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# The Psychological Structure of Humility

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Psychological inquiry into humility has advanced considerably over the past decade, yet this literature suffers from 2 notable limitations. First, there is no clear consensus among researchers about what humility is, and conceptualizations vary considerably across studies. Second, researchers have uniformly operationalized humility as a positive, socially desirable construct, while dismissing evidence from lay opinion and theological and philosophical traditions suggesting that humility may also have a darker side. To redress these issues, we conducted the first comprehensive, bottom-up analysis of the psychological structure of humility. Here we report 5 studies (total  $N = 1,479$ ) that involve: (a) cluster analysis and categorization of humility-related words, generated by both lay persons and academic experts; (b) exploratory and confirmatory factor analyses of momentary and dispositional humility experiences; and (c) experimental induction of a momentary humility experience. Across these studies, we found converging evidence that humility can take 2 distinct forms, which we labeled “appreciative” and “self-abasing” humility. *Appreciative humility* tends to be elicited by personal success, involve action tendencies oriented toward celebrating others, and is positively associated with dispositions such as authentic pride, guilt, and prestige-based status. In contrast, *self-abasing humility* tends to be elicited by personal failure, involves negative self-evaluations and action tendencies oriented toward hiding from others’ evaluations, and is associated with dispositions such as shame, low self-esteem, and submissiveness. Together, these findings provide a systematic and empirically grounded understanding of humility.

*Keywords:* appreciative humility, emotion, humility, measurement, self-abasing humility

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Psychological inquiry into the construct of humility has advanced considerably over the past decade. At the turn of the century, humility was largely neglected by the psychological sciences, with few empirical articles even broaching the subject (Tangney, 2000). More recently however, the topic has gained prominence within the positive psychology movement, as researchers conceptualized humility as a character strength that could promote human flourishing (Peterson & Seligman, 2004). In addition, personality psychologists have identified humility as a core component of one of the major personality dimensions in the HEXACO model, which has garnered empirical support across languages and cultures (Ashton & Lee, 2007).

Building on these accounts, researchers across social-personality psychology have begun to document the relevance of humility to a range of currently studied topics, including religion

and spirituality (e.g., Hopkin, Hoyle, & Toner, 2014; McElroy et al., 2014), psychological and physical well-being (Jankowski, Sandage, & Hill, 2013; Krause, 2010; Krause, Pargament, Hill, & Ironson, 2016), pro-social behavior (e.g., Exline & Hill, 2012; LaBouff, Rowatt, Johnson, Tsang, & Willerton, 2012), and inter-group relations (e.g., Hook, Davis, Owen, Worthington, Jr., & Utsey, 2013; Hook & Watkins, Jr., 2015). Researchers have also dedicated considerable efforts toward developing tools for measuring humility (e.g., Davis et al., 2011; McElroy et al., 2014; Rowatt et al., 2006; see Davis, Worthington, Jr., & Hook, 2010, and Davis & Hook, 2014, for reviews). Not surprisingly, then, over the past few years numerous empirical studies examining the causes and consequences of humility have appeared in the field’s top journals (e.g., Davis et al., 2013; Kesebir, 2014; Kruse, Chancellor, Ruberton, & Lyubomirsky, 2014; Tong et al., 2016), leading several researchers to suggest that the study of humility has “turned a corner” (Chancellor & Lyubomirsky, 2013, p. 819), and appears en route to becoming one of social-personality psychology’s hot topics.

Despite this substantial uptick in interest and empirical research, however, the rapidly growing literature on humility suffers from two notable limitations. First, there is no clear consensus about precisely what kind of construct humility is. It has variously been described as: a “relationship-specific personality judgment” (e.g., Davis et al., 2010, p. 248); a “personality trait” (e.g., Kesebir,

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2014, p. 611); a “hypoegeic state” (i.e., characterized by reduced self-focus; Kruse et al., 2014, p. 805); an “emotion” (e.g., Saroglou, Buxant, & Tilquin, 2008, p. 168); a form of “spiritual intelligence” (Emmons, 1999, p. 171); an “accurate assessment of one’s abilities and strengths” (Tangney, 2000, p. 73); and a “virtue” (e.g., Chancellor & Lyubomirsky, 2013, p. 819; Peterson & Seligman, 2004).<sup>1</sup> Although these definitions are not necessarily contradictory, they do suggest that our field is devoting a great deal of time and resources toward studying a construct that to date has defied consensual understanding. Furthermore, several of these definitions lack clarity; for example, the suggestion that humility is a *virtue* raises questions about what, exactly, a *virtue* is, beyond a socially valued attribute. In fact, *virtue* may best be considered an evaluative term—used to delineate positive, socially desirable characteristics of a person from more negative, socially undesirable ones (e.g., Peterson & Seligman, 2004)—such that using it as a descriptor for humility leaves open the question of what humility is, other than something positive (Weidman & Tracy, in press).

Second, and relatedly, the bulk of this prior work has uniformly conceptualized humility as a positive, socially desirable (i.e., *virtuous*) construct (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004). In doing so, psychological scientists have dismissed evidence from lay opinion and theological and philosophical tradition suggesting that humility might also have a darker, more negative or problematic side (e.g., Emmons, 1999; Peterson & Seligman, 2004; Tangney, 2000). To date, empirical studies have not directly addressed this issue by examining the psychological structure of humility: the thoughts, feelings, and behaviors that constitute this construct. Here, we redress these gaps in the literature by providing the first bottom-up, empirical examination of the psychological structure of humility. Across five studies, using data from lay persons and academic experts, we provide the first systematic evidence that humility has two distinct dimensions, one involving generally prosocial, affiliative feelings of *appreciation* for others, and another involving more antisocial, withdrawal-oriented feelings of *self-abasement*. We further show that each of these dimensions is associated with a distinct set of thoughts, emotions, and action tendencies.

### Does Humility Have a Dark Side?

As noted above, the extant literature on humility reveals one resounding consensus about the construct: It is positive and socially desirable, conferring benefits both intrapsychically (e.g., facilitating an accurate self-view and lack of egoism; Peterson & Seligman, 2004; Tangney, 2000) and interpersonally (e.g., facilitating positive emotion expression and pro-social behavior; Chancellor & Lyubomirsky, 2013; Davis et al., 2010). Building on these accounts, researchers have operationalized humility in terms of seven distinct content clusters capturing this prosocial, desirable content (i.e., other-oriented/unselfish, openness/lack of superiority, interpersonal modesty, accurate view of self, willing to admit mistakes/teachable, regulation of need for status, and spiritual/existential), and developed self-report scales to measure humility by targeting these domains (Davis & Hook, 2014). Perhaps not surprisingly, this unambiguously positive conceptualization has yielded findings of a range of intrapsychic and interpersonal benefits of humility. Studies show, for example, that humility can (a) buffer against death anxiety by reducing egoism (Kesebir, 2014),

(b) reinforce feelings of gratitude (Kruse et al., 2014), (c) strengthen relationships by promoting forgiveness in close bonds and likability in new acquaintanceships (Davis et al., 2013), (d) promote a range of prosocial behaviors such as helping and charitable giving (Exline & Hill, 2012; LaBouff et al., 2012), (e) protect against everyday stressors and promote psychological and physical health and well-being (Jankowski, Sandage, & Hill, 2013; Krause, 2010; Krause, 2014; Krause et al., 2016), and (f) facilitate self-control (Tong et al., 2016).

Despite these findings, however, there is reason to suspect that humility might also have a darker side, with less uniformly prosocial and adaptive consequences. First, as noted by several theorists, dictionary definitions refer to humility as involving a low opinion of oneself and displaying meekness (Tangney, 2000), and the word humility has roots in the Latin word *humilitatem*, meaning lowness, small stature, and insignificance (Etymonline.com, 2015). Second, in the disciplines of theology and philosophy where humility has been a focal topic of inquiry for centuries, numerous theorists have proposed that humility includes a sense of self-abasement. In the Early Common Era and Middle Ages, religious scholars conceptualized humility as adopting a low opinion of oneself, correspondent with frequent and demonstrative self-abasement before a greater, divine power (Isiah: 66:2; Matthew: 23:12; see also Aquinas, 1265/2002; de Clairvaux, 1120/1929; Ignatius, 1548/1964); later classical philosophical accounts followed suit (Hume, 1739/1911). More recently, contemporary philosophers have highlighted an important role of self-deprecation, low self-worth, and submissive behavior (e.g., Richards, 1988; Tucker, 2015). Tucker (2015) presents a particularly intriguing account, arguing that humility has two distinct sides, one involving submissive and passive behavior—a conceptualization that aligns closely with dictionary and etymological accounts, as well as prior theological accounts—and a second involving dedication and commitment to valued principles.

Furthermore, even within psychology there exists indirect evidence for a darker or more self-abasing side of humility. Two studies have taken exploratory approaches to mapping the content domain of humility and modesty (which is viewed as a closely related though distinct construct; Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004; Tangney, 2000), and each has uncovered traces of self-abasement. First, in Exline and Geyer’s (2004) survey of individuals’ perceptions of humble people, although many of the qualities participants listed were prosocial in nature (e.g., kind/caring toward others, not boastful, unselfish/sacrificing), some were oriented toward avoidance, such as *timid*, *unassertive*, and *prone to shame and embarrassment*. Correspondingly, in Gregg, Hart, Sedikides, and Kumashiro’s (2008) prototype analysis of behavioral modesty, participants categorized their descriptions of a modest person into prosocial, affiliative groupings (e.g., solicitous, not boastful, likable, gracious) and groupings more associated with avoidance and

<sup>1</sup> Several researchers have also conceptualized *intellectual humility* as a distinct form of humility (e.g., Davis et al., 2016; Hopkin et al., 2014; McElroy et al., 2014). However, given that intellectual humility is typically viewed as a subcomponent of humility, pertaining to the specific domain of knowledge and opinions (Davis & Hook, 2014), we do not treat it as a distinct conceptualization here.

a negative self-view (e.g., shy, insecure, and embarrassed by praise).

Despite these findings, both research teams interpreted their results to suggest a unidimensional construct. Exline and Geyer (2004) noted that “participants reported consistently positive views of humility” (p. 108), and Gregg and colleagues (2008) summarized their findings by stating that “most of the categories that typified modesty were seemingly positive” (p. 983). It thus appears that within the psychological sciences, there is some degree of reluctance to consider that humility might have a more negative or self-abasing side—in addition to a more positive, other-appreciating side—despite the prominence of such dual-sided accounts in dictionary definitions, etymological lineage, theological and philosophical scholarship, and indirect hints from empirical data.<sup>2</sup>

Importantly, no prior study has directly addressed this question by using a bottom-up approach to test whether the thoughts, feelings, and behavioral tendencies that occur with humility include two distinct dimensions. Based on our review above, humility may in fact have two dimensions: one characterized by a lack of egotism about one’s successes and linked to prosocial and affiliative tendencies (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004; Tangney, 2000), and another involving a negative self-view and linked to withdrawal oriented behavioral tendencies (Exline & Geyer, 2004; Gregg et al., 2008; Richards, 1988; Tucker, 2015).

These expectations are consistent with a view of humility as a complex emotional experience, or what might be best understood as an *emotion plot*. Compared with more cognitively simple or narrower distinct emotions, emotion plots are thought to be more complex, involving a relatively clear script of events and a particular cast of characters, and comprising several narrower distinct emotional experiences (Ekman, 1992, p. 194; see also Oatley & Johnson-Laird, 1987). According to Ekman (1992), jealousy provides an illustrative example of an emotion plot; if we know that a person is experiencing jealousy, we also know that he or she is feeling a mix of distinct emotions including anger, fear, or sadness, and we know about a specific set of events that occurred (i.e., a threat to an important relationship), and characters involved (the person’s partner or desired partner, and a third party who threatens that relationship). Conceptualizing humility as an emotion plot is consistent with Saroglou and colleagues’ (2008) conceptualization of humility as an emotion, but the emotion plot account extends this approach by allowing for a multifaceted emotional experience and for the possibility that experiences of humility involve a specific series of events or characters.

To illustrate the utility of this conceptualization, consider President Barack Obama’s 2009 Nobel Peace Prize acceptance speech:

I receive this honor with deep gratitude and great humility. . . . Compared to some of the giants of history who’ve received this prize—Schweitzer and King; Marshall and Mandela—my accomplishments are slight. . . . I cannot argue with those who find these men and women . . . to be far more deserving of this honor than I.

This quotation demonstrates the key plotlines that may be involved in a humility experience, and also captures several of the components that we might expect to comprise both forms of humility—appreciative and self-abasing. First, Obama’s speech follows a specific kind of event: one that could be classified as both a personal success (i.e., he won the Nobel Prize) and as a

personal failure (i.e., he sees himself as falling short of the standard set by prior Nobel Prize winners). The notion that humility could follow either a personal success or failure—or an event that is perceived in both ways—is consistent with prior work suggesting that when people describe their humility experiences, they often recall scenarios that follow either a personal success or failure (Exline & Geyer, 2004). Our distinction between two forms of humility is also consistent with this suggestion, as the more prosocial dimension, appreciative humility, might be expected to follow appraisals of success, whereas the more antisocial dimension, self-abasing humility, might follow appraisals of failure.

Second, Obama’s statements suggest that he is engaging in a specific set of cognitive processes; he is making a self-evaluation, assessing his own accomplishment and examining how it fares in comparison to accomplishments of historical luminaries who have previously won the Nobel Prize. This is consistent with prior accounts suggesting that humility involves *accurate self-knowledge*, or a willingness to accept both positive and negative information diagnostic of the self’s qualities or attributes in a nondefensive manner, free of resistance or self-enhancement (e.g., Chancellor & Lyubomirsky, 2013; Peterson & Seligman, 2004; Tangney, 2000). In our proposed two-dimensional account, we expect that appreciative humility involves a positive self-evaluation, which may lead to co-occurring emotions such as authentic pride, as well as guilt—if the individual feels that he or she is garnering undue accolades compared with more accomplished others (Tangney & Dearing, 2002; Tracy & Robins, 2007). In contrast, self-abasing humility may involve a more negative self-evaluation, eliciting emotions such as shame and embarrassment (Tangney & Dearing, 2002).

Third, Obama’s statements suggest that he is focusing his attention on other people, both in the sense that he attends to the great accomplishments of Nobel Prize winners before him, and that he is aware of how others may view his achievement as falling short of a historical standard. This is consistent with prior conceptualizations of humility as involving an *other-orientation* alongside a focus on the ways in which the individual compares with these others (Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Tangney, 2000). In the two-dimensional account, we would expect that appreciative humility may motivate a desire to celebrate others’ successes and affiliate with others, whereas self-abasing humility may motivate hiding from others’ evaluations.

### The Current Research: Toward a Comprehensive Delineation of Humility

In the present research, we conducted five studies with the goal of providing a comprehensive, bottom-up analysis of the psychological structure of humility. In doing so, we sought to test whether humility comprises a self-abasing side in addition to a more positive other-appreciative side. We predicted that each dimension of humility would involve distinct antecedent events, cognitions, and action tendencies. Specifically, we predicted that appreciative humility would generally occur in response to appraisals of suc-

<sup>2</sup> Indeed, we have encountered this reluctance directly; expert reviewers of a prior version of this article questioned whether feelings of self-abasement are truly part of the humility construct. This feedback motivated us to conduct additional empirical tests of this question.

cess or accomplishment, involve positive self-evaluations, and elicit action tendencies linked to celebrating others and their accomplishments. In contrast, we predicted that self-abasing humility would occur in response to appraisals of failure, involve negative self-evaluations resulting from the recognition of others' superiority, and elicit action tendencies linked to hiding from others' evaluations.

