Bachelor Thesis

Lending a Hand to Improving Organizational Leadership

How knowledge about hand gestures can support effective leaders

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ABSTRACT: The crucial link between nonverbal cues and effective leadership is widely explored in academic literature, yet largely neglects the close examination of gesture behavior within it. Consequently, this literature review seeks to capture what is known about hand and arm movements thereby indicating its relevance for closer examinations in organizational leadership. The review captures 45 relevant sources from communication and leadership research and provides clearly outlined suggestions for future research. The findings contribute to existing academic literature by providing a first sketch of a direct link between different gesture types and increased effective leadership. The results provided insights for the assumption that a higher rate of gestures can be positively related to effective leadership. Furthermore, haptics and deictic gestures appear to also affect enhanced leadership, whereas self-adaptors are indicated to be adversely attributed to effective leaders.

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1. INTRODUCTION

The importance of emotional and social behavior in organizational leadership is greatly discussed in academic literature. Researchers found that especially the encoding and decoding skills of emotions are crucial to successful leadership styles (Reichard & Riggio, 2008); which are mostly referred to as transformational or charismatic. These styles have been evaluated most effectively due to their captivating behavioral traits. Especially abilities like focusing on disseminating clear visions to followers as well as motivating them with the aim of achieving performances beyond expectations are assessed to be important traits of effective leaders (Rubin et al., 2005; De Hoogh et al., 2010; Yukl, 2012).

The effectiveness of leaders is recently experiencing a new updraft in the academic literature. In the past Bass and Avolio (1995) proposed the Multifactor Leadership Questionnaire (MLQ), investigating the relevance of behavioral categories in connection to transformational and transactional leadership styles. Nevertheless, critics to the outdated MLQ, for example Van der Weide and Wilderom (2004), led towards different measurements enabling more comprehensive examinations. Instead of collecting perceived data, solely through standardized measurements as surveys, video-based observings of leaders in natural settings and coding their behavior can deliver more reliable and detailed results (Van der Weide & Wilderom, 2004).

Imperatively to effective leadership is the perception of followers. The way leaders, but also people in general, are perceived is influenced by their appearance, what they say as well as how they act (e.g. Kendon, 2004). The importance of nonverbal behavior (NVB) is stressed as it bears important parts of information about interpersonal orientations as well as the expression of emotions (Knapp, Hall & Horgan, 2010). It was investigated that nonverbal cues expose greater meanings conveyed in communicative interactions. For instance, NVB makes up for 65% to 90% of the communication (Crane & Crane in Darioly & Mast, 2014). Next to the importance of nonverbal cues, Mehrabian (1972) found that nonverbal acts are rated superior than verbal meanings in communication with high equivocality, indicating the importance of understanding nonverbal cues in human interactions. The language of the body reveals information about emotional states, which often can be unpleasant to address or cannot be hidden (Kendon, 2004). Also, speech content can be easier controlled than nonverbal acts as these often derive subconsciously (Poggi & Vincze, 2008). Therefore, nonverbal behavior forms an important part of communicational interactions and should not be neglected when investigating the effectiveness of leadership in organizational contexts.

It was found that a, yet, disregarded part of research about NVB in organizational settings are hand and arm gestures. A few investigations of gesture relate to concepts relevant in work settings, such as status, dominance and power; however their findings only address the tip of the ice-berg. Consequently, this thesis endeavors to cover the inquiry of what is actually known about hand gestures in effective leadership. Therefore, the foregoing outcomes present an analysis of gestures, which are not related to the speech content (non-discourse linked gestures), and demonstrate the importance of understanding the meaning of hand and arm gestures in hierarchical discourse situations. First, an extensive literature review was conducted to explore the concept of gestures and its link to organizational leadership. The investigations of the literature review reveal that hand gestures are barely studied in the context of effective leadership, yet it was found that gestures play a significant role in nonverbal behavior. The hands are an important tool during communication which should not be neglected in the framework of leadership. The investigations, presume that the gestures of leaders reveal compelling information about their degree of effectiveness and should not be ignored when examining leader's NVB.

The presentation of the rest of this paper is structured as follows. First, the current state of affairs about NVB in organizational leadership is discussed, followed by an abbreviated overview of the concepts and theories in the existing hand gesture literature. Subsequently, the objectives of this study will be outlined. Additionally, the methodology section will describe the investigations in order to draw a comprehensive understanding of the usage and meaning of hand gestures. The findings will then be translated into the context of work settings related to effective leadership. The discussion part, then, provides relevant propositions for further research.

1.1 Nonverbal Behavior in Organizational Leadership

Nonverbal behavior includes various body movements such as gestures (hand, arm and head movements), posture, touching behavior, facial expressions eye- as well as vocal behavior (e.g. Kendon, 2004; Knapp et al., 2010). The social skills of encoding and decoding such behavior relates to emotional and social intelligence, which is classified to be of high importance for effective leadership (Rubin, Munz & Bommer, 2005; Darioly & Mast, 2014). Especially, transformational leadership is defined by leaders being able to detect emotions of followers and acting upon these in order to guide subordinates' performances (Rubin et al., 2005). Leaders can detect or read emotions and behavior of followers by decoding NVB (Reichard & Riggio, 2008). A leader's attitude towards the revealed NVB by followers can in turn influence how they are perceived by followers which aids in effective leadership.

