

WHEN THE FEELING OF BEING HUMBLE IS NOT HUMBLE: EXPLORING (IM)MODESTY EFFECTS ON LEADERS

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ABSTRACT

The paper shows how leaders' humility predicts leaders' balanced processing (a dimension of the authentic leadership construct) and followers' trust in leaders. Humility was measured through self-reports ($n = 53$) and informants-reports ($n = 53$ supervisors; $n = 389$ peers; $n = 162$ subordinates). Subordinates described leaders' balanced processing and trust in leaders. The main findings are: (a) humility as reported by peers and by subordinates are valid predictors of balanced processing, and/or trust; (b) immodest leaders (those who overestimate their humility) adopt less balanced processing and are less trustful. While the "modesty effect" (i.e., the actual humility being inversely related to self-enhancement of humility) is not pervasive in the sample, being an immodest versus a modest leader has consequences for how the leader behaves and relates with followers.

Keywords: Humility, Inflated Comparative humility, Immodesty Effect, Leaders' Balanced Processing, Trust in Leaders.

INTRODUCTION

With the rise of the "positive psychology" and the "positive organizational scholarship movements", the study of virtues such as forgiveness, gratitude, courage, optimism, and hope have expanded rapidly (Cameron & Spreitzer, 2012; Davis et al., 2013). Business ethicists also have granted more and more attention to virtues and virtuousness (see, for example, two special issues: Fontrodona, Sison, & de Bruin, 2013; Sison, Hartman, & Fontrodona, 2012). However, humility, "a personal orientation founded on a willingness to see the self accurately and a propensity to put oneself in perspective" (Morris, Brotheridge, & Urbanski, 2005, p. 1331), has received much less attention (Davis, Worthington Jr, & Hook, 2010; Rowatt et al., 2006). Tangney (2009, p. 483) observed that the "scientific study of humility is still in its infancy". At least two reasons explain this condition: (1) the concept of humility has been frequently linked to religion and thus undervalued by scholars and practitioners; (2) a well-established measure of the construct is

lacking (Kachorek et al., 2004; Tangney, 2009). Another reason, belonging to the organizational domain, is that humility has been frequently considered a weakness, a sense of inferiority, a lack of self-confidence, and a quality incompatible with the huge challenges and tough realities of modern organizations that leaders have to face (Morris et al., 2005; Vera & Rodriguez-Lopez, 2004). This depreciation is mainly the consequence of a biased and equivocal perspective about the true meaning of this virtue: “a virtue that concerns human limits – how to view and handle human limits productively, adaptively and constructively” (Owens, Rowatt, & Wilkins, 2012, p. 260).

In the recent past, this negative or pessimistic perspective about the relevance of humility for leadership effectiveness and organizational functioning has started changing, both among scholars (see Owens et al., 2012 literature review) and practitioners (see examples in Damon, 2004). The Economist (2003) pointed out: “in the hero-worshipping 1990s”, heroic bosses “attracted immense adulation, especially in America. Now the fashion is changing. ‘Humility is in, arrogance is out’, says Andrea Redmond at Russell Reynolds, a firm of headhunters. ‘They are no longer bragging. There is more emphasis on underpromising and overdelivering’, reflects Dennis Carey, vice-chairman of Spencer Stuart, a rival firm”.

Collins (2001) called the attention for “level 5” (i.e., outstanding) leaders whose main quality is a crucial blend of strong personal will and humility. Several scandals involving leader and company misconduct also breached the fascination with *heroic* leaders and redirected the attention to leaders who, with humility and other qualities of character, build and led successful companies (Collins, 2001; Griffith, 2002).

Despite of the growing consensus about the importance of humility in leadership, and although organizational virtuousness has entered the psychological and organizational literatures with great vigor (Cameron & Spreitzer, 2012; Lopez & Snyder, 2011), empirical studies about the virtue of humility in the psychological, organizational and leadership fields are scarce. Owens et al. (2012, p. 266) stated that “work on humility in leadership remains mostly theoretical” (Davis et al., 2013; Rowatt et al., 2006). This study contributes to enrich the leadership literature by showing how leaders’ humility predicts their balanced processing of information (leader ability to analyze information objectively and explore other people’s opinions before making decisions; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008) and subordinates’ trust in their leaders.

Our study additionally contributes to the dialogue among researchers about two related points: (1) the best source to measure humility; and (2) the “modesty effect”. In fact, self-reported humility measures are problematic (Kachorek et al., 2004; Rowatt et al., 2006; Tangney, 2009). Owens et al. (2012, p. 262) noted that “genuinely humble persons may not self-report being humble; whereas, narcissists sometimes create the appearance of humility to mask their arrogance or grandiose sense of self (American Psychiatric Association, 2004). According to some scholars, it takes cognitive effort to resist the temptation to present oneself in an overly positive fashion”.

Paradoxically, self-reporting as *less* humble may represent *more* humility, and self-reporting as *more* humble may represent *less* humility. This problem has led scholars (Davis et al., 2013; Tangney, 2009) to suggest that a “modesty effect” (the inverse relationship between actual humility and self-enhanced humility) may operate and thus undermine the validity of self-reported measures. In this paper, we test this effect by comparing self-reported humility with humility as reported by three segments of informants (supervisor; subordinates; peers), and discuss if self-other *disagreement* increases the

ability to predict balanced processing and trust. Davis et al. (2010) recommended that researchers explore the self-other agreement of humility ratings and recommended starting studying humility in contexts where humility is potentially relevant, such as business leadership. We follow both suggestions.

Our study uses empirical data collected in the context of a leadership development program. This program included a 360 degree feedback exercise covering several areas, including the three factors covered by this paper: leaders' humility, balanced processing, and trust. We are aware of the limitations of the measurement instruments (including its content coverage), but acknowledge that data about leaders' humility from four sources (the leaders themselves, and their supervisors, peers, and subordinates) is worthy of being shared with the scholarly community interested in the study of the effects of this "admirable virtue" (Damon, 2004) in leadership.

With this in mind, we structure the paper as follows. We start by clarifying how humility has been defined and propose humility as the emerging leadership paradigm replacing traditional heroic leadership trait and competency conceptualizations. We then discuss why humble leaders tend to adopt more balanced processing behaviors and to be more trustful. Next, we consider the limits of self-reported measures of humility, and explain why the informants-reported measures are more adequate. We also discuss the relevance of comparing self-reported humility with informants-reported humility before presenting our method and the findings. In the last section, we discuss the main findings and limitations of the study prior to advancing the main conclusions.