As an initial test of these hypotheses, in Study 1 we collected a large list of humility-related words and tested whether participants' ratings of the similarity among these words indicate two distinct semantic-based groupings, consistent with the theoretical distinction between appreciative and self-abasing humility. If humility indeed consists of two distinct dimensions, then lay conceptualizations should include two distinct semantic clusters, with content mapping onto the theoretical distinction.

In Studies 2 and 3 we tested whether the subjective feelings that occur during actual experiences of humility consist of two distinct dimensions, by asking participants to rate their tendency to experience each of a comprehensive set of humility-related words, both as a momentary response to a single humility-eliciting event (Study 2), and as a chronic dispositional tendency (Study 3). In these studies, we also more closely examined the link between each form of humility and the self-evaluative cognitions, distinct emotions, and other-oriented action tendencies that we expected to distinguish between them. In Study 2, this involved content-coding participants' open-ended narratives for the online self-evaluative thoughts and other-oriented action tendencies that occur during a humility experience. In Study 3, this involved measuring associations between humility and relevant emotional and personality dispositions.

Next, in Study 4 we examined whether the psychological structure of humility uncovered in Studies 1 through 3 using words generated by lay persons would replicate when examining content generated by academic experts in the study of humility outside the realm of psychology. Philosophers and theologians were asked to generate humility-related words and phrases, and naïve judges sorted these words and phrases into categories. Finally, in Study 5 we tested whether we could separately induce experiences of the two humility dimensions, and whether experimentally manipulating these dimensions would result in distinct emotional episodes and behavioral action tendencies.

In sum, by providing the first systematic investigation of the psychological structure of both semantic conceptualizations and subjective experiences of humility, and delineating its profile of eliciting events, self-evaluative thoughts, distinct emotional feelings, and other-oriented action tendencies, the current research marks a critical advance in the empirical study of humility.

## Study 1

Study 1 examined the conceptual structure of humility by exploring how individuals think about its semantic domain. Do individuals conceptualize humility as consisting of two dimensions, and, if so, does the content of these dimensions map onto the theoretical distinction between an appreciative and a more self-abasing humility? To address this question, we began by generating a comprehensive set of humility-related words and then asking participants to rate the semantic similarity of these terms. We then examined whether these words form two distinct clusters, representing different forms of humility.

## Method

**Participants.** Undergraduate students enrolled in psychology courses at the University of British Columbia ( $n = 140$ ; 78% women) participated for course credit.

**Humility words.** Humility-related words were drawn from a Pilot Study involving a separate set of undergraduate participants ( $n = 87$ ; 71% women) who were asked to generate, in an open-ended fashion, words that describe their humility experiences. Specifically, participants were given the following instructions:

Think about the emotion of humility and how you feel when you experience this emotion. Please write down a list of words or phrases that reflect what you think, feel, and do when you feel humility. These words or phrases could be characteristic of the thoughts in your head, the behaviors you show, or the way you feel emotionally and physically.

Participants in the pilot study collectively generated 308 distinct words and phrases; Figure 1 depicts a word cloud for this list, with more frequently listed words appearing larger. For the purposes of obtaining semantic similarity ratings of these words, we trimmed the list to include only those words that were mentioned by at least 4 participants (5% of the sample); this allowed us to omit highly idiosyncratic responses and reduce the number of similarity ratings that participants in the main study were required to perform. This yielded a list of 34 frequently mentioned words. We then eliminated eight more words that clearly reflected broad positive and negative valence states but had little additional substantive content (e.g., "happy," "good"). This iterative process resulted in a final list of 26 words that were retained for inclusion in the study (see Figure 2). To create word pairs for semantic similarity ratings, each of the 26 humility-related words were paired with each other, resulting in 325 pairs of humility-related words.

**Procedure.** Participants were instructed to "rate the following pairs of words or phrases according to how similar in meaning you think they are to each other," on a scale ranging from 1 (*not at all similar*) to 5 (*extremely similar*). To prevent fatigue, the total pool of 325 word pairs was split into two subsets and each participant rated the similarity of word pairs in one of the subsets, containing either 162 ( $n = 65$  participants) or 163 ( $n = 76$  participants) word pairs.

## Results

To test whether participants' semantic similarity ratings would reveal two distinct clusters of humility words, we first aggregated similarity ratings for each word pair across all participants [ $ICC(1, 1) = .98$ ]. We then analyzed these aggregated ratings with hierarchical cluster analysis using the Ward's linkage method based on squared Euclidian distances, across all mean similarity ratings. Hierarchical clustering begins with every word treated as a cluster unto itself, and, at each successive step, similar clusters are merged until all words are merged into a single cluster. The number of clusters that defines the content domain is typically determined by examining the agglomeration coefficients at each stage of clustering. In the present data, a large change in coefficient size—indicating a marked increase in the squared Euclidean distance between successive steps of clustering—occurred in the last step of the clustering schedule (i.e., Step 25), where two clusters were merged into a single cluster solution (the coefficients at steps 22 to 25 were 188.31, 228.74, 293.45, and 483.96, respectively). This pattern of coefficients suggests that, consistent



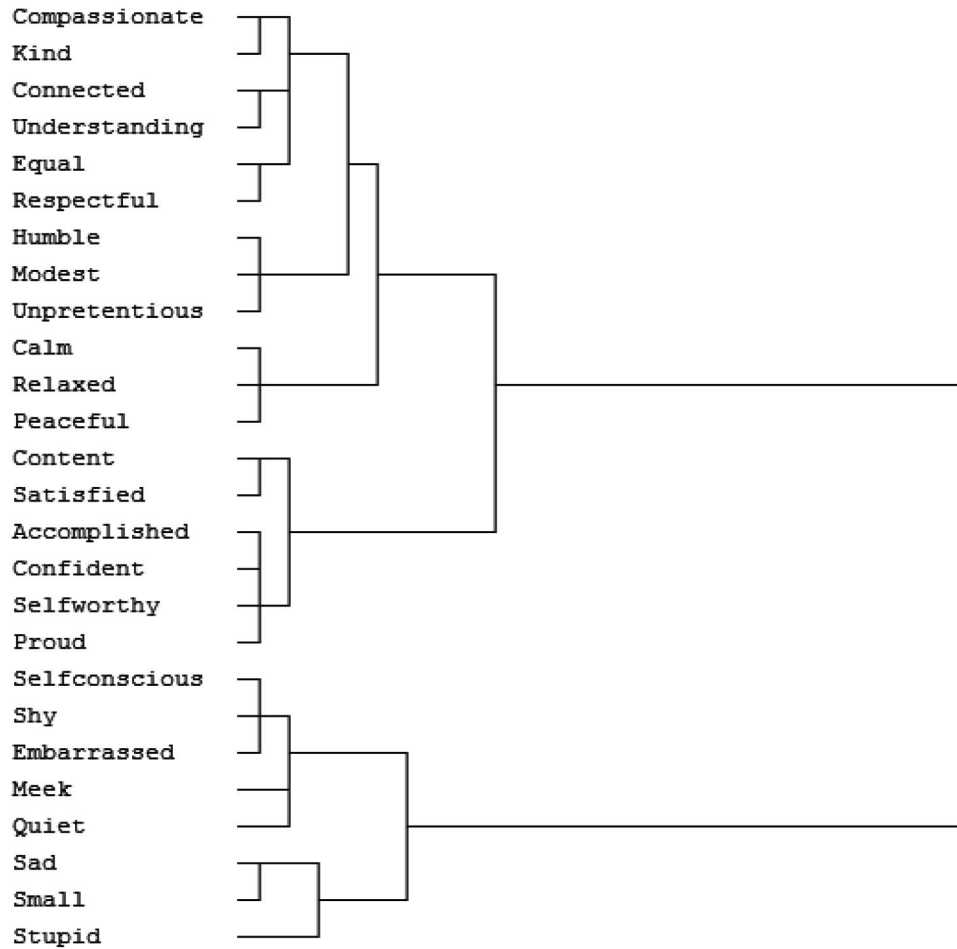


Figure 2. Dendrogram depicting the hierarchical structure of humility-related words (Study 1).

prior work suggests that social desirability—independent of substantive content—is the primary source of variance in individuals' emotion ratings (Pettersson & Turkheimer, 2013). It is therefore possible that humility has two dimensions in part because it includes both positive/socially desirable and negative/socially undesirable elements, and, when thinking about a humility experience, people naturally make a distinction between its positive/desirable and negative/undesirable aspects. If this is the case, then in some sense the two-cluster structure that emerged in Study 1 is an artifact of people's tendency to distinguish between positive/desirable and negative/undesirable states, and not reflective of a more substantive distinction between two ways of experiencing humility. In Study 2, we directly addressed this question by testing whether the two proposed dimensions of humility would emerge when variance attributable to evaluative valence and social desirability was statically removed.

Study 2 also allowed us to test whether the two forms of humility involve distinct correlates. To test this hypothesis, we content-coded participants' narrative descriptions of their humility experiences for the kinds of events that elicited the experience and for momentary self-evaluations and action tendencies associated with the experience, and examined whether these aligned with the two-factor account. Prior work suggests that humility can be

preceded by both success and failure, but has not examined any differences in the form of humility that follows each type of event (Exline & Geyer, 2004). We therefore predicted that appreciative humility would most often be elicited by events relating to success or achievement, whereas self-abasing humility would most often be elicited by events relating to failure or defeat. We in turn predicted that appreciative humility would be associated with positive self-evaluations (e.g., viewing oneself as an achiever) and action tendencies toward celebrating or recognizing others' accomplishments (e.g., expressing gratitude, seeking social connection), whereas self-abasing humility would be associated with negative self-perceptions arising from a negative social-comparison (e.g., viewing oneself as ignorant) and action tendencies oriented toward hiding from others and avoiding their negative evaluations (e.g., social withdrawal; isolation).

## Method

**Participants.** Participants enrolled in psychology courses at the University of British Columbia ( $n = 648$ ; 74% women) completed a questionnaire for course credit. These participants were split into two samples (Sample 1:  $n = 267$ ; Sample 2:  $n =$

381), for whom the procedure was identical, except where noted below.

#### Procedure and measures.

**Humility event narration.** Participants in each sample were instructed to “think about a time when you felt humility . . . describe the events that led up to your feeling this way, in as much detail as you can remember.” Participants in Sample 2 were also given the following, additional instructions: “Please note that humility does NOT mean the same thing as ‘humiliation’, or public embarrassment or shame.” After providing open-ended narrative responses, all participants rated the extent to which each of 54 humility-related words described their feelings during the event, on a scale ranging from 1 (*not at all*) to 5 (*extremely*). This set of words was taken from the same set of humility-related words generated for Study 1. However, to include a larger, more comprehensive set of words, in the present study we included the top most frequently mentioned 54 items—every word listed by at least 3 participants (4% of the sample; see Table 1).

**Evaluative valence.** Participants rated the extent to which four of the words on Barrett and Russell’s (1998) positive and negative mood measure (i.e., “happy,” “content,” “pleased,” “unhappy”) characterized their humility experience, on a scale ranging from 1 (*not at all*) to 5 (*extremely*).<sup>3</sup> The one negative mood item was reverse-scored, and the four items were averaged to form an evaluative valence composite ( $\alpha = .89$ ).

**Social desirability.** A separate sample of both undergraduates ( $n = 40$ ; 75% women) and Amazon Mechanical Turk (MTurk) workers ( $n = 49$ ; 47% women; 71% European American;  $M$  age = 36.39;  $SD = 10.07$ ) completed an online survey for class credit or monetary compensation, respectively. Participants from each sample were asked to rate “how desirable it would be for a person to experience” each of the 54 humility related words, on a scale of 1 (*not at all desirable*) to 5 (*very desirable*). Raters from both samples showed good consensus ( $ICC(2, k) = .82$  and  $.87$  for the undergraduate and MTurk samples, respectively). Ratings of each word from the two samples were correlated  $.98$ ; we therefore averaged the two ratings for each word to create a social desirability score for each word.

**Type of event that elicited humility.** For narratives written by participants in Sample 1, four advanced undergraduate research assistants, blind to the goals of the study and participants’ ratings of their feeling states, rated the extent to which each narrative described an event involving: (a) a success or achievement, and (b) a failure or defeat. Both items were rated on a scale ranging from 1 (*not at all this type of event*) to 5 (*very much this type of event*). Interrater reliabilities for the two items were  $.92$  and  $.89$ , respectively.

**Cognitions and self-views following humility.** For narratives written by participants in Sample 1, the same four coders rated each participant’s humility narrative for the extent to which it explicitly described a set of self-evaluative cognitions and other-oriented action tendencies that might follow success or failure.<sup>4</sup> Self-perceptions were rated on a  $-2$  (*much lower than others*) to 2 (*much higher than others*) scale, with a midpoint of 0 (*equal to others*), and items related to celebrating versus hiding from others were rated on a 1 (*not at all*) to 5 (*very much*) scale. The coders reached satisfactory levels of agreement on the following self-perceptions: “developed insights into positive aspects of the self” ( $\alpha = .58$ ) and “negative aspects of the self” ( $\alpha = .73$ ), as well as

“perceived oneself as more intelligent” ( $\alpha = .80$ ), “achieving” ( $\alpha = .86$ ), “moral” ( $\alpha = .70$ ), “important and significant” ( $\alpha = .66$ ), “powerful and in control” ( $\alpha = .65$ ), and “ignorant and unwise” ( $\alpha = .62$ ), compared with others. Adequate levels of agreement were also reached on the following action tendencies and behaviors: “expressed gratitude or appreciation” (interrater  $\alpha = .62$ ), “sought social connection with others” ( $\alpha = .61$ ), “helped others” ( $\alpha = .81$ ), “wanted to hide” ( $\alpha = .60$ ), and “wanted to be alone” ( $\alpha = .70$ ).

To index these same self-perceptions and action tendencies via self-report, Sample 2 participants, after writing about their humility experience, indicated how they felt about themselves after the event in comparison to others, using the same scale as above, on the dimensions of “intelligence,” “achievement,” “morality,” “importance and significance,” “power and control,” and “ignorance.” These participants also completed single-item measures assessing their desire to express gratitude, seek interpersonal connection, help others, and be alone, on the same scale as above.

## Results and Discussion

**Are there two dimensions of the humility experience?** To test whether state experiences of humility are characterized by a two-dimensional structure, we conducted exploratory factor analysis using maximum likelihood extraction and oblimin rotation on participants’ ratings of their humility-related feelings.<sup>5</sup> Consistent with expectations, observation of a scree plot indicated that a two-factor solution was appropriate; eigenvalues for the first seven factors were 16.46, 6.45, 3.06, 2.07, 1.60, 1.26, and 1.19, and the first two factors accounted for 42% of variance. The two factors correlated weakly,  $r = -.17$ , suggesting that they are somewhat independent dimensions. Additionally, Tucker’s congruence coefficient for the pattern of loadings between Samples 1 and 2 was  $.98$ , suggesting a nearly identical loading pattern across samples (Lorenzo-Seva & ten-Berge, 2006).