DeGroot et al. (2011) mention that perceived effective leadership behavior is dependent on the implicit leadership theories (ILPs) demonstrating that people have pre-conceived notions about the behavior and characteristics of leaders, based on their own personal experiences. These insights then lead to certain expectations about how effective leaders should behave. If such expectations of followers are met by the behavior of a leader it will be most likely evaluated as effective.

Also, research found that more vivid and open NVB of leaders is perceived as more charismatic by followers (Bass & Avolio in Darioly & Mast, 2014). According to the ILP followers expect charismatic and effective leaders to be more expressive and open in their nonverbal cues; revealed through more smiling, a fast and fluent speaking pace, the usage of various gestures or maintaining eye contact (Darioly & Mast, 2014).

In addition, haptics have been considered in the interactions of NVB and leadership management. Haptics, relating to touches involved in conversations, are highly dependent on cultural backgrounds and the relationship between the people involved (Miller, 1981; Knapp, 2012). However, if haptics are involved in communicative interactions it shows that when speakers try to encourage their opponent, they increase attentive behavior and show emotional support (Miller, 1981; Sundaram & Webster, 2001), which can help to emphasize the effectiveness of leaders when applied.

Furthermore, the concept of immediacy in nonverbal behavior is a relevant variable in effective leadership, as leaders need to be accessible to their followers. Immediacy behavior includes verbal and nonverbal acts that allow a certain closeness between two people (Kendon, 2004). Nonverbal immediacy behavior is expressed by a higher rate of direct gazes, postural forward leans, sitting close to someone, smiling (Richmond &

McCroskey, 2000) as well as touching (Siegman & Feldstein, 2014). With regards to leadership, subordinates perceived leaders with a higher immediacy as more competent, showing goodwill and being trustworthy which in turn results in leaders being perceived as credible (Teven, 2007). Especially a supervisor's trait of showing goodwill positively correlates with immediacy and results in higher perceived credibility (Richmond & McCroskey, 2000). It also shows that the supervisor cares for his subordinates (Teven, 2007). Furthermore, a more positive perceived immediacy by subordinates associates a greater likeability of supervisors and, also, positively influences performance (Richmond & McCroskey, 2000; Darioly & Mast, 2014).

Additionally, nonverbal cues have a significant influence on the persuasion and assertion of transmitting messages which is noteworthy for effective leadership. Maricchiolo, Livi, Bonaiuto and Gnisci (2011) found that individuals who are liked by others and who employ a higher rate of gestures are perceived as more persuasive in their message transmitting as counterparts who are less liked. Furthermore, they found that nonverbal signals in competitive contexts can help transmitting information more effectively.

To conclude, a great body of literature exists on the topic of NVB in organizational settings. However, current academic literature only scratches the surface of the meanings of nonverbal cues in organizational leadership. The existing results on NVB in effective leadership are rather broadly defined and lack analysis of detailed nonverbal acts in work settings to a large extent. Therefore, one of the aims of this study is to focus on the state-of-the-art literature about the distinct usage and meaning of hand gestures in work settings. A devoted examination of the use of gestures has not yet been addressed. Talley and Temple (2012) found that the usage of open hand gestures results in a higher rate of attractiveness towards the leader which positively influences leadership effectiveness. Moreover, Krauss et al. (1996) describe gestures to have a rather minor communicative effect, whereas Hall et al. (2005) identified that hand and arm gestures positively influence follower's perception of power and hierarchy in leaders**.** Also, the use of hand gestures belongs to a charismatic appearance (Jones & Turkstra, 2011) which is crucial for effective leadership (Towler in Darioly & Mast, 2014). Additionally, as mentioned earlier, observational methods are well suited to evaluate nonverbal behavior also encompassing the utilization of gestures. Consequently, gestures are a well suited concept for investigations in the context of organizational work settings.

2. THEORETICAL BACKGROUND ON GESTURES

Existing academic literature on gestures provide no clear definition of the concept. It has been described that gestures are hand and arm movements, but not every specific movement can be identified as a gesture (Krauss, Chen & Chawla, 1996). Novack, Wakefield and Golding-Meadow (2016), on the one hand, defined that a gesture displays an indicating act of moving an object, but is not a gesture when an actual object is moved. Alternatively, Barske (2009) argues that the term gesture is to narrowly defined, especially in the context of business settings. Therefore, he introduced the term embodied action to address a more varied range of hand movements, such as signing a contract. However, signing a contract would not be considered a gesture due to the definition of Novack et al. (2016). In line with that argumentation, Kendon (see Siegman & Feldstein, 2014) argues that gestures should serve an external communicative goal. Hence, hand movements moving objects (as in signing a contract or moving a ring on the finger due to nervousness) are actual movements and do not add meaning to a conversation and are, therefore, not considered to be a hand gesture (Kendon in Siegman & Feldstein, 2014; Novack et al., 2016).

Moreover, Ekman and Friesen (1969) classify the usage of NVB regarding their information conveyed as well as by the layers of meanings. Hence, NVB can be either informative, communicative or interactive as well as idiosyncratic or bear a shared meaning. Idiosyncratic nonverbal acts are attributed to single persons that share a high interpersonal relation, for instance: acts between parent and child or wife and husband (Ekman & Friesen, 1969). A shared meaning includes a set of people who agree about the meaning of certain acts as for instance people of a distinct culture do. Informative acts always transmit a shared meaning, whereas communicative acts can be defined by NVB serving a clear and conscious intention in order to transfer a specific message.

