 Meta-Analysis Results of personality traits/leadership/context and moral identity

| Variable | <i>k</i> | <i>N</i> | \bar{r} | <i>SD</i> \bar{r} | ρ | <i>SD</i> ρ | <i>SDr_c</i> | 95% confidence interval | 80% credibility interval | % acc |
|---------------------------------|----------|----------|-----------|---------------------|--------|------------------|------------------------|-------------------------|--------------------------|-------|
| Demographic | | | | | | | | | | |
| 1. Gender (0= male, 1 = female) | 55 | 21,824 | .085 | .09 | .09 | .10 | .11 | [.06, .12] | [-.03, .22] | 23 |
| 2. Age | 46 | 22,241 | .01 | .08 | .02 | .09 | .10 | [-.01, .04] | [-.10, .13] | 25 |
| 3. Education | 26 | 8,145 | .02 | .06 | .02 | .06 | .09 | [-.01, .06] | [-.06, .11] | 49 |
| Personality traits | | | | | | | | | | |
| <i>Broad traits</i> | | | | | | | | | | |
| 4. Agreeableness | 11 | 4,373 | .30 | .09 | .37 | .12 | .13 | [.30, .45] | [.22, .53] | 20 |
| 5. Extraversion | 8 | 3,643 | .22 | .09 | .28 | .10 | .11 | [.21, .36] | [.16, .41] | 24 |
| 6. Conscientiousness | 11 | 4,456 | .29 | .03 | .36 | .03 | .07 | [.32, .39] | [.32, .40] | 79 |
| 7. Openness to experience | 7 | 3,567 | .20 | .09 | .27 | .10 | .12 | [.18, .35] | [.13, .40] | 22 |
| 8. Neuroticism | 6 | 1,732 | -.14 | .16 | -.18 | .21 | .22 | [-.35, -.01] | [-.45, .09] | 11 |
| 9. Moral personality | 5 | 1,104 | .29 | .13 | .35 | .18 | .19 | [.18, .51] | [.12, .57] | 15 |
| 10. Honesty-Humility | 5 | 2,715 | .23 | .05 | .31 | .06 | .08 | [.24, .37] | [.23, .39] | 41 |
| 11. Integrity | 3 | 2,957 | .46 | .06 | .56 | .07 | .08 | [.47, .64] | [.47, .65] | 16 |
| <i>Narrow traits</i> | | | | | | | | | | |
| 12. Machiavellianism | 7 | 5,539 | -.11 | .20 | -.14 | .26 | .26 | [-.34, .05] | [-.47, .18] | 3 |
| 13. Narcissism | 5 | 4,257 | .13 | .17 | .15 | .23 | .24 | [-.05, .36] | [-.14, .45] | 4 |
| 14. Proactive personality | 3 | 995 | .41 | .10 | .51 | .13 | .14 | [.36, .67] | [.35, .68] | 17 |
| 15. Trait aggression | 4 | 7,712 | -.09 | .17 | -.10 | .22 | .22 | [-.32, .12] | [-.38, .18] | 2 |
| 16. Guilt proneness | 5 | 2,724 | .37 | .06 | .47 | .06 | .08 | [.41, .53] | [.39, .55] | 37 |
| 17. Shame proneness | 3 | 1,741 | .24 | .00 | .31 | .00 | .01 | [.27, .36] | [.31, .31] | 1,580 |
| 18. Social desirability | 28 | 9,202 | .06 | .15 | .07 | .19 | .21 | [-.003, .15] | [-.18, .32] | 11 |
| Leadership styles | | | | | | | | | | |
| 19. Ethical leadership | 26 | 8,873 | .21 | .09 | .24 | .11 | .13 | [.19, .29] | [.10, .38] | 23 |
| 20. Servant leadership | 3 | 817 | .45 | .25 | .52 | .27 | .28 | [.21, .84] | [.17, .87] | 4 |
| 21. Authentic leadership | 5 | 502 | .50 | .13 | .57 | .17 | .19 | [.41, .74] | [.36, .79] | 22 |

