What Breaks a Leader: The Curvilinear Relation Between Assertiveness and Leadership

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The authors propose that individual differences in assertiveness play a critical role in perceptions about leaders. In contrast to prior work that focused on linear effects, the authors argue that individuals seen either as markedly low in assertiveness or as high in assertiveness are generally appraised as less effective leaders. Moreover, the authors claim that observers' perceptions of leaders as having too much or too little assertiveness are widespread. The authors linked the curvilinear effects of assertiveness to underlying tradeoffs between social outcomes (a high level of assertiveness worsens relationships) and instrumental outcomes (a low level of assertiveness limits goal achievement). In 3 studies, the authors used qualitative and quantitative approaches and found support for their account. The results suggest that assertiveness (and other constructs with nonlinear effects) might have been overlooked in research that has been focused on identifying what makes a leader rather than on identifying what breaks a leader.

Keywords: assertiveness, leadership, interpersonal relations, individual differences, curvilinear effects

The study of lives and personalities has long been concerned with questions of which types of people emerge as effective leaders and why (for recent reviews, see Hogan & Kaiser, 2005; Judge, Bono, Ilies, & Gerhardt, 2002). In this wide-ranging literature, a pattern of seemingly contradictory results revolves around *assertiveness*, which is a person's tendency to actively defend, pursue, and speak out for his or her own interests. Some scholars have found that leadership emergence and effectiveness are positively related to high-assertiveness constructs, such as dominance, aggressiveness, and nondeference (e.g., Bass, 1990; Gough, 1990; Hills, 1984; Lord, De Vader, & Alliger, 1986). However, leadership has also been positively linked to low-assertiveness constructs, such as self-sacrifice, cooperativeness, and consideration (e.g., Bass, 1990; De Cremer & van Knippenberg, 2004; Guilford, 1952; Judge, Piccolo, & Ilies, 2004; van Knippenberg & van Knippenberg, 2005). Given these disparate effects, a reasonable observer may suspect that the overarching link between leadership and assertiveness is not meaningful, is extremely situation specific, or, perhaps, is unknowable. But is there an integrated story that can reconcile these past results and shed new light on who is seen as an effective leader and why? Or, to put it more generally: How does assertiveness matter to leadership, if it matters at all?

We believe that individual differences in assertiveness matter greatly to observers' perceptions of leaders and potential leaders but that the nature of this link has proven elusive for researchers, in part, because their focus has been on what makes leaders rather than on what breaks them. Most researchers conducting leadership studies have investigated positive, linear determinants and have attempted to specify which personality characteristics are present in attributions of successful leadership. Far fewer studies have identified attributes associated with ineffective leadership. This make-versus-break distinction would not mean much if leadership perceptions were symmetrical—that is, if the concerns that appear in everyday descriptions of leader weaknesses were simply the opposite of those characteristics associated with leader strengths. In the present article, we suggest that the concerns that dominate perceived weaknesses are not the mirror image of strengths and that this difference can clarify the role of an overlooked component of leadership: assertiveness.

We suspect that the perceived shortcomings of leaders may often revolve around chronically low levels of assertiveness or chronically high levels of assertiveness. High levels of assertiveness may bring instrumental rewards and short-term goal achievement but can be costly when relationships fray or fail to take root. In contrast, low levels of assertiveness may bring social benefits but can undermine goal achievement. Thus, increasing levels of assertiveness may often entail a trade-off between social costs and instrumental benefits—between getting along and getting one's way. However, we do not think these trade-offs offset one another or cancel each other out. Below some level of assertiveness, instrumental costs loom large, and leaders may primarily be seen as ineffective. Above some level of assertiveness, social costs loom large, and leaders may primarily be seen as antagonistic. Accordingly, we predicted a curvilinear relation between assertiveness and overall leadership perceptions, such that above and below certain levels, leaders tend to be seen as less effective.

Our approach and results make several potential contributions to the literatures of personality and leadership. Specifically, we call attention to assertiveness as a critical component of leadership effectiveness. More generally, this work suggests that the impact of individual differences on leadership—and perhaps on basic interpersonal relations—may be underestimated to the extent that nonlinear associations have been overlooked (cf. Simonton, 1995).

Assertiveness: A Behavioral Spectrum

Assertiveness is viewed as a dimension describing people's tendency to speak up for, defend, and act in the interest of themselves and their own values, preferences, and goals[1] (cf. Costa & McCrae, 1992; Wilson & Gallois, 1993). Assertive behaviors can be both proactive (e.g., vocalizing needs) and reactive (e.g., defending against imposition), both verbal (e.g., articulating clear demands) and nonverbal (e.g., displaying annoyance), and both local or immediate (e.g., a face-to-face disagreement) and diffuse or prolonged (e.g., influence tactics over time).

Some scholars have portrayed certain behaviors as occupying various points on an assertiveness continuum ranging from passivity and submissiveness to aggressiveness and hostility (e.g., Wilson & Gallois, 1993). As we explored it in Study 1, everyday use of the term appears to reflect this view, with assertiveness labels attached to a wide range of behavioral levels. Thus, low assertiveness may refer to showing unwarranted deference, high assertiveness may refer to belligerently pursuing goals, and moderate assertiveness may refer to defending against imposition and actively making legitimate claims. We adopt this dimensional view in the present article.

Assertiveness and Perceptions of Leaders

In impression formation, people attend closely to information about assertiveness, showing relatively high levels of observer–observer and observer–target agreement (John & Robins, 1993; Paunonen, 1989; Schmidt Mast, Hall, Murphy, & Colvin, 2003). One related dimension, extraversion, has been identified by numerous scholars as the most observable personality trait (e.g., Kenny, 1994). Another aspect of assertiveness, competitiveness, often plays a key role in impression formation. Several researchers (e.g., De Bruin & Van Lange, 1999; Wojciszke, Bazinska, & Jaworksi, 1998) have found that perceivers are more strongly drawn to information about a target's competitive motives than to his or her intelligence. Work on leadership perceptions has likewise underscored the importance of assertiveness. For instance, Gough (1990) noted that perceived leadership was associated with ratings on items such as active and assertive (see also Judge et al., 2002). In work on explanations for leadership failures, "problems with interpersonal relationships" (Leslie & Van Velsor, 1996, p. 14), including being overly assertive and being passive and withdrawn, have emerged as a central theme.

Given this work linking assertiveness to basic impressions and leadership perceptions and failures, we predicted that coworker comments about the weaknesses of potential leaders would frequently highlight assertiveness. One reason we expected it to be so prevalent in reports of weaknesses is that negative consequences occur in both directions—there are, in effect, two ways to get assertiveness wrong. Those who are seen as highly assertive may be viewed negatively because their behavior seems hostile and offensive (i.e., they cannot get along); those who lack assertiveness may be seen as weak leaders because they fail to take charge in situations that require initiative and conviction (i.e., they cannot get their way). Although many potential leaders may be seen as having too little or too much assertiveness, we did not expect this to be the case with most other commonly discussed attributes of leaders. Other attributes, such as intelligence, charisma, or conscientiousness, would likely be viewed as weaknesses only when targets possessed them in limited amounts (but see Simonton, 1985).

Although we anticipated that over- and underassertiveness would frequently be cited as weaknesses, we did not expect that references to moderate assertiveness would similarly dominate discussions of leadership strengths. Part of the reason for this asymmetry may be that assertiveness is not as salient at moderate levels. Instead, in the right range, assertiveness may fade into the background, allowing other attributes with positive, linear relations with leadership to become more salient. In causal terms, a moderate level of assertiveness may be a background condition: a necessary but insufficient cause of perceived leadership. Like salt in a sauce, too much overwhelms the dish; too little is similarly distracting; but just the right amount allows the other flavors to dominate our experience. Just as food is rarely praised for being perfectly salted, leaders may somewhat infrequently be praised for being perfectly assertive.

Instrumental and Social Consequences of Assertiveness

Highly assertive people often get their way, at least in terms of short-run instrumental benefits. In organizations, assertive people tend to be seen by others as more powerful than passive employees, and they tend to adopt more structurally advantageous positions in social networks. In the domain of interpersonal exchanges, assertive behavior, such as an extreme opening offer in a negotiation and a reluctance to make concessions, can dramatically increase instrumental outcomes (e.g., De Dreu, Weingart, & Kwon, 2000; Galinsky & Mussweiler, 2001).

Although a high level of assertiveness may entail instrumental benefits, it often carries social costs. Assertive people tend to be

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[1] It is worth recognizing the correspondence between assertiveness and constructs featured in models of personality, such as extraversion in the Big Five personality dimension models (e.g., Costa & McCrae, 1992; John & Srivastava, 1999) and agency or communion in circumplex models (e.g., Fournier & Moskowitz, 2000). Although overlaps exist, we believe the construct of assertiveness, as we use it, is not synonymous or redundant with extraversion, agency, or communion. In work on circumplex models, Wiggins and Broughton (1985) identified an assertiveness dimension— spanning from the need for aggression and competitiveness at one end to deference, abasement, and mild-mannered behavior on the other end—that is rotated somewhat counterclockwise of the vertical dimension (the dominance or agency dimension). We believe this assertiveness dimension, reflecting aspects of both agency and communion, corresponds most closely to how our raters and informants used the term *assertiveness*. As for extraversion, there are important aspects of that trait that are not part of assertiveness (e.g., positive affect) and vice versa (e.g., nonverbal displays of disagreement). We measured and examined both constructs in Study 3 to clarify whether the effects of assertiveness are distinct from those of extraversion.

seen as less likeable and less friendly than unassertive people, even when assertive behavior is considered effective, justified, and appropriate (e.g., Kelly et al., 1982; Kern, 1982). Although the addition of extra consideration (Woolfolk & Dever, 1979) or empathy (Zollo, Heimberg, & Becker, 1985) to assertiveness appears to diminish social costs, even kinder and gentler versions of assertiveness are seen as leading to worse impressions than are low levels of assertiveness. Highly assertive people may damage their relationships and reputations because they are more willing to engage in conflict and to use defensive and/or unconstructive tactics with others (e.g., Graziano, Jensen-Campbell, & Hair, 1996; Kelley & Stahelski, 1970; Kipnis, Schmidt, & Wilkinson, 1980).