The content of the words that loaded onto each factor fit with the distinction between appreciative and self-abasing humility (see Table 1). Specifically, 17 of the 18 words from the appreciative cluster in Study 1 had their highest loading on the first factor here (the only exception was “unpretentious”).<sup>6</sup> All 8 of the 8 words from the self-abasement cluster in Study 1 had their highest loading on the second factor here. The remainder of items that

<sup>3</sup> The two other negative mood items on Barrett and Russell’s (1998) scale (“miserable,” “troubled”) were omitted because of experimenter error.

<sup>4</sup> Before coding, a senior research assistant, trained in coding procedures, was asked to read all 268 narratives and identify any that contained insufficient information to be coded; this resulted in the exclusion of 61 narratives. Two additional narratives also were not coded because of coder error, leaving 205 that were coded.

<sup>5</sup> All EFA results reported here were based on oblimin rotation. However, all results replicated when varimax rotation was used instead. Given our theoretical perspective that the two dimensions are part of a broader content domain (i.e., of humility) and might therefore be correlated, we report results based on oblimin rotation.

<sup>6</sup> Given that unpretentious is a reverse-coded item in the present context (i.e., it indicates a feeling that is conceptually opposite to other-appreciation), it may contain variance attributable to its form, rather than content. Variance attributable to item form will not be shared with the straightforward items capturing other-appreciation, which could lead to this item’s low factor loading.



Table 1  
*Factor Loadings of Humility-Related Items at a Momentary State Level (Study 2) and a Dispositional Level (Study 3)*

Item	Study 2 State Humility		Study 3 Trait Humility	
	Appreciative Humility (Factor 1)	Self-Abasing Humility (Factor 2)	Appreciative Humility (Factor 1)	Self-Abasing Humility (Factor 2)
Kind	<b>.78 (.75)</b>	-.14	<b>.68 (.66)</b>	(.19)
Generous	<b>.77 (.74)</b>	-.16	<b>.69 (.64)</b>	(.20)
Helpful	<b>.74 (.64)</b>	-.24	<b>.69 (.62)</b>	-.14 (.11)
Good	<b>.73 (.56)</b>	-.50	<b>.73 (.63)</b>	-.22 (.14)
Understanding	<b>.71 (.69)</b>		<b>.59 (.58)</b>	(.16)
Graceful	<b>.71 (.60)</b>	-.17 (.15)	<b>.67 (.62)</b>	(.20)
Considerate	<b>.70 (.67)</b>	-.18	<b>.68 (.71)</b>	(.13)
Friendly	<b>.70 (.60)</b>	-.29	<b>.68 (.59)</b>	-.23 (.10)
Peaceful	<b>.70 (.56)</b>	-.11 (.24)	<b>.66 (.47)</b>	-.27 (.24)
Pleased	<b>.69 (.43)</b>	-.57 (.28)	<b>.64 (.33)</b>	-.45 (.37)
Satisfied	<b>.67 (.42)</b>	-.56 (.12)	<b>.55 (.21)</b>	-.59 (.11)
Connected	<b>.67 (.56)</b>	-.24	<b>.59 (.42)</b>	-.36
Happy	<b>.66 (.38)</b>	-.62 (.33)	<b>.59 (.27)</b>	-.58 (.21)
Smile	<b>.65 (.43)</b>	-.40 (.21)	<b>.58 (.45)</b>	-.29 (.19)
Content	<b>.63 (.34)</b>	-.58 (.11)	<b>.62 (.30)</b>	-.51 (.24)
Compassionate	<b>.63 (.58)</b>		<b>.60 (.64)</b>	.12 (.20)
Respectful	<b>.61 (.55)</b>	(.14)	<b>.60 (.54)</b>	(.18)
Relaxed	<b>.60 (.44)</b>	-.22	<b>.57 (.27)</b>	-.37 (.19)
Wisdom	<b>.60 (.48)</b>	-.19 (.14)	<b>.54 (.42)</b>	-.25
Equal	<b>.58 (.48)</b>	-.20	<b>.56 (.39)</b>	-.42
Confident	<b>.57 (.38)</b>	-.55	<b>.51 (.30)</b>	-.52 (.15)
Honest	<b>.56 (.50)</b>	(.11)	<b>.52 (.45)</b>	
Accepting	<b>.56 (.41)</b>	-.24	<b>.62 (.54)</b>	(.14)
Accomplished	<b>.55 (.27)</b>	-.62	<b>.50 (.24)</b>	-.51
Empathic	<b>.55 (.58)</b>	.12	<b>.31 (.40)</b>	.19
Self-worthy	<b>.53 (.33)</b>	-.44	<b>.51 (.33)</b>	-.45
Worldly	<b>.51 (.46)</b>	(.15)	.30 (.21)	-.23
Proud	<b>.48 (.23)</b>	-.54	<b>.44 (.21)</b>	-.44
Calm	<b>.42 (.27)</b>	-.20	<b>.51 (.28)</b>	-.30 (.12)
Obedient	.39 ( <b>.44</b> )	.28 (.38)	<b>.45 (.38)</b>	.11 (.36)
Humble	.39 (.34)	(.10)	<b>.58 (.54)</b>	(.18)
Human	.35 (.36)	.11	<b>.44 (.37)</b>	-.11
Modest	.30 (.25)	-.15 (.17)	<b>.43 (.44)</b>	.15 (.18)
Hot	.13 (.13)	(.35)	.24 (.19)	-.11 (.10)
Unhappy	-.34 ( <b>.41</b> )	<b>.82 (.35)</b>	-.33 (.31)	<b>.76 (.21)</b>
Shameful	-.31	<b>.78 (.53)</b>	-.23	<b>.61 (.49)</b>
Sad	-.23 (.27)	<b>.77 (.24)</b>	-.28 (.26)	<b>.75 (.29)</b>
Unimportant	-.24 (.15)	<b>.77 (.48)</b>	-.27 (.14)	<b>.78 (.42)</b>
Ashamed	-.31	<b>.75 (.44)</b>	-.21	<b>.63 (.52)</b>
Small	(.23)	<b>.74 (.52)</b>	-.13	<b>.54 (.46)</b>
Worthless	-.30	<b>.71 (.47)</b>	-.29	<b>.74 (.43)</b>
Stupid	-.29	<b>.70 (.51)</b>	-.27	<b>.61 (.52)</b>
Guilty	-.23	<b>.61 (.28)</b>	-.23	<b>.49 (.44)</b>
Submissive	(.21)	<b>.49 (.46)</b>	(.16)	<b>.52 (.55)</b>
Embarrassed	-.29 (-.13)	<b>.47 (.40)</b>	-.14	<b>.64 (.66)</b>
Anxious	-.21	<b>.45 (.35)</b>	-.14 (.16)	<b>.56 (.31)</b>
Quiet	.12 (.25)	<b>.43 (.48)</b>		.33 (.32)
Meek	(.22)	<b>.41 (.44)</b>	.10 (.22)	<b>.49 (.56)</b>
Shy		.37 ( <b>.52</b> )	(.14)	<b>.52 (.52)</b>
Self-conscious	-.17	.37 ( <b>.41</b> )	(.21)	<b>.57 (.44)</b>
Simple	.28 (.35)	.37 ( <b>.42</b> )	.19 (.13)	.24 ( <b>.44</b> )
Reserved	.16 (.25)	.29 (.33)	.20 (.19)	.23 (.34)
Unpretentious	.13 (.26)	.26 (.13)	(.13)	.24
Blushing		(.35)		.31 ( <b>.50</b> )

*Note.* Study 2:  $N = 648$ ; Study 3:  $N = 462$ . Loadings  $< |.10|$  are not presented and loadings  $> |.40|$  are shown in bold. Loadings in parentheses are from valence-free factor analyses (i.e., evaluative valence was statistically removed from each humility word before running factor analyses).

loaded highly on the appreciative factor appear related to attending to others (e.g., “generous,” “considerate,” “graceful”) or generalized positive affect (e.g., “good,” “smiling,” “happy”). The remainder of items that loaded highly on the self-abasement factor appear to be related to self-devaluation (e.g., “unimportant,” “submissive”) or generalized negative affect (e.g., “sad,” “unhappy”).

Interestingly, the words “humble” and “modest”—which are the two words that in lay conceptions might be considered to best capture a generalized form of humility—loaded only weakly on the first factor (appreciative humility;  $\lambda_s = .39$  and  $.30$ , respectively) and near-zero on the second factor (self-abasing humility;  $\lambda_s = .07$  and  $-.15$ , respectively). Furthermore, when we conducted an analysis extracting only one factor, this general humility factor was characterized by strong, positive loadings for appreciative humility items and strong, negative loadings for self-abasing humility items. “Humble” and “modest” again showed relatively weak, positive loadings on this single factor ( $\lambda_s = .34$  and  $.24$ , respectively). Although we might expect these two items to load strongly on a general humility factor, the finding that these loadings were weak to moderate is consistent with a two-dimensional account. If humility indeed involves two distinct experiences, then core items that capture both components should not be particularly strong markers of either dimension, and as a result should not load strongly on a general factor—which is, essentially, a forced bipolar representation of the two-dimensional construct (i.e., the general factor yields strong, positive loadings for purely appreciative humility items, and strong negative loadings for purely self-abasing humility items). That said, these two words were clearly perceived by participants as corresponding more strongly with appreciative humility than self-abasing humility, given their substantially stronger loadings on the former rather than the latter factor; this may partly explain why prior studies which have often manipulated or measured humility using the single word “humble” have typically argued for a singular conceptualization largely aligned with what we refer to as appreciative humility.

To provide a formal test of the optimal factor solution, we conducted parallel analysis and the minimum average partial method (Zwick & Velicer, 1986). Parallel analysis compares the eigenvalue for each factor in one’s own data to the corresponding eigenvalues generated by many data sets of the same size but comprising entirely random variables (i.e., random noise data), and recommends that factors be extracted until the eigenvalue for one’s own data falls below the 95th percentile of eigenvalues from the random noise data. The minimum average partial method computes the average squared partial correlation among all variables in one’s data set, following the extraction of each subsequent factor; when the average partial correlation reaches a minimum, it signifies that no meaningful variance remains in the data, and no further factors are extracted.

This method suggested that a five-factor solution best characterized state experiences of humility. However, in each of the three, four, and five-factor solutions, two factors consistently emerged that appeared nearly identical to the appreciative and self-abasing factors that had emerged in the two-factor solution. Factor scores for the appreciative humility factor in the two-factor solution correlated .93 to .99 with the corresponding appreciative humility factors in the three-, four-, and five-factor solutions, and factor scores for the self-abasing humility factor in the two-factor solution correlated .92 to 1.00 with the corresponding self-abasing

humility factors in the three-, four-, and five-factor solutions. These results broadly suggest that the core content of appreciative and self-abasing humility is relatively impervious to our decision of which factor solution to retain.

Nonetheless, we further examined the five-factor solution to determine whether humility might be best understood as also involving three additional dimensions, beyond the two we had identified. In the five-factor solution, the appreciative and self-abasing humility factors continued to be characterized by content related to appreciating others (“considerate,” “kind,” “generous,” and “understanding”) and devaluing the self (e.g., “shameful,” “worthless,” “unimportant,” and “stupid”), respectively. The other three factors represented: (a) a blend of happiness and authentic pride (e.g., “happy,” “satisfied,” “accomplished,” “proud”), (b) introversion (e.g., “quiet,” “reserved,” “meek”), and (c) feelings of self-consciousness (e.g., “embarrassed,” “anxious,” “blushing”). Although these findings point to the plausibility of a five-factor model of humility, we believe that the two-factor model provides a more parsimonious account of the data. In our view, the other three factors are best understood as subcomponents of appreciative or self-abasing humility. However, researchers interested in an even more nuanced understanding of humility may wish to bear in mind the subtle distinctions among these subfactors. Importantly, at least two of these subfactors (introversion and self-consciousness) are inconsistent with the current predominant account of humility in the literature as a wholly prosocial, positive experience, suggesting that, regardless of which factor solution is adopted, humility cannot be considered a singular, socially desirable or purely virtuous state.

**Accounting for the role of evaluative valence.** In light of the finding that both the appreciative and self-abasing humility factors appeared to include some content primarily reflecting evaluative valence, we examined whether the same two-factor structure of humility emerged when evaluative valence was statistically removed. Specifically, we regressed participants’ ratings of each humility-related word onto their ratings of the evaluative valence composite, and saved the standardized residuals for each word. These residual scores capture variability in the propensity to experience each humility-related feeling after the variance predicted by pleasant affect has been statistically removed.

We next conducted an EFA on these residualized items. A scree plot again indicated that a two-factor solution was viable; eigenvalues for the first seven factors were 9.75, 4.46, 3.37, 2.61, 2.03, 1.58, and 1.43, respectively, and the first two factors accounted for 31% of variance. Tucker’s congruence coefficient between the original and valence-free loadings was .77, however, indicating some meaningful differences in the loading patterns. Examining the loading plots confirmed this observation; the first and second factors again represented appreciative and self-abasing humility, yet items representing primarily evaluative valence (e.g., “good,” “happy” for appreciative humility; “unhappy” and “sad” for self-abasing humility) each had much smaller loadings on their respective factors in the valence-free solutions (see Table 1). Furthermore, the words defining the appreciative humility factor bore an even stronger resemblance to those previously identified as markers of agreeableness (Goldberg, 1990, 1992), and the words defining the self-abasing humility factor now aligned more closely to those representing shame, low self-esteem, introversion, and neuroticism (Goldberg, 1990, 1992; Rosenberg, 1965; Tangney &

Dearing, 2002).<sup>7</sup> It would seem, therefore, that these valence-free appreciative and self-abasing humility factors capture more substantive versions of the original factors, purified of content driven by evaluative valence. It follows that these factors, along with the original ones, should be used to inform the best understanding of the content of humility. The two factors correlated weakly and positively,  $r = .17$ , suggesting that they are somewhat independent dimensions.

**Accounting for the role of social desirability.** To provide an additional test of the robustness of the two-factor structure, we examined whether it would emerge when controlling for the social desirability of each item. Following Pettersson, Turkheimer, Horn, and Menatti (2012; see also Asparouhov & Muthén, 2009), we conducted Exploratory Structural Equation Modeling (ESEM) using the lavaan package in R. In this procedure, one social desirability factor is defined with the loading for each humility word fixed by its corresponding social desirability rating, and the two subsequently extracted humility factors are forced to be orthogonal to this desirability factor. We first identified the social desirability factor by computing its factor loadings. Specifically, following Pettersson and colleagues (2012), we calculated factor loadings for each humility related word as a function of the interrelationships between the original items and each item's social desirability. We used the following formula to arrive at these loadings:

$$r * b = s.$$

In this formula,  $r$  is the original correlation matrix of all 54 humility related words,  $b$  is a matrix of the mean-centered social desirability ratings for each humility word, and  $s$  is a resulting matrix of factor loadings for each humility word on the social desirability factor. Once we had identified the social desirability factor, we subsequently extracted two exploratory factors, onto which each of the 54 humility related words were allowed to load freely. To satisfy the minimum number of constraints needed to identify the model, factor variances were also fixed to 1, and factor intercorrelations were fixed to zero. Additionally, one word was selected as a marker variable for each humility factor; we chose the word that had the lowest absolute value loading on the *other* humility factor; this item was constrained to load only on the humility factor for which it was a marker, and to have a cross-loading of zero on the other humility factor (see Ferrando & Lorenzo-Seva, 2000, and Jöreskog, 1969, for more detail). For example, in our original factor analyses “submissive” had a loading of .00 on the appreciative humility factor and “understanding” had a loading of .00 on the self-abasing humility factor. The loadings of these two items were therefore fixed to zero on the appreciative and self-abasing factors, respectively, but loaded freely on the self-abasing and appreciative humility factors, respectively.<sup>8</sup>

We next examined the pattern of loadings on the two exploratory factors, once the social desirability factor had been defined. Of note, the mean social desirability ratings for each item correlated .80 with the mean self-report of each item in response to a humility event, suggesting that social desirability is the primary dimension along which individuals complete self-report emotion ratings (see Pettersson & Turkheimer, 2013, for a similar result). Additionally, these strong correlations suggest that little substantive variance remains in the humility ratings and the exploratory factors they define once they are forced to be orthogonal to the

social desirability factor. It is therefore questionable to interpret the exact magnitude of factor loadings produced by the humility ratings themselves after social desirability variance has been statistically removed, as they are likely to be extremely unstable from sample to sample.