Table 2 (continued)

| Variable | <i>k</i> | <i>N</i> | \bar{r} | <i>SD</i> \bar{r} | ρ | <i>SD</i> ρ | <i>SDr_c</i> | 95% confidence interval | 80% credibility interval | % acc |
|---------------------------------|----------|----------|-----------|---------------------|--------|------------------|------------------------|-------------------------|--------------------------|-------|
| 22. Transformational leadership | 8 | 1,513 | .51 | .19 | .57 | .21 | .22 | [.42, .72] | [.30, .84] | 8 |
| 23. Transactional leadership | 7 | 1,153 | .25 | .09 | .32 | .11 | .14 | [.22, .41] | [.18, .45] | 42 |
| 24. Leader narcissism | 3 | 1,090 | -.08 | .15 | -.10 | .16 | .17 | [-.29, .09] | [-.31, .11] | 12 |
| 25. Abusive supervision | 4 | 1,137 | -.27 | .19 | -.31 | .23 | .23 | [-.53, .08] | [-.60, -.02] | 7 |
| Context | | | | | | | | | | |
| 26. Ethical climate | 14 | 4,014 | .16 | .26 | .20 | .33 | .34 | [.02, .37] | [-.22, .62] | 5 |

k Number of independent samples cumulated; *N* Cumulative sample size; % acc Percentage of variation in the observed correlations attributable to sampling error and other artifacts; \bar{r} Sample size weighted mean observed correlation; ρ Mean true score correlation; *SD* \bar{r} Standard deviation of the observed correlations; *SDr_c* Observed standard deviation of the corrected correlations; *SD* ρ Standard deviation of the true score correlation

Moderating effects

To explore the significant heterogeneity in the effect sizes, we tested the moderating effects of moral identity measure, individualism-collectivism, and demographic characteristics. All of the results are provided in Supplemental Material A, including Tables 3–5, in the Center for Open Science (<https://osf.io/fdwpm/>).

The moral identity measure had a significant moderating effect on the relationships between age ($Q=25.35$, $df=3$, $p<.0001$), authentic leadership ($Q=8.52$, $df=1$, $p=.004$), and moral identity, indicating slight differences between SMI-Q and other measures in terms of predicting moral identity. Thus, Hypothesis 19 was partially supported.

Individualism-collectivism also had a significant moderating effect. Narcissism ($r=.25$, 95% CI [.13, .37] vs. $r=-.09$, 95% CI [-.18, -.01]; $Q=20.77$, $p<.0001$) and leader narcissism ($r=-.29$, 95% CI [-.38, -.19] vs. $r=.04$, 95% CI [-.04, .12]; $Q=20.77$, $p<.0001$) had stronger relationships with moral identity in collectivistic cultures than in individualistic cultures. Gender ($r=.12$, 95% CI [.09, .16] vs. $r=.02$, 95% CI [-.02, .06]; $Q=12.96$, $p=.0003$) and education ($r=.01$, 95% CI [.01, .11] vs. $r=-.09$, 95% CI [-.05, .03]; $Q=5.51$, $p=.03$) had stronger relationships with moral identity in individualistic cultures than in collectivistic cultures. The other relationships did not show a significant difference between collectivistic and individualistic cultures. Thus, Hypothesis 20 was partially supported.

The results show that demographic characteristics moderate some of the relationships. Extraversion, openness to experience, and proactive personality had stronger positive effects on moral identity in the samples with a high proportion of males, and abusive supervision had a stronger negative effect on moral identity in the predominantly male samples. In contrast, servant leadership was a strong positive predictor of moral identity in the predominantly female samples. Agreeableness and narcissism had a slightly less positive effect on moral identity with increasing age. Abusive supervision had a slightly less negative effect on moral identity with increasing age.