Furthermore, Krauss and Hadar (2001) found that gestures can have a natural and a non-natural derivation. Natural gestures are evaluated as causal connections between signs and understandings, whereas non-natural gestures are universal actions regulating a symbolical meaning to the conversation. In combination with the findings of Novack et al. (2016) and Kendon (see Siegman & Feldstein, 2014) natural gestures can be evaluated to have its source in emotions and feelings that do not always add meaning to the content of a discourse and rather reveal information about an individual's state of mind. For instance, a natural gesture would be to turn a ring because of nervousness. An indication like this would reveal information about a person's feelings; however it does not necessarily add meaning to the interaction.

Furthermore, gestures can be classified into different groups according to distinct motives. Kendon (in Siegman & Feldstein, 2014) names three groups: (1) pointing gestures also called deictic gestures (Caso, Maricchiolo, Bonaiuto, Vrij & Mann, 2006), (2) gestures portraying a meaning in a broader perspective (for instance depicting emotions); also referred to as emotional displays (Ekman & Friesen, 1969) or natural gestures (Kendon, in , Siegman & Feldstein, 2014) and (3) universal gestures that reveal some shared meaning in a group of individuals; so called emblems (Ekman & Friesen, 1969) as for instance 'thumbs up'. Moreover, Ekman and Friesen (1969) also identified (4) regulator signals or rhythmic gestures which are gestures applied to keep the flow of a conversation, (5) adaptor gestures that refer to touching behavior (e.g. touching of oneself as well as others), (6) illustrators or so called metaphoric gestures (Caso et al., 2006) which depict communicative meaning and (7) cohesive gestures that occur repetitively during a discourse and always appear with the same movement (Ekman & Friesen, 1969).

Another differentiation of gestures can be made according to the speech content. There exist gestures that are highly related to the content of speech, these are named discourse linked gestures, and there are non-discourse linked gestures occurring without a direct connection to the speech (Maricchiolo, Bonaiuto, & Gnisci, 2005). Discourse linked gestures can be subdivided into gestures strongly linked to the content and gestures that are only connected to the structure of speech. A strongly speech-dependent gesture is pointing. Kendon (2004) acknowledged that the rate of gestures increases as the time of talking increases indicating a close link between gestures and speech content. He also found that pointing mainly occurs when something is verbally addressed. Other directly speech related gestures are rhythmic and cohesive gestures, whereas emblems and illustrators only belong to a broader extent to discourse linked gestures (Ekman & Friesen, 1969). Gestures without a connection to the speech content are adaptor

gestures as they refer to touching oneself, other people or objects around them. Emotional display gestures can be evaluated to be both. At times when individuals talk about emotions they also might display distinct gestures; for instance when talking about shame to hide the eyes behind the hands (Kendon, 2004). Yet, it happens that nonverbal acts reveal other information than what is actually said indicating the importance of understanding gestures in interpersonal relations. Then, also, emotional displays might be used although they are not speech-related; for instance when a person's nervousness during a speech shows by constant kneading of the hands (Kendon in Siegman & Feldstein, 2014). A detailed overview of the typologies of gestures, their definitions and relation to the speech content can be found in Appendix 1.

Moreover, researchers found that speech and gesticulation are parallel organized by the brain, but are independently of each other (Kendon in Siegman & Feldstein, 2014), which can be evaluated as an indicator that gestures can provide significant meanings to a conversation. Therefore, gestures can be researched as independent communicative signals adding meaning to a conversation.

Results presented by previous research demonstrate that, especially, the palms of the hand are valuable for understanding the meaning behind gestures. Kendon (2004) identifies that hands with palms facing up can indicate that the speaker is offering or showing something, it can also indicate a request to someone; meaning it can be positively related to the immediacy of a person (Talley, 2012). Additionally, Poggi and Vincze (2008) researched the hand gestures of Italian politicians and examined that hand palms up, rather open arms and an outward postural lean can display a certain degree of self-confidence. Alternatively, when palms are facing to the body of the speaker or hands are hidden in pockets or behind the back it is rather understood as an act of defense or distance (Kendon, 2004; Talley, 2012). People feeling uncomfortable and insecure in a discourse interaction rather keep the palms facing to their own body or hide them somewhere (Kendon, 2004).

Furthermore, the expression of emblematic hand gestures bears substantial information as long as these gestures have a shared meaning in a group of individuals. Often such gestures are dependent on cultures, because cultural groups often share common meanings of signs and behaviors. Kendon (2004) outlined some of these arm and hand movements:

- 'thumbs up' indicating everything goes well or used as an OK-sign
- raising the pointing finger to indicate denial or to raise awareness
- shrugging with shoulders and hands with palms open to the sky revealing that either something is not known or something is not cared about.

Accordingly, the expression of gesture is dependent on the surroundings they are used in. Kendon (2004) compares, for instance, the gesture of 'thumb up' which indicates a sexual offer in the Greek culture but expresses an OK in the American culture. Therefore, the generalizability of existing gesture codes might only be valid for certain cultures.

Also, NVB in effective leadership management highly relates to the perception of charismatic behavior. Darioly and Mast (2014) outline that charisma is a trait which can be learned and developed. Moreover, charisma is strongly linked to the perception of immediacy which in turn also positively influences effective leadership. Charismatic leaders tend to reveal high immediacy behavior (Darioly & Mast, 2014). They apply nonverbal cues like pacing during talking and expressing confidence, which can also be revealed by specific hand gestures (e.g. palms up). Moreover, the emotional contagion process, illustrating the effect that followers tend to automatically imitate NVB of charismatic people (Hatfield, Cacioppo & Rapson in Darioly & Mast, 2014), emphasizes the relevance of understanding nonverbal cues in effective leadership. Darioly and Mast (2014, p. 14) conclude that "leaders NVB affects leadership effectiveness most likely through an interactive process between leaders expressive NVB and followers' perception of and imitation thereof".