In short, we predicted that assertiveness would be positively linked with instrumental outcomes and negatively linked with social ones. This notion of social and instrumental outcomes is related to previous leadership research that distinguished between consideration, or social-emotional behaviors, and structure, or initiative-taking behaviors (e.g., House, Filley, & Kerr, 1971; Judge et al., 2004). So-called high–high models portray effective leaders as displaying both consideration and structure. Our view shares some of these intuitions (i.e., effective leaders are often neither solely people oriented nor solely outcome driven), yet our distinction is focused at the level of outcomes rather than focused on separate classes of behaviors. Nonetheless, we believe that distinct social and instrumental dynamics are central in explaining perceptions of leaders; we turn now to how these dynamics may be integrated in these perceptions.

The Curvilinear Effect of Assertiveness

It could be that the social and instrumental consequences of assertiveness simply cancel each other out, offsetting each other so that all levels of assertiveness are somehow seen as equally good in different ways. We believe that this is unlikely. Instead, we expected that the drawbacks of extremely low levels of assertiveness or extremely high levels of assertiveness would have a disproportionate impact on observers' evaluations of leaders. The rationale for this prediction is rooted in the idea that bad is stronger than good in impression formation (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Perceivers tend to show behavior that has been labeled a negativity bias (Rozin & Royzman, 2001), meaning that they pay more attention to the negative aspects of other people and events than to their positive attributes. Recent work has suggested that this effect extends to subordinates' perceptions of leaders (Amabile, Schatzel, Moneta, & Kramer, 2004).

This tendency to focus on negative information suggests that the costs of extremely low levels or extremely high levels of assertiveness may often outweigh the benefits in the eyes of observers (see Figure 1). Below a certain range of assertiveness, instrumental costs outweigh social benefits, so an individual low in assertiveness will be seen primarily as instrumentally impotent rather than as relationally successful. Above a certain range of assertiveness, social costs outweigh instrumental benefits, so an individual with high levels of assertiveness will be seen primarily as socially insufferable rather than as instrumentally effective. Taken together, these points suggest that some middle range of assertiveness—in which there are neither chronic and glaring social costs nor chronic and glaring instrumental ones—will often be seen as
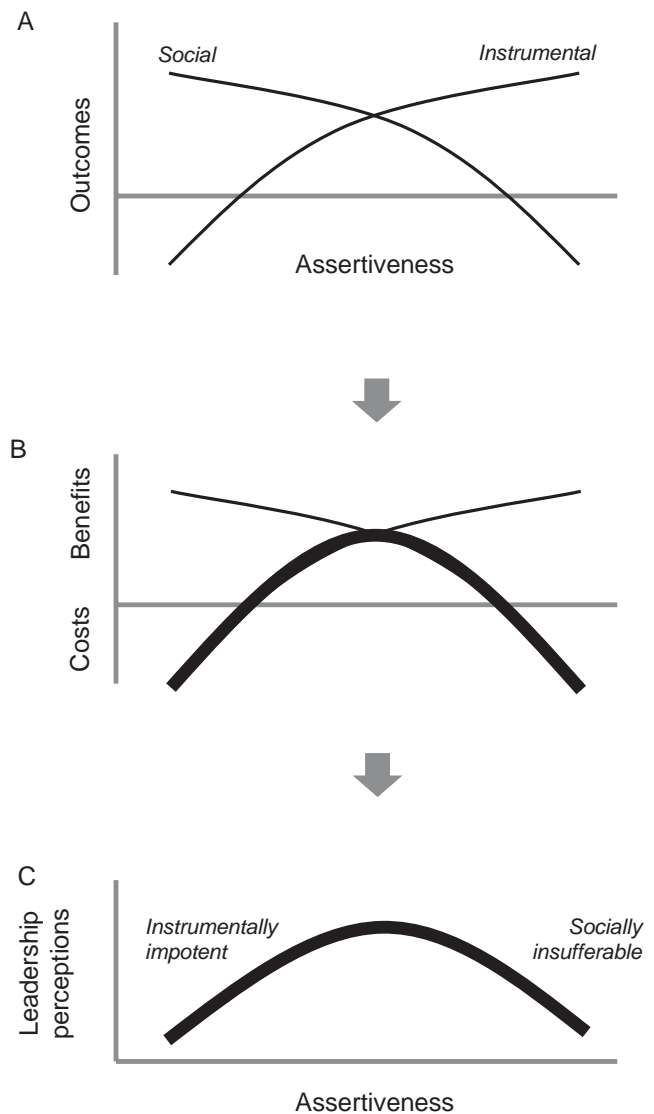

Figure 1. Underlying social and instrumental effects aggregate to a curvilinear relation between assertiveness and leadership. A: Assertiveness is positively linked to instrumental outcomes and negatively linked to social outcomes. B: Perceivers weigh costs more heavily than benefits; below a certain point, perceivers attend more to instrumental costs than to social benefits; above a certain point, perceivers attend more to social costs than to instrumental benefits. C: These main effects aggregate to a curvilinear effect for overall perceptions of leadership.

the most effective behavior. Thus, the relation between assertiveness and general leadership effectiveness would be curvilinear, as portrayed in Figure 1. We hasten to note that we are not suggesting that moderately assertive behavior is always an ideal response; we return to the questions of moderation and flexibility in the final discussion.

Predictions and Plan of Study

Our account of assertiveness and leadership led to three sets of predictions. The first concerned prevalence: Assertiveness would

be a common theme in coworker comments about colleagues' leadership weaknesses, and these comments would refer to both over- and underassertiveness. In contrast, we expected other widely studied attributes (e.g., intelligence, charisma, and conscientiousness) to be mentioned less frequently and to be described as weaknesses more exclusively in terms of a colleague's not having enough. In comments about strengths, however, we expected these other attributes to be more prevalent. Our second prediction focused on the link between assertiveness and perceived leadership. We predicted that assertiveness would have a curvilinear effect: Leaders seen as chronically low in assertiveness or high in assertiveness would be judged more negatively than those who were seen as moderately assertive. We expected this curvilinear effect to remain after extraversion was controlled for.

Our third set of predictions addressed underlying effects. We expected that assertiveness would be positively associated with instrumental outcomes but negatively associated with social outcomes. Moreover, we expected these outcomes to mediate the effects of assertiveness, although mediation would be shaped by negativity effects. At high levels of assertiveness, social outcomes would account for the effects of assertiveness on leadership; at low levels, instrumental outcomes would mediate.

We tested these hypotheses in three studies. In Study 1, we examined coworkers' qualitative comments about colleagues' leadership strengths and weaknesses. In Study 2, we gathered coworker ratings of colleagues, testing for a curvilinear relation between assertiveness and leadership. In Study 3, we examined subordinates' perceptions of leaders, testing again for curvilinear effects as well as for underlying effects and mediation.

Study 1

In Study 1, we collected and analyzed anonymous comments on leadership strengths and weaknesses for potential leaders (master of business administration [MBA] students). Comments were provided by former work colleagues who had typically worked with the students for 2 to 5 years. We conducted quantitative text analyses on the comments to assess the prevalence of words related to dimensions such as assertiveness, charisma, and intelligence. We also conducted qualitative coding to assess the meaning of the comments. We predicted that assertiveness would emerge as the most prevalent theme (both in shortage and overabundance) in weakness comments but that it would be less prevalent in strength comments. Work colleagues also completed a rating measure of assertiveness regarding the targets, enabling us to validate this measure against our coding of the comments, in anticipation of using the measure in Study 2.

Method

Sample. Our sample of potential leaders consisted of 168 people enrolled in a full-time MBA program located on the East Coast. The participants were 42 (25.0%) women and 126 (75.0%) men. The participants were identified as 63.7% Caucasian, 22.6% Asian or Pacific Islander, 2.4% African or African American, and 1.8% Latino or Hispanic; 9.5% declined to specify their ethnicity. Their mean age was 28.36 years ($SD = 2.70$).

Procedure. As part of an organizational behavior course, participants collected qualitative feedback on their leadership skills from several former coworkers. Participants identified their respondents and contacted them directly with a standard set of instructions. Respondents were asked, via an anonymous online survey, to provide comments about the former colleague's strengths and weaknesses as a leader. For the comment focusing on strengths, the instructions read, "We'd like to hear your views about this person's strengths as a colleague and as a leader. Please write a few brief thoughts below." For the comment focusing on weaknesses, the instructions read, "Consider areas where you think this person could improve as a colleague and leader. What do you wish they would do differently . . . what do you wish they would change? Please be honest and constructive." To minimize contrived or meaningless responses, we informed raters that the comments were optional: "These comments are important, but if nothing constructive comes to mind, click below to continue."

On average, participants gathered 4.00 ($SD = 1.28$) responses from work colleagues, although not all colleagues gave responses for both strength and weakness questions. We asked raters to clarify how well they knew the person they were rating, on a 4-point scale ranging from 1 (*not well at all*) to 4 (*extremely well*). The average rating for familiarity was 2.89 ($SD = 0.75$).

Participants' former coworkers were also asked to complete the Thomas–Kilmann Conflict Mode Instrument (TKI; Thomas & Kilmann, 2002), which categorizes a person's orientation toward resolving conflict. The five orientations—accommodating, avoiding, collaborating, competing, and compromising—are located by crossing two dimensions: an individual's emphasis on satisfying his or her own concerns and an individual's emphasis on satisfying the concerns of the other party. The TKI contains 30 paired statements that describe two of the five conflict orientation modes. For each pair, respondents were asked to select the statement that more aptly described the target. Possible scores on each of the five conflict orientations ranged from 0 to 12. In the present research, we focused on the competing orientation because this mode best reflected the dimension of assertiveness as work colleagues appeared to use it in their comments. Thomas and Kilmann (2002) described this orientation as a power-oriented mode that is assertive and uncooperative; statements consistent with this mode refer to being firm in pursuing goals and pressing to get one's own points made.