Discussion

Based on the social cognitive perspective, this meta-analysis of 110 studies investigates the effects of demographic characteristics, personality traits, and organizational context (i.e., leadership styles and ethical climate) on followers' moral identities. To explore the significant heterogeneity of the effect sizes, we also assess the moderating effects of demographic characteristics, the moral identity measure, and an individualistic versus collectivistic culture. Our findings make several significant and valuable contributions to the literature and offer some guidelines for understanding moral identity within the work self-concept.

Theoretical implications

We make noteworthy theoretical and empirical contributions to the literature on the antecedents of moral identity. We make a theoretical contribution by applying the social cognitive perspective as a useful framework for understanding the relationships between moral identity and its antecedents. Following the social cognitive perspective, we divided the antecedents of moral identity into two categories: personality traits and organizational context. From the perspective of social cognition, some traits function as stimuli, increasing the likelihood of activating network mapping onto a person's moral identity (Kihlstrom & Cantor, 1984). First, our findings indicate that the Big Five personality traits, honesty-humility, integrity, proactive personality, guilt proneness, and shame proneness are significantly related to personal moral identity, whereas Machiavellianism, narcissism, trait aggression, and social desirability are not significantly related to moral identity. One interpretation of Machiavellianism and narcissism is that these traits have two-sided. That is, Machiavellians are usually self-centered and manipulative, but they are also concerned about their reputation (Jones & Paulhus, 2010). Therefore, they may use ingratiation tactics to craft a good image among others (Rauthmann, 2011; Rauthmann & Will, 2011). These two sides of Machiavellianism may prevent the formation of a moral self. For narcissism, Zuo et al. (2016) posited that narcissists tend to exhibit a high level of personal morality to obtain others' appreciation and a sense of superiority. Thus, a narcissist has a positive and inflated self-concept that may diminish the motivation to be a moral person. These two paths seem to conflict, and thus it is also necessary to consider the effect of other conditions such as self-esteem (Zuo et al., 2016) on the relationship. Understanding the relations between trait aggression / social desirability and moral identity requires considering the moral identity measure. Our findings indicate that trait aggression is negatively and significantly related to moral identity measured with internalization but not to moral identity measured with internalization and symbolization combined. One reason is that trait aggression is an implicit character, and internalization is more strongly related to the implicit measure that represents the association between moral traits and the self-concept (Aquino & Reed, 2002), so trait aggression is more strongly related to internalization. Social desirability is positively and significantly related to moral identity measured with internalization and symbolization combined rather than to moral identity measured with internalization only. Steenkamp et al. (2010) stated that social desirability could be either an unconscious tendency to claim positive attributes and deny negative ones or a conscious effort to project a favorable self-image. This corresponds to both aspects (i.e., internalization and symbolization) of moral identity, so social desirability is strongly associated with both internalization and symbolization. Overall, these findings enrich the literature on the intersection of personality traits and moral identity.

Second, our model shows that organizational factors are a second set of stimuli that affect the development of moral identity. Although personalities become more mature and stable with age (Roberts & Wood, 2006) and an individual's moral identity is influenced by his or her personality traits (e.g., Zuo et al., 2016), moral identity can change and be more or less salient in different situations (Aquino & Reed, 2002; Jennings et al., 2015). According to social cognitive theory, leaders are role models in the workplace and strongly influence their followers' moral identities (Jennings et al., 2015). Our results show that positive and ethical leadership positively influences followers' moral

identities. That is, these leadership types can strengthen the centrality of morality in followers' self-concepts. In addition, an ethical climate is characterized by shared ethical values and standards and is a vital situational factor influencing the development of followers' moral identities. This finding supports the critical roles of leadership and ethical climate in moral development in the workplace.

