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How leaders influence followers through the use of nonverbal communication

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Abstract

Purpose – The purpose of this paper is to address the relationship between a leader's use of nonverbal immediacy (specific hand gestures) and followers' attraction to the leader. This study provides initial evidence that certain hand gestures are more effective than others at creating immediacy between leaders and followers.

Design/methodology/approach – In an experimental study, participants (male = 89; female = 121) were shown one of three videos of an actor, as leader, using three positive hand gestures, three defensive hand gestures, and no hand gestures, which have not been previously operationalized (and were grouped arbitrarily by the experimenter). Three hypotheses were tested using a 3×2 ANOVA (by group and gender) for main and interactional effects.

Findings – The independent variable, positive hand gestures ($M = 2.4$), was perceived by participants as more immediate than the other two independent variables, defensive hand gestures ($M = -19.2$) or no hand gestures ($M = -21.6$). Analysis of data indicate that participants perceived leaders with no hand gestures and defensive hand gestures to be distant or non-immediate and the leader with positive hand gestures to be more immediate or attractive.

Research limitations/implications – This study is limited as a pilot study establishing differences between specific hand gestures for the first time.

Practical implications – The research provides initial evidence that the hand gestures arbitrarily defined as "positive" create more immediacy between the followers and the leader than usage of "negative" gestures and no gestures.

Social implications – The current research can act as a motivator for leaders to fast forward relationships with followers through the use of specific hand gestures.

Originality/value – The results suggest the possibility that some hand gestures are more effective than others.

Keywords Nonverbal behavior, Leadership development, Leader nonverbal immediacy, Hand gestures

Paper type Research paper

Pundits, bloggers, and the news media have commented on the meaning of nonverbal communication for political figures, and business leaders around the world use nonverbal communication in their speeches to various audiences. Little research exists on whether leaders are aware of their gestures or how their nonverbal communication is perceived by their viewers, as either positive or negative. Research has focussed on the verbal message of a leader as a single channel of communication (Shriberg, 2005), but there is less research on whether verbal channels of communication convey the real meaning and acceptance of the speech or whether the nonverbal channel has more influence. Two lines of research note that some nonverbal channels of communication are spontaneous while others are intentional messages used in a strategic manner (Buck and VanLear, 2002). Research by Choi *et al.* (2009) noted that observers are capable of perceiving and interpreting nonverbal communication as a way to interpret

the perception as either attractive or distancing. This research showed that the attraction between a leader and his or her follower is determined by the nonverbal communication which is displayed by the leader, and the follower's perception and interpretation of the meaning of these nonverbal messages (Choi *et al.*, 2009).

A leader's job is to move people from where they currently are to where they need to be in order to create a more innovative and productive organization (Stogdill, 1950) which is typically accomplished through verbal communication as a leader communicates vision, purpose, and direction during a meeting. Some researchers have shown that nonverbal communication plays a much larger role than verbal communication (Ekman, 1973; Haase and Tepper, 1972; Hall and Mast, 2007) due to the spontaneous nature of this communication as unintentionally communicating, or leaking, emotional states via displays or gestures (Buck and VanLear, 2002).

A leader's emotions, which are displayed via nonverbal communication, particularly hand gestures, can affect followers (Goleman, 1998; Lewis, 2000), but leaders may be unaware of what their hand gestures convey, in terms of meaning, and the impact on followers. By becoming aware of specific hand gestures, and changing which hand gestures a leader uses, leaders might have a better chance of acceptance of their verbal message. Studying specific hand gestures will help to determine whether leaders can make an emotional connection based on the meaning these hand gestures create. Past researchers have categorized gestures as iconic, emblems, beats, etc., yet no sub-categorization of these gestures has been studied since Ekman and Friesen (1969) and Mehrabian (1971).