Coding. We conducted a content analysis of the qualitative comments provided by each participant's raters. The comments were read by two independent coders who were unaware of the study hypotheses. Coders were given definitions of the four constructs that our review of the leadership literature and our pilot work suggested were critical: intelligence, conscientiousness, charisma, and assertiveness. The definitions for these attributes were refined with the coders during the pilot work and are shown in Table 1.

For each comment, the coders provided two ratings for each of the constructs: a prevalence rating and a direction rating. The prevalence rating represented the extent to which the construct was mentioned in the comment and was recorded on a 3-point scale (0 = *no mention*, 1 = *some mention*, 2 = *clear/strong mention*). Ratings of prevalence were not mutually exclusive for the trait constructs: Some of the comments contained no mention of any of the constructs, whereas other comments touched on more than one. Sample comments with a prevalence rating of 2 for each construct are listed in Table 1.

Table 1

Definitions and Examples for Coding Attributes in Coworker Comments About Leadership Strengths and Weaknesses

Attribute	Coding definition	Strength comment examples	Weakness comment examples
Intelligence	Using thought or creativity to solve interpersonal or work problems; being quick and/or thoughtful in assessing situations and finding solutions	"Very practical and often insightful thinking, extremely logical approach to problems, quick thinker." "[X] is excellent at identifying a problem's issue and at formulating a possible solution."	"[X's] intelligence is usually a positive, but there are times when he needs to slow down to consider group thinking." "I feel [X] may be too creative a problem solver at times."
Conscientiousness	Exhibiting dedication and steadfast willingness to complete work; ability to complete work in efficient, timely, meticulous way	"Always pulls his own weight. . . . Hard worker." "She is responsible, dependable and always up to the task."	"[X] tends to be lazy and irresponsible." "[X] needs to be more diligent in making sure her efforts meet team quality concerns rather than just getting the job done."
Charisma	Ability to motivate others to become enthusiastic about following an agenda; energizing people and creating enthusiasm	"Bright, charming, enthusiasm that is persuasive and infectious, engaging, radiates good character." "[X] brings an open, positive, energetic attitude and has an infectious ambition which inspires those around him."	"Expand upon your charisma." "Be even more of a charismatic, attention-catching leader with some star-like, 'showman' behavior."
Assertiveness	Persistence in displaying and defending one's ideas and interests in an unwavering manner without ambivalence; not being intimidated by others; speaking up confidently	"[X] is assertive with his view points. In addition, [X] takes initiative in approaching work and is likely to take the lead." "[X] is a real take-charge guy. He is willing to take the initiative and handle tasks without being asked."	"Being hardnosed and blunt can be an efficient means of getting things done, but can bruise people's feelings in the process." "[X] could be stronger on his point of views. He sometimes is willing to sacrifice his proposal to maintain a relationship and avoid tension."

The direction rating captured whether a comment referred to *low levels of the focal construct* (0) or *high levels of the focal construct* (1). Thus, a strength comment suggesting someone was "very reliable" would be coded as a clear mention of conscientiousness (prevalence = 2) and as a reference to high levels of conscientiousness (direction = 1), whereas a weakness comment suggesting someone needed to "be more assertive" would be coded as a clear mention of assertiveness (prevalence = 2) and as a reference to low levels of assertiveness (direction = 0). Direction ratings were given only for comments that had a prevalence rating of 1 or 2.

The levels of agreement and reliability between the coders exceeded general norms for acceptability. Across the attributes (intelligence, assertiveness, etc.), the coders had 87.0% agreement in the prevalence ratings for strength comments and 93.0% agreement in the prevalence ratings for weakness comments. These yielded Cohen's kappa values of .73 and .80, respectively, in line with norms for reliability (Landis & Koch, 1977). The direction ratings also showed high levels of agreement: 99.2% for strength comments and 95.0% for weakness comments, yielding kappas of .91 and .88, respectively. The percentage agreement and kappa levels for the individual attributes were likewise above acceptable levels. In the case of assertiveness, agreement for prevalence ratings in strength comments was 86.2% (κ = .71), whereas agreement for direction ratings was 96.2% (κ = .85); for weakness comments, agreement for prevalence was 89.8% (κ = .80), whereas agreement for direction was 95.7 (κ = .91). After completing their independent ratings, coders reconciled their responses. This final set of ratings was used in the analyses that follow.

Results

Quantitative results. Our initial set of results focused on quantitative text analysis. There were 493 strength comments (20,129 total words; 2,784 unique words; average comment length of 40.8 words) and 426 weakness comments (15,796 words; 2,569 unique words; average length of 37.1 words).

Our text analysis focused on adjectives in coworker comments (e.g., "*X* is extremely *bright*, and one of the most *charming* people I have had the opportunity to work with," "*X* could be less *rigid*," "Sometimes *X*'s presentation of her thoughts comes out somewhat *aggressive*"). Several of the adjectives that emerged were ambiguous, with potential meanings that did not indicate something substantive about strengths or weaknesses. After a close review of adjectives in context, we set aside adjectives that did not consistently refer to leadership qualities, including *good, great, strong, well, positive, negative, different, hard, high, easy, big, certain, difficult,* and *level.*

As seen in Table 2, there was moderate overlap in the leading adjectives for strength and weakness comments. In the comments, 4 of the 10 most prevalent adjectives were common to both strengths and weaknesses (*able, focused, effective, constructive*), and 14 of the top 30 were common to both strengths and weaknesses. *Assertive* emerged as the most frequently used adjective in weakness comments, well ahead of *focused;* for word frequency, $\chi^2(1, N = 31,592) = 4.60, p < .05$; for case frequency, $\chi^2(1, N = 852) = 6.78, p < .05$. Other assertiveness-related terms emerged among the most frequently used adjectives in weakness comments, including *aggressive, confident, direct,* and *proactive.*

Table 2

Frequently Occurring Adjectives in Comments About Leadership Strengths and Weaknesses, Study 1

	Strength comments				Weakness comments		
Rank	Adjective	Word frequency	Case frequency	Rank	Adjective	Word frequency	Case frequency
1	**Able**	3.48	11.36	1	Assertive	2.03	7.28
2	**Willing**	2.63	9.94	2	**Focused**	1.08	3.29
3	**Focused**	2.24	8.32	3	**Able**	1.01	3.05
4	**Effective**	1.79	6.49	4	Sure	1.01	3.52
5	Analytical	1.74	6.90	5	**Effective**	0.82	2.35
6	Thoughtful	1.54	5.88	6	Aggressive	0.70	2.35
7	Intelligent	1.34	5.48	7	**Constructive**	0.70	2.58
8	Motivated	1.09	4.26	8	**Firm**	0.63	1.88
9	**Considerate**	1.04	4.26	9	**Confident**	0.57	1.88
10	**Constructive**	1.04	4.06	10	**Involved**	0.57	2.11
11	Creative	1.04	4.26	11	**Quick**	0.57	1.88
12	Logical	1.04	4.26	12	**Direct**	0.51	1.88
13	**Professional**	0.99	4.06	13	**Personal**	0.44	1.41
14	**Involved**	0.89	3.65	14	**Professional**	0.44	1.64
15	Bright	0.84	3.45	15	**Smart**	0.44	1.64
16	Understanding	0.84	2.64	16	**Willing**	0.44	1.64
17	Dedicated	0.79	3.25	17	**Considerate**	0.38	1.41
18	Driven	0.79	3.25	18	Critical	0.38	1.41
19	Clear	0.75	3.04	19	Afraid	0.32	1.17
20	Fair	0.75	3.04	20	Comfortable	0.32	1.17
21	**Quick**	0.75	3.04	21	Emotional	0.32	1.17
22	**Firm**	0.70	2.84	22	Honest	0.32	1.17
23	Friendly	0.70	2.84	23	Impatient	0.32	1.17
24	**Personal**	0.70	2.84	24	Proactive	0.32	1.17
25	**Smart**	0.70	2.64	25	Reasonable	0.32	1.17
26	**Confident**	0.65	2.64	26	Selfish	0.32	1.17
27	**Direct**	0.65	2.64	27	Arrogant	0.25	0.94
28	Fun	0.65	2.43	28	Collaborative	0.25	0.94
29	Capable	0.60	2.23	29	Diplomatic	0.25	0.94
30	Efficient	0.60	2.43	30	Frustrated	0.25	0.94
	Assertive	0.40	1.42		Competitive	0.19	0.70
	Aggressive	0.15	0.61				
	Competitive	0.05	0.20				

Note. Adjectives in bold are common to both strength and weakness top 30 lists. Word frequency is count per 1,000 words for 20,129 strength words and 15,796 weakness words. Case frequency is percentage of comments in which the adjective appears in 493 strength comments and 426 weakness comments.

Although *assertive* and *aggressive*—perhaps the most central adjectives for our purposes—appeared among the 10 most prevalent weakness adjectives, they were not among the 10 most prevalent, or even the 30 most prevalent, strength adjectives. As shown in Table 3, various combinations of assertiveness-related adjectives were significantly more prevalent in weakness comments. As expected, other attributes were reflected more frequently in strength comments. Adjectives related to intelligence, conscientiousness, and charisma were significantly more prevalent in strength comments (see Table 3).

Qualitative coding results. Although these quantitative text analyses lend support to our account, they cannot resolve some questions about the contextual meaning of the words in the strength and weakness comments (e.g., whether the use of the adjective *assertive* in a weakness comment entailed a discussion of overassertiveness, underassertiveness, or something else entirely). Further, although we believe the adjectives reflected a good share of the meaning of the comments, part of raters' sentiments were not captured in adjectives. The qualitative coding of strength and weakness comments addressed these issues and allowed us to further test our predictions.