Nevertheless, an examination of the pattern of loadings on the two exploratory humility factors suggested that they appeared to take the form of appreciative and self-abasing humility (see Table S1 in the supplemental materials). Tucker's congruence coefficient between the original and desirability-free pattern of loadings was .85, indicating relative similarity between the two sets of loadings. In addition, the highest-loading items on each factor appeared to capture the core content of appreciative and self-abasing humility. The top 10 highest loading items on the appreciative humility factor all captured the core themes of agreeableness and prosociality (e.g., “compassionate,” “kind,” “empathic”), and the top 10 highest loading items on the self-abasing humility factor all captured the core themes of neuroticism, introversion, shame, and low self-esteem (e.g., “embarrassed,” “anxious,” “worthless”). These results suggest that the core themes of appreciative and self-abasing humility emerge in a two-factor solution even after these factors are forced to be orthogonal to a factor defined by social desirability.

**Are the two humility factors associated with distinct antecedent events?** To examine whether the two humility dimensions are associated with distinct types of eliciting events (i.e., success vs. failure), we next classified each event described in the narratives as either a success or a failure, based on which of these two coded dimensions received a higher mean rating. This led to the categorization of 72% of humility narratives as primarily about success, and 28% as primarily about failure. This difference suggests that when asked to write about a time when they felt humility, undergraduates are more likely to think about events related to success than events related to failure, consistent with prior research (Exline & Geyer, 2004).

<sup>7</sup> Of note, as in the original factor solution, the words “humble” and “modest” showed weak, positive loadings on valence-free appreciative humility ( $\lambda_s = .34$  and  $.25$ , respectively), and even weaker loadings on valence-free self-abasing humility ( $\lambda_s = .10$  and  $.17$ , respectively), though these latter loadings were higher than those found in the original factor solution. In the one-factor solution, the general humility factor again seemed to capture appreciative humility, and “humble” and “modest” again showed weak, positive loadings ( $\lambda_s = .35$  and  $.26$ , respectively). Additionally, parallel analysis and the minimum average partial method again suggested that five factors optimally characterized the valence-free solution. However, the three-, four-, and five-factor solutions again each produced a factor with content nearly identical to the appreciative and self-abasing factors in the two-factor solution ( $rs = .86-1.00$ ;  $M = .95$ ). In the five-factor solution, the appreciative and self-abasing humility factors again contained content related to attending to others and self-devaluation, respectively, and the other three factors again captured happiness and pride, introversion, and self-consciousness.

<sup>8</sup> There are multiple ways to satisfy the criterion needed to identify a model when conducting ESEM. One of these involves fixing loadings in an echelon pattern (McDonald, 1999); however, this pattern is arbitrary and therefore lacks a theoretical basis (E. Pettersson, Personal Communication, February 24, 2016; Ferrando & Lorenzo-Seva, 2000). For the sake of completeness, however, we did re-run our ESEM analyses while fixing loadings in an echelon pattern (after running the analyses reported in text); not surprisingly, given the arbitrary nature of this technique, the resultant pattern of loadings made less conceptual sense in terms of our two-factor model, and is therefore not discussed further.

We next compared the factor scores on each humility dimension for participants whose narratives were classified as success versus those whose narratives were classified as failure. Appreciative humility factor scores were higher for narratives involving success ( $M = .13$ ,  $SD = 1.05$ ) than failure ( $M = -.31$ ,  $SD = .98$ ),  $t(182) = 2.60$ ,  $p < .05$ ,  $d = .43$ ; in contrast, self-abasing humility factor scores were higher for failure narratives ( $M = .61$ ,  $SD = 1.09$ ) compared with success ( $M = -.18$ ,  $SD = .86$ ),  $t(182) = 5.24$ ,  $p < .001$ ,  $d = .80$ . Correlations between the factor scores and our coders' ratings of the extent to which each narrative described a success versus a failure corroborated these results; events that led to greater appreciative humility were more likely to involve success,  $r = .20$ ,  $p < .01$ , and less likely to involve failure,  $r = -.26$ ,  $p < .001$ , whereas events that led to greater self-abasing humility were more likely to involve failure,  $r = .40$ ,  $p < .001$ , and less likely to involve success,  $r = -.39$ ,  $p < .001$ .

**Are the two humility factors associated with distinct self-evaluations and action tendencies?** We next examined differences in self-evaluative cognitions and action tendencies between the two forms of humility by correlating factor scores on the two humility dimensions with coded ratings of participants' self-perceptions during each narrated experience (see Table 2). We also computed partial correlations controlling for evaluative valence, and present both sets of correlations in Table 2. Below we focus our discussion on the partial correlations, as these better indicate the substantive association between each form of humility and self-evaluations and action tendencies, not driven by differences in evaluative valence; however, we urge some caution in interpreting the exact magnitude of these correlations, given the strong correlations between valence (i.e., pleasantness) and both appreciative humility ( $r = .68$ ) and self-abasing humility ( $r = -.76$ ).

Table 2  
*Correlations (and Partial Correlations Controlling for Evaluative Valence) of State Appreciative Humility and State Self-Abasing Humility Factor Scores With On-Line Cognitions and Self-Perceptions, as Coded From Humility Narratives (Study 2; Sample 1) and Participant Ratings (Study 2; Sample 2)*

Variable	Appreciative humility	Self-abasing humility
<b>Behavioral tendencies</b>		
Express gratitude or appreciation <sup>a</sup>	.32* (.27*)	.05 (.28*)
Seek interpersonal connection <sup>a</sup>	.29* (.30*)	.10* (.29*)
Help others <sup>a</sup>	.39* (.38*)	.05 (.30*)
Hide <sup>b</sup>	-.32* (-.14)	.21* (-.02)
Be alone <sup>a</sup>	-.12* (.16*)	.47* (.35*)
<b>Self-perceptions</b>		
Positive self-insights <sup>b</sup>	.41* (.08)	-.35* (.03)
Intelligent <sup>a</sup>	.20* (-.04)	-.36* (-.18*)
Achieving <sup>a</sup>	.28* (-.08)	-.51* (-.25*)
Moral <sup>a</sup>	.21* (.09*)	-.22* (-.11*)
Important and significant <sup>a</sup>	.24* (-.10*)	-.52* (-.30*)
Powerful and in control <sup>a</sup>	.25* (-.03)	-.42* (-.19*)
Negative self-insights	-.39* (-.01)	.46* (.13)
Ignorant and unwise <sup>a</sup>	-.17* (.01)	.29* (.15*)

Note. Correlations in parentheses are partial correlations controlling for evaluative valence.

<sup>a</sup> Assessed in Samples 1 and 2 ( $n = 542$ ). <sup>b</sup> Assessed in Sample 1 only ( $n = 161$ ).

\* $p < .05$ .

Consistent with the finding that appreciative humility arises more frequently following success and comprises feelings related to agreeableness and a tendency toward prosociality and appreciation of others, individuals who experienced appreciative humility tended to express gratitude and thanks toward others, seek interpersonal connections, and want to help others. This suggests that the core feelings of appreciative humility— independent of its overlap with evaluative valence—lead people to seek affiliation with others.

In contrast, consistent with the finding that self-abasing humility arises more frequently following failure and comprises feelings linked to shame and low self-esteem, individuals who reported high levels of self-abasing humility tended to view themselves as less intelligent, achieving, moral, important and significant, and powerful and in control compared with others, and also as *more* ignorant and unwise than others. Also as predicted, these individuals reported a stronger desire to be alone. At the same time, however, self-abasing humility (controlling for evaluative valence) was positively linked to a desire to express gratitude and thanks, seek connection with others, and to want to help others, all of which are somewhat antithetical to a desire to be alone. These later results raise the possibility that self-abasing humility involves a desire to connect with others; however, these effects emerged as significant only in the partial correlations controlling for evaluative valence, indicating a possible suppressor effect that merits replication in future work. All together, these findings suggest that self-abasing humility leads people to adopt a negative self-view and withdrawal orientation, along with a concurrent desire to overcome it.

In summary, the results of Study 2 corroborate those of Study 1 to suggest that subjective experiences of humility comprise two distinct dimensions, which correspond to the theoretical distinction between appreciative and self-abasing humility. The content of appreciative humility again appeared to overlap with that of agreeableness, whereas the content of self-abasing humility appeared to capture a mix neuroticism, introversion, shame, and low self-esteem. Importantly, the two-dimensional structure of humility emerged even when individuals were explicitly told that humility does not mean the same thing as humiliation; this suggests that the emergence of a second, self-abasing side of humility is not attributable to any linguistic confusion over the meaning of the word.

Study 2 also provided initial evidence that each form of humility follows distinct kinds of events, and involves distinct self-evaluative cognitions and other-oriented action tendencies. Appreciative humility tends to follow successes and leads to action tendencies meant to celebrate or acknowledge others; contrary to our initial predictions, however, appreciative humility was not strongly related to positive self-insights (particularly when evaluative valence was controlled for), suggesting that it is primarily associated with a focus on others more than an increased self-awareness. In contrast, self-abasing humility tends to follow personal failures, is associated with more negative self-insights, and leads to action tendencies oriented toward avoiding others, though it may also lead to an apparently conflicting desire to connect with others.

### Study 3

In Study 3, we examined whether the two clusters of humility words found in Study 1 and the two factors based on momentary humility experiences found in Study 2 would replicate in participants' ratings of their dispositional tendency to experience each of a large set of humility-related feeling states. Specifically, we asked participants to rate their tendency to experience these states, then factor analyzed their ratings to determine whether the structure of dispositional humility feelings is characterized by two factors consistent with the results of Studies 1 and 2. In Study 3, we also again examined whether the two-factor structure of humility would emerge when controlling for evaluative valence (Barrett & Russell, 1998) and social desirability (Pettersson & Turkheimer, 2013).

Study 3 also examined links between each form of humility and emotional and personality dispositions associated with self-evaluation. If appreciative and self-abasing humility follow personal successes and failures, respectively, and lead to action tendencies oriented toward celebrating or hiding from others, respectively, then we would expect the emotional dispositions associated with dispositional humility to reflect these cognitions and action tendencies. More specifically, we expected, first, that appreciative humility but not self-abasing humility would be positively linked to dispositional authentic pride, an emotion that occurs in response to achievement and signifies genuine satisfaction with the self and a sense of confidence (Tracy & Robins, 2007; Weidman, Tracy, & Elliot, 2015). We also examined associations with hubristic pride—the more arrogant and self-aggrandizing form of pride—but we did not have strong predictions about the direction of these relations. On one hand, the feelings of inferiority and insecurity inherent to self-abasing humility seem somewhat antithetical to feelings of grandiosity, which would lead us to predict a negative association between self-abasing humility and hubristic pride. On the other hand, if those feelings of inferiority lead individuals to experience hubristic pride as a defense mechanism, as has been suggested regarding the previously observed positive association between shame and hubristic pride (Tracy, Cheng, Martens, & Robins, 2011; Tracy, Cheng, Robins, & Trzesniewski, 2009; Pincus & Roche, 2011), then we might expect self-abasing humility to be positively related to hubristic pride.

Second, we expected appreciative humility to be linked to guilt-proneness, and self-abasing humility to be linked to shame-proneness and embarrassment. Following an accomplishment, an individual experiencing appreciative humility may appraise others' similar accomplishments and related skills as more worthwhile than her own; she may therefore feel guilty for the positive recognition that she has received, and wish to draw more attention to the other individual, consistent with the other-orientation involved in guilt (Tangney & Dearing, 2002). In contrast, following a perceived failure an individual may appraise herself as lacking a worthwhile skill or attribute, resulting in feelings of shame or embarrassment (Tangney, Miller, Flicker, & Barlow, 1996; Tangney & Dearing, 2002).

Third, consistent with the expectation that appreciative humility arises when people appraise their abilities and attributes in a positive light—but that the opposite is true for self-abasing humility—we expected positive correlations between appreciative humility and self-esteem, but negative correlations between self-

abasing humility and self-esteem. In contrast, we predicted that neither form of humility would show a strong association with grandiose narcissism. Regarding appreciative humility, one might expect a positive association given our finding that appreciative humility is associated with a positive self-view, a central component of narcissism (Bosson & Weaver, 2011); however, one might also expect a negative association, given that one of the core theoretical components of this form of humility is modesty and a willingness to perceive oneself in a realistic and nonaggrandizing manner, as well a propensity toward agreeableness, both of which are at odds with narcissism (Ackerman et al., 2011). We had similarly equivocal predictions regarding the relation between self-abasing humility and grandiose narcissism; on the one hand, narcissists are characterized by self-perceptions that should be negatively related to self-abasing humility, such as grandiosity and authoritativeness (Ackerman et al., 2011); on the other hand, as noted above, there is evidence that narcissists harbor implicit feelings of inferiority and worthlessness (Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003; Tracy et al., 2011). On the whole, given that modesty and realistic self-appraisals have typically been central to conceptualizations of humility (e.g., Peterson & Seligman, 2004; Tangney, 2000), we expected to see negative or null relations between both humility dimensions and narcissism once variance attributable to self-favorability (i.e., self-esteem) was statistically removed (see Paulhus, Robins, Trzesniewski, & Tracy, 2004).

Fourth, we predicted that appreciative humility would be positively correlated with prestige-based status and communion. This expectation is consistent with evolutionary accounts proposing that individuals who seek status based on prestige should broadcast their achievements by displaying competence, pride, and humility (Cheng, Tracy, & Henrich, 2010; Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Henrich & Gil-White, 2001). Though displays of pride and humility may appear contradictory, by signaling both high status and an acknowledgment of one's limitations, expressions of humility may counterbalance the potentially threatening demeanor associated with pride displays, and serve to maintain the social attractiveness of the prestigious individual. The ultimate evolved function of prestige is thought to involve cultural learning; prestigious individuals are granted status because they are highly knowledgeable or skilled social models, who attract social learners who, in turn, defer to them, in exchange for the opportunity to learn from them (Henrich & Gil-White, 2001). Displaying humility and thereby offsetting any appearance of arrogance from pride displays may allow these individuals to attract more learners and followers. However, to maintain the appearance of success and avoid being misperceived as unskilled or unaccomplished, the form of humility expressed by prestigious individuals should be of the appreciative variety; displaying self-abasing humility might risk eliciting perceptions of incompetence. In contrast, we expected self-abasing humility to be shown by relatively less prestigious others, and therefore to be negatively correlated with concepts of high status including prestige, agency, and subjective power, and positively correlated with submissive behavior.