The current study is based on Mehrabian's (1971) work on nonverbal immediacy and social interaction as well as Ekman's and Friesen's (1969) system that was used to create a classification of nonverbal behavior. Mehrabian noted that "people are drawn towards persons or things they like, they evaluate highly and prefer; they avoid or move away from things they dislike, negatively evaluate or do not prefer" (p. 1). Richmond *et al.* (2008) posited a corollary to this work by noting that the more nonverbal immediacy a person uses, the more other people will evaluate in a positive manner and prefer to be around him or her. Although this work was based on teacher and student assessments, the same theory should hold for a leader and follower evaluation as both studies display a power imbalance. The less immediacy a leader uses, the exact opposite will be true. This study also builds upon Richmond *et al.*'s (2008) work by determining if positive and defensive hand gestures or no hand gestures have a similar effect for follower's perception of leader hand gestures which will provide leaders with specific information on the value of specific hand gestures used during communication.

Numerous researchers beginning in the early to mid ninteenth century have studied nonverbal gestures and the impact on communication (Birdwhistell, 1970; Darwin, 1872; Ekman and Friesen, 1969; James, 1884; Mehrabian, 1971). More recent researchers who have studied specific hand gestures and leaders have focussed on dyads or small group settings (Ambady and Rosenthal, 1993; Beattie and Shovelton, 1999; Burgoon, 1994; Burgoon and Le Poire, 1999; DePaulo, 1992; Ekman and Friesen, 1969; Friedman and Riggio, 1981; Genova, 1974; Krauss, 1998; Krauss *et al.*, 1991, 1995; Maricchiolo *et al.*, 2009; Mehrabian, 1971; Remland, 1981; Wachsmuth, 2006). However, no researcher to date has created a subset of iconic hand gestures to test for significance of an observer's perception and interpretation.

Beattie and Shovelton (1999) used video or audio to test undergraduate students' ability to detect the meaning of a story based on iconic, conduit and metaphoric hand

gestures. They found that students, who were able to view the video, were better able to determine the verbal meaning of the story than those who only heard the audio. Beattie and Shovelton showed a significant main effect for the gestures, but showed no significance between the gesture and condition. Therefore, some iconic gestures convey more meaning than others.

Previous researchers have studied different hand gestures and the meaning they create (Dodds *et al.*, 2011; Ekman and Friesen, 1969; Iverson and Goldin-Meadow, 1998; Krauss, 1998; Maricchiolo *et al.*, 2011; Mehrabian, 1971; Wachsmuth, 2006); however, there is no research classifying subsets of iconic hand gestures as positive or defensive.

Research by Gitter *et al.* (1976) noted a significant effect with nonverbal communication when college students viewed a leader's presentation. However, several forms of nonverbal communication were included and terms such as "strong" vs "weak" nonverbal communication does not provide specific categories. This was the first notation of a possible difference between nonverbal hand gestures until Maricchiolo *et al.* (2011) suggested a further look at "positive" vs "negative" hand gestures. This study attempts to take this research one step further by operationalizing hand gestures into positive, defensive, and neutral gesture groups. Analysis will examine that there is a difference among gesture groups and that the difference between the gestures will be measured by immediacy as perceived by the audience. Prior to this study, no attempt has been made to delineate positive and defensive hand gestures based on empirical study. There is anecdotal evidence for the support of different hand gestures (Pease, 2004), but no empirical data to support these claims.

In order to study this, three videos were viewed by participants to test the following hypotheses:

H1. Positive hand gestures will have a greater effect on participants' ability to perceive nonverbal immediacy in leaders when compared to defensive hand gestures in the presence of a verbal sound channel.

H2. Defensive hand gestures that include a verbal sound channel will have a lesser effect on participants' ability to perceive nonverbal immediacy in leaders when compared to no hand gestures that include a verbal sound channel.

The experiment
In this experiment, we showed participants ($n = 210$) one of three videos depicting a leader presenting a positive message to followers. The independent variable, hand gestures, consists of three levels: positive hand gestures, defensive hand gestures, and no (neutral) hand gestures. Each one minute video contained either positive hand gestures, defensive hand gestures, or no hand gestures.