As expected, the coding revealed that assertiveness was a substantially more prevalent theme in weakness comments than were themes of conscientiousness, intelligence, and charisma (see Table 4). On the prevalence coding scale, weakness comments were rated on average at 1.06 ($SD = 0.99$) for assertiveness. This was significantly higher than were the ratings for conscientiousness, $t(414) = 9.55$, $p < .001$; intelligence, $t(415) = 20.80$, $p < .001$; and charisma, $t(415) = 21.40$, $p < .001$. Indeed, the average prevalence score for assertiveness was significantly higher than the combined prevalence scores for the remaining traits ($M = 0.41$, $SD = 0.79$), $t(415) = 9.05$, $p < .001$. Over half of the weakness comments featured a clear mention of assertiveness (coded as 2). A far smaller share of weakness comments featured a clear mention of the other attributes.

We predicted that weakness comments about assertiveness would be more likely to refer to excessive levels (overassertiveness) than would weakness comments about the other attributes.

Table 3

Prevalence of Adjectives and Adjective Groups in Comments About Leadership Strengths and Weaknesses, Study 1

Adjective	Strength comments		Weakness comments		Comparison	
	Word frequency	Case frequency	Word frequency	Case frequency	$\chi^2(1, N = 35{,}925)$	p
Assertive	0.4	1.4	2.0	7.3	21.10	<.01
Aggressive	0.1	0.6	0.7	2.4	6.81	.01
Assertive, aggressive, competitive, active, proactive, confident, direct	2.2	5.5	4.5	8.5	14.79	<.01
Intelligent	1.3	5.5	0.3	0.9	12.15	<.01
Intelligent, smart, logical, analytical, creative, bright	6.7	17.0	0.9	2.1	70.55	<.01
Focused, effective, efficient, conscientious, reliable, diligent	6.0	14.6	1.9	3.3	35.13	<.01
Energetic, charismatic, enthusiastic	0.9	2.5	0.2	0.4	7.52	.01

Note. Word frequency is count per 1,000 words for 20,129 strength words and 15,796 weakness words. Case frequency is percentage of comments in which the adjective appears in 493 strength comments and 426 weakness comments. Chi-square and *p* values are comparisons of word frequency for strength comments versus weakness comments.

As shown in Table 4, the mean direction coding for weakness comments referring to assertiveness was 0.48 ($SD = 0.50$), meaning that 48.0% of weakness comments referred to some form of overassertiveness, whereas 52.0% referred to some form of underassertiveness. This was significantly higher than the mean direction coding for conscientiousness, $t(225) = 10.10$, $p < .001$; intelligence, $t(225) = 6.97$, $p < .001$; and charisma, $t(225) = 14.48$, $p < .001$.

We also predicted that assertiveness, unlike other attributes, would be more prevalent in comments about weaknesses than in comments about strengths. As shown in Table 4, this appeared to be the case: For prevalence coding, $t(404) = 5.28$, $p < .001$. Although over half of the weakness comments featured a clear mention of assertiveness (coded as 2), only a third of strength comments featured a clear mention of assertiveness, $\chi^2(1, N =$

$898) = 29.24$, $p < .01$. The reverse was true for the other attributes, which showed greater prevalence in strength comments: conscientiousness, $t(401) = 10.57$, $p < .001$; intelligence, $t(403) = 15.40$, $p < .001$; and charisma, $t(404) = 4.67$, $p < .001$.

In sum, the qualitative coding results converged with the quantitative text analysis to support our account: Assertiveness (in both excess and absence) was by far the foremost theme in coworkers' comments about leadership weaknesses. Assertiveness was less prevalent in strength comments than in weakness comments; the reverse was true for conscientiousness, intelligence, and charisma.

Comment and rating measures of assertiveness. We also tested whether assertiveness, as measured by the TKI construct of competitiveness, converged with the coding of assertiveness in weakness comments. A high correlation would suggest that both

Table 4

Prevalence and Direction Codings for Attributes in Coworker Comments About Leadership Strengths and Weaknesses, Study 1

Attribute	Strength comments					Weakness comments				
	Prevalence		Direction		Clear mentions (%)	Prevalence		Direction		Clear mentions (%)
	M	*SD*	*M*	*SD*		*M*	*SD*	*M*	*SD*	
Assertiveness	0.69	0.95	0.95	0.23	33.8	1.06	0.99	0.48	0.50	51.7
Conscientiousness	1.08	1.00	1.00	0.00	53.5	0.38	0.77	0.14	0.35	18.1
Intelligence	0.76	0.97	0.99	0.07	37.8	0.02	0.18	0.25	0.50	0.7
Charisma	0.11	0.45	1.00	0	5.4	0.01	0.11	0	0	0.2

Note. Clear mentions are the percentage of comments coded as 2 on prevalence for the given attribute.

measures reflected coworkers' opinions about a target's level of assertiveness; a low correlation could mean that one or both of these measures did not gauge such impressions.

To quantify references to assertiveness in weakness comments, we computed a measure of overassertiveness by multiplying the prevalence coding for assertiveness in each comment with a modified direction coding for each comment (-1 for low levels, $+1$ for high levels). Thus, a comment with a partial reference to a target not being assertive enough would score a -1 (1 Prevalence $\times$ -1 Direction $= -1$), whereas a comment with a clear reference to a target being too assertive would score a 2 (2 Prevalence $\times$ 1 Direction $= 2$).

We conducted the analyses at both the rating and the target (averaging across ratings) levels. In both cases, the TKI assertiveness rating measure was positively correlated with the overassertiveness comment measure. At the rating level, $r(416) = .44$, $p < .001$. To gauge reliability in collapsing across raters to the target level, we computed the Intraclass Correlation Coefficient 2 measure (Bartko, 1976), which yielded values of .61 for the TKI measure and .47 for the overassertiveness measure, suggesting modest reliability. At the target level, the TKI and comment measures were correlated at $r(149) = .62$, $p < .001$.

Thus, targets described as being overassertive in open-ended weakness comments were likely to receive higher numerical scores in the TKI assertiveness measure. The substantial correlations suggest that both measures reflect underlying perceptions of assertiveness. We used the TKI measure to gauge coworker perceptions of assertiveness in a separate sample, in Study 2.

Discussion

Study 1 confirmed our expectations about the prevalence of assertiveness in comments about leadership weaknesses. With both quantitative text analysis and qualitative coding, we found that although assertiveness was not a dominant theme in strength comments, it was substantially more common than other themes (including conscientiousness, intelligence, and charisma) in weakness comments. Moreover, although these other attributes were described almost exclusively in terms of "not enough" in weakness comments, references to assertiveness were varied, with nearly half of them referring to overassertiveness and the remainder referring to underassertiveness.

Study 2

Study 1 showed that, in qualitative comments about leadership weaknesses, assertiveness was a prevalent theme and was split between references to "too much" and "too little." Consistent with this pattern, we expected that quantitative ratings of a colleagues' leadership and assertiveness would show a curvilinear relation. In Study 2, MBA students gathered ratings of their assertiveness and their leadership from former work colleagues, which allowed us to test for the expected effects.

Method

Sample. Our sample of potential leaders in Study 2 consisted of 388 people enrolled in a full-time MBA program located on the East Coast (none of whom had participated in Study 1). The participants were 100 (25.8%) women and 288 (74.2%) men. They identified themselves as Caucasian (61.1%), Asian or Pacific Islander (16.0%), Latino or Hispanic (8.2%), or African or African American (4.4%); 10.3% declined to specify their ethnicity. Their mean age was 28.8 years ($SD = 2.70$).

Procedure. As in Study 1, participants collected feedback on their leadership behavior from several former coworkers as part of an organizational behavior course. Participants identified their respondents and contacted them directly with a standard set of instructions. Respondents were asked, via an online survey, to provide ratings referring to four domains of leadership: motivation, social influence, managing conflict, and working in teams. Although not necessarily a comprehensive catalog of leadership skills, these domains are central to many descriptions of what effective leaders achieve (motivating and influencing others, dealing with conflicts, and leading teams). For each domain, on 7-point scales that range from 1 (*never*) to 7 (*always*), respondents rated how strongly five statements (e.g., social influence: "S/he is able to direct and steer meetings in his/her favor") characterized the participant's behavior at work. The items are noted in the Appendix.

The survey also included the TKI, which assessed coworkers' perceptions of the participant's level of assertiveness (see Study 1 for a description). Finally, raters were asked to rate how well they knew the target, on a 4-point scale that range from 1 (*not well at all*) to 4 (*extremely well*). On average, participants had 3.87 ($SD = 1.40$) former colleagues as raters. The average score on the familiarity measure was 3.19 ($SD = 0.68$). The survey took about 10–15 min to complete.

Results

Constructs and reliability. The reliability (alpha) coefficients for the four 5-item leadership scales were .69 (motivating), .64 (influence), .68 (conflict), and .71 (teams). The alpha for the overall leadership scale, including items from all four subscales, was .89. To gauge reliability across raters for each participant, we computed intraclass correlation coefficients (ICC[2]; Bartko, 1976) for each construct, which yielded .60 for assertiveness, .34 for motivating, .37 for influence, .41 for conflict, .44 for teams, and .44 for leadership. This suggests modest within-subject reliability. We interpreted this as suggesting that different raters observed different samples of the participants' behaviors and/or saw them in different contexts, capacities, or roles. Nonetheless, we expected our predicted effects to emerge whether average views of an individual participant (separating participants consistently seen as low or high in assertiveness) were considered or results at the rater level (separating raters according to their perception of a participant as low in assertiveness or high in assertiveness) were considered. As a result, we conducted analyses at multiple levels, including both the rating level and the target level. We also pursued multilevel modeling.

