

Chapter 2

The incremental validity of communication styles over personality traits for leader outcomes.¹

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Abstract

Personality traits and communication styles are interlinked, as evidenced by high convergent correlations. Nevertheless, communication styles may have a stronger conceptual link to leader outcomes than broad personality traits do, as they are represented by a subset of behaviors that is specifically important for leaders. As expected, we found that expressive and precise communication styles have incremental validity over the personality dimensions extraversion and conscientiousness in the prediction of leader criteria. The results of this study underscore the relevance of communicative behavior for leaders, provide a new concept to use in future leadership research, and may help leader development practitioners in better focusing communication training efforts.

Do interpersonal communication styles have incremental validity over personality traits for leader outcomes? Communicating is a core activity of a leader, but limited research so far has investigated this question. Communication styles are related to personality (Daly & Bippus, 1998; Horvath, 1998; McCroskey & Beatty, 2000) and throughout the leadership literature individual differences in personality have been related to successful leadership (Judge, Bono, Ilies, & Gerhardt, 2002; Zaccaro, 2007). Given the importance of communication for leaders (Atwater & Waldman, 2008; Shamir, 1998), the concept of communication styles may be of interest for leadership research regardless of any added value to predict leader outcomes over personality. However, if communication styles do have incremental validity over personality, the concept may help to further our understanding of leadership.

We suggest that communication styles have incremental validity over personality in predicting leader outcomes due to the relevance of communication for leadership. The use of conceptually linked predictors and criteria increases the predictive validity of personality tests for work and study related outcomes (Bergner, Neubauer, & Kreuzthaler, 2010; Lievens, De Corte & Schollaert, 2008). Personality traits are reflected in all behaviors of an individual, whereas communication styles are reflected in a subset of behaviors (i.e., the communicative behaviors). Communication styles may thus be considered a narrow (facet-level) domain within the personality sphere. Several items in general personality measures may be hard to assess in a leader-subordinate situation or are conceptually not linked with leader criteria. Taxonomies of leader behavior (for an overview see Fleishman et al., 1991) generally include many communicative acts; this subset of behavior may therefore be specifically relevant for leadership. We therefore assume that communication styles have incremental validity for leader outcomes over personality traits. The aim of our study is to test this assumption. Although there is ample research on the use of narrow constructs for predicting human behavior (Paunonen, Haddock, Forsterling, & Keinonen, 2003), study-related outcomes (Paunonen & Ashton, 2001), and general work-related outcomes (Ashton, 1998), there is limited research on the

incremental validities of narrow constructs over broad ones for leader criteria. Thus our study will not only contribute to the leadership literature, but also to the literature on the predictive validity of broad versus narrow personality constructs.

Relations with leader outcomes

McAdams and Pals (2006, p. 207) note that personality consists of “[...] *broad dimensions of individual differences between people, accounting for interindividual consistency and continuity in behavior, thought, and feeling across situations and over time*”. Research on the relation between personality and successful leadership has flourished and perished in the leadership literature. Recently, the conceptualization of the Big Five personality traits (Goldberg, 1990; Costa & McCrae, 1988) led to a resurgence of the trait-based approach as it provided a general organizing framework. In their meta-analysis, Judge et al. (2002) found a multiple correlation of .39 between the Big Five traits and leader effectiveness and of .53 between traits and leader emergence. These and similar findings support the notion that individual differences may help to predict who will be successful as a leader (Hogan & Kaiser, 2005; Zaccaro, 2007). In the literature, each of the Big Five broad personality dimensions has been found to be related to leader criteria. As to which dimensions are most relevant, it depends on the specific vocational setting and outcome measure, but extraversion and conscientiousness have consistently been strongly related to various leader criteria (Barrick, Mount, & Judge, 2001; Judge et al., 2002).

As leadership is a highly social phenomenon, communication is an essential activity for a leader (Atwater & Waldman, 2008; Penley & Hawkins, 1985). Obviously, the content of a leader’s communication is important for subordinates. However, the way a leader communicates may be equally important for subordinates (Richmond, McCroskey, & Davis, 1982). Someone’s interpersonal communication style can be defined as “*the characteristic way a person sends verbal, paraverbal, and nonverbal signals in social interactions denoting a) who s/he is or wants to (appear to) be, b) how s/he tends to relate to people with whom s/he interacts, and c) in what way his/her messages should usually be interpreted*” (De Vries, Bakker-Pieper, Alting Siberg, Van Gamen, & Vlug, 2009, p. 179). Recent studies found multiple correlations between same source ratings of a leader’s communication styles and leader performance ranging from .69 to .82 (Bakker-Pieper & De Vries, 2012.; De Vries, Bakker-Pieper, Oostenveld, 2010). In these studies, the communication styles preciseness and expressiveness were mostly strongly related to various leader outcomes.

The relation between personality and communication styles

Personality and communication styles are interlinked (Daly & Bippus, 1998; Horvath, 1998; McCroskey & Beatty, 2000). However, every behavior may be a reflection of some underlying personality trait (Kornør & Nordvik, 2004), whereas communication styles will only be reflected in a subset of behaviors. General behavioral instruments may

include items on any kind of behavior, including someone's communicative behavior. The HEXACO Personality Inventory-Revised is a recently developed instrument for measuring the six broad personality dimensions that have been established in lexical research and that have been found to be cross-culturally replicable (Ashton et al, 2004). It is an acronym of the traits Honesty-humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to experience.