It is hypothesized that the following hand gestures are positive. Positive hand gestures are operationally defined as the use of three hand gestures:

(1) Community hands – the position of the hands show the palm face up or vertical to the ground.

(2) Humility hands – hands are clasped in front of the person at waist level.

(3) Steepling hands – hands form a steeple with fingertips touching.

It is hypothesized that the following hand gestures are defensive. Defensive hand gestures are operationally defined as the use of three hand gestures:

(1) Hands in pockets – one or both hands are in the leader's pants pockets.

(2) Crossed arms – one or both arms are crossed over the chest.

(3) Hands behind back – hands are clasped behind the back.

No hand gestures, as the third level of the independent variable, is defined as the leader keeping his hands at his side throughout the entire speech. It is hypothesized that this is a neutral position and participants would not have an emotional response.

Method

Participants (male $= 89$; female $= 121$) were drawn from a proprietary database currently used to provide a free e-zine to subscribers on a monthly basis. Subscribers to this database are business professionals either employed or self-employed. Participants made themselves available to take the survey, thereby achieving a convenience sample.

Three different video portrayals by an actor were used for manipulation of the independent variable based on previous research using videos and online/internet surveys (Curhan and Pentland, 2007; Hegstrom, 1979; Talley, 2012; Wirth *et al.*, 2010). All video portrayals used the same actor portraying a leader of an organization making the same one minute speech and varying only in the use of hand gesture levels as defined by the experiment. The speech was written and created by the author (Talley, 2012). The basic premise of the speech was positive as the verbal message used inspirational words and messages (Appendix 1) and the content of the speech was the delivery of good news to the audience. The actor memorized the speech so that each treatment provided the same verbal message and seemed natural to the actor. The actor was dressed the same for all videos, was videotaped on stage at a local university theater, and was filmed by a professional videographer:

(1) In Video 1, the leader used no hand gestures. The participant was able to hear what the leader is saying.

(2) In Video 2, the leader used three positive hand gestures (humility, steepling, and community hands). The participant was able to hear what the leader is saying.

(3) In Video 3, the leader used three defensive hand gestures (hands in pockets, arms crossed over chest, and hands behind back). The participant was able to hear what the leader is saying.

Procedure

The survey and three videos were uploaded to SurveyMonkey. The random assignment function (also known as A/B splits) allowed random assignment of participants into different groups to view one of the three videos. An e-mail invitation was sent out to subscribers to the e-zine. A link to SurveyMonkey was included. Participants who chose to participate signed a consent form, answered demographic questions, viewed a one minute video (randomly assigned), and answered the survey questions.

After viewing the video, the participant completed the Nonverbal Immediacy Scale-Observer Report (NIS-O) (Appendix 2) (Richmond *et al.*, 2003) which had been previously tested (McCroskey and McCain, 1974; Richmond *et al.*, 2003), and validated.

The instrument uses a five- point Likert scale, ranging from never (1) to very often (5) as responses and total scores ranging from −52 to 52. Some items in the instrument are reverse coded, as noted in the instructions in Appendix 2. This instrument measures a person's attraction toward people they like or distancing themselves from people they do not like or prefer (Mehrabian, 1971). The α reliability of 0.90 is expected based on previous research (McCroskey, 2011b; Richmond *et al.*, 2003). To increase face validity, new items were added by the developer; predictive validity was retested, and found to be moderate to high (Richmond *et al.*, 2003).This instrument has been previously used in leadership and nonverbal communication studies; however, reliability and validity has only been verified in previous research focussing on educators (McCroskey and McCain, 1974; Richmond *et al.*, 2003). Reliability and validity was assessed during the analysis and is consistent with previous findings as noted in the results section.