Curvilinear effects. To test our prediction that assertiveness would have a curvilinear link with perceptions of leadership, we used regression analyses with ratings of assertiveness to predict leadership measures. Our models featured both linear and squared terms for assertiveness. A significant negative coefficient for this squared measure would be consistent with the expected inverted-U curvilinear effect.

Table 5 shows the results of the regression models at the target level, including both linear-term-only results and linear-plus-squared-term results. The curves from the full models are plotted in Figure 2. As expected, the predicted curvilinear effects emerged in each of the four domains as well as in the aggregate leadership measure (an average of the four behavioral domains). In all five cases, the squared term had a significant negative coefficient, with ps at or below .01. Similar results emerged in analyses at the rating level, as shown in Table 5. Again, the squared terms were significantly negative for each construct.

Given the nested nature of the data, we also pursued multilevel modeling, using the PROC MIXED routine in SAS (Singer, 1998). Our first analysis featured a mixed model that could be used to predict aggregate leadership ratings and that featured two fixed effects (assertiveness and the squared value of assertiveness) and a random effect, which allowed the intercept to vary at the target level. As in our regression analyses, and consistent with our predictions, we found that the squared assertiveness term had a significant and negative effect ($B = -.0066$), $t(1102) = -4.24$,

$p < .001$. The linear assertiveness term had a significant and positive effect ($B = .0568$), $t(1102) = 2.79$, $p < .01$. We ran analogous multilevel models for each of the four behavioral domains; in each one, the squared assertiveness term had the predicted significant and negative effect.

The significance of the squared term in our results indicates that the effect of assertiveness may be curvilinear but does not establish whether it is symmetrical—that is, whether leadership perceptions are reduced both above and below certain levels of assertiveness (see Figure 2 for fitted curves). To examine this, we first conducted a tertiary split of assertiveness at the rating level. The aggregate leadership measure was significantly lower for those in the highest third of assertiveness compared with those in the middle third (5.54 vs. 5.70), $t(1019) = -3.60$, $p < .001$, although it was not significantly lower for those in the lowest third (5.72 vs. 5.70), $t(914) = 0.70$, ns. We suspected that the negative effects of assertiveness might be stronger at more extreme high and low levels. Accordingly, we compared the extremes (ratings of 0 for low assertiveness and 12 for high assertiveness) with less extreme

Table 5

Results of Multiple Regression Models Predicting Leadership Constructs With Assertiveness at the Target Level, Study 2

Leadership domain	Assertiveness			Assertiveness^2			Model R^2
	β	t	p	β	t	p	
Target level							
Motivation							
Linear term only	−0.17	−3.33[a]	<.01				.03
Linear and square terms	0.42	1.81[b]	0.07	−0.60	−2.59[b]	<.01	.05
Influence							
Linear term only	−0.23	−4.55[a]	<.01				.05
Linear and square terms	0.67	2.97[b]	<.01	−0.92	−4.06[b]	<.01	.09
Conflict							
Linear term only	−0.27	−5.46[a]	<.01				.07
Linear and square terms	0.57	2.52[b]	.01	−0.85	−3.79[b]	<.01	.11
Teams							
Linear term only	−0.35	−7.38[a]	<.01				.12
Linear and square terms	0.32	1.43[b]	.15	−0.68	−3.10[b]	<.01	.15
Leadership (aggregate)							
Linear term only	−0.30	−6.08[a]	<.01				.09
Linear and square terms	0.57	2.55[b]	.01	−0.88	−3.97[b]	<.01	.12
Rating level							
Motivation							
Linear term only	−0.18	−7.02[c]	<.01				.03
Linear and square terms	0.10	0.97[d]	.33	−0.29	−2.84[d]	<.01	.04
Influence							
Linear term only	0.02	0.61[c]	.54				.00
Linear and square terms	0.44	4.35[d]	<.01	−0.44	−4.34[d]	<.01	.01
Conflict							
Linear term only	−0.14	−5.44[c]	<.01				.02
Linear and square terms	0.37	3.71[d]	<.01	−0.53	−5.27[d]	<.01	.04
Teams							
Linear term only	−0.18	−7.03[c]	<.01				.03
Linear and square terms	0.06	0.58[d]	.56	−0.25	−2.44[d]	.02	.04
Leadership (aggregate)							
Linear term only	−0.15	−5.68[c]	<.01				.02
Linear and square terms	0.30	2.97[d]	<.01	−0.46	−4.57[d]	<.01	.04

Note. At the target level, $N = 388$. At the rating level, $N = 1,501$.
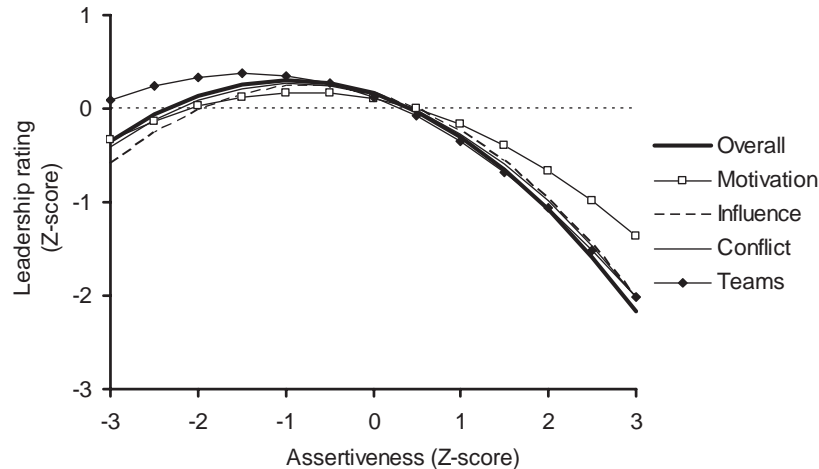[a] $df = 386$.   [b] $df = 385$.   [c] $df = 1500$.   [d] $df = 1499$.

Figure 2. Fitted curvilinear relations between perceptions of assertiveness and leadership at the target level from Study 2 are shown.

ratings (ratings of 1–11). Again, the leadership measure was significantly lower for those at high levels of assertiveness compared with those at middle levels of assertiveness (5.22 vs. 5.67), $t(1448) = 5.97$, $p < .001$; this pattern of significance extended to all of the underlying constructs (motivation, influence, conflict, and teams). The difference was directional although not significant when those at low levels of assertiveness were compared with those at middle levels of assertiveness (5.56 vs. 5.67), $t(1410) = 1.18$, *ns*. Examining the underlying constructs, we found significant differences for influence (5.06 vs. 5.34), $t(1419) = 2.20$, $p = .03$, and conflict (5.19 vs. 5.49), $t(1414) = 2.24$, $p = .03$, although not for motivation or teams.

Discussion

In Study 2, we analyzed coworker ratings of colleagues' leadership at the rater level, at the target level, and with multilevel models. In all three approaches, assertiveness had a curvilinear relation with leadership behavior in several domains, including managing teams, dealing with conflict, and influencing and motivating others. Our results show that, compared with moderate levels of assertiveness, high levels of assertiveness were associated with significantly lower ratings of leadership by informants. The comparison of low levels with moderate levels yielded more mixed results. Although those at very low levels of assertiveness were rated significantly worse at influencing others and managing conflict, the differences were not significant for motivating others or managing teams. Does this cast doubt on the costliness of low levels of assertiveness? We suspect that our data might have featured a restriction of range, given that our targets were MBA students in a competitive program. It seems plausible that our sample's distribution of assertiveness might have been somewhat higher than that of the population at large. Further, compared with the population of working managers, our participants (averaging about 29 years in age) might have been in comparatively lower status positions for which low assertiveness was more normative and role congruent (i.e., high assertiveness was incongruent and,

therefore, was viewed more negatively). To address these issues, we sought a more wide-ranging sample of managers in Study 3.

Study 3

Study 2 revealed the curvilinear effects of assertiveness on leadership. In Study 3, we sought to replicate and extend these results in two major ways. First, in Study 3, we examined the curvilinear effects in a broader and older sample of target leaders, which featured over 200 informants who provided comments and ratings on their most recent manager or leader (with a mean estimated target age of nearly 40 years). We also sought evidence that, compared with moderate levels of assertiveness, both high and low levels were associated with significantly lower leadership evaluations. Second, Study 3 was designed to explore the processes underlying the curvilinear effect. As noted in the introduction, we expected assertiveness to be positively linked with instrumental outcomes and negatively linked with social outcomes. We also made a negativity prediction. Assuming that costs exert greater weight in perceptions, we expected that instrumental outcomes would be the primary determinant of leadership at low levels of assertiveness, whereas social outcomes would be the primary determinant of leadership at high levels of assertiveness. Thus, we expected different patterns of mediation, depending on level of assertiveness.

Study 3 had several other features worth noting. One concerns our measures: Study 2 focused on leadership behavior measures; whereas Study 3 captured overall evaluations of leaders' current effectiveness, as well as perceptions of future leadership success. We also gathered qualitative comments about leader strengths and weaknesses and coded them in an effort to replicate our results from Study 1. Finally, we sought to test whether the effects of individual differences in assertiveness on leadership are accounted for in part or in whole by extraversion. Numerous studies have identified a connection between extraversion and leadership (see Judge et al., 2002 for a meta-analysis); we wanted to clarify whether the effects of assertiveness are distinct from any effects of extraversion.

Method

Sample.   Participants, consisting of 213 people enrolled in a full-time MBA program located on the East Coast, provided reports about their most recent manager or supervisor (none of these participants were involved in Study 1 or Study 2). Average informant age was 28.91 years ($SD = 2.76$); of the 209 participants who indicated their sex, 85 (40.7%) were women and 124 (59.3%) were men.