HUMILITY PREDICTING BALANCED PROCESSING AND TRUST

Defining humility

The word "humility" comes from the Latin *humus*, meaning earth or ground. Being humble means having a grounded view of oneself and others (Owens et al., 2012). A grounded perspective enables humble individuals to acknowledge their personal strengths and weaknesses (as well as those of others), without leading themselves to develop feelings of superiority or inferiority. This apparent simplicity hides the lack of consensus among researchers about the definition of humility. Morris et al. (2005, p. 1331) defined humility as "a personal orientation founded on a willingness to see the self accurately and a propensity to put oneself in perspective". Rowatt et al. (2006) defined humility as a psychological quality involving the presence of forces such as being modest, open-minded, down-to-earth, and respectful of others, and the absence of features such as arrogance, immodesty, conceit, closed-mindedness, or egotism. Damon (2004, p. 16) considered humility as the willingness to admit one's "own imperfections, to correct them, change them, and keep growing". Exline and Geyer (2004, p. 97) suggested that humility "involves a nondefensive willingness to see the self accurately, including strengths and limitations".

Those definitions indicate that humility has been conceptualized as a multidimensional strength, and that there is no consensus about such conceptualizations (Davis et al., 2013). According to Owens et al. (2012), the most prevalent dimensions appearing in the definitions are: (1) a capacity or willingness to evaluate oneself without positive or negative exaggeration; (2) viewing others in an appreciative non-threatened way; (3) openness to new ideas, feedback, and advice. Davis et al. (2013) stated that most definitions of humility include intrapersonal (having an accurate or moderate view of self) and interpersonal qualities (e.g., modesty, willingness to ask for help), and argued that

definitions diverge mainly with regard to the latter. Aiming to “consolidate” both qualities, they defined humility (p. 60) as “having an accurate view of self, and the ability to cultivate other-oriented emotions and behaviors”. Tangney (2009, p. 485) found the following key features in her literature review and critique: (1) a moderate estimate of personal merits/achievements (i.e., modesty); (2) the ability to recognize one's mistakes, shortcomings, gaps in knowledge, and limitations; (3) receptivity to new ideas, contradictory perspectives, and advices; (4) keeping one's capabilities and achievements in perspective (e.g., “seeing oneself as just one person in the larger scheme of things”); (5) a relatively low focus on the self or an ability to “forget the self”; (6) the recognition and appreciation of the value of all things, as well as the many different ways through which people and things can make positive contributions to the world.

In this paper, we operationalize humility as a combination of three key features: modesty, the ability to acknowledge one's mistakes, and a relatively low focus on the self. We thereby adopt the view, widely represented in the literature, that modesty, focusing “primarily on a moderate estimate of personal merits or achievement” (Tangney, 2009, p. 485), is a component of humility, but “does not capture other key aspects of humility such as a ‘forgetting of the self’ and an appreciation of the variety of ways in which others can be worthy” (Kachorek et al., 2004; LaBouff, Rowatt, Johnson, Tsang, & Willerton, 2012). Although acknowledging that important features are absent from our operationalization of the construct, we consider that our measure is a relevant *proxy* of leaders’ humility. Our findings support this assumption, but future studies should test its validity.

Humility as the new leadership paradigm

The great personality theory of leadership holds that leaders are people with certain personality traits and characteristics such as tenacity, ambition, drive and initiative (Kirkpatrick & Locke, 1991). A related approach is to view leadership as a set of technical job specific competencies that can be measured, assessed and developed (e.g., Alldredge & Nilan, 2000; Müller & Turner, 2010). A criticism of these approaches is that they disassociate leadership from its situated relational context – conveying an isolated view of leadership separate from moral and relational contexts (Salaman, 2004). We view humility as a characteristic that may help leaders to understand and respect the context in which they operate and take decisions.

In a study, Bolden and Gosling (2006) compared 29 established leadership competency frameworks with 38 reflective group feedback reports of about 250 actual leaders given at UK based leadership retreats held between 2001 and 2004. Whereas the competency frameworks emphasized individual capabilities and skills, the reflective reports gave emphasis to the relational and virtuous aspects of leadership. Here the leader: “makes sense of complexity and uncertainty on the basis of strong moral beliefs and emotional engagement with others” (Bolden & Gosling, 2006, p. 156). Although the word “humility” appeared in 48 per cent of the reflective reports, it was absent in 80 per cent of the competency frameworks.

The absence of humility in the assessed popular competency frameworks indicates a serious lack of consideration of an important aspect of leadership as identified by practicing managers. Changes over the past half a century, including modifications to the ways people work, demographic shifts, restructuring of power bases, concerns of global warming along with calls for sustainability and greater corporate social responsibility and accountability, all demand more reflective, virtuous and humble leadership. From these concerns, scholars

have been rethinking the relevance of humility in the organizational context as notions of a humbler leader have emerged. The humble leader acts not as the master of the employees but as the servant of the employees and customers, not as an authority figure demanding unquestioning obedience but an empower and facilitator, not as a taskmaster but as a teller of stories and provider of vision, not as an elitist but as a networker, and not as a ruler but as a team builder (Boje & Dennehy, 1994).

The idea of the humble leader is gaining academic attention in the field of management and organizational studies. Vera and Rodriguez-Lopez (2004, p. 393) consider the virtue of humility as “a critical strength for leaders and organizations possessing it, and a dangerous weakness for those lacking it”. They argue that humility is a VRIN (valuable, rare, irreplaceable, and non-imitable) resource because it helps to promote organizational learning, to provide high-quality services to both external (clients) and internal customers (i.e., employees), and to build organizational resilience. Humility was also considered a crucial element of “responsible leadership” (Cameron, 2011). Morris et al. (2005) hold that it is necessary to bring humility to leadership, and suggested that humility in a leader predicts supportiveness to others, a socialized power motivation, and participative leadership. Rego, Cunha and Clegg (2012) describe humility as a crucial quality for turning global leaders into builders of positive organizational performance. Weick (2001, p. 93) noted that the “unpredictability and unknowability” faced by modern organizations make the state of doubting a “legitimate” leadership action that requires leaders to have “more humility and less hubris”. Commenting on Warren Bennis’s expressed doubt when asked in front of a Harvard audience if he really loved being president of the University of Cincinnati, Weick (2001, p. 92) stated: “When he said, ‘I don’t know’, that was a strong act of leadership, not a weak one”.

Studying humility in leaders is especially relevant because humility is most accurately judged when challenged. Davis et al. (2011; 2013) suggest that one situation that may challenge humility is the interaction in a hierarchical relationship (e.g., manager-employee). Given the power asymmetry between organizational leaders and employees, one may consider that one possible acid test of a *truly* humble leader is how (s)he behaves towards those who have less power. Power relations, in other words, are natural contexts to test an individuals’ actual humility.

Considering that humble individuals are more aware of human limits (their own and those of others) and thus more able to recognize that facing such limits requires taking advantage of others’ strengths, capacities and contributions, it is plausible to assume that balanced processing is an expression of leader humility (Davis et al., 2013). Moreover, considering that trust represents “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395), one may reasonably expect that subordinates develop higher trust (i.e., denoted as a greater willingness to accept vulnerability) with humble rather than in arrogant leaders. Davis et al. (2010, p. 250) recommended that researchers examine evidence “to gain a better understanding of how humility is important to trusting, respectful, and collaborative relationships”.