The NIS-O instrument includes 26 questions which provided the participant the opportunity to assess the hand gestures of a leader and then make an evaluation. Questions were used to determine the degree of immediacy from participants and how participants perceive the leader's hand gestures. Per the design of the questionnaire, items 1, 2, 6, 10, 12, 13, 14, 16, 17, 19, 21, 22, and 25 in the NIS-O were used to assess the participants' immediacy to the leader. All remaining items were used to measure participants' non-immediacy to the leader. The sum of non-immediacy items is subtracted from the sum of immediacy items for a total immediacy score (Appendix 2).

Results

A two-way analysis of variance yielded a main effect for the video groups $F(2, 204) = 33.97$, $p < 0.001$. *Post hoc* analysis using Tukey's HSD revealed that positive hand gestures group reported significantly higher NIS-O scores than the no hand gesture and defensive hand gesture groups, which did not differ significantly from each other (positive gestures $M = 2.4$, no gestures $M = −21.6$, defensive gestures $= −19.2$). Neither the main effect for gender was significant $F(1, 204) = 0.04$, $p = 0.852$, nor was the interaction between video group and gender $F(2, 204) = 1.37$, $p = 0.26$, as noted in Table I. This establishes that positive hand gestures do create attraction by viewers.

The NIS-O was shown to have excellent reliability on this sample ($\alpha = 0.93$). Levine's test for equality of variance across all group combinations of gender and video was not significant $F(5, 204) = 1.76$, $p < 0.122$ and the test of normality on the residuals using Shapiro-Wilk (S-W $= 0.992$, df $= 210$, $p = 0.346$) suggest the assumptions of ANOVA are not violated.

Source	df	F	Sig.	Partial η^2
Intercept	1	94.81	0.001*	0.317
Video	2	33.97	0.001*	0.25
Gender	1	0.04	0.852	0
Video × gender	2	1.37	0.258	0.013
Error	204			
Total	210			

Note: *Significant at $p < 0.05$

Table I.
Tests of between-subjects effects

Discussion

The purpose of the study was to provide empirical evidence to support new theory: certain specific hand gestures are more effective than others at creating immediacy between the leader and the followers. Based on nothing more than clinical experience, it was possible to derive at least one group of hand gestures (positive) that outperformed the defensive hand gestures and no hand gestures groups. To date, no one has experimentally investigated the role of specific hand gestures and the perception of leader attraction. Leader nonverbal communication, particularly hand gestures, can be easily observed from the beginning to the end of an interaction by a follower. If a leader is to be more effective in creating the emotional connection with followers in order to create change, then understanding what meaning his or her hand gestures create on the part of the follower is critical to success.

Specific hand gestures, as operationalized in this study, have not been previously studied for use by leaders. By testing these gestures, this study reveals what a leader can do with his or her hands to create more immediacy with followers simply by using specific positive hand gestures, and minimize feelings of non-immediacy by regulating no hand gestures and defensive hand gestures. By focussing on specific hand gestures, leaders can see how a small change can positively impact their relationship with followers for acceptance rather than rejection.

This study provides leaders with new information to create nonverbal immediacy with their followers by using specific positive hand gestures. As change becomes a constant in our global workforce, a leader must look for more effective ways to make the emotional connection with followers and create immediacy in order to move those followers and the entire organization forward. Leaders can choose the impact they wish to make upon followers. As noted in this study, leaders use hand gestures to create meaning which followers perceive and interpret, thereby creating impression management (Druckman et al., 1982). By attaching consistent and specific meaning to certain hand gestures, leaders are informed of what specific messages he or she is sending or can send using hand gestures alone.

These results will assist leaders by providing them more effective ways to influence followers by using specific hand gestures. Leaders will then be able to consciously encode their hand gestures in order to create meaning for the follower and nonverbal immediacy. We suggest that leaders who find themselves in difficult situations with followers, and seek to change that, can create a congruent verbal and nonverbal message by using specific hand gestures.