The dimensions extraversion, conscientiousness and openness to experience correspond closely to the similarly named Big Five dimensions as operationalized by the NEO-FFI (De Vries, De Vries, De Hoogh, & Feij, 2009). Extraversion reflects talkativeness, liveliness, and feeling at ease in a variety of social situations. Conscientiousness represents a tendency to work hard, be thorough, seek order, and deliberate carefully before acting. Openness to experience reflects inquisitiveness, creativeness, and unconventionality, and a love of art and nature. HEXACO agreeableness represents a tendency to be lenient towards other people and to be willing to cooperate and compromise. It also contains (reversed) irritability, which in the Big Five forms part of emotional (in)stability. HEXACO emotionality contains sentimentality, which in the Big Five is part of agreeableness, and represents fearfulness and a tendency to be anxious and depending on others for emotional support. The sixth dimension of the HEXACO model is honesty/humility, which reflects sincerity, fairness, greed avoidance, and modesty. This dimension has shown predictive validity for several work related criteria (De Vries, De Vries et al., 2009; De Vries & Van Kampen, 2010). Moreover, the six dimensional model of personality has shown significant incremental validity for various criteria over frequently used five dimensional models (Ashton & Lee, 2008), which is why we will use the HEXACO-PI-R in our study.

There are various measures of interpersonal communication (for an overview, see Rubin, Rubin, Graham, Perse, & Seibold, 2009), but for long, an integrated framework of communication styles was lacking (Daly & Bippus, 1998). Recently, a lexical research was undertaken to identify such framework (De Vries, Bakker-Pieper et al. 2009) and subsequently, an instrument was developed to measure the broad dimensions of communication styles that were derived from that lexical research, the Communication Styles Inventory (CSI). It operationalizes six communication style dimensions: expressiveness, preciseness, verbal aggressiveness, questioningness, emotionality, and impression manipulativeness. In a recent validation study the CSI demonstrated adequate psychometric properties (De Vries, Bakker-Pieper, Konings, & Schouten, in press). The CSI furthermore showed a predicted pattern of convergent validities with the high-low context communication styles of Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, and Heyman's (1996), Infante and Wigley's (1986) verbal aggressiveness, and Infante and Rancer's (1982) argumentativeness. However, none of those instruments captured all the dimensions that were represented by the CSI. As communicative behavior was assumed to be subsumed under broad personality traits, convergent correlations of the CSI dimensions with the HEXACO traits were also analyzed by De Vries et al. (in press) and

were found to be mostly strong. The findings confirm that communication styles are closely related to broad personality traits, although the assessment of communication styles is based on a specific subset of all possible personality-related behaviors. The validity of each of the dimensions with convergent construct scales from various measures suggests that the CSI represents an integrated framework of communication style dimensions and therefore we will use the CSI in this study.

The added value of communication styles

One of the main reasons why communication styles may add value over personality traits in predicting leader outcomes has to do with the specificity of the communication styles. Personality traits such as the Big Five or HEXACO dimensions are so-called 'broad' traits. The use of broad versus narrow personality traits is a debated issue in the literature on the predictive value of traits for general behavior and for education and work related outcomes (Ones & Viswesvaran, 1996; Paunonen & Ashton, 2001). In a meta-analysis, Dudley, Orvis, Lebiecki, and Cortina (2006) concluded that narrow or more specific traits may have incremental predictive value over broad traits, depending on the criterion used and the vocational setting. In the literature, we could only find two studies on broad versus narrow traits in a leadership context, and they also conclude that narrow predictors have incremental validity over broad ones (Bergner et al., 2010; Christiansen & Robie, 2011). When narrow predictors are conceptually closely linked with criteria, they may outperform broad predictors (Bergner et al., 2010; Hogan, 2005). Some items of personality measures are hard to realistically use for a leader situation as they refer to internal states or personal preferences or not-leadership-related acts (e.g. from the HEXACO PI-R: "He/she sometimes feels that he/she is a worthless person."). Most communicative acts are applicable in a leadership setting and given the importance of communication for leadership, we assume that communication styles are conceptually relevant narrow predictors for several leader outcomes.

In the literature, frequently used leader criteria are subordinate perceived leader performance, satisfaction with the leader (Judge et al., 2002; Judge, Piccolo, & Illies, 2004), high quality Leader-Member Exchange relations (LMX, Gerstner & Day, 1997), and trust in the leader (Dirks & Ferrin, 2002). The main reason to be interested in these leader criteria is that they are related to various positive organizational outcomes (Hogan & Kaiser, 2005), although satisfaction with the leader, LMX, and trust may contribute to a subordinate's general wellbeing and may therefore be of interest as such. Intention to leave is another often used leader criterion. It is generally considered an undesirable outcome for an organization as it is associated with additional costs (Schyns, Torka, & Gössling, 2007). Leader-subordinate interaction to some extent underlies each of the criteria, implying that leader communication styles are conceptually relevant. We will use these leader outcomes in our study.