Humility predicting balanced processing and trust

Balanced processing is a dimension of the authentic leadership construct (Avolio & Mhatre, 2012) and represents the degree to which the leader objectively analyzes all relevant data before coming to a decision. The process of balanced processing further

involves soliciting views that challenge his/her deeply-held positions, and processing information that contradicts his/her initial points of view (Walumbwa et al., 2008). Doing justice to Tangney (2009, p. 485), who identified “openness to new ideas, contradictory information, and advice” as a key feature of humble people, we posit that balanced processing of information may be an expression of leaders’ humility: more versus less humble leaders tend to adopt more versus less balanced processing behaviors with subordinates. The grounded perspective of self and others may lead humble leaders to develop open-mindedness (Damon, 2004), admit areas of ignorance, develop a stronger desire to learn (Owens et al., 2012; Weick, 2001), and recognize that making better decisions requires objectively analyzing all relevant data before coming to a decision. Soliciting subordinates’ views that challenge his/her deeply-held positions may be a part of this process. In contrast, “narcissistic” leaders, being hungry for maintaining highly positive self-views and being hypersensitive to threats to their self-esteem, may lash out at others who present ideas, perspectives and proposals that threaten or challenge such self-concepts (Baumeister, Smart, & Boden, 1996; Kachorek et al., 2004). In short, as argued by Weick (2001, p. 102), “The leader willing to say ‘I don’t know’ is also a leader willing to admit, in Oscar Wilde’s wonderful phrase, ‘I’m not young enough to know everything’” (Kellman, 1999, p. 113). Acknowledging one’s areas of ignorance is a good starting point in trying to learn *something* through the employees’ inputs and perspectives.

We also posit that humble leaders are considered more trustful by subordinates. Trust in the leader may be defined as the willingness of subordinates to be vulnerable to the actions of the leader (Mayer, Davis, & Schoorman, 1995). We treat the construct here as a collective phenomenon (Braun, Peus, Weisweiler, & Frey, 2012; Fulmer & Gelfand, 2012; Shamir & Lapidot, 2003). Due to social information processes, such willingness to be vulnerable may be shared by subordinates. As stated by Shamir and Lapidot (2003, p. 466) it can be expected that “teams of organization members working under the same superior will develop shared interpretations of the superior trustworthiness, and that individual members’ trust-related attributions and perceptions, and indeed the level of trust itself, may be influenced by these shared perceptions”.

Following Mayer et al. (1995), the best way to understand if subordinates will have greater or lesser trust in (i.e., accept being vulnerable to) their leaders is to consider the attributes of the leader (i.e., the trustee) from the subordinates’ view. A trustor draws inferences about the trustee’s characteristics (e.g., honesty, dependability, fairness, and ability), these inferences having consequences for work attitudes and behaviors, including trust (Dirks & Ferrin, 2002). We consider humility a leadership characteristic that makes subordinates more willing to accept vulnerability towards the leader, explaining why a humble leader is potentially more trusted than an arrogant or narcissistic one. Humility may also make the leader more willing to apologize for having offended subordinates, thus leading subordinates to forgive the leader and regaining faith in him/her. Apologies and forgiveness thereby fosters or restores trust in the leader (BASFORD, Offerman, & Behrend, 2013). Social exchange theory also suggests that the positive social bonds that humble leaders can foster with subordinates (Davis et al., 2013; LaBouff et al., 2012; Morris et al., 2005) will be reciprocated by subordinates through positive attitudes such as trust towards the leader. Davis et al. (2010, 2013) suggest that humble individuals are perceived as less selfish and more other-oriented, which in turn promotes trust. Conversely, a leader with little humility may be more likely to exploit employees (Ashton & Lee, 2001; LaBouff et al., 2012), making the employees less willing to accept vulnerability in the leader.

Employees who see leaders as selfish and arrogant tend to protect themselves, both psychologically and physically. In sum, as argued by Weick (2001, pp. 101-102), assuming “I don’t know” (a feature of humble leaders) fosters “leader credibility in an unknowable world” and “strengthens rather than weakens relationships”, one consequence being more trustful relationships between leaders and followers.

Modesty and immodesty effects

Several researchers have expressed skepticism about the validity of self-reported measures of humility, arguing that *high* self-reported humility may actually be a demonstration of *low* humility (Davis et al., 2010). Tangney (2009, p. 487) suggested that “humility may represent a rare personality construct that is simply unamenable to direct self-report methods”. It is reasonable to suppose that *truly* humble individuals self-report as *less* humble and underreport their humility, while narcissistic/arrogant individuals self-describe as *highly* humble as they seek to mask their narcissism to generate favorable impressions in others (Davis et al., 2010; 2013; Rowatt et al., 2006; Tangney, 2009). The “modesty effect” is a consequence of this paradox. It suggests that actual humility is inversely related to self-enhanced humility (Davis et al., 2013; Tangney, 2009): (1) truly humble people self-report their humility modestly; (2) moderately humble people self-enhance in some degree; and (3) people high in narcissism self-enhance significantly. Davis et al. (2010) argue that the modesty effect has yet to be empirically validated. In a sample of college students, Davis et al. (2013) found only a small effect. They recommended testing the effect “more definitely” through identifying criteria of humility and comparing the prediction of self-reported humility and informants-reported humility. The current paper answers Davis et al.’s (2013) call.

We compare the self-reported humility of 53 leaders with their humility as reported by three kinds of informants: supervisor, subordinates, and peers. If the modesty effect operates, self-reported humility will correlate negatively with informants-reported humility. We take a further step and test the consequences of the “immodesty effect” by asking: how do employees react when their leaders are “immodest”, i.e., describe themselves as more humble as informants do? Amongst two leaders who informants describe as equally humble, the leader who self-reports as being *less* humble might be considered as really *more* humble than other leader who self-describes as *more* humble. Similarly, between two leaders who informants describe as poor in humility, the leader who self-describes as being *more* humble may be considered as *less* humble than other leader who self-describes as *less* humble. We posit that such “covert” modesty versus immodesty may have consequences for how the leader relates and behaves toward employees, including balanced processing and trust. The distance between self-reported and informants-reported humility may contain information about the leader’s humility beyond the information already contained in data from informants.

The advantage of using informants for measuring others’ humility is that it facilitates bypassing the referred “modesty effect”. As argued by Davis et al. (2010, p. 247), “informants can rate another person as humble without violating modesty norms. Although it is generally immodest for an individual to claim to be humble, it would not be immodest to refer to someone else as humble”. However, a question arises: which informants are better suited to rate leaders – supervisors, peers or subordinates? All are observers of behaviors that are relevant to humility (Davis et al., 2011; Funder, 1995). However, the informants’ roles may have consequences for how they view leader humility. Power

inequality may make leaders behave more humbly toward their supervisors than toward their subordinates, and these differences are possibly captured by those informants. Moreover, subordinates may erroneously (and even unconsciously) interpret some typical leadership behaviors (e.g. giving orders, reprimanding) as expressing low humility. Further, leaders may avoid some humility related acts (e.g., apologizing) toward subordinates fearing that such behaviors will be interpreted as a weakness and thus threatening their authority (Basford et al., 2013; Tucker, Turner, Barling, Reid, & Elving, 2006). A potential consequence is that a leader may appear effectively more humble when interacting with supervisors and less humble when relating to subordinates. Considering the power balance between peers, one may be that peers are better equipped to more accurately report the humility of others.