Procedure.   Informants completed surveys anonymously in exchange for entry in a drawing featuring consumer electronics as prizes. Informants were asked to "identify the most recent manager (supervisor, boss) you've worked under in a meaningful fashion" during full-time employment. Informants indicated the manager's sex and approximate age. Informants also indicated how well they knew the manager on a 4-point scale ranging from 1 (*not well at all*) to 4 (*extremely well*). Average manager age, as reported by informants, was 39.7 years ($SD = 8.4$); 53 managers (24.9%) were women and 160 managers (75.1%) were men. The mean familiarity rating was 2.84 ($SD = 0.79$).

Participants then completed two open-ended questions, one in which they were asked to write about "this person's strengths as a leader" and another in which they were asked to write about "this person's weaknesses as a leader." The survey continued by asking for leadership ratings, including overall effectiveness ("Overall, s/he was an effective leader."), willingness to work for the manager again ("If I had the chance, I would definitely want to have this person as my leader again."), and expected future success ("Looking ahead, I expect this person will experience great success as a leader."). Items were rated on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). In addition, informants rated social effectiveness ("S/he was able to build strong, positive relationships and trust with those working for him/her.") and instrumental effectiveness ("S/he was able to get his/her way and accomplish his/her work and performance goals.").

Informants then rated assertiveness, indicating agreement with three items, "S/he is assertive," "S/he is competitive, aggressive," and "S/he is passive, submissive." In addition, informants rated extraversion ("S/he is extraverted, outgoing."). All these individual difference items were rated on a 7-point scale ranging from 1

(*strongly disagree*) to 7 (*strongly agree*). Lastly, informants indicated their own age and sex.

Results

We began by aggregating responses to selected items into composite measures. The three leadership items (effectiveness, work with again, and future success) were averaged in a composite measure of leadership effectiveness ($\alpha = .94$). The three assertiveness items (assertive, competitive, and passive-reversed) were averaged into a composite measure of assertiveness ($\alpha = .78$).

Curvilinear effects.   As in Study 2, we ran regressions to test for the curvilinear effects of assertiveness on leadership, using the assertiveness composite term alone and in conjunction with its squared counterpart. As shown in Table 6, the predicted curvilinear effects emerged for the composite leadership measure, as well as for each of the leadership components: general effectiveness, interest in working with again, and expected future success. The fitted curves are shown in Figure 3.

A tertiary split on assertiveness (below 4.75 and above 5.75) clarified that the curvilinear effects were seemingly symmetrical. Those in the lowest third of assertiveness had leadership ratings significantly below those in the middle third (3.65 vs. 4.84), $t(135) = -3.96$, $p < .001$. Likewise, those in the highest third of assertiveness had lower leadership ratings (4.02 vs. 4.84), $t(137) = -2.50$, $p = .01$, than those in the middle third. The same pattern of differences and significance emerged for each of the underlying leadership items. In sum, as expected, we found that a middle range of assertiveness was associated with the most positive leadership perceptions.

Social and instrumental outcomes.   As in our analysis of how assertiveness predicted leadership, we ran both linear and curvilinear regression models to assess how assertiveness predicted social and instrumental outcomes. As shown in Table 7, the linear effect of assertiveness on social outcomes was not significant, but it did have a curvilinear effect; the fitted curves are plotted in Figure 4. A tertiary split on assertiveness clarified the circumstances in which assertiveness does have a negative effect on social outcomes: people with high levels of assertiveness had

Table 6

Results of Multiple Regression Models Predicting Leadership Constructs With Assertiveness, Study 3

| Measure	Assertiveness			Assertiveness^2			Model R^2
	β	t	p	β	t	p	
Effective							
Linear term only	0.09	1.28[a]	.20				.01
Linear and square terms	1.21	3.05[b]	<.01	−1.14	−2.87[b]	<.01	.05
Work with again							
Linear term only	0.10	1.48[a]	.14				.01
Linear and square terms	1.54	3.94[b]	<.01	−1.46	−3.73[b]	<.01	.07
Future success							
Linear term only	0.22	3.32[a]	<.01				.05
Linear and square terms	1.35	3.50[b]	<.01	−1.15	−2.99[b]	<.01	.09
Leadership (aggregate)							
Linear term only	0.14	2.11[a]	.04				.02
Linear and square terms	1.46	3.74[b]	<.01	−1.33	−3.42[b]	<.01	.07

[a] $df = 209$.   [b] $df = 208$.
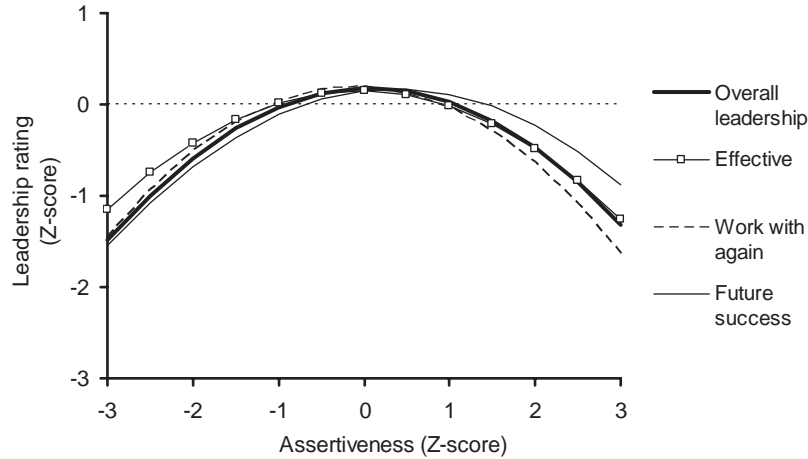
Figure 3. Fitted curvilinear relations between perceptions of assertiveness and leadership from Study 3 are shown.

significantly worse social outcomes than people with moderate levels of assertiveness (4.32 vs. 5.20), $t(137) = -2.59$, $p = .01$, but people with the lowest levels of assertiveness did not have significantly different social outcomes than people with moderate levels of assertiveness (4.81 vs. 5.20), $t(135) = -1.25$, $p = .22$.

For instrumental outcomes, assertiveness showed a positive linear effect as well as a curvilinear effect. Using a tertiary split on assertiveness, we found that those lowest in assertiveness had significantly worse instrumental outcomes than those moderate in assertiveness (4.51 vs. 5.69), $t(135) = -5.50$, $p < .01$, but those with moderate levels of assertiveness did not differ in instrumental outcomes from those with high levels of assertiveness (5.69 vs. 5.47), $t(137) = 0.94$, $p = .35$.

In sum, our results show that assertiveness does affect social and instrumental outcomes in different ways, though the effects are not strictly linear. It is as if, in economic terms, there are different diminishing returns for assertiveness in different domains: dropping from high to moderate levels of assertiveness yields a significant boost in social outcomes (whereas dropping from moderate to low levels does not yield a significant difference) and moving from low to moderate levels of assertiveness yields a significant boost in terms of instrumental outcomes (whereas moving from moderate to high levels does not yield a significant difference). We

turn next to a discussion of whether and how these outcomes may mediate the link between assertiveness and leadership.

Negativity and mediation effects. We hypothesized that instrumental outcomes would loom larger than social ones at low levels of assertiveness and that social outcomes would loom larger than instrumental ones at high levels of assertiveness. To clarify these effects, we conducted a multiple regression analysis, predicting leadership with three main effect terms (assertiveness, instrumental outcomes, and social outcomes) and two interaction terms (Instrumental × Assertiveness, and Social × Assertiveness). We expected that the instrumental interaction term would be negative, suggesting that instrumental outcomes are more predictive of leadership at low levels of assertiveness. We also expected that the social interaction term would be positive, suggesting that social outcomes are more predictive of leadership at high levels of assertiveness. Both of these effects were supported by the model, as shown in Table 8.

Given these results, we pursued separate mediation models for high levels of assertiveness and low levels of assertiveness, which were based on a median split (at 5.4) on the composite measure of assertiveness (range 1–7). We expected that assertiveness would be positively associated with leadership for the low assertiveness subsample and that this link would be mediated by instrumental

Table 7

Results of Multiple Regression Models Predicting Social and Instrumental Outcomes With Assertiveness, Study 3

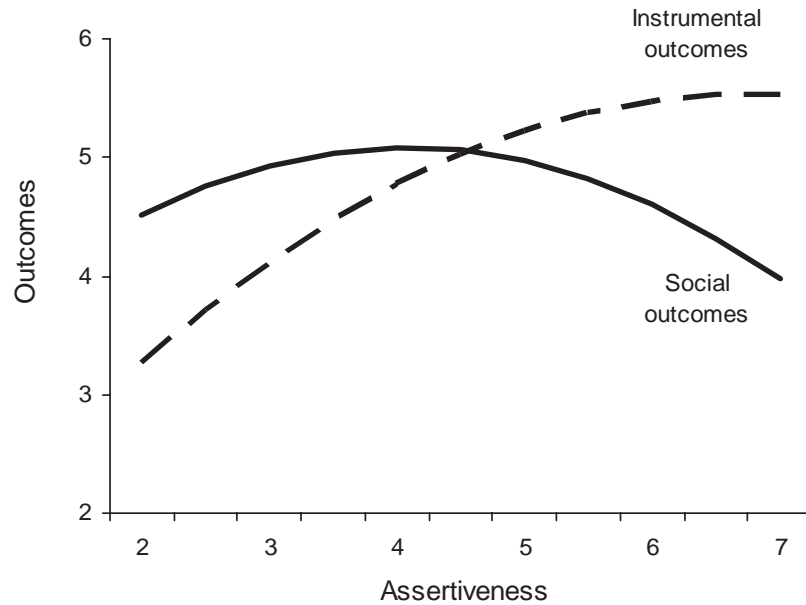| Measure	Assertiveness			Assertiveness^2			Model R^2
	β	t	p	β	t	p	
Social outcomes							
Linear term only	−0.11	−1.53[a]	.13				.01
Linear and square terms	0.68	1.71[b]	.09	−0.80	−2.00[b]	.05	.03
Instrumental outcomes							
Linear term only	0.37	5.78[a]	<.01				.14
Linear and square terms	1.19	3.20[b]	<.01	−0.83	−2.23[b]	.03	.16

[a] $df = 209$.　[b] $df = 208$.