Studies on the validity of personality traits for work related outcomes mostly use target self-ratings of individual differences. However, several scholars have recently

argued that other-ratings may be as predictive as or even more predictive than self-ratings for some criteria (Barrick & Mount, 2005; Hogan, 2005; Hough & Oswald, 2005) and support for this has been found (Mount, Barrick, & Strauss, 1994; Oh, Wang, & Mount, 2011; Zimmerman, Triana, & Barrick, 2010). For predictors such as someone's communication style, it seems more relevant to assess how important interaction partners such as subordinates rate the leader's communicative behavior than how leaders themselves *think* that they communicate (Hogan, 2005). Moreover, we would argue that subordinate ratings of leader behavior are the most appropriate source as subordinates experience their target indeed as a leader, whereas superiors would rate their subordinate, peers their equal, and customers their supplier (Hogan, Curphy, & Hogan, 1994). Therefore, in this study we will use subordinate-ratings of leader predictors. As far as the criteria are concerned, it is clear that subordinates are the unique source for rating their own satisfaction, their opinion on the quality of LMX, their intention to leave, and their level of trusting the leader.

Meta-analyses show that, of the broad personality dimensions, extraversion and conscientiousness are consistently and strongly related to leader criteria (Barrick et al., 2001; Judge et al., 2002). In the study of De Vries et al. (in press), the highest communication style correlate of extraversion was expressiveness ($r = .67$) and for conscientiousness it was preciseness ($r = .35$). The importance of extraversion underscores the relevance of communicative behavior for leadership, as it represents the tendency to demonstrate highly social and energetic behavior and most measures of extraversion (including the HEXACO-PI-R) include many communicative acts. Nevertheless, in most personality questionnaires extraversion scales also include some items that are internal states or attitudes that are therefore conceptually less related to leadership (e.g. 'He/she sometimes feels that he/she is a worthless person' from the HEXACO extraversion scale). This may negatively impact validities with leader criteria compared to the CSI expressiveness scale, as each expressiveness item pertains to communicative behavior that a leader may display. We therefore assume that the communication style expressiveness is conceptually even more closely linked with leader criteria than extraversion and consequently will have incremental validity. We propose:

Hypothesis 1: A leader's expressive communication style has incremental validity over leader extraversion for leader outcomes.

For trait conscientiousness, most scale items focus on someone's internal states and attitudes and on his/her own activities. The scale items for preciseness pertain to a well structured way of communicating, to using the right number and choice of words, and to talking about something substantive. In everyday leader practice, the content of the communication should make sense. However, we assume that the level of preciseness will determine the ease and speed (or lack) of the subordinates' understanding of the message. In the literature, the ability to communicate clearly and unambiguously is

associated with greater leader influence (Dewan & Myatt, 2008). If a leader doesn't succeed in communicating ideas, views, information, instructions, plans, and targets in a clear and unambiguous way, subordinates may find it harder to determine what is expected of them. Consequently overall performance may suffer, subordinates may be less satisfied, and leader-subordinate relationships may be negatively impacted (Gerstner & Day, 1997; Hinkin & Schriesheim, 2008). Therefore we propose:

Hypothesis 2: A leader's precise communication style has incremental validity over leader conscientiousness for leader outcomes.

Method

Data collection procedure

We obtained two community samples through several means (personal contacts, (virtual) social networks, flyers, and snowballing). There are several advantages of an internet survey that make them compelling to use (e.g., ease of reaching people further away and ease of reminding). As previous research has found that internet personality surveys yield similar results to traditional surveys (Gosling, Vazire, Shrivastava, & John, 2004), we felt comfortable in using this approach. As the questionnaire was rather long since both personality traits and communication styles needed to be assessed, we decided to limit the number of criteria in our first study. To further investigate the incremental validity of communication styles over personality traits for leaders, we added criteria for a second study and we decided to change the procedure by dividing the questionnaire in two. Same-time method bias suggests that relations between variables that are measured at the same time will be stronger than relations between variables that are measured at different points in time. To test our hypotheses as conservative as possible, in Study 2 personality and the criteria were assessed in the same sub-questionnaire and the communication styles were assessed at a different time.

The target population for Study 1 was anyone over 16 year old working for any organization. Participants had to rate their current supervisor. A gift certificate of EUR 20,- was raffled among the participants. We stopped approaching potential participants when the sample neared 100 and waited about a week for late responders. A total of 106 participants completed a questionnaire on their leader's communication styles, personality, and leader criteria. We calculated *M*'s and *SD*'s for each case and visually inspected the answers when the mean was higher than four or lower than two or the standard deviation was higher than 1.60 or lower than .50. When we found rows of 20 or more questions with the same answer or long rows with the same answer pattern, the case was considered an outlier and was deleted. Six cases were deleted from the file, leaving 100 for analyses.