Conclusively, the existing body of academic literature about hand gestures stretches into many directions, yet greatly neglects its relevance in work settings.

3. THE PRESENT STUDY

The investigations reviewed in this thesis seek to structure the great body of academic sources discussing gestures in order to assess the relevance of gesture behavior in effective leadership.

In line with the definition of Kendon (2004) and Novack et al. (2016) this article will define gestures as hand and arm movements that serve a representational point, adding meaning to an interaction which primarily arises from non-natural sources like emblems and adaptors. However, natural gestures such as emotional displays should not be undervalued but need a closer look for their relevance.

Moreover, as outlined by Kendon (see Siegman & Feldstein, 2014), Poggi and Vincze (2008) as well as Talley and Temple (2015) a strong focus analyzing hand gestures is put on examining the effects of the positions of the hand palms. The palms do not only reveal information about the confidence and openness of a person, but are also evaluated as an indicator for the immediacy of a person which is of high importance for effective leaders.

The aim of this study is to first explore the state-of-the-art-literature about gestures in relation to the constructs relevant in leadership enabling the enhancement of effective leadership practices. The relevant constructs in this perspective are defined through hierarchy. The relationship between a leader and its followers emerges in the context of hierarchy, meaning that a leader is hierarchically higher than its followers and, therefore, represents authority. Hierarchy in the context of nonverbal behavior and related to effective leadership can be investigated through various dimensions. Academic literature mentions the following dimensions: power and dominance (Hall, Coats & LeBeau, 2005), confidence, credibility and persuasion (Richmond & McCroskey, 2000), attractiveness (Talley & Temple, 2012) or warmth (Darioly & Mast, 2014).

In order to explore the state of affairs about the two concepts of gestures and effective leadership as well as examining their relation, the present study is guided by the following main research question:

What do we know about the role of hand gestures in effective leadership?

In order to answer the above stated research question several sub questions have been formed in order to guide the systematic literature review. The first sub question addresses the frequency of gesture utilization in order to analyze the relevant articles according to which distinct hand and arm movements are recognized by an audience. The clear sub question is, thus, defined as:

1. To what extent are hand and arm movements utilized in hierarchical discourse situations?

The next sub question addresses the typology of gestures in order to list up distinct characteristics and styles of certain hand and arm movements relevant for effective leadership. Consequently, the sub question is defined as:

2. What gestures and their utterances are relevant in hierarchical discourse situations?

The third sub question relates to the performance of gestures, especially in social interactions of hierarchy, in order to relate the findings to effective leadership management. Therefore, the sub question is defined as:

3. How do the types of gestures (defined with sub question two) relate to hierarchical discourse situations?

4. METHODOLOGY

In order to develop a comprehensive overview of academic literature that discusses the usage and meaning of gestures in work settings a systematic literature review has been performed.

In pursuance of a comprehensive literature overview the five step approach of Wolfswinkel, Furtmueller and Wilderom (2013) has been followed. The steps are determined to follow the method of a grounded theory approach, using theoretical sampling as its underlying base line and are thus defined as: (1) Define, (2) Search, (3) Select, (4) Analyze and (5) Present.

The grounded theory provides a base for the analysis step, allowing the creation of a synthesis between different definitions and developing connections between divergent concepts through the approach of coding (Wolfswinkel, Furtmueller & Wilderom, 2013). The definition phase started with setting criteria for the search process. The online data base Web of Science has been defined as the primary electronic search tool. Web of Science has been chosen due to a preliminary selection process of various databases. Hence, Web of Science yielded the most search results on the below mentioned keywords and relevant research areas. These are set to be: psychology, communication, behavioral sciences and business economics. Hecht and Ambady (1999) expose that a large extent of nonverbal communication has been researched in the areas of psychology, communication as well as behavioral sciences. Additionally, the area of business economics will also be selected in order to find relevant articles related to organizational leadership.

The search terms have been defined through a small sample of articles introducing related concepts of NVB in organizational leadership. The search terms for gestures are: *nonverbal behavior, gesture and hand and arm movement*; whereas, search terms for organizational leadership are: *organizational leadership, leader behavior, leader effectiveness, team performance, social influence, charisma and hierarchical relationships.*

The search itself has been conducted in May 2016, in five, timely independent, search procedures (every procedure contained a certain string of search words which have been combined through the Boolean connectors of *AND, OR* and *NOT* (showed in Appendix 2, Figure 4). Moreover, in order to enhance the pool of relevant articles the search was not restricted by the publication year in the database. However, in the later selection phase a restriction was set to the publication year of 2006 as a synthesize of the most recently published findings from articles at the forefront of scientific knowledge was wanted.

Furthermore, the initial search process has been extended through forward and backward citation screening as well as a hand search. Relevant references have been managed with the software Endnote, mapping information about title, authors, publication year and key words. Duplicate results of the five distinct search processes have been removed by manually examining the list of potential relevant articles.

The selection of relevant articles has been done according to following inclusion criteria: (1) Discussing not only NVB, but also gestures; (2) Discussing non-discourse linked gestures; (3) Discussing discourse-linked gestures; (4) Discussing the performance of gestures in hierarchical, socially influence interactions as well as organizational work settings; (5) Discussing NVB and gestures in organizational psychology; (6) Reviewed articles and books; (7) Written in English language; (8) Discussing the actual and perceived intention of gestures depicted.