METHOD

Sample and procedures

The sample comprised of 53 middle level managers (83.0% male; mean age: 35.2 years, SD: 4.1) from 53 organizations operating in several sectors (e.g., energy, consulting, software, telecommunications, electronics, pharmaceutical, banking, retailing, IT). The managers were participants in a leadership development program carried out in a European business school. Included in the program was a 360 degree feedback exercise covering several areas including the leader's positive psychological characteristic (i.e., humility) and two variables related to the interactions between the leader and his/her subordinates (i.e., balanced processing of information; trust in leader). Other variables (including for control purposes), although suitable, were not included due to the small sample size and the need to preserve an appropriate ratio between the sample size and degrees of freedom.

The 360 degree feedback exercise was carried out through a secured web platform with three categories of informants (supervisor; peers; subordinates; the leader him/herself). Peers and subordinates were chosen by the leaders participating in the program according to the following instructions/information: (a) the leader should chose *diverse* peers and subordinates; (b) the leader should chose peers and/or subordinates with whom (s)he had positive and less positive relationships; (c) the length of the working relationship with the informant should be, at least, six months; (d) to preserve anonymity, only data proceeding from at least two subordinates and two peers would be considered; (e) peers could be actual or former associates; (f) the exercise was for developmental purposes only.

Data from 162 subordinates was considered for measuring balanced processing and trust. Twenty two leaders were described by two subordinates, fourteen by three subordinates, ten by four subordinates, and seven by at least five subordinates. To measure humility, self-reported data and data from peers (n=389), subordinates (n=162) and the supervisor were used. Two leaders were described by two peers, six leaders by four to five peers, thirty-three leaders by six to eight peers, and twelve leaders by at least nine peers.

Measures

All variables were measured through a 7-point scale. Respondents were asked to report the degree to which different statements applied to the leader (or themselves [to me]) (1: "the statement does not apply to this leader [to me] at all"; (...); 7: "the statement applies completely to this leader [to me]"). As we show below, subordinate-reported humility, peer-reported humility, and balanced processing and trust were operationalized by

aggregating data at the leader level using a referent-shift consensus model (Biemann, Cole, & Voelpel, 2012). Although using different scales' properties for different variables would be more appropriate for reducing method bias (Podsakoff, MacKenzie, & Podsakoff, 2012), such a procedure was not feasible in the context of collecting data using a 360 degree feedback exercise. Method bias is not a concern as we collected data about dependent and independent variables from different sources.

Balanced processing. Balanced processing of information was measured with four items designed specifically for the 360° tool: (1) Pays a lot of attention to and respects the criticism that others have on his/her ideas; (2) Asks for others' opinions before making an important decision; (3) Seeks the honest opinions of his/her subordinates regarding his/her proposals; (4) Encourages and accepts points of view that are different from his/her own. Considering that nature of the dependent variables (the impact of leaders' humility on their subordinates), data from subordinates was considered. After confirmatory factor analysis (see the "Confirmatory factor analysis" section), the fourth item was removed. Cronbach Alphas are 0.78 (individual data) and 0.85 (aggregated data).

Trust. Trust in leader was measured with four items, two having been adapted from Rego and Cunha (2008) and Dennis and Bocarnea (2005). The other two were prepared specifically for the 360° tool. The items are: (1) Is a person that one can trust; (2) Keeps the promises that he/she makes; (3) His/her subordinates feel free to communicate frankly and openly with him/her; (4) His/her subordinates feel free to express their disagreements with him/her. After confirmatory factor analysis (see the "Confirmatory factor analysis" section), the third item was removed. Data from subordinates were considered. Cronbach Alphas are 0.73 (individual data) and 0.74 (aggregated data).

Humility. Humility was measured with four items, one having been adapted from Park, Peterson, and Seligman (2004) and the other from Dennis and Bocarnea (2005). The other two were made specifically for the 360° tool. Although such a parsimonious measure may suffer from low content coverage, it is consistent with Davis et al. (2010, p. 249), who recommended using "simple, valid measures of humility judgments". The items are: (1) Prefers that his/her achievements speak for themselves, rather than calling attention to himself/herself; (2) Does not brag about his/her successes; (3) Does not trouble when unnoticed; (4) When not knowing the answer to a problem, he/she assumes he/she doesn't know. Cronbach Alphas are 0.62 (self-reported data), 0.83 (data from the supervisor), 0.91 (data from peers, at the aggregated level; individual level: 0.83) and 0.80 (data from subordinates, at the aggregated level; individual level: 0.67).

Different sources for measuring humility and dependent variables. To handle the possible bias resulting from using subordinates as raters of both humility and the dependent variables, we tested the relationships in two conditions: (a) within the same-source procedure, data on humility and both dependent variables are collected from the same source/subordinates; (b) within the different-source procedure, data are collected from different subordinates. In the latter condition, the subordinates were randomly divided in two halves, the data from one half was used to compute humility, while the data from the other half was used to compute balanced processing and trust. When the number of subordinates was odd, the smaller half of subordinates was ascribed to humility (the other half being used to measure both dependent variables). The empirical pattern emerged as similar for both procedures, with the difference that the relationships were higher within the same-source procedure. Considering that findings from the different-sources procedure are more valid (Podsakoff et al., 2012), they were used in the next sections.

Inflated comparative humility. Three scores were computed to assess self-others disagreement: (1) “inflated comparative humility-supervisor” results from subtracting humility as reported by the supervisor from self-reported humility; (2) “inflated comparative humility-peers” results from subtracting humility as reported by peers from self-reported humility; (3) “inflated comparative humility-subordinates” results from subtracting humility as reported by the subordinates from self-reported humility. These scores represent how “immodest” a leader is, from the informants’ perspective. The higher (lower) the relative (not absolute) scores, the higher (lower) the level of immodesty.

Confirmatory factor analysis

A confirmatory factor analysis (using LISREL with maximum likelihood estimation method) was carried out, with data from subordinates (first at the individual level), to test the three-factor model: humility, balanced processing, and trust. Considering that fit indices were not satisfactory, standardized residuals and modification indices were used to locate sources of misspecification (Bagozzi & Baumgartner, 1994). After deliberation based on both techniques, two items were discarded (one for balanced processing, one for trust). A well-fitted 10-item model emerged (Table 1).