This study also suggests the potential harmful perceptions that certain hand gestures can have on a leader's interaction with followers. Although no empirical research had investigated specific hand gestures, past research sheds some light on this. The Dr Fox Lecture used an actor, as leader, to present a completely incoherent speech to several different groups of educators and professionals. The speech contained conflicting information, yet the viewers rated Dr Fox favorably due to his appearance as a leader and authority figure. The most notable responses indicated that this rating was due to participant's perception of his relaxed manner during the speech. If a false leader with a verbal message can persuade viewers with a relaxed manner, can specific hand gestures be part of this influence?

Now, organizations have empirical evidence to include nonverbal communication training as part of their leadership development training programs. Effective leaders are aware of how they emotionally connect to followers and the effect upon their

followers, and this study provides them specific information to aid them in developing themselves further as better and more effective communicators.

Secondly, this research, as somewhat of a pilot project, lays the foundation for future research to empirically test for the specific hand gestures and ultimately create a taxonomy of hand gestures.

Recommendations for future study

This study is the beginning of expanding past research to create a new dimension to nonverbal behavior, its meaning, and the impact on followers. This study is limited as a pilot study establishing differences between specific hand gestures for the first time. Furthermore the limited information on the sample's demographics only allows gender to be considered as a covariate while other demographic variables of possible importance, such as age cannot be adequately assessed in this study. Future research can further refine differences between specific hand gestures, generalize these differences to the population, and assess the effects on additional outcomes beyond immediacy.

Few experimental investigations have been performed using business professionals (employees or self-employed). Research cited in this paper is based on laboratory studies using college students. However, since there is no previous research focussing on specific hand gestures, would a study of university students (non-working) provide different data from the data provided by employed or self-employed participants? Would there be a difference due to age of the university students and their perception of a leader's hand gestures? This would be an interesting study as younger generations today are more task oriented (keyboard or touch screen focussed) rather than relationship focussed (Andert, 2011). Older workers might perceive hand gestures differently due to their relationship or behavioral training during personal and business development.

This study was composed mainly of participants from the USA and a small percentage from Canada, both countries considered individualistic cultures (Hofstede, 1983). Because the sample was not diverse in terms of cross cultural participants, future study might explore the contribution of these demographic factors. Would a study using a comparison between countries and cultures provide empirical evidence as to whether these specific hand gestures cross cultural boundaries?

This study used a male leader (actor). What if a female leader (actor) was used? Research has shown that female leaders are perceived more negatively than male leaders when providing guidance or direction. Even though the verbal message delivered by the male leader (actor) was positive, it would be interesting to see if a female leader received the same responses when using the same verbal message.

Future studies might also explore differences along variables such as education, income, ethnicity when determining the meaning of specific hand gestures. A main effect has been established, and rather strongly, but the possibility exists that this effect is more complex and may have behaviors that differ widely across different factors. The robust results from this study create a foundation upon which future study recommendations will add to the knowledge and meaning of specific hand gestures.

Conclusion

The purpose of this study was to investigate subsets of iconic hand gestures of a leader to determine what meaning they create for followers. Extant research has noted

that emotions, or nonverbal communication, are leaked through facial expressions or body gestures; this study suggests that the use of some specific hand gestures may be more effective than others. Our current research can act as a motivator for leaders to fast forward relationships with followers through the use of specific hand gestures. The empirical evidence from this research study provides leaders with the external motivation to change in order to connect and communicate more effectively with followers. The data informs leaders of opportunities for personal and professional growth by developing and understanding the nuances of nonverbal behavior, particularly specific hand gestures, in order to create nonverbal immediacy with followers.

The premise of this study has been to create categories or subsets of iconic hand gestures for use by leaders to lead more effectively by providing them with an understanding of their nonverbal communication. Most leaders focus on the verbal message, and, according to the data, the nonverbal message, is equally, if not more, important as noted by previous researchers (Ekman and Friesen, 1969; Mehrabian, 1971). Based on this study, leaders today can add to their skills and abilities to better lead their followers by adding nonverbal communication skills to their competencies. Organizations can improve their leader development and training programs by including nonverbal communication. Leaders can no longer hope to sustain an organization based on command and control type tactics or policies and procedures. It is the emotional connection that a leader and follower have based on the nonverbal communication and the immediacy created.