Fifth, to better situate humility within the predominant taxonomy of individual differences in personality, we examined correlations between humility and the Big Five traits. In line with the finding from Study 2 that appreciative humility involves other-

oriented action tendencies, as well as prior work showing that many of the words found in Study 2 to describe appreciative humility experiences are also used to describe agreeable individuals (e.g., Goldberg, 1990, 1992), we predicted that appreciative humility would be strongly and positively linked to agreeableness. In contrast, in line with the finding from Study 2 that self-abasing humility involves action tendencies aimed at withdrawing from others and negative self-evaluations, as well as prior work showing that some of the words found in Study 2 to describe self-abasing humility experiences are also used to describe introverted individuals (Goldberg, 1990, 1992), we predicted that self-abasing humility would be strongly and negatively linked to extraversion and positively to neuroticism. We did not have strong predictions for relations between humility and the other two Big Five traits.

Finally, consistent with prior work suggesting that humility and modesty share many features (Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004; Tangney, 2000), we predicted that both appreciative and self-abasing humility would be positively related to the behaviors lay people attribute to modest individuals (Gregg et al., 2008). This prediction follows from Gregg and colleagues' (2008) prototype analysis of behavioral modesty, which revealed traces of both appreciation and self-abasement, even though these authors concluded that modesty was a predominantly positive, socially desirable trait.

## Method

**Participants.** Four hundred sixty-two participants completed this study. Sample 1 comprised 192 undergraduate students (74% women) enrolled in psychology courses at the University of British Columbia who participated for course credit. Sample 2 comprised 270 adults recruited online via MTurk (65% female; 72% European American, 5% Latino, 4% East Asian, 4% African American, 4% Native American, 15% other;  $M$  age = 32.78;  $SD$  = 12.37; Range = 18–67) living in the U.S., ranging in age from 12 to 67 years ( $M$  = 32.61,  $SD$  = 12.26). An additional 32 participants were recruited for Sample 2, but were excluded based on failing an attention check item included in our survey. Procedures for the two samples were identical except where noted.

### Measures.

**Proneness to humility-related feelings.** Participants rated the extent to which they “generally feel this way” for 54 humility-related words, on a scale ranging from 1 (*not at all*) to 5 (*extremely*).

**Evaluative valence.** Participants rated the extent to which they “generally feel this way” for each of the six words on Barrett and Russell's (1998) positive and negative mood measure, on a scale ranging from 1 (*not at all*) to 5 (*extremely*;  $\alpha$  = .89).

**Emotional dispositions and personality traits.** Pride was assessed using the trait version of the 14-item Authentic and Hubristic Pride Scales (Tracy & Robins, 2007;  $\alpha$ s = .88 and .84, respectively). Participants in Sample 1 also completed the Test of Self-Conscious Affect (TOSCA-3; Tangney, Dearing, Wagner, & Gramzow, 2000) shame-proneness ( $\alpha$  = .82) and guilt-proneness ( $\alpha$  = .83) subscales. Following Tangney (1995), shared variance between the two variables was statistically removed to provide a measure of guilt-free shame and shame-free guilt, by retaining the standardized residuals from a regression equation predicting shame from guilt, and vice versa. Sample 1 participants also

reported embarrassability, using the 26-item Embarrassability Scale (Modigliani, 1968;  $\alpha$  = .90).

Self-esteem was assessed with the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965;  $\alpha$  = .88), and narcissism with the 40-item Narcissistic Personality Inventory (Raskin & Terry, 1988;  $\alpha$  = .86). In Sample 1, agency and communion were each assessed with 8 items selected from the Revised Interpersonal Adjective Scales (Wiggins, Trapnell, & Phillips, 1988), subjective power was assessed with the 8-item Sense of Power Scale (Anderson, John, & Keltner, 2012;  $\alpha$  = .87), and prestige was assessed with the 9-item subscale from the Dominance-Prestige Scales (Cheng et al., 2010;  $\alpha$  = .81). Submissiveness was assessed with the 12-item Adolescent Submissive Behavior Scale (Irons & Gilbert, 2005;  $\alpha$  = .85), an abbreviated measure of the lengthier adult version containing the same core items designed to assess submissiveness in potential conflict situations. Social acceptance was assessed with the 9-item Inclusionary Status Scale (Spivey, 1990;  $\alpha$  = .81). Participants in Sample 1 also completed the 44-item Big Five Inventory (John, Naumann, & Soto, 2008), which assesses the Big Five Factors of Extraversion ( $\alpha$  = .84), Agreeableness ( $\alpha$  = .72), Conscientiousness ( $\alpha$  = .75), Neuroticism ( $\alpha$  = .84), and Openness to Experience ( $\alpha$  = .74).

Finally, participants reported their proneness to modesty by rating the extent to which they “generally feel this way” for each of the 23 words identified by Gregg and colleagues (2008) as prototypical descriptions of a modest person, on the same scale used to assess humility-related feelings ( $\alpha$  = .76).

## Results and Discussion

**Are there two dimensions of the humility experience?** As in Study 2, to test whether trait experiences of humility are characterized by a two-dimensional structure, we conducted EFA using maximum likelihood extraction and oblimin rotation on participants' ratings of their tendency to feel each of the humility words. Consistent with expectations, a scree plot indicated that a two-factor solution was appropriate; eigenvalues for the first six factors were 14.47, 6.56, 2.71, 2.47, 1.69, 1.35, and 1.33, and the first two factors accounted for 39% of variance. The two factors again correlated weakly,  $r$  =  $-.15$ , suggesting that they are somewhat independent dimensions. Tucker's congruence coefficient for the pattern of loadings between Samples 1 and 2 was .89, again suggesting a highly similar loading pattern (Lorenzo-Seva & ten-Berge, 2006).

As in Study 2, the content of the words that loaded onto each factor again fit with the theoretical distinction between appreciative and self-abasing humility (see Table 1). Specifically, 17 of the 18 words from the appreciative cluster in Study 1 had their highest loading on the first factor here (the only exception was again “unpretentious”), and all 8 words from the self-abasement cluster in Study 1 had their highest loading on the second factor here. Also as in Study 2, the remainder of items that loaded highly on the appreciative factor were related to attending to others or generalized positive affect, and the remainder of items that loaded highly on the self-abasement factor were related to self-devaluation or generalized negative affect.

In contrast to Study 2, the words “humble” and “modest” loaded moderately to strongly on the appreciative humility factor ( $\lambda$ s = .58 and .43, respectively), and again near-zero on the self-abasing

humility factor ( $\lambda_s = .04$  and  $.15$ , respectively). The slightly higher loadings for these items on the appreciative factor, compared with what was observed in Study 2, may suggest that when considered at a trait level, these items are seen as aligning more strongly with appreciative humility rather than self-abasing humility. Additionally, as in Study 2, when only one factor was extracted, the resulting general humility factor was characterized primarily by positive loadings for appreciative humility items, and negative loadings for self-abasing humility items. The words “humble” and “modest” showed positive loadings on this factor ( $\lambda_s = .39$  and  $.23$ , respectively), though the magnitude of these loadings was somewhat lower than on the appreciative humility factor that emerged from the two-factor extraction.

To provide a more formal test of the optimal factor solution, we again used parallel analysis and the minimum average partial method (Zwick & Velicer, 1986). Each of these methods suggested that a five-factor solution best characterized state experiences of humility. However, as in Study 2, in the three-, four-, and five-factor solutions, two primary factors emerged that appeared nearly identical to the appreciative and self-abasing humility factors that had emerged in the two-factor solution. Factor scores for the appreciative humility factor in the two-factor solution correlated  $.91$  to  $.93$  with the corresponding appreciative humility factors in the three-, four-, and five-factor solutions, and factor scores for the self-abasing humility factor in the two-factor solution correlated  $.82$  to  $.88$  with the corresponding self-abasing humility factors in the three-, four-, and five-factor solutions. These results suggest that the core content of appreciative and self-abasing humility is relatively impervious to our decision of which factor solution to retain.

In the five-factor solution, as in the two-factor solution, the appreciative humility factor again contained items reflecting attention to others (e.g., “considerate,” “kind,” “compassionate,” “generous”), and the self-abasing factor contained items reflecting self-devaluation (e.g., “embarrassed,” “ashamed,” “blushing,” “meek”); the other three factors represented: (a) authentic pride (e.g., “confident,” “accomplished,” “self-worthy”), (b) introversion (e.g., “quiet,” “reserved,” “shy”), and (c) unpleasant affect (e.g., “unhappy,” “sad,” “happy” [negative loading]). As in Study 2, although these findings point to the plausibility of a five-factor model of humility, we believe that the two-factor model provides a more parsimonious account of the data, as the other three factors can be understood as subcomponents of appreciative or self-abasing humility. This is especially likely to be the case given that the additional three factors that emerged here are not identical to those that emerged in Study 2, suggesting that the most robust results (i.e., those that replicated across studies and methods) point to a simpler, two-factor structure.

Finally, to examine whether the appreciative and self-abasing humility factors replicated across Studies 2 and 3, we computed Tucker’s congruence coefficient between the profile of factor loadings obtained in each study. This coefficient was  $.97$ , attesting to the robustness of these factors across both state and trait-based experiences, and both student and adult samples.

**Accounting for the role of evaluative valence.** As in Study 2, given that both the appreciative and self-abasing humility factors appeared to include content reflecting evaluative valence, we examined whether the same two-factor structure would emerge when evaluative valence was statistically removed. We again

conducted an EFA on the 54 residualized humility items, after evaluative valence had been partialled out, by regressing each humility word onto pleasant affect, and saving the standardized residuals. A scree plot again indicated that a two-factor solution was viable; eigenvalues for the first seven factors were  $8.73$ ,  $4.48$ ,  $3.20$ ,  $2.54$ ,  $1.95$ ,  $1.59$ , and  $1.50$ , respectively, and the first two factors accounted for 24% of variance. Tucker’s congruence coefficient between the original and valence-free loadings was  $.76$ , again indicating some meaningful differences in the loading patterns. As in Study 2, examining the loading plots confirmed this observation; the first and second factors clearly represented appreciative and self-abasing humility, yet the items representing primarily evaluative valence each had much smaller loadings on their respective factors in the valence-free solutions (see Table 1). Also as in Study 2, the valence-free appreciative humility factor included words very similar to those previously used to mark agreeableness (Goldberg, 1990, 1992), and the self-abasing humility factor included words linked to shame, low self-esteem, introversion, and neuroticism (Goldberg, 1990, 1992; Tangny & Dearing, 2002).<sup>9</sup> As was the case in Study 2, then, the valence-free appreciative and self-abasing humility factors appear to represent more substantive versions of the original factors, purified of the strong influence of evaluative valence. The two factors correlated weakly and positively,  $r = .22$ , suggesting that they are somewhat independent dimensions.

**Accounting for the role of social desirability.** To provide an additional test of the robustness of the two-factor structure, we again examined whether this structure would emerge when the social desirability of each item was controlled for, by conducting ESEM. As in Study 2, we defined one social desirability factor with the loading for each humility word fixed by its corresponding social desirability rating—taken from the same social desirability scores that were used in Study 2—and with two subsequently extracted humility factors forced to be orthogonal to this desirability factor.

We examined the pattern of loadings on the two exploratory factors once the social desirability factor had been defined. Of note, the mean social desirability ratings for each item correlated  $.86$  with the mean self-reported trait level of each item. This again suggests that social desirability is the primary dimension along which individuals complete self-report emotion ratings (see Pet-

<sup>9</sup> Similarly to the original factor solution, the words “humble” and “modest” again showed moderate, positive loadings on appreciative humility ( $\lambda_s = .54$  and  $.44$ , respectively), though these loadings were higher than those seen in Study 2. The items also again showed weak loadings on self-abasing humility ( $\lambda_s = .18$ ), though these latter loadings were higher than those found in the original factor solution. In the one-factor solution, the general humility factor again seemed to capture appreciative humility, and “humble” and “modest” showed moderate, positive loadings ( $\lambda_s = .54$  and  $.45$ , respectively), though again these loadings were higher than those in Study 2. Additionally, as in Study 2, parallel analysis and the minimum average partial method again suggested that five factors optimally characterized the valence-free solution. However, the three-, four-, and five-factor solutions again each produced a factor with content nearly identical to the appreciative and self-abasing factors in the two-factor solution ( $r_s = .70$ – $1.00$ ;  $M = .90$ ). In the five-factor solution, the appreciative and self-abasing humility factors again contained content related to attending to others and self-devaluation, respectively, and the other three factors captured authentic pride, introversion, and low self-esteem (e.g., “worthless,” “stupid,” “unimportant”).

tersson & Turkheimer, 2013, for a similar result), and that little substantive variance remains in the humility ratings and the exploratory factors they define once they are forced to be orthogonal to the social desirability factor, making it questionable to interpret the exact magnitude of factor loadings produced by the humility ratings in this analysis.

Nevertheless, when we examined the pattern of loadings on the two exploratory humility factors, they appeared to take the form of appreciative and self-abasing humility (see Table S1 in the supplemental materials). Tucker's congruence coefficient between the original and desirability-free pattern of loadings was .62, however, indicating some discrepancy between the two sets of loadings. Still, the highest-loading items on each factor appeared to capture the core content of appreciative and self-abasing humility. Of the top 10 highest loading items on the appreciative humility factor, seven appeared to capture the core themes of agreeableness and prosociality (e.g., "considerate," "kind," "understanding"). The remaining three top loading words were "humble," "human," and "unhappy." Of the top 10 highest-loading items on the self-abasing humility factor, eight appeared to capture the core themes of neuroticism, introversion, shame, and low self-esteem (e.g., "unimportant," "ashamed," "small"); the other two top-loading items were "sad" and "unhappy."<sup>10</sup> Taken together, these results suggest that the core themes of appreciative and self-abasing humility emerge, for the most part, in a two-factor solution even after these factors are forced to be orthogonal to a factor defined by social desirability.

**Do individuals prone to other-appreciating humility versus self-abasing humility show distinct emotional and personality profiles?** We next examined the relations between factor scores from the two humility factors and theoretically related emotional dispositions and personality traits. As in Study 2, we present bivariate correlations as well as partial correlations controlling for evaluative valence (see Table 3); once again, we view the partial correlations as the best indication of the substantive associations between each form of humility and the corresponding emotional and personality dispositions, given that these relations are not overly influenced by variation in evaluative valence. We therefore focus our discussion below on these effects. That said, however, as in Study 2, the exact magnitude of these partial correlations should be interpreted with caution, given the high correlations between pleasantness and both appreciative humility ( $r = .57$ ) and self-abasing humility ( $r = -.81$ ).