Table 1
Confirmatory factor analysis (data from subordinates; completely standardized solution)

	Lambdas	Fit indices	Cronbach Alphas
Humility			0.67 (0.80)
Prefers that his/her achievements speak for themselves, rather than calling attention to himself/herself.	0.78 (0.94)		
Does not brag about his/her successes.	0.59 (0.76)		
Does not trouble when unnoticed.	0.37 (0.65)		
When not knowing the answer to a problem, he/she assumes he/she doesn’t know.	0.58 (0.61)		
Balanced processing			0.78 (0.85)
Pays a lot of attention to and respects the criticism that others have on his/her ideas.	0.71 (0.89)		
Asks for others’ opinions before making an important decision.	0.71 (0.72)		
Seeks the honest opinions of his/her subordinates regarding his/her proposals.	0.80 (0.85)		
Trust in leader			0.73 (0.74)
Is a person that one can trust.	0.77 (0.76)		
Keeps the promises that he/she makes.	0.67 (0.72)		
His/her subordinates feel free to show when they are in disagreement with him/her.	0.52 (0.63)		
Chi-square		58.72 (54.79)	
Degrees of freedom		32 (32)	
Chi-square/ degrees of freedom		1.8 (1.7)	
Root mean square residual (RMR)		0.09 (0.06)	
Standardized RMR		0.06 (0.08)	
Goodness of fit index		0.93 (0.83)	
Comparative fit index		0.95 (0.92)	
Incremental fit index		0.95 (0.93)	

In brackets: values emerging from aggregated data.

Cronbach Alphas related to balanced processing and trust are higher than 0.70, the Cronbach Alpha related to humility being lower (although very close: 0.67). Two two-factor models were also tested. The first, merging balanced processing and trust into the same factor, is significantly poorer than the three-factor model ($\Delta\chi^2_{(2)} = 10.63$; $p < 0.01$). The second, merging humility and balanced processing, is also significantly poorer than the three-factor model ($\Delta\chi^2_{(2)} = 32.72$; $p < 0.001$). The single-factor model is also significantly poorer than the three-factor model ($\Delta\chi^2_{(3)} = 32.78$; $p < 0.001$). When aggregated data are considered, a similar pattern was found. The three-factor model fits the data reasonably well (and better than the alternative models), and all Cronbach Alphas are above 0.70 (see Table 1, values between parenthesis).

Aggregating data at the leader level

To test if it is appropriate to aggregate individual data (for subordinates: humility, balanced processing, and trust; for peers: humility) at the leader level, we computed ICC(1), ICC(2), and $r_{WG(J)}$. The rule of thumb frequently used is that when r_{WG} exceeds 0.70 (Biemann et al., 2012), and ICC(1) exceeds 0.05 (Bliese, 2000), aggregation is warranted (Avolio, Zhu, Koh, & Bhatia, 2004; Cohen, Doveh, & Nahum-Shani, 2009). ICC(2) values greater than 0.60 are usually considered sufficient (Bliese, 2000; Chen, Mathieu, & Bliese, 2004; Detert, Treviño, Burris, & Andiappan, 2007; Kenny & La Voie, 1985). Other authors use different thresholds, Michel, Lyons, and Cho (2011: 498) defending an ICC(1) value of at least 0.12, a r_{WG} value of at least 0.60, and an ICC(2) value of at least 0.60.

For computing the expected variances that allow calculating $r_{WG(J)}$ values (Biemann et al., 2012; LeBreton & Senter, 2008), both a uniform (rectangular) null distribution (“the most natural candidate to represent non agreement”; Cohen, et al., 2009, p. 149) and a slightly skewed distribution were assumed. It is reasonable to expect a slightly skewed distribution because of a possible leniency (severity) bias on the part of the peers (subordinates) when describing the leaders.

Table 2
Aggregating data at the leader level

Measures	<i>F ratio</i>	<i>r_{WG(J)}, uniform</i>		Variance of the alternative null distribution ^a	<i>r_{WG(J)}, slight skew</i>		ICC(1)	ICC(2)
		<i>Mean</i>	<i>SD</i>		<i>Mean</i>	<i>SD</i>		
Humility – peers (7) ^b	3.65***	0.85	0.16	2.90	0.79	0.23	0.27	0.73
Humility – subordinates (7) ^b	1.74**	0.89	0.13	2.90	0.83	0.21	0.19	0.43
Balanced processing – subordinates (7) ^b	1.52*	0.87	0.20	2.90	0.81	0.28	0.14	0.34
Trust in leader – subordinates (7) ^b	1.76**	0.91	0.14	2.90	0.87	0.19	0.20	0.43

Notes:

SD: standard deviation of $r_{WG(J)}$ values.

^aVariance estimates for the measure-specific null distributions were taken from LeBreton and Senter (2008).

^bNumbers represent the number or response options.

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

All $r_{WG(j)}$ values relative to the uniform distribution (range: 0.85 – 0.91) are above the cutoff value of 0.70 (Table 2). Taking into account the “revised standards” suggested by LeBreton and Senter (2008, Table 3, p. 836), the inter-rater agreement for all variables is strong or very strong. The percentage of $r_{WG(j)}$ values that exceed the cutoff of 0.70 (or 0.60) is 83.3% (or 90.7%), 81.7% (81.7%), 81.2% (87.5%), and 91.7% (95.8%), respectively for humility as reported by peers, and for humility, balanced processing, and trust as reported by subordinates.

When the slightly skewed distribution is considered, all $r_{WG(j)}$ values (range: 0.79 – 0.87) are also greater than the cutoff value of 0.70. Thus, inter-rater agreement may be considered strong (LeBreton & Senter, 2008). The percentage of $r_{WG(j)}$ values that exceed the cutoff value of 0.70 (or 0.60) is 74.1% (or 81.5%), 83.3% (89.6%), 77.1% (79.2%), and 87.5% (91.7%), respectively for humility as reported by peers, and for humility, balanced processing, and trust as reported by subordinates. All ICC(1) values (range: 0.14 – 0.27) are greater than the threshold of 0.12 (Michel, Lyons, & Cho, 2011). They may be considered medium-large (LeBreton & Senter, 2008; Murphy, Myers, & Wolach, 2012). However, only one ICC(2) value (0.73, humility as reported by peers) is greater than 0.70, the others being low. In spite of these findings relative to ICC(2), the ICC(1) and $r_{WG(j)}$ values justify aggregating the data. Considering that that ICC(2) is a function of unit size (Bliese, 2000; Glick, 1985), low ICC(2) are not uncommon when unit sizes are small, which is the case in this study. Furthermore, some researchers (see Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010) have suggested that low ICC(2) does not prevent aggregation when aggregation is justified by theory (Biemann et al., 2012; Braun et al., 2012; Fulmer & Gelfand, 2012; Shamir & Lapidot, 2003), $r_{WG(j)}$ values are high, and between-group variance is significant. These three conditions are observed in the present study (Table 2).

Findings

Table 3 presents means, standard deviations, and correlations. Humility as reported by subordinates is lower than self-reported humility and humility as reported by peers and the supervisor. The more lenient/benevolent informants are the supervisors. The leaders described themselves in the same way as peers do, better than the subordinates do, and worse than the supervisors do. Age correlates negatively with trust, although only at the 0.10 level. Self-reported humility correlates with humility as reported by peers, but not with humility as reported by the supervisor and by the subordinates. Humility as reported by the supervisor correlates positively with humility as reported by peers, and humility as reported by peers correlates positively with humility as reported by subordinates. In short, the several measures of humility are uncorrelated or weakly correlated.