However, the type of methods for investigations as well as the methodological quality of selected articles has not been considered in the selection process. As the aim of this literature review focuses on analyzing the content of state-of-the-art-literature it was not valued necessary to exclude articles due to their methodological approaches. Even if, thereby, results of doubtful methodological approaches are integrated it may still contribute insights about reasonable concepts being of relevance for this investigation.

Exclusion criteria have been defined as following: (1) Sources discussing NVB and gesture in clinical psychology (related to psychiatrically diagnosing or otherwise relating to clinical circumstances such as including samples of blind, deaf, learning disabled or autistic people); (2) Sources investigating the concept of gestures with children; (3) Sources discussing gestures in organizational related areas such as consumers, service outcomes, employment interviews, establishing strategies (as these outcomes cannot be generalized and used in the context of effective leadership); (4) Sources discussing only facial impressions as a part of gesturing; (5) Sources discussing gesturing in leadership related to musical settings.

In Appendix 2 figures are shown in order to also indicate the amount of findings after distinct selection processes. In the end 47 relevant sources have been listed.

The relevant sources have been analyzed through open coding. Consequently, the main arguments and findings relevant for the research question of this investigation have been marked in the relevant sources. A summary of the findings is presented in table 4 (see also Appendix 2 - table 3).

The presentation of these findings have been categorized according to the three sub questions by applying axial and selective coding, developing clusters accordingly to the typology of gestures and their outcomes on performance as well as integrating findings of gestures in communication research to findings of gestures in organizational leadership.

5. LITERATURE REVIEW

The results section first outlines the outcomes of the literature review with regards to communication effectiveness. It was found that gestures have an impact on message comprehension and persuasiveness. Subsequently, the outcomes on how certain gestures are revealed and perceived are presented. Predominantly, academic literature indicates that deictic gestures and touching others can add value to hierarchical discourse situations. Moreover, it was found that self-adaptors are rather negatively related to high status and power positions providing valuable insights for effective leadership. Furthermore, emotional expressions through NVB in work settings have been extensively discussed in the literature, which is outlined in the last section; adding beneficial remarks to the current discussion of the relevance of gestures in effective leadership.

5.1 Communication effectiveness

Academic literature discusses that the act of gesturing relates to the comprehension and persuasiveness of a message.

The rate in which gestures are utilized in speech can expose various information about the interlocutors of a discourse. An increased involvement of gesturing in a person's appearance can help them to be more precise in their speech (Driskell &

Radtke, 2003) as gesturing supports creating a mental model of an utterance and reinforces to structure thoughts in order to express these clearly (Cutica & Bucciarelli, 2011). Additionally, it was reported that gesturing can become a sort of routine, meaning that words follow to certain actions; indicating that gesturing helps speakers to retrieve words just because of certain hand movements (Knapp, Hall & Horgan, 2013). Moreover, a higher rate of gesticulation has been perceived as transmitting messages with a positive attitude, letting them appear more persuasive, which in turn influences the competence of a speaker (Maricchiolo, Livi, Bonaiuto & Gnisci, 2011). In detail, it was found that pointing gestures make a message appear more persuasive than, for instance adaptor gestures (Maricchiolo, Gnisci, Bonaiuto & Ficca, 2009). Additionally, it was found that people with a profound in-depth knowledge about a certain topic exhibit a higher rate of gestures compared to speakers with considerably less knowledge (Richland, 2015). Furthermore, gestures in general improve message comprehension between interlocutors (Lewis, Lovatt & Kirk, 2005; Pine, Gurney & Fletcher, 2010; Hostetter, 2011; Knapp et al., 2013). Gullberg and Kita (2009) investigated that speaker's fixation of their own gestures, by frequently gazing at their own gestures, positively relates to listener's comprehension. Also, deception research supports that a higher rate of gesturing is rather related to positive attitudes. It was indicated that truth tellers or innocent people use more gestures than deceivers as feelings of discomfort and negative emotions are rather revealed through a stiff body posture with few gestures (Burgoon, Schuetzler & Wilson, 2015). Moreover, the findings indicate that higher ranked employees use more hand gestures in general (Hall & Friedman, 1999). Greater gesturing, thus, can be evaluated as an indicator for speaker's competence and in-depth knowledge of a topic.

Yet it should be considered that the frequency of utilization of gestures also depends on cultural backgrounds as some cultures involve a higher rate of gestures in general. Results indicate that, especially, Italians show an extensive inclusion of gestures when they communicate (Agliati, Vescovo & Anolli, 2006; Maricchiolo et al., 2009; Maricchiolo et al., 2011).

5.2 Perceived impressions

Moreover, academic literature provides diverse explanations of the meanings of gestures which are mostly discussed in relation to daily interactions, political speeches or cultural backgrounds. The analysis of the impression of gestures is "difficult to define" (Knapp et al., 2013) as, especially, the connotation of gestures is influenced by the shared meaning of a certain group. Nevertheless, in the following the results are outlined accordingly to the gesture's type and the impressions these reveal in interactions. The relevant literature of the review extensively discussed deictic and adaptor gestures, emblems as well as the palms of the hands.