The two humility factors showed divergent relations with proneness to pride, shame, and guilt. First, as predicted, appreciative humility was positively associated with authentic pride, whereas self-abasing humility was not associated with authentic pride, and neither form of humility was linked to hubristic pride. Second, individuals prone to appreciative humility tended to experience the adaptive, other-oriented emotion of guilt more strongly than those prone to self-abasing humility, whereas self-abasing humility was more strongly linked to the more maladaptive negative self-conscious emotion of shame. In contrast to our predictions, however, both forms of humility were positively linked to embarrassment. This result may be attributable to the fact that the embarrassment scale asks participants to report on their feelings in situations that require empathizing with others, a tendency that may be linked to appreciative humility (e.g., "Suppose you were in a class and you noticed that the teacher had completely neglected

Table 3  
*Correlations (and Partial Correlations Controlling for Evaluative Valence) of Trait Appreciative Humility and Trait Self-Abasing Humility Factor Scores With Emotional Dispositions and Personality Traits (Study 3)*

Variable	Appreciative Humility	Self-Abasing Humility
Emotional dispositions		
Guilt-free shame <sup>b</sup>	-.15 (.14)	-.50* (.26*)
Shame-free guilt <sup>b</sup>	.24* (.16*)	-.12 (.06)
Authentic pride <sup>a</sup>	.66* (.44*)	-.62* (-.13)
Hubristic pride <sup>a</sup>	-.08 (-.02)	.15* (.10*)
Embarrassability <sup>b</sup>	.08 (.35*)	.51* (.43*)
Modesty <sup>a</sup>	.68* (.79*)	.37* (.71*)
Personality traits		
Self-esteem <sup>a</sup>	.40* (.03)	-.68* (-.31*)
Narcissism <sup>a</sup>	.09 (.08)	-.10 (-.12)
Agency <sup>b</sup>	.15* (-.04)	-.45* (-.35*)
Subjective power <sup>b</sup>	.27* (.02)	-.47* (-.21*)
Prestige <sup>b</sup>	.56* (.40*)	-.36* (-.05)
Inclusionary status <sup>b</sup>	.38* (.07)	-.51* (-.05)
Communion <sup>b</sup>	.49* (.46*)	.04 (.37*)
Submissive behavior <sup>b</sup>	-.16* (.12)	.56* (.39*)
Extraversion <sup>b</sup>	.22* (-.05)	-.55* (-.34*)
Agreeableness <sup>b</sup>	.42* (.27*)	-.22* (.16*)
Conscientiousness <sup>b</sup>	.20* (.06)	-.27* (-.08)
Neuroticism <sup>b</sup>	-.27* (.07)	.58* (.24*)
Openness <sup>b</sup>	.24* (.14*)	-.20* (-.03)

*Note.* Correlations in parentheses are partial correlations controlling for evaluative valence. Correlations with shame and guilt use residualized scores, controlling for guilt and shame, respectively (Tangney & Dearing, 2002). Values associated with self-esteem are partial correlations controlling for narcissism, and values associated with narcissism are partial correlations controlling for self-esteem (see Paulhus et al., 2004).

<sup>a</sup> Assessed in Samples 1 and 2 ( $n = 462$ ). <sup>b</sup> Assessed in Sample 1 only ( $n = 192$ ).

\* $p < .05$ .

to zip his fly"); "Suppose you were a dinner guest, and the guest seated next to you spilled his plate on his lap while trying to cut the meat"), and also feelings of self-consciousness, a tendency more linked to self-abasing humility (e.g., "Suppose you tripped and fell

<sup>10</sup> The finding that "unhappy" was among the highest-loading items on a factor defined by appreciative humility items and on a factor defined by self-abasing humility items likely speaks to the instability of these analyses; there may be almost no meaningful variance left in ratings of "unhappy" once it is forced to be orthogonal from social desirability, and the factor loadings for "unhappy" on the substantive humility factors may be determined primarily by error variance (see Pettersson & Turkheimer, 2013, for a similar result). This explanation is corroborated by the fact that "unhappy" had the second lowest social desirability rating of all 54 humility related words (1.27 on a 5-point scale), suggesting it may be more or less tantamount to social undesirability. It is also worth noting that the highest-loading items on the appreciative humility factor only loaded in the .20 to .30 range, even though the majority of them captured the central themes of appreciative humility. This is likely because several words that appear at a conceptual level to capture negative valence or self-abasing humility (i.e., "unhappy," "unimportant," "sad") were among the highest-loading items on the appreciative humility factor. Given that these words are typically unrelated—if not antithetical—to the core appreciative humility items (e.g., "considerate," "kind," "understanding"), the factor appears to contain somewhat mixed content, which likely precluded any word from showing strong primary loadings.



while entering a bus full of people”; “Suppose you were alone in an elevator with a professor who had just given you a bad grade”; Modigliani, 1968).

Turning to self-esteem and narcissism, because these traits operate consistently as mutual suppressors (Paulhus et al., 2004), we examined the partial correlations between each form of self-favorability and humility after controlling for the other form of self-favorability (e.g., we examined the partial correlation between self-esteem and humility while controlling for narcissism; self-esteem and narcissism were strongly correlated  $r = .47$ ). Using this procedure, the correlations between both dimensions of humility and narcissism, as well as the correlation between self-esteem and appreciative humility, were small in magnitude and not significant; however, the correlation between self-abasing humility and self-esteem was moderate and negative. Taken together, these findings suggest that appreciative humility is linked to an emotional profile associated with achievement and other-orientation, whereas self-abasing humility is linked to an emotional profile associated with withdrawal and low self-worth.

Next, we found that individuals prone to appreciative humility reported greater prestige-based status and communion, consistent with our theoretical account of appreciative humility as typically occurring following a success, and involving a recognition of others' value and worth without lowering one's own sense of self or status (Cheng et al., 2010; Henrich & Gil-White, 2001). A similar pattern of results was obtained for agency and subjective power, though these relations were weakened to nonsignificance when controlling for evaluative valence. Individuals prone to self-abasing humility, in contrast, reported lower agency and subjective power, and greater submissiveness, consistent with our expectation that self-abasing humility is linked to negative self-evaluations and concerns about being evaluated poorly by others, leading to the avoidance of social contact. However, when controlling for evaluative valence, self-abasing humility was also positively linked with communion; this result dovetails with the findings of Study 2 suggesting that self-abasing humility, like appreciative humility, may involve a desire to connect with others.

Next we turned to relations between humility and the Big Five personality traits. Consistent with our predictions, appreciative humility showed a moderate positive correlation with agreeableness, and weak correlations with the other traits; in contrast, self-abasing humility showed a moderate negative correlation with extraversion, a small but positive correlation with neuroticism, and weak correlations with the other traits. These findings are consistent with our prediction that high agreeableness and a combination of low extraversion and high neuroticism predispose individuals to feel appreciative and self-abasing humility, respectively. However, when controlling for evaluative valence, self-abasing humility correlated positively with agreeableness, again pointing to the possibility that both sides of humility involve a desire to affiliate with others.

Finally, consistent with our expectation that modesty and humility are closely linked traits, both humility factors were strongly and positively correlated with dispositional modesty. Eight items overlapped between the modesty scale and the humility factors (*confident*, *content*, *honest*, *graceful*, and *humble*, which loaded highly on appreciative humility; *shy* and *embarrassed*, which loaded highly on self-abasing humility; and *unpretentious*, which did not load highly on either factor). The correlations between each humility factor and the modesty scale were nearly identical regardless of whether these eight words were or were not included ( $r_s = .79$  and  $.71$  for appreciative and self-abasing humility, vs.  $.72$  and  $.67$ , respectively), suggesting

that the observed relations are not attributable to item overlap. These results indicate that modesty is strongly linked to both humility dimensions; this is in contrast to the results presented above, in which the word “modest” loaded much more strongly on the appreciative than the self-abasing humility factor. Taken together, this pattern of findings indicates that although the word “modest” is more closely tied to appreciative humility, the broader construct of modesty encompasses elements of both appreciative and self-abasing humility. Given the close link between modesty and humility, it seems likely that the same is true of the word “humble” *vis a vis* the construct of humility.

In summary, Study 3 corroborates the findings of Studies 1 and 2 by providing further evidence for the existence of the two distinct humility dimensions. The content of appreciative humility again appeared similar to that of agreeableness, whereas the content of self-abasing humility appeared to overlap with introversion, neuroticism, low self-esteem, and shame. The observed positive associations between appreciative humility and authentic pride, self-esteem, and prestige-based status suggest that appreciative humility arises following a personal success resulting in feelings of accomplishment and positive self-evaluations, and is related to earning respect and admiration from others. The associations between self-abasing humility and shame, embarrassment, and submissive behavior suggest, in contrast, that self-abasing humility arises following a personal failure in which one appraises him or herself as worthless compared with others and consequently seeks to hide from negative evaluations.

## Study 4

Studies 1 through 3 provide converging evidence that the subjective experience of humility consists of two distinct dimensions, which each involve divergent eliciting events, self-evaluative cognitions, emotional feelings, and action tendencies. However, in all of these studies, conceptualizations of humility were drawn from lay persons. Unlike more basic emotions such as anger and fear, humility is clearly a complex experience, and one that has been the topic of philosophical and religious study for centuries. As a result, it is unclear whether lay people are able to adequately formulate or articulate a complete understanding of the construct; indeed, researchers have argued that the self-abasing conceptualization of humility should be disregarded because it originates primarily from the “average person on the streets,” and contradicts the majority of academic psychologists' conceptualizations (Tangney, 2000, p. 71).

To examine whether the two-factor structure of humility is an artifact of lay knowledge, in Study 4 we sampled academic experts; specifically, members of editorial boards at major journals in philosophy and religious studies, two disciplines in which humility has been a central topic of inquiry for many years. We asked these experts to report their conceptualizations of humility, and then examined whether their responses mapped onto the same two conceptual dimensions—appreciative and self-abasing—that were identified in Studies 1 through 3. We also examined whether experts' conceptu-

<sup>11</sup> We chose to include philosophers and religious scholars in our expert sample, rather than psychologists, because psychological conceptualizations of humility were captured by our comprehensive literature review of psychological research on the construct, presented in the introduction. As our review suggests, psychologists who have studied humility view it as a uniformly positive and socially desirable construct.

alizations of humility included words describing thoughts, emotions, and action tendencies, similar to those found to characterize lay perceptions and experiences of humility.<sup>11</sup>

## Method

**Participants.** We searched SCImago Journal Rank to identify the five most highly ranked journals in the fields of philosophy and religious studies, with the condition that each journal was not also cross-listed in other fields (e.g., psychology). The five philosophy journals identified were *The Philosophical Review*, *Ethics*, *Nous*, *Mind*, and *Australasian Journal of Philosophy*. The five religious studies journals identified were *Journal for the Scientific Study of Religion*, *Journal of Empirical Theology*, *Journal of Reformed Theology*, *Religions*, and *Theological Studies*. We next compiled a list of editors at each of these journals ( $n = 325$ ), from which we randomly selected 100 individuals to contact with a request to complete our online survey. Our final sample consisted of 19 experts who responded to our request ( $M$  age = 59.05,  $SD = 9.43$ , range = 38–72; 63% male), the majority of whom reported primary affiliations with the fields of philosophy ( $n = 11$ ; 58%) and religious studies/theology ( $n = 6$ ; 32%).<sup>12</sup>

**Procedure.** Experts received the following instructions:

Please write down a list of words that reflect what people typically think, feel, and do when experiencing humility. These words or phrases could be characteristic of the thoughts in people's heads, the behaviors people show, or the way people feel emotionally and physically.

We then compiled the resultant word lists into a final set of 126 unique words and 42 unique short phrases used to describe the humility experience (see Tables 4 and 5 for full list). Of these, *modest* ( $n = 7$ ) and *humble* ( $n = 3$ ) were the most frequently listed words; all other words were listed by 1 or 2 experts.

Next, six advanced psychology undergraduate students categorized each of the 168 words and phrases generated by experts as either appreciative or self-abasing humility. These coders were trained to identify the relevant form of humility using definitions of appreciative and self-abasing humility based on a subset of the highest-loading items on the valence-free appreciative and self-abasing humility factors that emerged in Studies 2 and 3. Specifically, coders were instructed that, "*appreciative humility* is characterized by consideration and kindness toward others, appreciation and understanding of one's own and others' positive qualities, and gracefulness in the face of success," and that, "*self-abasing humility* is characterized by feelings of meekness and submissiveness, a sense of unimportance in the grand scheme of the world, and a desire to withdraw and be alone." Coders were asked to decide whether each word and phrase generated by the expert sample best described appreciative humility, self-abasing humility, or neither. Coders showed strong agreement (mean Cohen's  $\kappa = .67$ ; mean raw agreement = .82).

## Results

**Do expert conceptualizations of humility map onto the two forms of humility?** Of the 126 expert-generated words, 44 (35%) were classified as appreciative humility by all six coders,

and 34 (27%) were classified as self-abasing humility by all six coders. Similarly, of the 42 expert-generated phrases, 22 (52%) were classified as appreciative humility by all six coders, and 5 (12%) were classified as self-abasing humility by all six coders. This means that nearly two thirds (63%) of all words and phrases generated by experts were viewed with complete consensus as capturing either appreciative or self-abasing humility by our coders. Furthermore, if we examine categorizations that reached consensus for 5 of 6 of coders, 85% of words and phrases were judged as characterizing one of the two humility factors (56% appreciative humility; 29% self-abasing humility).

We also examined the content of the 26 (15%) words and phrases that were not cleanly categorized as appreciative or self-abasing humility by at least 5 of 6 coders. Of these 26 words and phrases, 8 were categorized as appreciative or self-abasing humility by 4 coders, and an additional 14 were categorized as appreciative or self-abasing humility by 3 coders; thus, only four words or phrases were not reliably categorized as one or the other form of humility by at least 3 coders ("astonished," "gendered," "intense," "not in the history books").

Of the 26 words that were not cleanly categorized as appreciative or self-abasing humility by at least 5 coders, 13 were categorized as "neither" by two or more coders. Of these 13 words, 9 were categorized as appreciative or self-abasing humility by at least 3 coders; this left only 4 expert-generated words or phrases (the same four as above) that were categorized as "neither" by two or more coders and *not* categorized reliably as either appreciative or self-abasing humility by at least 3 coders (see Tables 4 and 5 for exact codings for each word and phrase).

Nonetheless, to ensure that those words that elicited less consensual classification by our coders did not constitute a coherent third dimension of humility, we examined the content of the 26 words that were not categorized as either appreciative or self-abasing humility by at least five of the six coders. These words appeared to comprise an eclectic mix of components that have previously been theorized as part of humility (e.g., bashful, tender), emotions that may be part of humility (e.g., admiring, overawed), and action tendencies that might follow a humility experience (e.g., agentic, deferential). It is noteworthy that all of these words could describe either an appreciative or self-abasing humility experience, which may explain why several of our coders in fact categorized them as such.

**What is the content of expert conceptualizations of humility?** We next examined whether experts' lists of words and phrases contained elements linked to thoughts, feelings, and action tendencies that were similar to those we found associated with lay perceptions of appreciative and self-abasing humility. First, experts listed 10 distinct emotions as components of the humility experience, including several associated with self-evaluation following a personal failure (e.g., ashamed,

<sup>12</sup> Of the two other experts included in this sample, one reported a primary affiliation with law, and another with psychology. Excluding the words listed by the expert whose primary affiliation was psychology did not change the nature of the results. Originally we had planned on sending the survey to all 325 experts; however, we felt that the 168 words and phrases generated by the initial 19 respondents provided a broad and representative sample of humility-related content, and therefore did not contact the remainder of experts.