The target population for Study 2 was anyone over 16 years who worked at least 20 hours per week for any organization. Similar to Study 1, participants had to rate their

supervisor. However, in Study 2, the data were gathered at two different points in time. At T1, participants completed a questionnaire on their leader's communication styles and at T2 they completed a questionnaire on their leader's personality and on various leader criteria. At T1 an e-mail address was obtained which was used a week later to send a link to the second questionnaire and a code had to be provided by participants both times in order to match the data. We stopped approaching participants when the sample for the first questionnaire neared 150. Ultimately, the first questionnaire was completed by 165 participants, the second by 122. After matching and checking for outliers (same procedure as for Study 1), 120 cases remained for analyses.

In order to ensure as much as possible that participants represented themselves accurately, we took several measures. In Study 1, participants had to provide their e-mail address in order for us to be able to inform them if they had won the gift certificate. This provided a certain measure of comfort that the same people did not complete the survey more than once, as the same e-mail address was not used twice. In Study 2 no financial incentive was given, but participants had to provide an e-mail address and a code in order for us to send them questionnaire part 2 and to match the data of the two questionnaires. Here again we gained some comfort from the fact that the same e-mail address and code combination was not used twice. In order to take away any discomfort about assessing one's supervisor 'publicly', which may lead to desirable answers rather than honest ones, we emphasized in the introduction that the information provided would be treated strictly confidential and would be used only by the researchers in relation to the specified research goal.

Participants

The average number of months participants worked with the leader that they assessed was 49 ($SD = 68$) and 50 ($SD = 66$), and in both studies the median was 24 months. In Study 1, 73 (73%) of the participants were female. The average age was 37 years ($SD = 13.50$) ranging from 19 to 65 years. Of the leaders 49 (49%) were female. Of the 100 participants, 26 had a low level of general or professional education, 27 a moderate and 30 a high level of professional education, and 17 a university degree. In Study 2, 75 (63%) of the participants were female. The average age was 37 years ($SD = 11.97$) ranging from 20 to 62 years. Of the leaders 39 (33%) were female.

Instruments

HEXACO-PI-R. For measuring their leader's personality traits, participants completed the short other-version of the HEXACO-PI-R. This version contains 96 items (excluding the 4 items measuring altruism, an interstitial facet; see De Vries, Ashton, & Lee, 2009, for the Dutch items used in this study, or www.hexaco.org for the English version). In Study 1 alpha reliabilities ranged from .75 (emotionality) to .91 (honesty/humility) and in Study 2 from .78 (extraversion) to .89 (agreeableness). Previous studies demonstrated that the psychometric properties of the other-version of the

HEXACO-PI-R are adequate and that the dimensional content is comparable to that of the self-version (Ashton & Lee, 2010; Lee & Ashton, 2006). The absolute intercorrelations in the combined dataset (see Table 1) ranged from .07 (emotionality – agreeableness) to .57 (honesty/humility – agreeableness), with an average absolute intercorrelation of .28. This is somewhat higher than found in previous studies for self-ratings; e.g. the absolute intercorrelations in the study of De Vries and Van Kampen (2010) ranged from .01 (honesty/humility- extraversion) to .29 (honesty/humility – agreeableness) with an average of .13. However, the intercorrelations are still low enough to indicate sufficiently independent dimensions (Lee & Ashton, 2006).

CSI. Participants completed the other-version of the CSI to measure their leader's communication styles. The CSI consists of 96 items which operationalize the six communication style domains expressiveness, preciseness, verbal aggressiveness, questioningness, emotionality, and impression manipulateness (see Appendix 2 for the items of the CSI other-version). For Study 1 alpha reliabilities ranged from .79 (impression manipulateness) to .93 (verbal aggressiveness) and for Study 2 they ranged from .74 (impression manipulateness) to .89 (verbal aggressiveness).

To assess the validity of the other-version of the CSI, we first calculated congruence coefficients. Each communication style dimension consists of four underlying facets. Using the combined data from these studies (see below for a comparison of the data sets), we conducted a Principal Components Analyses on the 16 facets of the CSI. Six principal components with eigenvalue > 1 were extracted, explaining 68.0% of the variance in the data. To check the consistency of the factor solution obtained, we performed a procrustes analysis using the factor loadings matrix from the validation study as target. This was based on self-ratings instead of other-ratings (De Vries et al., in press). We found an average congruence coefficient of .94 and for each of the factors separately it was >.90. As the two samples used different sources (self versus other), these congruence coefficients are quite high. The absolute intercorrelations for the combined data (see Table 1) ranged from .00 (emotionality – questioningness) to .46 (verbal aggressiveness – preciseness), with an average of .22. The average absolute Pearson correlation for the self-ratings in the community sample of the validation study was .19, for the self-ratings of the student sample it was .15 (De Vries et al., in press). The differences with our study were not significant ($\chi^2 = .39, p = n.s.$) and overall the intercorrelations were low enough to indicate that the dimensions were independent.

Criteria. We used a five item performance scale that was based on Hooijberg's five item leader performance scale (1996). The items relate to leader success, performance targets, peer comparison, role model, and overall effectiveness. The alpha reliabilities of this scale were .85 and .84 in Study 1 and 2 respectively. Our satisfaction with the leader scale contained a slightly adjusted version of the four items used by De Vries et al. (2010). The alpha reliabilities of this scale were .92 and .87 in Study 1 and 2 respectively. The items of these criteria scales can be found in Appendix 1.