5.2.1 Deictic gestures

Especially, the utilization of deictic gestures has been extensively addressed in current academic literature. Deictic gestures are likely to address the relevance of certain issues, draw listener's attention and, also, increase the comprehension. Researchers report that deictic gestures help listener's to focus on the topic because pointing at specific objects draws the attention of listeners to relevant information (Marno, Davelaar & Csibra, 2014) which also positively affects comprehension and memory retrieval (Kelly, Iverson, Terranove, Hopkins & Goldsmith, 2002; Cook, Mitchell & Goldin-Meadow, 2008). It was investigated that listeners performed better in memory retrieval when their speech contained deictic gestures (Cook et al., 2008) which can be explained as these gestures combine the context with a visual representation (Richland, 2015). However, Suppes, Tzeng and Galguera (2015) investigated that an extensive amount of deictic gestures negatively affected listener's comprehension in the context of explaining directions. Therefore, a distinction in the context is important when talking about the positive effect of deictic gestures. Nevertheless, regarding the topics of effective leadership (e.g. organizational strategy and performance) do not often include the explanation of directions. Consequently, a high frequency of deictic gestures attracts an audience's attention on a topic and increase listeners' comprehension.

5.2.2 Emblems

Emblems are categorized as a gesture type carrying defined utterances in themselves (Kendon, 2004). They are highly culturally dependent (Kendon, 2004; Matsumoto & Hwang, 2013; Siegman & Feldstein, 2014) and mostly accompany speech (Kendon, 2004). Nevertheless, literature reveals that there are also emblematic gestures bearing universal meanings that can be recognized in various cultures. Knapp and colleagues (2013) report that the most universal gestures are linked to the meanings of 'stop' and 'I don't know'. These findings align with the investigation of Matsumoto and Hwang (2013) who examined emblematic gestures in six different world regions. According to their definition an emblematic gesture indicating a stopping signal can be shown by having "both hands open, palm facing down; hand pushed down and away from body" (Matsumoto & Hwang, 2013, p. 24). The 'I don't know' gesture is shown through a shoulder shrug in combination with the arms open while hands rotating to palms up, which is also indicated in the figure 1.

Moreover, literature indicates that handshakes, the thumb up gesture as well as gestures signaling to wait/hold on for a moment are universally understood, especially in the context of western cultures. Handshakes as a form of greeting are

Figure 1: Gesture of "I don't know", retrieved from Knapp et al. (2013, p. 204)

commonly used in western cultures as well as the act of waving to indicate a greeting or goodbye (Kendon, 2004; Mandal, 2014). The 'thumb-up' gesture serves the utterance of generally expressing "good" or indicating something positive (Kendon, 2004; Matsumoto & Hwang, 2013, Knapp et al., 2013) and is expressed by placing the hands in front of the torso at breast height while forming a fist and stretching the thumb up (Knapp et al., 2013). Yet, this gesture needs to be handled carefully as it underlies different meanings in other cultures. For instance, in the Middle-East the thumb-up sing is an utterance of insult (Matsumoto & Hwang, 2013). The gesture of holding on is shown by forming a fist with an extended forefinger while the hand is hold motionless in front of the body (Knapp et al., 2013). With regards to the context of this thesis, exploring the meaning of gestures in organizational work settings, the above mentioned emblematic gestures might occur in regular staff meetings. Yet, determining by the knowledge gained from this literature review the perception of such emblematic gestures has not been investigated.

5.2.3 Adaptor gestures

The adaptor gestures are usually distinguished between self-adaptors, gestures in which individuals touch themselves, and object-adaptors, gestures indicating touches of objects, for instance a pen. Moreover, literature discusses the concept of haptics, touching other people, when talking about adaptors.

The self-adaptors do not add value to the communication as for instance, emblems or deictic gestures do. Nevertheless, touching oneself bears information about the condition of the person itself which are perceived in certain ways by other interlocutors. Mandal (2014) categorized people engaging in self-adaptors as worried or fearful. He mentions that worried people tend to touch themselves in the face or run their hands through their hand, whereas fearful people incline to hide their faces in both hands or clutch their hands together. With regards to work settings, academic literature indicates that self-adaptors are rather classified to relate to obedient behavior. Hall, Carter and Horgan (2001) discovered that subordinates expect their superiors to reveal only a few self-adaptors. Moreover, they found that superiors expect their followers to expose comparatively more self-adaptors. These findings align with other investigations in which participants of an experiment had to imagine how they would perceive an individual's gesture behavior that ranked higher in power. A great majority of participants imagined people with greater power to engage in less self-touches but in more touching of others and using more space for gesturing, also invading into other people's space (Carney, Hall & LeBeau, 2005). In addition, Bailey and Kelly (2015) depict various postures in their investigation about the relation of gender to body language and perceived status. They related poses to the concept of verticality proposed by Hall and colleagues (2015). High V poses have been evaluated to have less self-adaptors compared to low V poses as shown in figure 2.

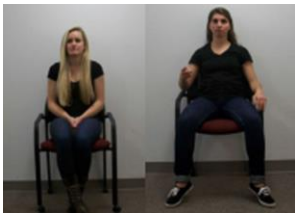

Figure 2: Feminine pose with self-adaptors depicted on the left and masculine pose with no self-adaptors depicted on the right; image retrieved from Bailey & Kelly (2015)

Furthermore, literature on message persuasion indicates that self-adaptors relate negatively to the composure and competence perception of a speaker compared to speakers who use ideational gestures (Maricchiolo, Gnisci, Bonaiuto & Ficca, 2009). Individuals showing ideational gestures are perceived as composed and competent which in turn is evaluated to enhance the effectiveness of communication and supports delivering messages more persuasive (Maricchiolo et la., 2009). In addition, Bailey and Kelly (2015) depict various postures in their investigation about the relation of gender to body language and perceived status. They related poses to the concept of verticality proposed by Hall and colleagues (2015). The outcomes present that self-adaptors appear to reveal submissive and incompetent behavior which provides beneficial insights to effective leadership. Contrastingly, Cuddy, Glick and Beninger (2001) investigated that competence is rather shown through wide-ranging and open gestural movements with limbs open and less self-adaptors on the torso; which is also evaluated to relate positively to dominance (Cashdan, 1998).