Table 4  
*Humility-Related Words Generated by Academic Experts (Study 4)*

Word	Appreciative Humility	Self-Abasing Humility	Neither
<b>Appreciative Humility</b>			
accepting	6	0	0
adaptable	6	0	0
appreciating	6	0	0
collaborative	6	0	0
compassionate	6	0	0
connected	6	0	0
constructive	6	0	0
curious	6	0	0
dignified	6	0	0
equal	6	0	0
friendly	6	0	0
generous	6	0	0
graceful	6	0	0
grateful	6	0	0
grounded	6	0	0
happy	6	0	0
honest	6	0	0
humble	6	0	0
learning	6	0	0
listening	6	0	0
loving	6	0	0
mature	6	0	0
mindful	6	0	0
modest	6	0	0
mutual	6	0	0
non-arrogant	6	0	0
non-boastful	6	0	0
non-competitive	6	0	0
non-controlling	6	0	0
non-domineering	6	0	0
non-judgmental	6	0	0
non-superior	6	0	0
non-vain	6	0	0
open	6	0	0
open-minded	6	0	0
partnering	6	0	0
respectful	6	0	0
secure	6	0	0
self-discovering	6	0	0
self-reflective	6	0	0
self-understanding	6	0	0
stable	6	0	0
strong	6	0	0
understanding	6	0	0
attentive	5	1	0
aware	5	1	0
calm	5	1	0
caring	5	1	0
dialogue	5	1	0
faithful	5	0	1
hopeful	5	0	1
intimate	5	0	1
maternal	5	0	1
non-authoritative	5	1	0
responsible	5	0	1
self-effacing	5	1	0
selfless	5	0	1
social	5	1	0
tender	5	0	1
tolerating	5	1	0
admiring	4	2	0
deferential	4	2	0
serving	4	1	1
accurate	3	2	1
agentic	3	2	1

Word	Appreciative Humility	Self-Abasing Humility	Neither
<b>Appreciative Humility (continued)</b>			
assertive	3	1	2
concerned	3	2	1
fallible	3	2	1
fearless	3	1	2
interdependent	3	1	2
<b>Self-abasing Humility</b>			
apologetic	0	6	0
ashamed	0	6	0
conflicted	0	6	0
cowering	0	6	0
cringing	0	6	0
degraded	0	6	0
depressed	0	6	0
diminished	0	6	0
down	0	6	0
downcast	0	6	0
embarrassed	0	6	0
fearful	0	6	0
hiding	0	6	0
humiliated	0	6	0
little	0	6	0
lowly	0	6	0
sad	0	6	0
self-critical	0	6	0
self-deprecating	0	6	0
shameful	0	6	0
sheepish	0	6	0
shrinking	0	6	0
small	0	6	0
submissive	0	6	0
subservient	0	6	0
surrendering	0	6	0
unassertive	0	6	0
unconfident	0	6	0
under	0	6	0
unimportant	0	6	0
vulnerable	0	6	0
wary	0	6	0
weak	0	6	0
remorseful	1	5	0
wistful	1	5	0
contrite	0	5	1
inferior	0	5	1
longing	0	5	1
removed	0	5	1
shuffling	0	5	1
shy	0	5	1
tearful	0	5	1
trembling	0	5	1
blushing	2	4	0
undemanding	2	4	0
dependent	0	4	2
mistaken	0	4	2
bashful	2	3	1
searching	2	3	1
simple	2	3	1
overawed	1	3	2
manipulative	0	3	3
unconcerned	0	3	3
<b>Neither</b>			
gendered	0	2	4
intense	1	2	3
astonished	2	2	2

*Note.* Entries in the columns "Appreciative Humility," "Self-abasing Humility," and "Neither" refer to the number of coders (out of 6) who categorized the word as best describing each form of humility (or as describing neither of the two forms). For example, the final entry indicates that the word "astonished" was viewed by 2 coders as best capturing appreciative humility, by 2 coders as best capturing self-abasing humility, and by 2 coders as capturing neither form of humility.

Table 5  
*Humility-Related Short Phrases Generated by Academic Experts (Study 5)*

Short Phrase	Appreciative Humility	Self-Abasing Humility	Neither
<b>Appreciative Humility</b>			
able to look others in the eye	6	0	0
able to show this is an appropriate way to act and be	6	0	0
acknowledging that you are one among many	6	0	0
allowing that others are better at certain things	6	0	0
appreciating one's failures	6	0	0
at peace	6	0	0
aware of finitude	6	0	0
aware of one's shortcomings and limitations	6	0	0
aware of what you don't know, and not hiding it	6	0	0
being other people's equal	6	0	0
being happy be part of a conversation, not its center	6	0	0
ever ready to learn	6	0	0
happy with the way my attitude makes me feel and look	6	0	0
having nothing to pretend	6	0	0
knowing where your worth lies	6	0	0
not given to feelings of superiority	6	0	0
not given to overstatement of one's own achievements	6	0	0
not having an ego	6	0	0
not trying to seem better than others	6	0	0
strong sense of self-esteem	6	0	0
understanding one's limitations	6	0	0
valuing others' virtues	6	0	0
allowing space for others	5	1	0
allowing that one might be mistaken	5	1	0
ever ready to revise positions	5	1	0
hopeful that others will learn to look at themselves in the same way	5	1	0
Not blowing one's own trumpet	5	1	0
noticing without alarm changes over time	5	0	1
noticing without alarm changes in aging	5	0	1
strong, not weak	5	1	0
team player	5	1	0
willing to defer to others	5	1	0
risking one's own space and power	4	0	2
<b>Self-Abasing Humility</b>			
being embarrassed by someone else singing one's praises	0	6	0
fearful of being a doormat	0	6	0
lacking confidence	0	6	0
not aware of one's importance	0	6	0
small in comparison with others	0	6	0
lacking standing	0	5	1
not seen by others	1	3	2
<b>Both Forms of Humility</b>			
not speaking of own performance	3	3	0
<b>Neither</b>			
not in history books	2	1	3

*Note.* Entries in the columns "Appreciative Humility," "Self-abasing Humility," and "Neither" refer to the number of coders (out of 6) who categorized the phrase as best describing each form of humility (or as describing neither of the two forms). For example, the final entry indicates that the phrase "not in history books" was viewed by 2 coders as best capturing appreciative humility, by 1 coder as best capturing self-abasing humility, and by 3 coders as capturing neither form of humility.

embarrassed). Experts also listed several words and phrases that describe self-evaluative cognitions that might follow personal success or failure (e.g., accepting, inferior, grounded, knowing where your worth lies, understanding one's limitations). Finally, experts listed several words or phrases that described action tendencies associated with celebrating others' accomplishments (e.g., admiring, selfless, valuing others' virtues) or hiding from others' evaluations (e.g., cowering, shrinking, not seen by others). These components align with those identified through our assessment of lay person experiences in Studies 2

and 3. Furthermore, these results are consistent with what might be expected if appreciative and self-abasing humility each take the form of a separate emotion plot.

## Discussion

Study 4 provides evidence that the two-factor structure of humility is not an artifact of potentially misguided lay perceptions or semantic confusion; rather, the conceptualizations offered by academic experts in philosophy and theology largely map on to this

same two-factor structure that includes both appreciative and self-abasing humility. Furthermore, the words and phrases experts used to describe humility overlap greatly with the thoughts, feelings, and action tendencies identified through our prior studies of lay humility experiences. These results suggest that not only do academic experts and lay persons share similar a view of humility, but also that they regard humility as involving two distinct experiential flavors—one that includes feelings of accomplishment and sparks a desire to celebrate others' accomplishments, and another that involves feelings of worthlessness and a desire to hide from others' evaluations.

### Study 5

Studies 1 through 4 provide converging evidence that the conceptual structure and subjective experience of humility consists of two distinct dimensions, which involve divergent antecedent events, self-evaluative cognitions, distinct emotions, and other-oriented action tendencies. However, all of these findings relied exclusively on correlational methods, leaving open the question of whether feelings of appreciative and self-abasing humility experiences are causally related to the distinct sets of action tendencies they are associated with. That is, do experiences of appreciative humility directly lead to action tendencies involving other appreciation and connection, while experiences of self-abasing humility directly lead to action tendencies involving avoidance and hiding? In Study 5 we tested whether the two forms of humility could be experimentally induced, and, if so, whether these distinct experiences would produce corresponding changes in behavioral action tendencies.

### Method

**Participants.** Two-hundred five undergraduate students (71% women) participated for course credit.

**Procedure.** Participants were randomly assigned to write about a time they had experienced either appreciative ( $n = 96$ ) or self-abasing ( $n = 108$ ) humility; as in Study 4, the two forms of humility were defined using high loading words from the valence-free appreciative and self-abasing humility factors from Studies 2 and 3. Specifically, participants assigned to recall appreciative humility were told that, “by humility, we mean an event when you felt *considerate*, *compassionate*, and *understanding* toward others, when you showed *kindness and generosity*, and when you displayed *gracefulness*.” In contrast, participants assigned to recall self-abasing humility were told, “by humility, we mean an event when you felt *unimportant*, *small*, and *worthless* compared with others, when you showed *meekness* and *submissiveness*, and when you displayed *shamefulness*.”

Additionally, in light of the findings from Study 2 suggesting that appreciative humility typically follows successes and self-abasing humility typically follows failures, we also sought to explore whether each form of humility could, under certain circumstances, occur following both success and failure. We therefore also randomly assigned participants to recall a humility experience that followed either a personal success or a personal failure; this factor was fully crossed with humility dimension, creating a total of four conditions (i.e., appreciative humility following success [ $n = 49$ ], appreciative humility following failure

[ $n = 47$ ], self-abasing humility following success [ $n = 51$ ], and self-abasing humility following failure [ $n = 58$ ]). To check the validity of our success versus failure manipulation, three undergraduates naïve to hypotheses and blind to condition coded participants' narratives for whether they described a personal success or failure. Coders showed good agreement (mean Cohen's  $\kappa = .84$ ; mean raw agreement = .92); each narrative was therefore classified as concerning either a success or failure, based on how the majority of coders viewed it.

As a manipulation check, after recalling their humility experiences, participants rated how intensely they felt each form of humility, using six items drawn from the prior studies to capture each humility dimension. These items were chosen by identifying all those that had primary loadings of .50 or greater on appreciative or self-abasing humility and cross-loadings of less than .30 in both Studies 2 and 3, and then eliminating items that appeared to reflect evaluative valence rather than substantive content. These criteria led to the inclusion of the following 6 items for appreciative humility: “compassionate,” “considerate,” “generous,” “graceful,” “kind,” and “understanding” ( $\alpha = .94$ ); and the following 6 items for self-abasing humility: “meek,” “shameful,” “small,” “submissive,” “unimportant,” and “worthless” ( $\alpha = .87$ ). Of note, the items used here to assess appreciative humility include five items previously identified as markers of agreeableness (i.e., all except for “graceful”; Goldberg, 1990, 1992). Similarly, several of the items used here to assess self-abasing humility are similar to markers of intraversion (e.g., meek, submissive), neuroticism (e.g., unimportant; Goldberg, 1990, 1992), low self-esteem (i.e., “worthless”; Rosenberg, 1965), and shame (i.e., “shameful”; Tangney & Dearing, 2002).<sup>13</sup> Our ad hoc measure of appreciative humility may therefore be viewed as similar to measures of agreeableness, whereas our self-abasing humility measure may be viewed as a measure capturing a blend of several existing constructs.

Finally, to test whether manipulated experiences of appreciative versus self-abasing humility would be causally related to divergent sets of action tendencies, after writing their narratives participants rated the extent to which they wished to engage in several action tendencies at the time of the event. We created a list of possible action tendencies that might follow a humility episode based on the narratives of humility episodes collected in Study 2. Specifically, the first author read each narrative from Study 2 and wrote an item to capture every behavior that was described as a response to humility, while avoiding redundancy. Participants responded to each of the resulting 56 items using a five-point scale (1 = *not at all*; 5 = *very much*; see Table S2 in the supplemental materials). A principal components analysis of these 56 items suggested that they were characterized primarily by two components; the first seven eigenvalues of the principal components analysis were 11.18, 7.59, 3.21, 2.93, 2.02, 1.81, and 1.63, and the first two accounted for 34% of the variance. The two components could be described as celebrating others' accomplishments (e.g., “I acted extra nice to people”; “I acknowledged the talents of others,” “I pointed out other people's impressive accomplishments”) and hiding from others' evaluations (e.g., “I became extremely quiet”; “I wanted to run away,” “I kept quiet about something I had done”).

<sup>13</sup> Because of experimenter error, however, ratings of these items were available for only 184 participants.

## Results and Discussion

**Manipulation check of humility experiences.** Participants assigned to recall an appreciative humility experience reported greater appreciative humility ( $M_{\text{Appreciative}} = 3.42$ ;  $SD = 1.14$ ) than self-abasing humility ( $M_{\text{Self-abasing}} = 2.39$ ,  $SD = 1.05$ ;  $t(182) = 6.40$ ,  $p < .001$ ,  $d = .94$ ), whereas participants assigned to recall a self-abasing humility experience reported greater self-abasing ( $M = 3.30$ ;  $SD = .88$ ) than appreciative humility ( $M = 2.19$ ;  $SD = 1.01$ ;  $t(182) = 8.04$ ,  $p < .001$ ,  $d = 1.18$ ). Notably, unlike in Studies 2 and 3, appreciative and self-abasing humility were strongly negatively correlated,  $r = -.52$ ,  $p < .001$ , suggesting that these induced humility experiences consisted primarily of the particular form of humility that participants were assigned to recall and not the other form; this is likely attributable to the fact that participants were explicitly instructed to recall an event that involved one of the two forms of humility.

**Validity check of antecedent event manipulation.** Based on our coders' analyses of the written narratives, participants had a great deal of difficulty following instructions for the success/failure manipulation. Of those participants assigned to write about appreciative humility following a failure, 38% ( $n = 18$ ) instead wrote about a success; in contrast, only 12% ( $n = 6$ ) of participants assigned to write about appreciative humility following success instead wrote about a failure. Similarly, of those participants assigned to write about self-abasing humility following a success, 65% ( $n = 33$ ) instead wrote about a failure; in contrast, only one participant (2%) assigned to write about self-abasing humility following a failure instead wrote about a success.

These rates suggest that participants had difficulty recalling appreciative humility episodes that followed failures, and self-abasing humility episodes that followed successes, consistent with the finding of Study 2 that appreciative humility most typically follows success, and self-abasing humility most typically follows failure. Given that 50% of participants in the two incompatible conditions (appreciative humility/failure and self-abasing humility/success) did not comply with our instructions, we collapsed the data across the success/failure manipulation within each humility dimension for all subsequent analyses. Results were conceptually similar when the data were examined separately for the four original experimental conditions (see supplemental materials for full details).

**Do the two forms of humility elicit distinct action tendencies?** To examine the action tendencies that underpin each form of humility, we compared the component scores for the two action tendency components between experimental conditions. As predicted, appreciative and self-abasing humility led to divergent sets of action tendencies. Episodes of appreciative humility caused participants to report a stronger desire to celebrate others' accomplishments ( $M = .30$ ,  $SD = .88$ ) than did episodes of self-abasing humility ( $M = -.26$ ,  $SD = 1.03$ ;  $t(203) = 4.19$ ,  $p < .001$ ,  $d = .58$ ); in contrast, self-abasing humility led to a greater desire to hide from others' evaluations ( $M = .35$ ;  $SD = .88$ ) than did appreciative humility ( $M = -.39$ ,  $SD = .98$ ;  $t(203) = 5.68$ ,  $p < .001$ ,  $d = .79$ ). Corroborating these experimental results, self-reported appreciative humility was correlated strongly and positively with the action tendency to celebrate others' accomplishments,  $r = .64$ ,  $p < .001$ , and moderately and negatively with the tendency to hide from others' evaluations,  $r = -.36$ ,  $p < .001$ ;

in contrast, self-reported self-abasing humility was correlated strongly and positively with the action tendency to hide from others' evaluations,  $r = .65$ ,  $p < .001$ , and moderately and negatively with the tendency to celebrate others' accomplishments,  $r = -.21$ ,  $p < .001$ . Together, these findings thus provide the first evidence that appreciative and self-abasing humility are causally related to distinct action tendencies.