The positive correlation between self-reported humility and the three measures of inflated comparative humility, as well as the positive correlation between these measures is natural considering how inflated comparative humility is measured (i.e., self-reported humility minus others-reported humility). For the same reason, the negative correlation between humility as reported by each type of informant and the correspondent inflated comparative humility is also natural. Self-reported humility, as well as humility as reported by the supervisor, does not correlate with balanced processing or with trust, while humility as reported by peers and by subordinates does have a positive correlation. The inflated comparative humility-supervisor does not correlate with balanced processing or with trust, while inflated comparative humility-peers and inflated comparative humility-subordinates has a negative correlation. Balanced processing and trust intercorrelate positively.

Table 3
Means, standard deviations and correlations

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender (0: female; 1: male)	-	-	-	-	-	-	-	-	-	-	-	-
2. Age (years)	35.15	4.12	0.02	-	-	-	-	-	-	-	-	-
3. Humility (self-reported)	5.40	0.80	0.10	-0.10	-	-	-	-	-	-	-	-
4. Humility (reported by the supervisor)	5.65	0.87	0.04	-0.19	0.13	-	-	-	-	-	-	-
5. Humility (reported by peers)	5.40	0.67	0.11	-0.17	0.27	0.36	-	-	-	-	-	-
				*	*	**						
6. Humility (reported by subordinates)	5.06	0.83	0.20	-0.17	0.03	0.06	0.29	-	-	-	-	-
						*	*					
7. Inflated compar. humility-supervisor	-0.26	1.10	0.04	0.07	0.62	-0.69	-0.09	-0.02	-	-	-	-
						**	**					
8. Inflated compar. humility-peers	0.00	0.90	0.01	0.03	0.70	-0.15	-0.51	-0.19	0.62	-	-	-
						**	**	**	**			
9. Inflated comp. humility-subordinates	0.35	1.13	-0.07	0.05	0.69	0.05	-0.03	-0.71	0.46	0.63	-	-
						**	**	**	**	**		
10. Balanced processing	5.43	0.76	-0.12	-0.12	-0.12	0.16	0.47	0.31	-0.22	-0.46	-0.31	-
							**	*	**	**	*	*
11. Trust in leader	5.80	0.73	-0.09	-0.22#	-0.08	0.04	0.33**	0.35**	-0.09	-0.32*	-0.31	0.77
							**	**	*	*	*	**

#p<0.10

*p<0.05

**p<0.01

***p<0.001

Due to the low number of informants per leader, multilevel analysis was not performed (Bickel, 2007). Instead, hierarchical regression analyses were carried out to test how humility and inflated comparative humility predict both balanced processing and trust, with age and gender as control. First, we tested which measure of humility is the best predictor (column/step 2a, Tables 4 and 5). In predicting balanced processing (Table 4), humility as reported by peers was found to be the best predictor. Humility as reported by subordinates also predicts balanced processing, although only at the 0.10 level. Self-reported humility also predicts balanced processing, although the Beta is negative, a finding inconsistent with the non-significant correlation between both variables (Table 3). The findings are similar for predicting trust (Table 5), with the difference that the Beta of self-reported humility is non-significant.

Table 4
Regression analyses – for predicting balanced processing

Steps→	1	2a	2b	3b	3c	3d	3e
Age	-0.11	-0.18	-0.21	-0.18	-0.18	-0.21#	-0.19
Gender (0:female; 1: male)	-0.11	-0.02	0.00	-0.02	-0.02	0.00	-0.06
Humility (self-reported)		-0.24*	-	-	-	-	-
Humility (reported by the supervisor)		0.01	0.01	0.01	0.00	0.02	0.04
Humility (reported by peers)		0.48***	0.42**	0.28*	0.39**	0.40**	0.29*
Humility (reported by subordinates)		0.21#	0.22#	0.21#	0.18	0.24#	0.18
Inflated comparative humility-peers				-0.27*	-	-	-
Being (1) vs. not being (0) “truly humble” (i.e., modest)					0.15	-	-
Being (1) vs. not being (0) “moderately humble” (i.e., moderately modest)					-	0.12	-
Being (1) vs. not being (0) “narcissistic” (i.e., immodest)					-	-	-0.34**
F	0.68	8.78**	3.82**	4.00**	3.43**	3.33**	4.79***
R ²	0.03	0.34	0.29	0.34	0.31	0.30	0.38
R ² change		0.31	0.26	0.05	0.02	0.01	0.09

#p<0.10

*p<0.05

**p<0.01

***p<0.001

Table 5
Regression analyses – for predicting trust in leaders

Steps→	1	2a	2b	3b	3c	3d	3e
Age	-0.09	-0.16	-0.17	-0.16	-0.16	-0.18	-0.16
Gender (0:female; 1: male)	-0.22	-0.15	-0.14	-0.15	-0.15	-0.14	-0.18
Humility (self-reported)		-0.16	-	-	-	-	-
Humility (reported by the supervisor)		-0.09	-0.10	-0.09	-0.10	-0.09	0.07
Humility (reported by peers)		0.32*	0.28*	0.19	0.27#	0.27#	0.18
Humility (reported by subordinates)		0.27*	0.28*	0.27*	0.26#	0.30*	0.25*
Inflated comparative humility-peers				-0.18	-	-	-
Being (1) vs. not being (0) “truly humble” (i.e., modest)					0.09	-	-
Being (1) vs. not being (0) “moderately humble” (i.e., moderately modest)					-	0.11	-
Being (1) vs. not being (0) “narcissistic” (i.e., immodest)					-	-	-0.26*
F	1.50	2.69*	2.92*	2.69*	2.48*	2.53*	3.16**
R ²	0.06	0.26	0.24	0.26	0.25	0.25	0.29
R ² change		0.20	0.18	0.02	0.01	0.01	0.05

#p<0.10

*p<0.05

**p<0.01

***p<0.001

To assess the predictive value of inflated comparative humility, we adopted two procedures. First, we separately included each inflated comparative humility score (including the three scores simultaneously was not appropriate considering that all include self-reported humility data) after including humility as reported by the three kinds of informants. Only inflated comparative humility-peers predicts unique variance of balanced processing: leaders who self-describe as more humble than the peers do, are considered by their subordinates as adopting less balanced processing behaviors. Humility as reported by peers remains a significant predictor. Humility as reported by subordinates also remains a significant predictor, although only at the 0.10 level. Inflated comparative humility-peers also predicts 2% of variance of trust, although the Beta is non-significant. Humility as reported by subordinates remains as a significant predictor, after including inflated comparative humility-peers.