In Study 2 (not in Study 1), we measured intention to leave (the organization), LMX, and trust in the leader. The scale for intention to leave consisted of four items (see Appendix 1); three were used by Chen, Hui, and Sego (1998) and we added one item from Randsley de Moura, Abrams, Retter, Gunarsdottir, and Ando (2009). The alpha reliability was .88. To measure LMX we used Liden and Maslyn's (1998) 12 item scale from the subordinate perspective. Although the scale was developed as a multidimensional construct, support for a main higher order factor was repeatedly found and a composite of the items has therefore been recommended as a measure of overall LMX (Atwater & Carmeli, 2009; Bauer, Erdogan, Liden, & Wayne, 2006). The alpha reliability in our study was .87. For measuring trust we used the 16 item trust scale from Spreitzer and Mishra (1999). The alpha reliability was .90.

Results

We compared the data from both studies by contrasting the personality traits and communication styles beta-profiles of the two sets for leader performance as well as for satisfaction with the leader and found no significant differences. We furthermore compared the convergent correlations of the HEXACO traits with the CSI dimensions of the two sets using Fisher's *r-to-z* transformations and found no significant differences. Then we compared the correlations of each of the trait and style dimensions with leader performance and with satisfaction with the leader, again using Fisher's *r-to-z* transformations. For honesty-humility the positive correlation with leader performance was significantly stronger in Study 1, $z = 1.99$ ($p < .05$) and for impression manipulativeness the negative correlation with satisfaction with the leader was significantly stronger in Study 1, $z = -2.37$ ($p < .05$). For verbal aggressiveness, the higher correlations for leader performance and satisfaction with the leader of Study 1 compared to Study 2 approached significance (z -values were -1.76 ($p < .10$) and -1.90 ($p < .10$) respectively). The correlations of the other trait and style dimensions with leader performance and with satisfaction with the leader were not significantly different between the two studies. Thus, even though in Study 2 one of the predictors (communication styles) was obtained at a different point in time than the other predictor (personality traits) and the criteria, the relations of personality traits and communication styles with these two outcomes were by and large similar. We therefore decided to combine the data for our further analysis.

Table 2.1 presents the means, standard deviations, alpha consistencies, and correlations of all study variables. The convergent correlations of the HEXACO traits with the CSI dimensions are printed in bold. They were strong, ranging from .53 for HEXACO

Table 2.1 Means and standard deviations of all study variables and correlations between them, alpha reliabilities on the diagonal

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Extraversion	3.60	.45	.84																
2 Conscientiousness	3.44	.49	.28**	.82															
3 Agreeableness	2.96	.58	.33**	.20**	.89														
4 Openness	3.09	.50	.37**	.21**	.33**	.83													
5 Emotionality	2.69	.43	-.27**	-.25**	-.07	-.08	.79												
6 Honesty/Humility	3.35	.61	.25**	.34**	.57**	.43**	-.12	.90											
7 Expressiveness	3.34	.51	.71**	.15*	.11	.24**	-.27**	.10	.83										
8 Preciseness	3.31	.58	.19**	.59**	.34**	.31**	-.17*	.37**	.05	.89									
9 Verbal aggr.	2.82	.68	-.28**	-.26**	-.81**	-.37**	.02	-.64**	-.08	-.46**	.91								
10 Questioningness	3.01	.50	.37**	.21**	.09	.53**	-.02	.24**	.42**	.18**	-.19**	.83							
11 Emotionality	2.62	.49	-.30**	-.37**	-.23**	-.10	.76**	-.19**	-.22**	-.32**	.24**	.00	.83						
12 Impr.manip.	2.82	.46	-.16*	-.23**	-.33**	-.26**	.17*	-.65**	-.03	-.28**	.44**	-.11	.25**	.76					
13 Leader perf.	3.46	.73	.55**	.55**	.36**	.31**	-.30**	.34**	.50**	.54**	-.36**	.32**	-.39**	-.26**	.84				
14 Satisf. with leader	3.35	.91	.55**	.34**	.56**	.39**	-.13	.51**	.48**	.47**	-.60**	.35**	-.21**	-.37**	.76**	.87			
15 Intention to leave ^a	2.88	.96	-.22*	-.11	-.25**	-.25**	.13	-.33**	-.13	-.21*	.25**	-.24**	.17	.22*	-.36**	-.39**	.88		
16 LMX ^a	3.58	.52	.45**	.37**	.32**	.42**	-.00	.37**	.49**	.44**	-.40**	.45**	.03	-.17	.65**	.78**	-.35**	.87	
17 Trust in the leader ^a	3.73	.46	.40**	.36**	.21*	.35**	.01	.42**	.39**	.39**	-.29**	.41**	-.06	-.23*	.57**	.60**	-.45**	-.73**	.90

Note. N = 220, ^aN = 120; Convergent correlations between HEXACO and CSI dimensions are shown in boldface; ** p < .01, * p < .05.