Third, we make an empirical contribution by conducting a comprehensive meta-analysis of the antecedents of the moral identity research to date. Our results are significant because the purpose of meta-analysis "is to estimate as accurately as possible the construct-level relationships in the population" (Hunter & Schmidt, 2004: 31), and it contributes to understanding the magnitude and direction of the relationships without the methodological limitations of the primary studies (Mackey et al., 2021). Our results provide estimates of the true relationships between moral identity and its antecedents. Moreover, this quantitative review is transparent and replicable and advances the moral identity literature. Prior meta-analyses have summarized the relationships between moral identity, moral emotions, and moral behaviors (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019), but the antecedents of moral identity have received much less attention (Jennings et al., 2015; Krettenauer & Hertz, 2015). This meta-analysis expands the moral identity literature by summarizing the empirical studies linking moral identity with personality traits, leadership, and ethical climate, providing a quantitative review of the literature on the antecedents of moral identity.

Fourth, demographic characteristics are typically treated as control variables, and other possibilities are rarely considered. Our findings indicate that gender has a positive relationship with moral identity, which means that women pay more attention to morality and tend to express a moral self-concept. Gender and age can moderate some relationships associated with moral identity, which provides greater insight into the effects of demographic characteristics in the field of management.

Fifth, a marginally significant moderating effect of moral identity measure are found. The moral identity measure include internalization and symbolization dimensions, the distinction of measurement (e.g., SMI-Q, internalization, or symbolization only) echoes that the private–public dimension is a valid theoretical property of moral identity (Aquino & Reed, 2002). This means that the use of appropriate measurements for different situations is conducive to the construction of theoretical models, to better explain the phenomenon and guide the practice. For example, Aquino and Reed (2002) asserted that symbolization was associated with impression management, showing its potential susceptibility to self-presentational concerns.

Finally, the results extend the literature on the effects of cultural contingency and cultural universality on moral identity by showing that some of the correlations between moral identity and its antecedents depend on cultural context. Narcissism and leader narcissism have stronger relationships with moral identity in collectivistic cultures than in individualistic cultures. Markus and Kitayama (1991) claimed that individuals in different cultures have strikingly divergent construals of the self. Collectivistic cultures emphasize interdependence and group identity, whereas individualistic cultures emphasize independence and reference to one's own thoughts, feelings, and actions rather than considering others. Compared to individualist cultures, narcissists have inflated but fragile self-concepts, they want to obtain appreciation and identity from others, being having a moral self is a much more effective

approach (Fossati et al., 2010) under collectivist culture. In addition, cultures can moderate the relationship between leadership and follower outcomes (e.g., Li et al., 2021). For narcissistic leadership, in collectivist cultures, a narcissistic leader is viewed as an object of reference by employees, and they tend to follow their leader's values to define themselves and are more likely to be self-centered. In individualist cultures, employees are likely to follow themselves. Therefore, narcissistic leadership has a stronger effect on employees' moral identity in collectivistic cultures than in individualistic cultures. In brief, our meta-analysis responds to the call to examine "how the structure of the moral self varies along cultural dimensions" (Jennings et al., 2015: 160), which may help us understand how cultural values work.

Limitations

This meta-analysis has several limitations. First, we adopted the social cognitive perspective to frame our overall model, not considering some theories (e.g., self-determination or self-regulation theory) used by primary studies, this is a weakness of this study. Our research is more to explain the formation reasons from the perspective of moral identity (Aquino & Reed, 2002; Aquino et al., 2009; Narvaez & Lapsley, 2009; Shao et al., 2008), suggesting that social cognitive theory is an appropriate theory to explain the role of moral identity in our framework. Thus, we hope that the social cognitive theory can help scholars understand the overall model and advance the moral identity research. And we also encourage future research to apply other specific theories to explore the specific effects of some variables (e.g., personality traits) on moral identity. Second, we examined and reported bivariate relationships. Thus, it is difficult to infer causality. Third, the percentage of variation in the observed correlations was less than 75%, suggesting that there is significant heterogeneity in the effect sizes that may be attributable to sampling error and other factors, which indicates the existence of potential moderators. As the number of moderators in the primary research was limited, this meta-analysis only examined the artificially created moderators of the moral identity measure, individualism-collectivism, and demographic characteristics.