## General Discussion

The present research provides the first empirical examination of the psychological structure of humility. Converging evidence from five studies suggests that humility is characterized by two distinct dimensions, one of which involves feelings of appreciation for others and oneself, and the other of which involves feelings of self-abasement. We also found converging evidence that the two dimensions of humility each involve distinct sets of antecedent events, self-evaluative cognitions, emotions, and other-oriented action tendencies. Appreciative humility typically follows personal successes, involves action tendencies meant to celebrate others, and is linked to emotional and personality dispositions that underlie success and achievement, such as authentic pride and prestige-based status. In contrast, self-abasing humility typically follows personal failures, involves negative self-evaluative cognitions and action tendencies oriented toward hiding from others' evaluations, and is linked to emotional and personality dispositions that underlie failure and withdrawal, such as shame, low self-esteem, and submissiveness. The complexity of these humility experiences is consistent with the concept of an emotion plot—a prolonged episode involving a predictable set of thoughts, feelings, and behaviors—which provides a coherent framework through which to understand humility.

Evidence for two distinct humility factors emerged across studies that (a) examined the semantic similarity of humility-related words (Study 1), (b) assessed momentary humility episodes (Study 2), (c) assessed individuals' dispositional tendency toward humility (Study 3), (d) examined humility related words generated by lay persons and academic experts (Studies 1 and 4), and (e) experimentally induced the two forms of humility (Study 5). We also demonstrated that the same two-factor structure emerges when participants are explicitly told that humility is distinct from humiliation, suggesting that the self-abasing factor does not result from confusion between these two words. Across all reported analyses, we demonstrated that the two factors of humility are not mere artifacts of people's tendency to distinguish between positive and negative valence or social desirability or undesirability, as the two-factor structure emerged when variance attributable to valence and social desirability was statistically removed. However, although the observed associations between each form of humility and distinct antecedent events, cognitions, and action tendencies also emerged even after evaluative valence was controlled for, several of these associations became weaker. Below, we discuss the implications of these findings for researchers' understanding of humility, and outline several future research directions.

## Toward a Nuanced, Empirically Based Understanding of Humility

The present research helps clarify the psychological content of humility, an issue that has not received adequate empirical atten-

tion in prior work. In prior conceptualizations, psychologists have uniformly viewed humility as a positive, socially desirable construct involving appreciation for oneself and others (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004; Tangney, 2000), despite traces of evidence in dictionary definitions, philosophical and theological accounts, and empirical psychological studies that humility may also have a darker side (e.g., Exline & Geyer, 2004; Gregg et al., 2008; Tucker, 2015).

In contrast, our findings suggest that humility in fact comes in *two* forms—one related to appreciation for the self and others, and one related to self-abasement—that each involve distinct antecedent events, cognitions and emotions linked to *self-evaluation*, and action tendencies facilitating *other-recognition*, each of which have been viewed as central cognitive components of humility in prior work (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Tangney, 2000). Appreciative humility typically arises following a personal success, which allows individuals to feel pride about their achievements, but at the same time facilitates a heightened awareness of and kindness toward others. This strong other focus may be why appreciative humility motivates individuals to celebrate others, as was seen in Study 5, but it may also introduce a sense that one's own accomplishment is inferior to that of others. Appreciative humility is therefore likely to promote relatively balanced self-perceptions, in line with prior theory (Tangney, 2000; Peterson & Seligman, 2004). In contrast, self-abasing humility typically arises following perceived failures, which make individuals aware of their inferiority compared with others, resulting in negative self-perceptions and a desire to hide from others' evaluations.

Appreciative and self-abasing humility are also each linked to a distinct set of emotional and personality dispositions that tend to follow personal successes and failures and self-evaluation. Individuals who experience appreciative humility tend to feel authentic pride and show a proneness toward guilt, and report greater prestige; these characteristics portray an individual who experiences frequent success but maintains a grounded view of herself while attending to the needs of others, thereby accruing a reputation of prestige-based status. In contrast, individuals who experience self-abasing humility tend to feel shame, have low self-esteem, and report frequent submissive behaviors and a sense of low inclusionary status; these characteristics portray an individual who fails to accomplish desired goals, and views himself as worthless and deserving of low status.

### Locating Humility Within the Landscape of Personality and Emotion

Based on the content of appreciative and self-abasing humility that emerged across these five studies, it would be misleading to view these dimensions as entirely novel constructs. Appreciative humility appears similar to agreeableness, as many of the words defining appreciative humility have been previously identified as markers of, or synonymous with, agreeableness (e.g., considerate, kind, generous; Goldberg, 1990, 1992). Self-abasing humility appears to tap into a more eclectic mix of constructs. The consistent emergence of “shameful” and “ashamed” as two of the most representative markers of this dimension (as suggested by the high factor loadings) indicates that shame is part of self-abasing humil-

ity, and the presence of “worthless” and “unimportant” suggest that low self-esteem is also a key component of the construct (Rosenberg, 1965). Additionally, several of the words that consistently define self-abasing humility are similar to markers of introversion (e.g., meek, submissive) and neuroticism (e.g., anxious; Goldberg, 1990, 1992).

In fact, consistent with the notion that appreciative humility reflects aspects of agreeableness and self-abasing humility partly reflects introversion and neuroticism, several of the Big Five facets (Costa & McCrae, 1992) map onto the content identified in each dimension of humility. For example, one facet of agreeableness is modesty (Costa & McCrae, 1992), a trait that is closely related to humility (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Peterson & Seligman, 2004; Tangney, 2000).<sup>14</sup> Similarly, self-abasing humility appears to be represented in facets of both (low) extraversion and neuroticism (Costa & McCrae, 1992); the assertiveness facet of extraversion appears to represent the antithesis of the submissive behavior found to characterize self-abasing humility, and the self-consciousness facet of neuroticism appears to capture the feelings of embarrassment and shame which characterize episodes of self-abasing humility.

How might we make sense of this conceptual overlap? One possibility is that an individual's standing on a Big Five trait predisposes him or her to experience a certain form of humility. This view of personality traits as providing a mental preparedness to experience certain emotional states is similar to the perspective put forth by Costa and McCrae (1980), that “extraversion . . . predisposes individuals toward positive affect, whereas neuroticism . . . predisposes individuals toward negative affect” (p. 673; see also Larsen & Ketelaar, 1991). High levels of dispositional agreeableness may predispose individuals toward feeling appreciative humility; initial evidence from Study 3 supports this possibility; the dispositional tendency to feel appreciative humility correlated .27 with agreeableness (controlling for evaluative valence), which was the strongest correlation among all Big Five traits. Importantly, however, the modest magnitude of this correlation indicates that, despite the overlap, appreciative humility and agreeableness are likely to be distinct constructs. Agreeableness, like all of the Big Five traits, is an extremely broad personality dimension. It is therefore likely that experiencing appreciative humility implies that one is being agreeable (i.e., appreciative humility is one instantiation of agreeableness), but that being agreeable does not necessarily imply that one is experiencing appreciative humility (i.e., there are many other ways of being agreeable).

In contrast, low levels of dispositional extraversion, combined with high levels of dispositional neuroticism, may predispose individuals to feeling self-abasing humility; Study 3 again supports this possibility, as the dispositional tendency to feel self-abasing humility was correlated  $-.34$  with extraversion and  $.24$  with

<sup>14</sup> Of note, modesty also appears as one of four facets of the broad trait honesty-humility, a sixth factor of personality included in the HEXACO model (Ashton & Lee, 2007; Ashton, Lee, & De Vries, 2014). Despite debates concerning whether human personality is best characterized by five or six factors, the fact that modesty is represented in both the agreeableness domain on the Big Five and the honesty-humility domain of the HEXACO supports the view that appreciative humility likely aligns with one of the major dimensions of personality.

neuroticism, controlling for evaluative valence (also the highest correlations among all Big Five traits). The link between self-abasing humility and both low extraversion and high neuroticism, however, is likely only part of the story. Our results consistently show that the constructs of shame and low self-esteem are also critical components of self-abasing humility.

Despite the apparent plausibility of an account in which one or more Big Five traits predispose an individual to experience appreciative or self-abasing humility, the present research does not directly test the nature of the relation between humility and broader personality dimensions. An important direction for future work thus involves examining how humility fits into existing structures of human personality, so as to integrate the present findings with prior work on major individual difference dimensions, as well as to further our understanding of how the two forms of humility can be meaningfully differentiated.

### Improving Research on Humility

Our findings point to the importance of conceptualizing and measuring both forms of humility in subsequent empirical work. This research, which employed a bottom-up approach, suggests that previous conceptualizations of humility as involving accurate self-knowledge and other-orientated, prosocial motivations (e.g., Chancellor & Lyubomirsky, 2013; Davis et al., 2010; Tangney, 2000) in fact reflects the narrower construct of *appreciative humility*; not surprisingly, these prior findings have painted an exclusively positive, socially desirable picture of the construct (e.g., Davis et al., 2013; Exline & Hill, 2012; Kesebir, 2014; Kruse et al., 2014; Tong et al., 2016). One contributing factor to this trend may be that all existing scales used to measure humility comprise items capturing content that would fall within the domain of appreciative humility, at the exclusion of self-abasing humility (see Davis & Hook, 2014, for a review). The present results suggest that when a conceptualization of self-abasement is included and assessed, a different set of causes, correlates, and consequences emerge.

It is also worth noting that although “humble” and “modest” appear to be face-valid markers of the construct humility, and therefore appealing measurement tools, our findings suggest that manipulating or measuring humility with these two words is sub-optimal. Both of these words loaded only weakly to moderately on the appreciative humility factor and a general humility factor, and very weakly on the self-abasing humility factor. These findings suggest that these two words primarily capture appreciative humility, but are not the most central items defining that dimension, and are therefore not ideal measurement tools to capture the complex, multifaceted construct of humility, or appreciative humility alone. If researchers wish to capture appreciative or self-abasing humility via self-report, they would be best served assessing those states with items that more directly correspond to the core content of those constructs.

### Limitations and Future Directions

The present research has several limitations, some of which point to intriguing directions for future research. First, although we found suggestive evidence that appreciative and self-abasing humility both contain components expected to comprise the humility emotion plot, we did not examine how these components unfold

over time. For example, although we experimentally induced experiences of appreciative and self-abasing humility in Study 5, we did not examine which antecedents play a causal role in bringing about each form of humility. The findings from Studies 2 and 5 are suggestive in this regard, raising the possibility that events perceived largely as successes promote appreciative humility whereas events perceived as failures promote self-abasing humility. In addition, although we suggested that upward social comparisons are a key cognitive component in the humility emotion plot, as individuals recognize that others’ accomplishments are superior to their own, we did not directly test whether people engage in such comparisons during humility episodes. The findings of Studies 1 and 4 are suggestive in this regard, as both lay persons and academic experts listed words that are typically used to describe upward social comparisons as related to humility (e.g., diminished, inferior, small). However, future studies are needed to directly test for a causal relation between success and failure events, as well as examine the role of upward social comparisons in humility experiences.

Similarly, although we examined the link between the tendency to feel appreciative and self-abasing humility and various emotional dispositions, we did not examine how these emotional feelings play out in momentary humility episodes, or whether they have a causal role in promoting the action tendencies that are integral to humility. For example, do feelings of authentic pride and guilt lead individuals experiencing appreciative humility to recognize and celebrate others’ accomplishments, and do feelings of shame and embarrassment lead individuals experiencing self-abasing humility to withdraw and hide from others’ evaluations? Future work should address these questions with more powerful designs, such as experience-sampling or longitudinal data collection. These approaches would allow researchers to capture the *process* implied in our emotion plot account; specifically, does humility follow daily successes and failures and involve a sequence of self-evaluative cognitions, distinct emotions, and action tendencies that play out over the course of a single episode?

A third limitation is that our studies employed samples exclusively drawn from Western populations, making it important to examine whether the two-factor structure of humility generalizes across cultures. More specifically, even if two-factors of humility are found to exist in wide variety of populations, it is questionable whether self-abasing humility would be considered a “dark side” of the experience everywhere. A large body of research has shown that self-enhancing motivations are generally stronger among Westerners compared with members of East Asian cultures, where Confucian philosophy has historically emphasized self-effacement (Heine & Hamamura, 2007; Heine, Lehman, Markus, & Kitayama, 1999). The pervasiveness of self-critical tendencies among East Asians raises the possibility that self-abasing humility might be considered a desirable experience in East Asian cultures, in the same way that appreciative humility has been described as a virtue in prior work in the Western world (e.g., Chancellor & Lyubomirsky, 2013; Peterson & Seligman, 2004). Future research should therefore seek to assess the two-factor structure of humility, as well as individuals’ views toward each humility factor, in an East Asian population.

Finally, the present research did not examine the social functions of humility, leaving this an important open question for future work. Functionalist accounts of emotions suggest that the



action tendencies motivated by distinct emotional experiences serve an adaptive purpose (Frijda, 1988; Keltner & Gross, 1999). What, then, is the function of humility? Studies 3 and 4 may provide clues. In convergence with other recent work (Davis et al., 2013), these results link appreciative humility to prestige-based status and communion, suggesting that this form of humility may help individuals foster in others the perception that they are skilled and competent yet prosocial group members, who deserve admiration and a corresponding boost in social rank (Cheng et al., 2013). Experiencing appreciative humility alongside authentic pride in response to success may help individuals avoid excessively focusing on their own accomplishments and prompt them to recognize the role played by others—which in turn should ensure their receipt of a deserved status increase.

The function of self-abasing humility is less clear, given its association with submissive behavior and low agency, both of which may lead individuals to be perceived as aloof and low in status (Anderson & Kilduff, 2009). One intriguing possibility is that, similar to shame, self-abasing humility may be derived from ancient submissive strategies used to signal one's awareness of a failure or decline in social standing (Fessler, 2007; Gilbert, 1997). Such signals may play an important role in communicating the humble individual's willingness to relinquish power or resources. Also like shame, self-abasing humility may motivate individuals to withdraw from social situations where they would otherwise face anger and even punishment for a transgression or failure. In contrast to shame, however, results of Studies 2 and 3 show that, once evaluative valence is controlled for, self-abasing humility is positively associated with a range of affiliative behaviors and traits, including a desire to express gratitude and seek out others, as well as dispositional communion and agreeableness. Self-abasing humility may therefore involve a simultaneous desire to hide from others' evaluations and connect with others, pointing to a more complex and perhaps more socially advantageous function than that associated with shame. It is beyond the scope of the present data to adjudicate these possibilities; an important avenue for future work is therefore to pin down the social functions of both forms of humility.

## Conclusion

The current research presented a novel model of humility as consisting of two distinct dimensions, based on lay-person and academic-expert conceptualizations of humility, and self-reports of its subjective experience. Appreciative humility typically arises following success, is characterized by authentic pride and prestige-based status, and leads people to celebrate others' accomplishments. In contrast, self-abasing humility typically arises following failures, involves a low appraisal of one's skills and competence, is characterized by feelings of shame, and leads people to show submissive behavior and to avoid the evaluations of others. Our analyses help shed light on the existence of a self-abasing side to humility, which has, to date, not been acknowledged by psychologists. We hope that the present findings will spark future research into the causes, consequences, and dynamics of both sides of this complex emotional experience.

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