In summary, literature indicates that self-adaptors are evaluated as signals for submissive behavior and incompetence. It was mentioned that self-adaptors are used by speakers who are less composed and inherent positions of less dominance and power.

Moreover, the analyzed literature reveals more information about haptics than object-adaptors. Argyle (see Knapp et al., 2013) listed up a few of the most common touches in western cultures which include the shaking or holding of hands as well as linking arms, touching someone on the hand or arm in order to guide them towards a certain direction, embracing or simply laying on a hand. It is mentioned that such touches rather do not occur in formal or professional personal interactions, in such situations usually only the form of shaking hands in the act of greeting take place (Knapp et al., 2013). Furthermore, it was investigated that embracing others during greetings indicates the characteristic of being open-minded (Mandal, 2014) as well as revealing a certain state of intimacy between then interaction partners (Carney et al., 2005). Additionally, the experiment of Carney et al. (2005) already mentioned earlier yields insights that high power ranked people are rather imagined to involve in more touches with others during communication. Although, the experiment involves the examination of rather closely related people it still verifies that the sense of power can be related to the touches of others. Moreover, an investigation in organizational settings revealed that woman in high status positions engage in more touches with others compared to men of same status (Hall & Friedmann, 1999). Furthermore, the behavior of more touches came along with a higher perception of warmth and expressivity, which was found to rather relate to women than to men (Hall & Friedmann, 1999). Therefore, literature provides insights that frequent touches in hierarchical interactions have an influence on the perception of power and warmth.

5.2.4 Hand palms

The literature also reveals information about the palms of the hands. Kendon (2004) mentioned a specific distinction between gestures with open palms (palms up, shown towards the audience) and closed palms (palms down or facing towards the speaker, hidden from the audience). Closed palms or palms down are prevalently used in emblems indicating rather negative utterances such as denial or interruptions; whereas the condition of palms indicates a certain openness, for instance the palm faces up when individuals offer, give or show something as well as requesting something (Kendon, 2004). Moreover, the methodologies of other researchers show that the direction of the palms show effects on the delivery style of the message. The investigations of Cesario and Higgins (2007) about the effect of eager or vigilant gesturing styles on the persuasiveness of a message indicating that a message is perceived as more persuasive with an eager gesture style. Among other things, the eager gesturing style differs from the vigilant style that the palm is facing up as shown in figure 3 below.

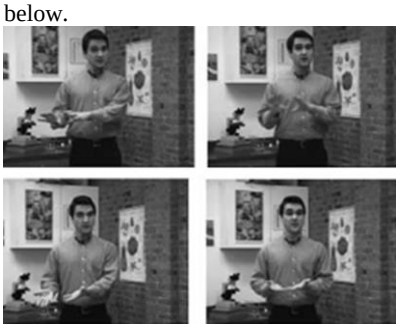

Figure 3: The top pictures depict gestures of a vigilant communication style (palms facing down) and below and

eager style is presented (palms facing up); images retrieved from Cesario & Higgins (2007, p. 417)

Moreover, Talley and Temple (2015, p. 3) included the term community hands that "show the palm face up or vertical to the ground" which have been classified to be perceived as positive, whereas hands in pockets or behind the back (palms not showing to the audience) have been identified as defensive. Their results indicated that positive hands, therefore also community hands or hands showing the palms, are positively related to the perception of attractiveness of a leader which in turn influences the degree of immediacy perception.

Furthermore, research about emblematic gestures indicates that the condition of the palm facing down is often used in negative utterances. It can be found that the case of palm down occurs in the emblems indicating a stopping signal or that something is not known or understood (Matsumoto & Hwang, 2013), these gestures have been outlined in the section of emblems already. However, the case of palm down was also found in the gesture indicating to someone to go away, which was investigated in the US culture. The gesture is described as following: "hands raised, palm down, four fingers repeatedly fluttered away self, one or both hands" (Matsumoto & Hwang, 2013, p. 24).

Additionally, the palms have also been addressed in examinations of gestures in the Italian culture, where it was found that the condition of palms up was positively related to the confidence of the speaker (Poggi & Vincze, 2008). Therefore, it appears that the palms might hold significant information when examining gestures.

5.3 Manifesting emotions

Although Ekman and Friesen's (1969) type of emotional displays has been largely neglected in the current academic literature, emotions are still highly relevant in discourse interactions. Emotions felt throughout an interaction provide a baseline for social judgments. In work settings, traits such as warmth and competence are important in order to appreciate rapport building and enhance team performances. Warmth is a trait that is strongly linked to immediacy indicating a sense of engagement with the people and the task while mutually aiming at creating a harmonic climate, which in turn positively influences performance (Cuddy, Glick & Beninger, 2011). It is revealed through serene gestures and is also linked to touching others and postural openness which can be indicators for trust, affection and equality (Burgoon in Cuddy et al., 2011). Particularly, trustworthiness influences the likeliness of cooperation. Boone and Buck (2003) investigated that people who are perceived trustworthy through their nonverbal cues are rather likely to engage in cooperation, also with others unknown to them. The expression of trustworthiness is related to various nonverbal cues indicating the interest in and involvement of others (Boone & Buck, 2003) which in turn was found to be shown through open body postures (Cashdan, 1998) as well as touching others (e.g. Carney et al., 2005). Additionally, trustworthiness was linked to credibility (Teven, 2007) indicating that warm behavior radiates sentiments of trust and credibility.