openness with CSI questioningness to $-.81$ for HEXACO agreeableness with CSI verbal aggressiveness. The correlation between HEXACO honesty/humility and CSI verbal aggressiveness was strong as well, at $-.64$ as high as the convergent correlation with impression manipulativeness ($r = -.65$). All other divergent correlations were $<.40$. The correlations of each of the personality traits and communication styles with each of the criteria (Table 2.1) showed that personality traits were mostly moderately to strongly related to the criteria, with the exception of emotionality, which was only related to leader performance. Communication styles were also mostly moderately to strongly related to the criteria with the exception of emotionality, which was only related to leader performance and satisfaction with the leader. The correlations of the individual dimensions with criteria were rather differentiated. Some of the criteria were strongly correlated with each other. Satisfaction with the leader correlated strongly with leader performance ($r = .76$) and with LMX ($r = .78$), and trust in the leader with LMX ($r = .73$). Nevertheless, when we compared the correlation of the individual personality and communication style dimensions for these strongly correlated outcomes using Steiger's (1980) test for comparing correlated correlations, we found many significant differences. Overall, correlations with intention to leave were the weakest.

Table 2.2 R^2 and ΔR^2 of hierarchical regressions for two models

	Study 1 & 2 (N = 220)				Study 2 only (N = 120)					
	Leader performance		Satisfaction with leader		Intention to leave		LMX		Trust in leader	
	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
Model 1										
Step 1 ^a	.32**		.46**		.18**		.35**		.28**	
Step 2: Extr & cons	.52**	.20**	.56**	.10**	.19**	.01	.48**	.13**	.38**	.10**
Step 3: Expr & prec	.60**	.08**	.63**	.07**	.20**	.01	.59**	.11**	.45**	.07**
Model 2										
Step 1 ^a	.32**		.46**		.18**		.35**		.28**	
Step 2: Expr & prec	.55**	.23**	.62**	.16**	.19**	.01	.57**	.22**	.43**	.15**
Step 3: Extr & cons	.60**	.05**	.63**	.01	.20**	.01	.59**	.02	.45**	.02

Note. Extr = extraversion, cons = conscientiousness, expr = expressiveness, prec = preciseness.

^a Step 1: HEXACO agreeableness, openness, emotionality, and honesty/humility and CSI verbal aggressiveness, questioningness, emotionality, impression manipulativeness.

** $p < .01$, * $p < .05$.

To test our hypotheses that expressiveness had incremental validity over extraversion and preciseness over conscientiousness, we performed several hierarchical

regression analyses. First we regressed every criterion variable on extraversion in step 1 and added expressiveness in step 2. Expressiveness had incremental validity over extraversion for all but one criteria with ΔF 's ($df = 1, 117$) ranging from 4.15 for trust ($\Delta R^2 = .03, p < .05$) to 10.56 for LMX ($\Delta R^2 = .07, p < .01$), the only exception being intention to leave, for which the ΔF was not significant. A similar analysis for conscientiousness and preciseness showed that preciseness had incremental validity over conscientiousness for all criteria, with ΔF 's ranging from 4.15 ($df = 1, 117$) for intention to leave ($\Delta R^2 = .03, p < .05$) to 31.27 ($df = 1, 217$) for satisfaction with the leader ($\Delta R^2 = .11, p < .01$). These findings provided support for our hypotheses.

However, other personality traits and communication styles may share variance with expressiveness and/or preciseness. A more stringent test of the unique contribution of these two communication styles is therefore to include all traits and styles in the regression analyses. Hence, we regressed every criterion variable on HEXACO agreeableness, openness, emotionality, honesty/humility, and CSI verbal aggressiveness, questioningness, emotionality, and impression manipulativeness in step 1. In model 1, we added extraversion and conscientiousness in step 2, followed by expressiveness and

Table 2.3 Beta's of all predictors for the full model

	Study 1 & 2 (N = 220)		Study 2 only (N = 120)		
	Leader performance	Satisfaction with leader	Intention to leave	LMX	Trust in leader
Agreeableness	.15 [†]	.16*	-.14	.04	-.03
Openness	-.02	-.02	.05	.03	-.09
Emotionality	-.04	-.02	.05	-.12	.11
Honesty/Humility	-.03	.07	-.20	.03	.26*
Verbal Aggressiveness	.04	-.23**	-.07	-.24*	-.02
Questioningness	.03	.04	-.22 [†]	.14	.20*
Emotionality Impr.	-.03	.13 [†]	.09	.32**	.01
Manipulativeness	-.06	-.10 [†]	.07	-.05	-.07
Extraversion	.14*	.14*	-.14	.09	.15
Conscientiousness	.24**	.01	.11	.12	.06
Expressiveness	.31**	.33**	.08	.35**	.22*
Preciseness	.30**	.25**	-.16	.28**	.28**

Note. ** $p < .01$, * $p < .05$, [†] $p < .10$

preciseness in step 3. In model 2, we turned the order of steps 2 and 3 around. Table 2.2 presents the R^2 's and ΔR^2 's of these regressions. They show that for all criteria the control variables explained significant variance in step 1. In model 1, extraversion and conscientiousness added significant variance over the control variables in all criteria but one: intention to leave. In step 3, expressiveness and preciseness also added significant variance in all criteria with the exception of intention to leave, ΔR^2 's ranging from .07 ($p < .01$) for satisfaction with the leader and for trust in the leader to .11 ($p < .01$) for LMX. In Table 2.3, the betas for the full model show that when all trait and style dimensions were included in the regressions, expressiveness and preciseness each contributed uniquely to the explained variance in all criteria with the exception of intention to leave. The personality traits and other four communication styles incidentally also contributed to the explained variance, but not consistently. These results provide further support for our hypotheses that expressiveness and preciseness have incremental validity over extraversion and conscientiousness for the leader outcomes that we used, with the exception of intention to leave.