For the second procedure, we created three levels of inflated comparative humility-peers: (1) low/negative inflated humility means 1 standard deviation below the mean [“truly humble” leaders, (Davis et al., 2013)]; (2) high inflated humility means 1 standard deviation above the mean (“narcissistic” leaders); and (3) medium inflated humility means the intermediate values (“moderately humble” leaders). We then created three dummy variables: (1) being versus not being (1 versus 0) a “truly humble” leader; (2) being versus not being (1 versus 0) a “moderately humble” leader; (3) being versus not being (1 versus 0) a “narcissistic” leader. Only being versus not being a “narcissistic” leader predicts both balanced processing (Beta: -0.34, $p < 0.01$; unique variance: 9%) and trust (Beta: -0.26, $p < 0.05$; unique variance: 5%): immodesty decreases balanced processing and trust. The predictive values are higher when the “being versus not being narcissistic” variable is included (column 3e) than when inflated comparative humility-peers is considered (column 3b). In predicting balanced processing and trust, what matters most is if the leader is versus is not *immodest*.

For a better understanding of how the immodesty effect emerges, we conducted a variance analysis to compare balanced processing and trust demonstrated by leaders ascribed to each level of the inflated comparative humility-peers (Table 6).

Table 6
Comparing leaders from the three levels of inflated comparative humility-peers

	Truly humble leaders (n=8)	Moderately humble leaders (n=37)	Narcissistic leaders (n=8)	F
Inflated comparative humility-peers	-1.3	0.0	1.4	53.99***
Self-reported humility	4.4	5.4	6.2	11.62***
Humility as reported by peers	5.8	5.4	4.8	4.74*
Balanced processing as reported by subordinates	5.8	5.5	4.6	7.47***
Trust as reported by subordinates	5.9	5.8	5.2	3.28*

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

“Truly humble” leaders (Davis et al., 2013), those who describe themselves as *less* humble as peers do, are described by subordinates as adopting more balanced processing behaviors and being more trustful. “Narcissist” leaders, those who describe themselves as *more* humble as peers do, are described by subordinates as adopting *less* balanced processing behaviors and being less trustful. “Moderately humble” leaders, those who

describe themselves as being as humble as peers do, are described by subordinates as adopting medium levels of balanced processing and trustful behaviors. The largest differences on balanced processing and trust are those differentiating narcissistic leaders from the other two profiles. The finding that the differences between truly humble leaders and moderately humble leaders was smaller suggests that the immodesty effect is stronger than the modesty effect.

ANALYSIS, DISCUSSION AND CONCLUSIONS

Making sense of the findings

Before proceeding, we note that our findings emerge from a small sample size, and that the study uses empirical data collected indirectly within a leadership development program. Consequently, some of the arguments presented next may be considered somewhat speculative and should be tested against data from studies conducted with more sophisticated methodological designs. On the other hand, given the object of the data collection, one can expect a genuine interest in the process from the participants. Nonetheless, we consider that five main findings are worth discussing.

The first relevant finding is that humility predicts both leaders' balanced processing and trust in leaders. Basford et al. (2013, in print) argued that humility is an under-researched topic that "may play an important role in improving understanding of leader-follower relations". Our paper corroborates this prediction, showing that more versus less humble leaders are described by subordinates as adopting more balanced processing behaviors and as being more trustworthy. Considering that both balanced processing as a dimension of authentic leadership (Leroy, Palanski, & Simons, 2012; Peterson, Walumbwa, Avolio, & Hannah, 2012; Walumbwa, Luthans, Avey, & Oke, 2011) and trust in leaders (Braun et al., 2012; Dirks & Skarlicki, 2004) have been associated with several positive employees' attitudes and behaviors and with individual and collective performance, our study contributes to understanding how humility may support leadership effectiveness.

The second relevant finding is that self-reported humility does not correlate significantly with informants-reported humility (Table 1). The finding is partially consistent with the literature showing low self-other agreement. For example, Rowatt et al. (2006) found moderate correlations between self-reported and informants-reported humility, informants' ratings being higher. De Vries, Lee and Ashton (2008) found a relatively high agreement ($r = 0.60$) between self-reported and informants-reported humility when informants were romantic partners, but lower agreement when informants were casual acquaintances (0.22), coworkers (0.28) and friends (0.30). De Vries (2012, p. 810) summarized the empirical evidence arguing: (a) one consistent finding in work settings is a relatively low level self-other agreement on leadership, leadership behaviors and personality; (b) as a consequence, "it is almost impossible, at least in work settings, in which people are not strongly acquainted, to find any substantial relations between *different* variables, such as personality and leadership" (italics in the original). Thus, our study corroborates that researchers must be cautious when measuring humility through self-report measures, mainly when leaders are the target of observation. As we discuss below, this does not mean that self-reported humility should not be considered for measuring humility: when compared with humility as reported by informants, self-reported humility may provide additional data about an individual's (im)modesty/humility.

The third relevant finding is that different informants described the leaders' humility differently. The several measures of humility are uncorrelated or weakly correlated, raising the question of which kind of informants are more appropriate to assess leader humility. The results of the regression analyses (Tables 4 and 5) give reason to believe that peers and subordinates are the best raters. Scores emerging from such informants predict leaders' balanced processing and/or trust in leaders, while humility as reported by supervisors does not. The findings make sense, for at least three reasons.

First: both dependent variables relate to how leaders interact with and behave towards subordinates. It is likely that subordinates describe/react toward their leaders according to how they view them as more or less humble. Humility as reported by subordinates may represent a kind of "relational humility" (Davis et al., 2011; 2010), a "personality judgment" carried out by subordinates that contributes to how the subordinates perceive, describe, and relate to their leaders. This finding may also explain why humility as reported by subordinates is a better predictor of trust (a more "relational" than a decisional variable; Dirks and Skarlicki, 2004) than of balanced processing (a more decisional than "relational" variable). Below, we discuss the relational- versus trait-humility issue in more detail.

Second: considering the arguments presented in the "Modesty and immodesty effects" section, and taking into account the power balance between peers, it is plausible to assume that peers are better equipped to report leader humility as trait (Davis et al., 2011; 2010) more accurately than the subordinates (and supervisors) do. Leaders' relational-humility as experienced by subordinates may lead subordinates to develop more trustful perspectives about their leaders, while leaders' trait-humility as reported by peers may lead leaders to adopt more balanced processing behaviors that are recognized by subordinates. If this reasoning is valid, one may suppose that relational humility is a better predictor of dependent variables that are more "relational" in nature, while trait-humility is a better predictor of dependent variables that are more "decisional" and "objective" in nature.

Third: humility as reported by supervisors does not predict balanced processing or trust. A possible explanation is that, acknowledging that their answers were not anonymous, supervisors biased their ratings. The finding that humility as reported by supervisor is greater than self-reported humility and humility as reported by subordinates and peers (Table 3) supports this explanation. An alternative explanation (also supported in the highest score emerging from subordinates data) is that power inequality causes leaders to behave more humbly toward their supervisors than toward their subordinates and peers. Therefore, humility as reported by supervisors may not represent the leaders' true (trait) humility. Humility as reported by supervisors may also not represent relational humility (Davis et al., 2011; 2010) with relevance for the dependent variables studied here. This does not mean that humility as reported by supervisors is not relevant. One may suspect that it is relevant for predicting variables related to the interaction between leaders and their supervisors.