Future research directions

Our quantitative review provides suggestions for future research on moral identity. Arguably, the most urgent need is to further probe the antecedents of moral identity related to personality traits and organizational contexts. In terms of personality traits, we call on scholars to explore dispositional traits related to moral identity, which could provide a more nuanced understanding of moral identity. For example, it is worth examining the link between moral identity and the facets of the Big Five traits that show cross-situational consistency and developmental continuity (Narvaez & Lapsley, 2009). Regarding organizational contexts, organizations often present morally ambiguous situations that easily cause conflict between self and organizational interests (Jennings et al., 2015). Therefore, identifying relevant organizational factors could deepen the understanding of followers' moral self. Further, future research could also consider the combined influence of a certain personality trait and situational factor on moral

identity: On the one hand, that can shed light on the relative importance of the two types of factors on moral identity in an empirical study; On the other hand, as the social-cognitive perspective suggests that the interplay between personality traits and situational cues activate an individual's moral identity (Shao et al., 2008). For instance, a future study could further elucidate how a particular narrow personality trait and ethical climate interact to affect an individual's moral identity in the workplace.

Due to the importance of role models and norms in the Asian culture, scholars should consider other cultural factors, such as power distance (Hofstede, 2001), patriarchal culture (Wang et al., 2022), Confucian culture (Kong et al., 2022), to explore cultural contingency. Our review simply divided the sample sources along dimensions of culture (i.e., individualism vs. collectivism), which might under- or overvalue the true relationships between the antecedents and moral identity in different cultures. This method is insufficient to fully explain cultural variation. Hence, we call for empirical research that includes multiple national samples to examine the moderating effects of cultural factors on the correlations between moral identity and its antecedents (e.g., leadership, Atwater et al., 2021).

Future research should not only include demographic characteristics as control variables but also explore other potential roles of demographic characteristics. As the saying goes, "if the old dog barks, he gives counsel." Indeed, people become more experienced and knowledgeable with age. Thus, the relationships of age and status with morality position may be well worth studying in the management.

Practical implications

Moral identity is a critical factor in predicting moral emotions and prosocial and ethical behaviors (Hertz & Krettenauer, 2016; Lefebvre & Krettenauer, 2019). Thus, it is important to know how to improve one's moral identity. This meta-analysis summarizes the antecedents of moral identity, and the findings have implications for management practices. The results show that personality traits influence the degree to which being moral is important to a person's identity. For managers, understanding their followers' personalities is an effective approach to manage their followers and advance work. However, most personality traits become stable with age (Krettenauer et al., 2016; Zhang & Bednall, 2016), so rather than trying to change them, influencing people in other ways, such as changing the situational factors mentioned in our meta-analysis, may be more effective. Positive and ethical leadership are desirable in the workplace (Li et al., 2021). Leadership styles, including ethical leadership, authentic leadership, transformational leadership, and transactional leadership, strongly relate to followers' moral perceptions. Therefore, organizations should develop leadership training programs to develop desirable leadership styles in their talents so that these future leaders will develop their followers' moral selves and lead them to engage in prosocial behaviors. In addition, moral standards and rules in an ethical climate can improve followers' moral identities, which suggests that organizations should strive to create ethical climates. Finally, our results highlight that the effects of the antecedents on followers' moral identities differs according to cultural context. Different cultural values profoundly influence individuals' mindsets (Hofstede

et al., 2010). In a globalizing world, organizations should focus on understanding culture and its centrality to moral identity to understand followers' cognitions and moral behaviors.

Conclusion

This meta-analysis examines the relationships between moral identity and its antecedents, including gender, personality traits, leadership style, and ethical climate. Additionally, the moderating roles of the moral identity measure used, cultural individualism versus collectivism, and demographic characteristics are investigated. We hope that this review provides a solid foundation for future research and insightful perspectives on moral identity.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10490-023-09891-8>.

Funding This study was funded by the National Natural Science Foundation of China (grant number 71672108, 72162023).

Data Availability The data of this study are available in the online repository of the Center for Open Science (<https://osf.io/fdwpn/>).

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

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Note: All references included in meta-analysis are marked with an (*) asterisk.

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