In model 2, step 3, extraversion and conscientiousness only added significant incremental validity over expressiveness and preciseness in leader performance, $\Delta R^2 = .05$, $p < .01$ (see Table 2). The lack of incremental predictive validity of the two personality traits for the other outcomes provides additional support for our assumption that communication styles are more relevant for leader criteria than personality traits.

Discussion and conclusion

The main finding of this study is that the communication styles expressiveness and preciseness have incremental validity for leader outcomes over the personality traits extraversion and conscientiousness. We expected incremental validity due to the higher conceptual relevance of the communication styles constructs for leadership compared to the broad personality trait constructs. Our results underscore the importance of the conceptual relevance of a predictor for a criterion and the importance of the communication styles expressiveness and preciseness for a leader. Furthermore, the results confirm that narrow constructs, such as communication styles, may outperform broad ones, such as personality traits (Bergner et al., 2010; Christiansen & Robie, 2011; Ashton, 1998). For each criterion, one of the other four communication styles or one of the personality dimensions had unique predictive validity in the full model. For instance, LMX was best predicted by using four communication styles, whereas for trust in the leader the honesty/humility personality dimension was an important predictor and the questioning communication style was also predictive. Given the constructs involved, it seems logical to assume that conceptual relevance may explain these relations as well, which would further highlight the importance of carefully selecting predictors that theoretically 'match' criteria.

Expressiveness refers to a tendency to talk and to steer conversations easily, to demonstrate a sense of humor, and to interact with others in an informal way. For most of

our criteria, high quality interaction between a leader and his/her subordinate is a 'conditio sine qua non'. Obviously, interaction content will contribute to overall quality, but if the process of interacting with someone is difficult, content may go unnoticed. A highly expressive leader is easily approachable and will be much easier to interact with than one who shows low expressiveness. This is in line with findings in the literature on social expressiveness (Riggio, 1986; Riggio, Riggio, Salinas, & Cole, 2003). Riggio c.s. developed the concept of social expressiveness as part of a basic social skill set. It reflects not only that the actor feels at ease during social encounters, but also that he/she really enjoys and actively pursues those (Riggio & Reichard, 2008). Social expressiveness has been found to be positively related to leader behaviors in general, to consideration, and to initiating structure (Riggio et al., 2003), which in turn have been related to various organizational and leader criteria.

Preciseness refers to a tendency to communicate in an organized, well structured and well worded way. Although preciseness had incremental validity over conscientiousness for all criteria, the latter was also a significant contributor in both studies for subordinate perceived leader performance. Conceptual relevance may explain this as well. We assumed that in order for a leader to perform well, his/her subordinates should know what is expected of them. However, possibly a broader set of activities is taken into account when assessing a leader's performance, such as his/her direct output or obtained commercial successes. Conscientious people work meticulously, are goal oriented, well-organized, persistent, and dependable. Conscientiousness has repeatedly been found to be predictive of general job performance. Conceivably, the conceptual relevance of conscientiousness for leader performance is related to *job* performance in general and the conceptual relevance of preciseness is more specifically related to the 'leading' part of the leader's job.

For satisfaction with the leader, LMX, and trust in the leader, the level of a leader's conscientiousness may be less relevant, whereas preciseness is highly relevant. Our finding of the strong relations of preciseness with these leader criteria is in line with findings in the organizational literature that ambiguity and unclarity with respect to organizational roles and processes are negatively related to desired organizational outcomes as they enhance uncertainty (Cicero, Pierro, Van Knippenberg, 2009; Nelson, Brunetto, Far-Wharton, & Ramsay, 2007). Conversely, less ambiguity and more clarity may be expected to be positively related to those outcomes. A precise way of communicating may help reduce ambiguity and enhance clarity on roles and processes.

In our study, relations of our predictors with intention to leave differed from those with the other criteria. Although the combined personality traits or the combined communication styles did predict intention to leave, no trait or style had significant predictive validity. This was surprising, as previous research found that a leader's communication was related to worker intent to stay (Mayfield & Mayfield, 2007). In that study, a leader's motivating language was used as a predictor, which consisted of three

components: direction-giving, empathetic, and meaning-making language. Perhaps it is more the content of communication that is measured in that study which is related to intention to stay; the communication scales that were used focus on providing support for daily work, on a worker's well-being and on his/her future in the organization. Undoubtedly the way this is communicated is important, but that was not measured in the study (Mayfield & Mayfield, 2007).