Figure 4. Fitted curvilinear relations between perceptions of assertiveness and social and instrumental outcomes from Study 3 are shown.

(but not social) outcomes. We also expected that assertiveness would be negatively associated with leadership for the high assertiveness subsample and that this link would be mediated by social (but not by instrumental) outcomes. This was indeed what we found, as shown in Figure 5.

Controlling for extraversion. As expected, assertiveness and extraversion were positively correlated, $r(211) = .33, p < .001$. To test whether extraversion accounted for some or for all of the effects of assertiveness, we conducted regression analyses, predicting leadership with three variables: assertiveness, assertiveness squared, and extraversion. Both assertiveness terms (linear and squared) remained significantly predictive ($\beta = 1.35$), $t(207) = 3.58, p < .01$; and ($\beta = -1.31$), $t(207) = -3.51, p < .01$, respectively. Extraversion was significantly predictive as well ($\beta = 0.28$), $t(207) = 4.15, p < .01$. In a subsequent model, we added extraversion squared, and again, both assertiveness terms (linear and squared) remained significantly predictive ($\beta = 1.30$), $t(206) = 3.38, p < .01$; and ($\beta = -1.26$), $t(206) = -3.28, p < .01$, respectively. However, neither extraversion nor the squared term were significantly predictive ($\beta = 0.50$),

$t(206) = 1.49, p = .14$; and ($\beta = -0.22$), $t(206) = -0.66, p = .51$, respectively. A model that predicted an association between leadership with extraversion alone showed a significant positive linear effect, ($\beta = 0.30$), $t(209) = 4.57, p < .01$. In a model with both linear and squared terms for extraversion, only the linear term was significant ($\beta = 0.73$), $t(208) = 2.18, p = .03$; and ($\beta = -0.44$), $t(208) = -1.31, p = .19$, respectively. In sum, although extraversion appeared to have a significant, positive linear effect on leadership (as shown in prior studies), it did not have a significant curvilinear effect. As expected, neither the linear term nor the squared term of extraversion accounted for the effects of assertiveness on leadership.

Qualitative comments. Lastly, we explored whether the topics featured in the qualitative strength and weakness comments in Study 3 replicated the pattern we found in Study 1. Two research assistants unaware of the study hypotheses used the same coding scheme that was used in Study 1 (see Table 1) to judge the comments. Their independent coding showed a high degree of reliability: Across all comments and traits, the agreement for prevalence ratings was 88.0% ($\kappa = .71$), whereas agreement for direction ratings was 88.8% ($\kappa = .95$). The individual traits, within strengths and weaknesses, were similarly reliable. The coders reconciled their ratings for our analyses.

As shown in Table 9, the pattern of results was very similar to that found in Study 1 and was consistent with our predictions. Unlike the other traits, assertiveness was coded as more prevalent in weakness comments than in strength comments, $t(424) = 3.47, p < .01$. Assertiveness was more prevalent in weakness comments than were conscientiousness, $t(213) = 2.90, p < .01$; intelligence, $t(213) = 6.66, p < .001$; and charisma, $t(213) = 8.41, p < .001$. In terms of direction, although weakness comments for conscientiousness, intelligence, and charisma did not show a significant level of references to "too much," weakness comments for assertiveness did (mean direction rating for weakness comments rated 1

Table 8

Results of Multiple Regression Model Predicting Leadership Ratings With Assertiveness, Social and Instrumental Outcomes, and Interaction Terms, Study 3

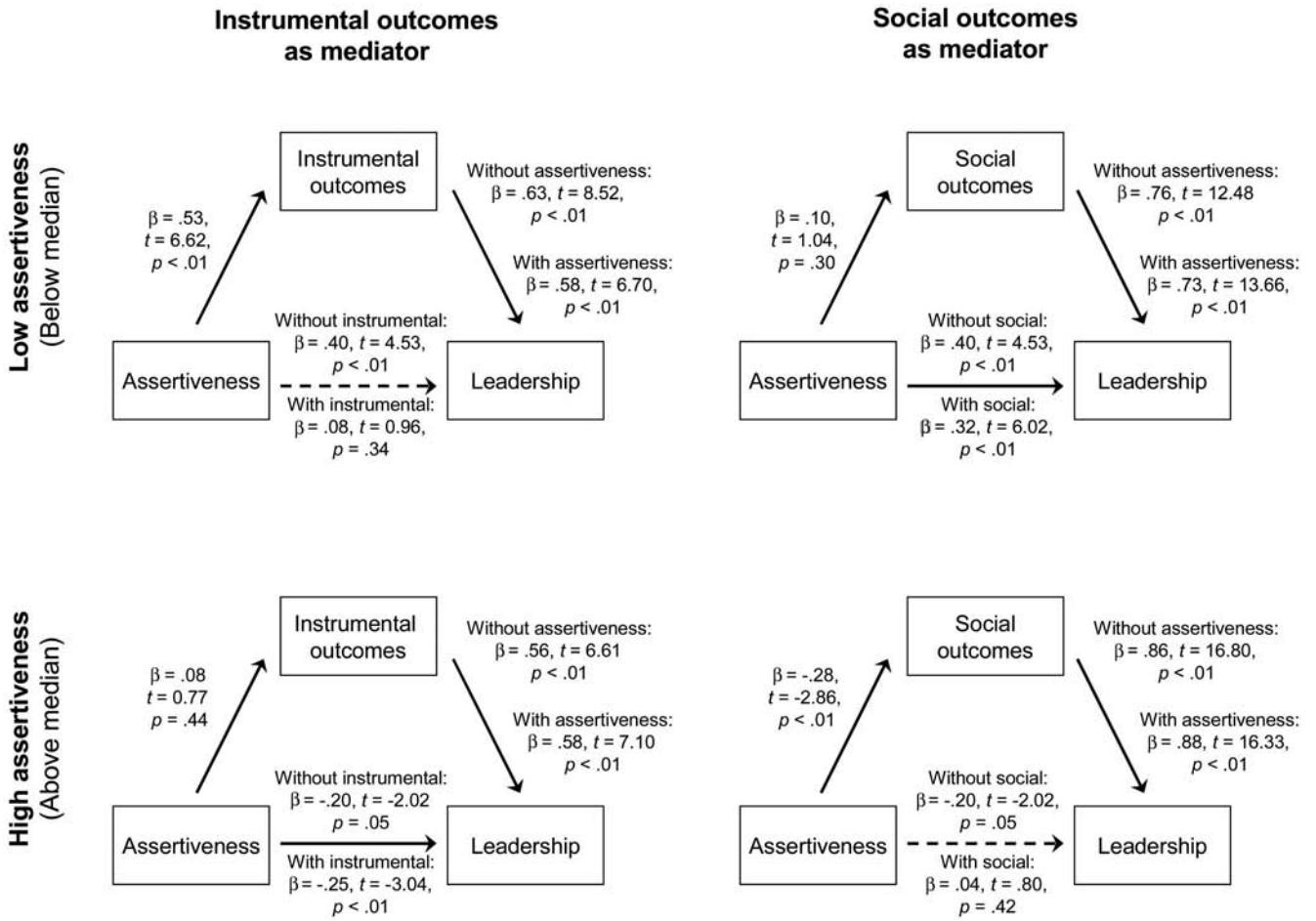|	Assertiveness		
Measure	β	$t(205)$	p
Assertiveness	0.14	1.18	.24
Instrumental outcomes	0.511	3.84	.00
Social outcomes	0.39	2.80	.01
Instrumental Outcomes × Assertiveness	−0.39	−2.03	.04
Social Outcomes × Assertiveness	0.37	2.41	.02

Figure 5. Mediation analyses featuring instrumental and social outcomes for low and high levels of assertiveness from Study 3 are shown. Dotted arrows indicate that a relationship falls below significance ($p = .05$) in the full model (e.g., that there is a full mediation). Solid arrows indicate that a relationship remains between the characteristics and the outcomes.

or 2 for assertiveness prevalence, compared with a rating of 0), $t(58) = 5.27$, $p < .001$.

Discussion

Using a broader and older sample of leaders in Study 3, we replicated and extended our central findings. First, in Study 3,

which echoed Study 1, we found that assertiveness was a prevalent theme in comments about leader weaknesses and, unlike other traits, these comments showed a mix between references to "too little" and "too much." Second, extending our results from Study 2, we found clear evidence of curvilinear relations between assertiveness and various measures of leadership, including current

Table 9

Prevalence and Direction Codings for Attributes in Coworker Comments About Leadership Strengths and Weaknesses, Study 3

	Strength comments					Weakness comments				
	Prevalence		Direction			Prevalence		Direction		
Attribute	M	SD	M	SD	Clear mentions (%)	M	SD	M	SD	Clear mentions (%)
Assertiveness	0.25	0.65	0.96	0.19	10.4	0.50	0.84	0.33	0.47	18.1
Conscientiousness	0.35	0.76	1.00	0	14.7	0.29	0.68	0.03	0.17	11.3
Intelligence	0.52	0.86	1.00	0	18.7	0.08	0.35	0.00	0	2.2
Charisma	0.27	0.66	1.00	0	10.2	0.01	0.14	0.00	0	0.5

Note. Clear mentions are the percentage of comments coded as 2 on prevalence for the given attribute.

effectiveness and expected future leadership success; these effects remained after extraversion was controlled for. The results showed that managers above and below middle levels of assertiveness were evaluated significantly less positively. Study 3 also shed light on the underlying processes. We found evidence of assertiveness' divergent effects on social and instrumental outcomes. As we expected, these outcomes mediated the link between assertiveness and leadership, and the mediation patterns differed in line with our negativity prediction. At low levels of assertiveness, instrumental outcomes (but not social outcomes) mediated the link with leadership; at high levels of assertiveness, social outcomes (but not instrumental outcomes) mediated the link.