Fourth: being versus not being immodest predicts unique variance of both dependent variables. More specifically, leaders who are immodest are described by their subordinates as adopting less balanced processing behaviors and being less trustful (Tables 4 and 5). The data suggests that, while self-reported humility is not, per se, a valid measure of humility, the immodesty score resulting from the distance between self-reported humility and humility as reported by peers is. The data also suggests that immodesty has stronger effects than modesty, at least for predicting the dependent variables included in our study.

This does not mean that modesty is not relevant. Future studies with larger samples and other dependent variables may clarify this issue.

Fifth: the “modesty effect” (Davis et al., 2013; Tangney, 2009) may not be as pervasive as some literature suggests. If the “modesty effect” would operate pervasively, the correlations between self-reported humility and informants-reported humility would be negative. In fact, they are low and not significant (Table 3). However, our findings show that (im)modesty characterizes some leaders (Table 6) and has consequences for leader balanced processing and trust. Immodest leaders adopt less balanced processing behaviors and are described by subordinates as less trustful. In short: while most leaders self-describe as peers describe them (moderately humble leaders are the most frequent in the sample; Table 6), the few who are immodest are described less favorably by their subordinates in terms of balanced processing and trust.

Sixth: relates to the difference between relational humility and trait humility. The former has been defined as referring to one individual’s perceptions of another individual’s level of humility (Davis et al., 2013). The latter has been defined as representing the reputation of an individual and is estimated by examining consensus among the reports of, at least, two informants. In this study, we focused on one relational-humility score (a single supervisor described each leader) and two trait-humility scores (at least two subordinates and three peers described each leader). Peers are consensual among them, and subordinates are also consensual among them (although the low ICC(2) requires interpreting the findings cautiously; Table 2). However, subordinates and peers reach different consensuses. In fact, the correlation between humility as reported by peers and humility as reported by subordinates is low (Table 3). The low Cronbach Alpha of both scores (0.59) raises the question of how to measure trait-humility. Different kinds of raters reach disparate consensual *trait* scores. One possible interpretation of the findings is that individuals may have different humility *traits* in different *relationships*, namely when different power relations are at stake. Thus, the dichotomy of trait-humility versus relational-humility may not represent all the nuances of humility as displayed by leaders and experienced by different observers/interlocutors. Future studies may explore this issue by using, for example, different criteria to study the impact of different humility-*traits* (i.e., different patterns of humble behaviors) in different *relationships*.

Limitations and future studies

Future studies are necessary to address the limitations of the current study, clarify issues raised here, and explore other research avenues. First: the sample is small. Consequently, future studies should use larger samples to explore the issues raised by this study more deeply.

Second: the data was derived from a (small) sample of leaders who participated in a leadership development program. Further, the informants may have been biased as they were self-selected by the leaders themselves. Future studies should therefore seek to avoid such possible bias through the random selection of informants. The convenience method used here also makes the measurement instruments questionable. Future studies should use measures already validated and with wider coverage in terms of content and dimensions. Both humility and trust in leaders are multi-dimensional constructs, yet we treated them as one-dimensional. The Cronbach Alpha for self-reported humility is lower than 0.70 and although the value (0.62) is considered acceptable for some authors (Price & Mueller,

1986), future studies should use more established measures (e.g., Davis et al., 2011; de Vries et al., 2008; Lee & Ashton, 2004, 2006).

Third: some leaders were rated by a small number of subordinates which may explain why ICC(2) for both dependent variables and humility as reported by subordinates are lower than suitable (Table 2). Future studies should include at least six subordinates for each leader. In this way, at least three could provide inputs to measure the independent variable and the other three could provide data to measure dependent variables. With a larger number of subordinates, it also is possible to use data from different subordinates to measure each variable of the study. Consequently, it will be possible to test how balanced processing of information mediates the relationship between humility and trust. In fact, balanced processing may be an expression of leader humility (Davis et al., 2013) and give rise to higher levels of followers' trust in their leaders (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Jung & Avolio, 2000).

Fourth: future studies should include other measures of leadership effectiveness as dependent variables, including employee and team performance. Future studies may also include other individual characteristics (e.g., Big Five, self-esteem, narcissism) for control. The HEXACO (honesty-humility; emotionality, extraversion, agreeableness, conscientiousness; openness to experience; de Vries et al., 2008; Lee and Ashton, 2004, 2006) personality inventory is a valid possibility. Future studies may also test how humility interacts with other virtues and psychological strengths (e.g., courage, perseverance) in producing effects on followers. Collins (2001) suggested that great leaders combine humility with strong personal will. One may hypothesize that leaders' humility produces better results when leaders are also courageous and perseverant, and worse results when such qualities are lacking. Future studies may thus consider humility as a dimension of servant leadership (Mittal & Dorfman, 2012) and/or include other virtues. How the individuals/subordinates' values and personality moderate the relationship between humility and dependent variables may also be tested. For example, do humble subordinates, or those who value the virtue of humility more, respond more favorably to humble leaders? Do followers characterized by higher versus lower agreeableness react more favorably to humble leaders?

Fifth: only one dimension of authentic leadership was considered. Future studies may also include other dimensions (self-awareness, relational transparency and internalized moral perspective) of authentic leadership (Avolio & Mhatre, 2012; Morris et al., 2005), in addition to balanced processing. Are humble leaders more self-aware, more relationally transparent, and adopt a more internalized moral perspective?

Sixth: being cross-sectional, our study does not peremptorily establish the causality nexus posited here. One may suppose, for example, that leaders behave more humbly (and adopt more balanced processing behaviors) toward subordinates/teams that they believe have trust in them as leaders. Future studies should use longitudinal and experimental or quasi-experimental designs.

Concluding remarks

Our study makes several contributions that future research may continue exploring. First: self-reported humility is not a suitable way to measure humility. Rather, comparing self-reported humility with informants-reported humility seems to represent a valid path to scrutinize how humble a leader is. Although the "modesty effect" is not as common as sometimes suggested, it is important to take into account when considering if a leader is

immodest or not. Immodesty has consequences for how leaders adopt balanced processing behaviors and for subordinate assessments of the leader as someone who can be trusted.

Second: different informants assess leaders' humility differently. Considering theoretical arguments and our empirical data, peers are potentially the best raters of trait-humility. However, data from subordinates may also be appropriate to test how relational-humility predicts variables related to subordinates perceptions of their leaders. We also conjecture that different *relationships* may be associated to different *humility* traits and a leader may have different humility traits as perceived by different observers.

Third: humility is relevant for leadership and explains how leaders adopt balanced processing behaviors in decision-making and develop better trustful relationships with their subordinates. Consequently, using humility for selecting humble leaders may be advisable. Morris et al. (2005) suggest that "bringing humility to leadership" was needed. Yet very few empirical studies have actually been published in the field since their call. Our study shows that the Morris et al.'s suggestion makes sense and that more empirical research should be "brought" to the field.

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