Words alone do not create the dialogue. It is now empirically evident that the nonverbal behavior of a leader creates the meaning to the dialogue. The old cliché, actions speak louder than words, has merit as indicated by this study.

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Appendix 1. Speech used in videotapes
Written by Linda Talley

Growth opportunities are present for everyone. We want to help our clients manage their resources so they can feel good about their lives in every category. Serving our customers through you, our valued team members, continues to be the foundation for growing our business. Our focus is on taking care of our customers and you are the key to that end. Our business

growth will come from exceptional service to our clients regardless of our market or location, and our online business will only add to the ease with which our clients can interact with us.

We are reducing cost without reducing quality. Innovation, improved processes and our exceptional management team will drive significant improvements in our business. We improved our productivity through new and state of the art operating systems. Our global partnerships are strengthening our efforts to manage our costs and minimize expenses to our customers. Our new building structure along with the addition of new staff members within our organization provides an integrated approach to running our business, gaining the competitive advantage and creating new avenues for customer growth and revenue generation.

Appendix 2. Nonverbal immediacy scale-observer report (NIS-O)[a]

DIRECTIONS: the following statements describe the ways some people behave while talking with or to others. Please indicate in the space at the left of each item the degree to which you believe the statement applies to the leader.

Please use the following five-point scale:

1 = Never; 2 = Rarely; 3 = Occasionally; 4 = Often; 5 = Very Often

_____ 1. He/she uses her/his hands and arms to gesture while talking to people.

_____ 2. He/she touches others on the shoulder or arm while talking to them.

_____ 3. He/she uses a monotone or dull voice while talking to people.

_____ 4. He/she looks over or away from others while talking to them.

_____ 5. He/she moves away from others when they touch her/him while they are talking.

_____ 6. He/she has a relaxed body position when he/she talks to people.

_____ 7. He/she frowns while talking to people.

_____ 8. He/she avoids eye contact while talking to people.

_____ 9. He/she has a tense body position while talking to people.

_____10. He/she sits close or stands close to people while talking with them.

_____11. Her/his voice is monotonous or dull when he/she talks to people.

_____12. He/she uses a variety of vocal expressions when he/she talks to people.

_____13. He/she gestures when he/she talks to people.

_____14. He/she is animated when he/she talk to people.

_____15. He/she has a bland facial expression when he/she talks to people.

_____16. He/she moves closer to people when he/she talks to them.

_____17. He/she looks directly at people while talking to them.

_____18. He/she is stiff when he/she talks to people.

_____19. He/she has a lot of vocal variety when he/she talks to people.

_____20. He/she avoids gesturing while he/she is talking to people.

_____21. He/she leans toward people when he/she talks to them.

_____22. He/she maintains eye contact with people when he/she talks to them.

_____23. He/she tries not to sit or stand close to people when he/she talks with them.

_____24. He/she leans away from people when he/she talks to them.

_____25. He/she smiles when he/she talks to people.

_____26. He/she avoids touching people when he/she talks to them.

80

Scoring:

Step 1. Add the scores from the following items: 1, 2, 6, 10, 12, 13, 14, 16, 17, 19, 21, 22, and 25.
Step 2. Add the scores from the following items: 3, 4, 5, 7, 8, 9, 11, 15, 18, 20, 23, 24, and 26.

Total Score = 78 plus Step 1 minus Step 2.
Note: [a]This assessment has been made available in the public domain by the creator.

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This article has been cited by:

1. Jeremy L. Gibson, Jonathan S. Gore. 2016. Is He a Hero or a Weirdo? How Norm Violations Influence the Halo Effect. *Gender Issues* **33**:4, 299-310. [CrossRef]