Furthermore, general job market perspectives may influence someone's intention to leave (Griffeth, Steel, Allen, & Bryan, 2005). As the data in our studies were gathered shortly after the start of a global economic crisis, it is tempting to assume that participants may have been influenced by the general gloomy view on job market perspectives when answering the items related to turnover intention (Schyns et al., 2007). In that case, the conceptual relevance of their leader's personality or communication styles may be small. However, for intention to leave the mean was 2.88 ($SD = .96$), which is comparable to the means from the studies from which the scale items were selected. Other turnover intention scales measure intention to leave the current position but stay within the company. In that case the personality or communication styles of someone's current leader may be more relevant, but further research is required to investigate such a proposition.

Moreover, constructs such as trust and LMX have been found to be antecedents of intention to leave (e.g. Bauer et al., 2006; Dirks & Ferrin, 2002; Tett & Meyer, 1993; Schyns et al., 2007). As expressiveness and preciseness have incremental validity for those constructs over extraversion and conscientiousness, possibly these communication styles are indirectly related to intention to leave via trust or LMX. To check this assumption, we conducted several bootstrapping analyses (Preacher & Hayes, 2004) and found that preciseness had an indirect effect on intention to leave via trust in the leader and via LMX.²

Limitations

At face value, the proportion of female leaders seems relatively high in our study, which may be related to industries or job types represented. However, participants assessed their direct leader and in many environments lower level leaders are female. Nevertheless, industries and job types may have impacted our results. Although generally speaking, there is no strong evidence for the effect of supervisory level or type of industry on the relations between leadership styles and leadership outcomes (e.g., Lowe, Kroeck, & Sivasubramaniam, 1996), future studies might still like to include this information in order to control for possible confounds.

² Details and results of the bootstrapping analyses can be obtained from the first author.

In our study, the same source (subordinates) assessed all our study variables. The use of one source to assess predictors and criteria is often associated with finding inflated relations (Podsakoff, McKenzie, Lee, & Podsakoff, 2003). However, we assume that same source variance has limited impact on our findings for three reasons. First, recently scholars have demonstrated that an inflation effect in observed relations between predictors and criteria due to a common method design is offset by attenuation due to unreliability in the measurement of the variables (Lance, Dawson, Birkelbach, & Hoffman, 2010). Furthermore, Siemsen, Roth, and Oliveira (2010) found that common method related inflation of relations was reduced by including more independent variables in a multivariate linear regression. Our findings seem to reflect similar offsetting effects as no general inflation of all relations was found; predictors were related to criteria in different ways, sometimes strong relations existed, and sometimes no relation at all. In the literature the use of predictors that are conceptually relevant for a criterion (Hogan, 2005; Bergner et al., 2010), the use of narrow predictors (Christiansen & Robie, 2011), and the use of observer reports (Barrick & Mount, 2005; Hough & Oswald, 2005; Mount et al., 1994) are suggested to contribute to higher validities. Our strong multiple correlations with outcomes may be explained by the conceptual relevance of our narrow predictor assessed through other-ratings.

The second reason why we think the impact of same source variance is limited is related to the specific purpose of our study. We argued that the personality traits that we used may be seen as broad predictors and communication styles as narrow ones, and we noted that the concepts were interlinked, which was confirmed by the mostly strong convergent correlations between styles and traits. When different sources are used for two different but closely related predictors, it is impossible to know whether one construct has incremental validity for a criterion or whether a difference in target perception causes differences in validities. Given the close relationship between our predictor constructs, chances of finding incremental validities when the predictors are rated by the same source are small. The fact that we did find incremental validities therefore appears meaningful.

The third reason for assuming limited impact of same source bias is that in Study 2, communication styles were assessed about a week before the personality traits and the criteria were assessed. Same time – same place measurements are also presumed to be biased (Podsakoff et al., 2003), which would imply that the relations between communication styles and criteria in Study 2 would be less strong compared to those in study 1. However, the communication styles had incremental validities in Study 2 as well, even though personality traits –and not communication styles– were assessed at the same time as the criteria. Our findings therefore appear to be robust.

Implications

This study underscores the importance of communicative behavior for leaders and identifies new leader predictors that may help to advance our understanding of

successful leadership through further research and theorizing. When leader-subordinate interaction is part of the process that is under scrutiny, both for researchers and for practitioners it may be advisable to use communication styles instead of personality traits.

For leader development practitioners, the results of our study may be useful in determining areas for leader communication training efforts. Worldwide, companies spend substantial amounts of money on training leaders, and communication trainings feature on most (if not all) corporate training curriculums for leaders. Generally, communication trainings are focused on specific interactions (e.g. conflict, sales, recruitment, crisis, performance feedback, or 'bad news'). For recurrent leader-subordinate interactions, scenarios may be developed in which a leader's expressiveness and preciseness are the focal point for the training. By better gearing trainings to specific leader requirements, it is well conceivable that the return on training investments improves. This assumes that communicative behavior precedes outcomes, which still needs to be established by experimental research or longitudinal research on the long term impact of focused leader communication training.

Conclusion

The expressive and precise communication styles of a leader are related to various leader outcomes. They have incremental validity over the personality dimensions extraversion and conscientiousness. As communicating is a core activity of a leader, this may not come as a surprise. However, as far as we are aware, this is the first study in which closely related operationalizations of personality and communication styles were used and the incremental validity of communication styles was demonstrated. With the results of this study new leadership research models and theory may be developed and tested, and a specific focus for the leadership selection development practice may be provided.