General Discussion

The present research confirmed our expectation that individual differences in assertiveness are a critical component of perceptions of leadership and that the link between assertiveness and leadership is not as simple as was suggested by prior reports of positive or negative linear effects. References to assertiveness dominated perceptions about the weaknesses of potential leaders, having appeared as a clear theme in as many as half of the coworker comments, far more frequently than references to other commonly studied attributes, including intelligence, conscientiousness, and charisma. Indeed, in two studies, assertiveness appeared as a clear mention in weakness comments more than did intelligence, conscientiousness, and charisma combined.

As expected, comments about assertiveness as a weakness were split between those describing overassertiveness and those describing underassertiveness. For other attributes, weakness comments referred almost exclusively to a shortage or an absence (of intelligence, conscientiousness, or charisma). The portrait for strength comments, however, was markedly different. Although getting assertiveness wrong in one direction or the other dominated perceptions of weaknesses, getting assertiveness right was not a dominant theme in perceptions of strengths. Moderate assertiveness may be something like a background condition: It facilitates success, but when it is in place, other attributes become more salient.

Our analyses of quantitative ratings of leadership fit with the image that emerged from the qualitative comments. We found that assertiveness had a curvilinear relation with leadership in multiple samples and with multiple measures, including leadership behaviors related to conflict, teams, motivation, and influence, as well as with overall current effectiveness and expected future success. The curvilinear effects of assertiveness also remained after extraversion was controlled for. Study 3 showed that, compared with those at middle levels of assertiveness, managers with high levels and low levels of assertiveness were evaluated less positively as leaders (see Figure 3).

Our results were also consistent with our account of the underlying mechanisms. Assertiveness was positively associated with instrumental outcomes and negatively associated with social outcomes, although in both cases, curvilinear effects were apparent as well. We validated our negativity prediction that these outcomes would play mediating roles that depend on the level of assertiveness. At high levels of assertiveness, social outcomes accounted for the negative effect of increasing assertiveness on leadership; at low levels of assertiveness, instrumental outcomes accounted for

the positive effect of increasing assertiveness on leadership (see Figure 5).

In sum, our results show not only that assertiveness does matter to leadership but also how (a general curvilinear pattern) and why it matters (mediated by instrumental outcomes at lower levels of assertiveness and social outcomes at higher levels of assertiveness). We believe that this pattern of findings helps resolve apparent contradictions in past research describing various linear effects of assertiveness-related constructs, such as dominance and cooperativeness. It may be that past studies were primarily focused on social or instrumental outcomes or on a certain sample or range of the overarching distribution of assertiveness. We hope that future work will build on the present findings and will continue to explore the role that assertiveness plays in making and breaking leaders. We turn next to implications and future directions.

Implications

One general implication of our research concerns how individuals' attributes and behavior relate to leadership and interpersonal relations more generally. The overwhelming majority of leadership research we reviewed has conceived of, and tested for, linear relations between personal qualities and leadership emergence or effectiveness, including charisma (e.g., House, Spangler, & Woycke, 1991), self-monitoring (e.g., Zaccaro, Foti, & Kenny, 1991), and intelligence (Judge, Colbert, & Ilies, 2004). Yet the organizational research literature reveals virtually no reports of, or tests for, curvilinear relations. Surveying the psychological and organizational literatures on leadership, Simonton (1995) concluded, "Because the bulk of leadership research has relied heavily on linear measures of statistical association, the empirical literature may seriously underestimate the predictive value of many measures of personal attributes" (p. 750). We agree.

By proposing an optimal midrange for assertiveness in perceptions of leadership, we do not mean to suggest that successful leaders always act moderately assertive. Rather, by having a default style that is neither markedly competitive nor submissive, they may be more able to show a greater range of behavior, using more situationally appropriate levels of assertiveness. Such adaptiveness or flexibility may be reflected in constructs such as ego resiliency (one's ability to exert varying degrees of self-control as the situation demands; e.g., Block & Kremen, 1996) and self-monitoring (one's ability to monitor others' expectations and reactions and adjust one's own behavior accordingly; e.g., Zaccaro et al., 1991). Leaders may be well-served by behavior adjustment, depending on the assertiveness of followers and team members (cf. Simonton, 1985) and/or depending on the task or context.

This notion of flexibility resonates with contingency approaches to leadership. In this tradition, Fiedler's (e.g., Fiedler & Chemers, 1974) model distinguished between task-motivated leaders and relationship-motivated leaders and predicted their performance on the basis of the interaction of these styles and the situational control (a leader's potential for controlling a situation). Another widely discussed model, path–goal theory (e.g., House, 1996), similarly distinguished between directive (clarifying, structuring) behaviors and supportive (friendly, positive) behaviors, and proponents argued that the effectiveness of such behaviors depends on contingencies, including employee skill level, and on whether the tasks are routine. Assertiveness, as we have conceived of it in the present article, has links to the motivations and

behaviors specified in these models. As such, leaders may benefit by adjusting their behavioral assertiveness in light of the contexts these contingency models highlight.

Another factor that could act as a boundary on the effects we report here is stereotyping. Stereotypes can shape how behavior is interpreted and whether it is seen as normal or extreme. One relevant domain worth further attention is gender stereotypes. The social costs of demonstrating extreme levels of assertiveness may be more severe for women than for men because highly assertive behavior is a violation of the feminine gender role (Eagly & Karau, 2002; Rudman, 1998).

The Prevalence of Low and High Assertiveness

If chronically low and high levels of assertiveness are so costly, why do so many people show them? One possibility is that although people are aware that they are seen by others as overassertive or underassertive, assertiveness is a largely immutable trait that people are, despite their best efforts, unable to change. Although we believe assertiveness has obvious stable dispositional components, it is ultimately expressed in behavior that is somewhat malleable. People can make choices about how to respond during conflicts, advocate their ideas, or ask others for resources. Enduring dispositions surely shape these choices, but experience suggests that they can also be modified through training and personal development. Some research has suggested that personality traits, such as extraversion and assertiveness, have a genetic and heritable basis (e.g., Rushton, Fulker, Neale, Nias, & Eysenck, 1986). Longitudinal studies have found that assertiveness and related constructs, such as extraversion and self-assurance, generally tend to remain stable in individuals over time (Costa & McCrae, 1988; Vaidya, Gray, Haig, & Watson, 2002). Nonetheless, other work has suggested that skills training programs and coaching can lead to changes in related behavioral domains, such as shyness (e.g., Cappe & Alden, 1986; Zimbardo, 1996) and interpersonal hostility (e.g., Deffenbacher, Thwaites, Wallace, & Oetting, 1994; Thurman, 1985). Although changes can follow even relatively brief interventions, ongoing effort and booster training may play an important role in creating enduring effects (Baggs & Spence, 1990).

Another explanation for the prevalence of over- and underassertiveness is that people's norms and expectations about assertiveness vary. Highly assertive people may not see their behavior as especially socially costly and may expect exaggerated instrumental losses if they are less assertive. Likewise, unassertive people may predict that if they push any harder, they will incur steep social costs. In this way, people may see their own assertive behavior—whether high or low—as inevitable, rational, and adaptive, and may fail to recognize that some, or many, others perceive their behavior and its consequences differently. Recent work (Ames, 2006) has suggested that this is the case, linking individual differences in such expectancies to varying levels of assertiveness in interpersonal conflicts and the workplace. To the extent that such expectancies shape assertive behavior, changing these beliefs may yield changes in behavior.

Final Thoughts

In sum, assertiveness appears to be a meaningful component of perceived leadership. Yet this story has been, perhaps understandably, overlooked in research to date. Had we focused in our own data sets on perceptions associated with effective leadership and with linear relations, the effects of assertiveness would have been easy to dismiss. Assertiveness was not a dominant theme in the comments we gathered about leader strengths. Moreover, the pattern of linear effects of assertiveness on leadership was confused and uninspiring: It was modestly negative in one study and weakly positive in another. By expanding our focus to include not only that which makes a leader but also that which breaks a leader, we found that the concerns featured in weakness comments were not the mirror opposite of the concerns featured in strength comments. The widespread prevalence of both "too little" and "too much" comments about assertiveness pointed toward a curvilinear relation that was borne out in our analyses. Our exploration of this link, and its underlying effects, highlights an important challenge with which many leaders and potential leaders struggle: getting one's way while also getting along. We look forward to future work that further explores these dynamics.

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Appendix

Leadership Measures Used in Study 2

Motivation Items

1. S/he neglects to recognize others for their contributions [reverse coded].

2. S/he sets achievable, yet challenging goals for others and him/herself.

3. S/he finds ways to make his/her work and others' work more enjoyable.

4. S/he maintains focus on the task at hand.

5. S/he is not effective at giving helpful/constructive feedback to others [reverse coded].

Social Influence Items

1. S/he is able to direct and steer meetings in his/her favor.

2. S/he is able to persuade other people and change their opinions.

3. S/he is able to build effective working relationships with others who have different opinions or interests.

4. S/he tries to win arguments by dominating the discussion [reverse coded].

5. The substance of his/her messages gets lost because of how they are communicated [reverse-coded].

Managing Conflict Items

1. S/he is very good at generating innovative solutions to resolve conflicts.

2. People seek his/her advice and help in resolving conflicts.

3. S/he considers the viewpoints of all parties involved in a conflict.

4. S/he has a hard time standing his/her ground in a heated conflict [reverse coded].

5. In conflicts, his/her competitive side comes out to an excessive extent [reverse coded]).

Working in Teams Items

1. When working in a team, s/he makes sure everybody is kept informed and in the loop.

2. S/he creates an atmosphere in which group members feel free to disagree with one other.

3. S/he takes initiative in contributing to the team's efforts.

4. S/he is unwilling to sacrifice his/her self-interest for the good of the team [reverse coded].

5. When working on a group project, she tends to want to do it all him/herself [reverse coded].