Furthermore, rapport building and team performance is strongly influenced by the emotional contagion process which describes the effect that emotions can be subconsciously adapted through nonverbal cues (Elfenbein, Foo, White, Tan & Aik, 2007). Therefore, the ability of en- and decoding emotional states adequately, which is also called emotional expressivity or emotional sensitivity (Riggio & Reichard, 2008), is important in order to manage a group effectively. Elfenbein, Polzer and Ambady (2007) investigates that a team naturally high in understanding individual's emotional states and acting upon it with empathy can lead towards better results. In addition, literature indicates that enhanced emotional sensitivity leads to better perceived as well as actual outcomes (Elfenbein et al., 2007). Therefore effective leadership needs to consider emotional contagion processes in team allocations.

It was found that people who can express their emotions appropriately also have better skills to read others' emotional states in a more excellent manner (Boone & Buck, 2003) indicating that effective leaders benefit from greater emotional expressivity in order to create positive work climates. Moreover, the skill to appropriately reveal one's own emotions as well as adequately reading other people emotions is positively related to effective leadership, leadership success and the perception of charisma (Riggio & Reichard, 2008). Academic literature mainly links charismatic behavior to positive emotions (Sy, Chois & Johsnon, 2013), pro-social behavior (Teven, 2007) and empathic actions (Elfenbein, Polzer & Ambady, 2007). These characteristics, in turn, successfully influence the emotional contagion processes which is evaluated to be a reciprocal process – the leaders does not only influence his followers, but the followers also influence the leader (Sy et al., 2013). Consequently, the management of positivity is an essential element in effective leadership and can be conducted by the trait of warmth, which aims on positive feelings and harmony.

Moreover, not only the emotional contagion process but also the concept of mirroring or mimicry affects team's performance. Mirroring or mimicry describes the subconscious behavior of copying a person's nonverbal cues (Parrill & Kimbara, 2006; Cuddy et al., 2011). Current literature illustrates that a higher rate of mimicked NVB indicates a higher likeability and affiliation among interlocutors (Lakin, Jefferis, Cheng & Chartrand, 2003) and that mimicry is important in order to create a shared understanding of abstract concepts (Holler & Wilkin, 2011). It was examined that especially self-adaptors or illustrators are copied and that the act of deploying the same gestures leads to greater memory retrieval (Parrill & Kimbara, 2006). Therefore, especially, effective leaders can influence followers' emotion through their nonverbal cues deployed. In order to build positive working climates traits such as warmth, trustworthiness and credibility should be revealed by calm and open gestures.

By and large, it was found that current academic literature discusses hand gestures to a varied extent; yet little in the context of work settings. The presented findings indicate that gestures can influence the effectiveness of communication as they enhance memory retrieval and indicate a speaker's competence and in-depth knowledge. Particularly, the higher utilization of deictic gestures can put an audience's attention back to the focus and increase message comprehension. On the contrary, self-adaptors rather negatively relate to hierarchical interactions as they are perceived to represent incompetence and can signal submissive behavior. Object adaptors, on the other hand, have not been discussed in the reviewed literature. Yet, haptics are evaluated to positively relate to hierarchical situations because touching others during interactions is perceived as a signal of immediacy, warmth and integrity. Moreover, the palms seem inconspicuously important in the discussion of gestures. The location of the palms while gesturing, whether these are shown to or are hidden from the audience, can relate to the discourse topic. Often negative utterances are accompanied by gestures depicting the palms down, whereas positive utterances reveal open palms. Furthermore, emblematic gestures are greatly discussed yet appear to show only little relevance in formal interactions in organizations. Nevertheless, nonverbal cues including gestures contribute greatly to the management of emotions at workplaces

through the concepts of emotional contagion, emotional expressivity and mimicry.

6. DISCUSSION

The underlying investigations of this thesis seek to examine the state-of-the-art knowledge about hand gestures and its relation to effective leadership. The outcomes present that hand gestures bear compelling information in nonverbal behavior which, yet, need to be more greatly involved in the research of effective leadership. Therefore, this discussion seeks to analyze the findings about hand gestures, examine their notion in effective leadership and adherently argue for prospective inquiries.

The literature evidently illustrates that NVB of leaders can reveal competence, dominance as well as power and that effective leaders fathom out on cues revealing warmth, trustworthiness and credibility positively relating to harmony and cooperation; which is outlined in more detail in the following.

6.1 Competence, Dominance, Power & Status

Literature indicates that a higher utilization of gestures by leaders can increase the communication effectiveness by conveying messages more persuasively and indicating in-depth knowledge about the topic which in turn is associated with higher competence. Maricchiolo and colleagues (2011) examined that a higher rate of gestures relates to a positive perceived attitude of a speaker which lets a message appear more persuasive to the listener. In specific, it was found that especially ideational gestures make messages appear persuasive (Maricchiolo et al., 2009). The persuasiveness of a message increases the perception of competence (Maricchiolo et al., 2009, 2011) which in turn positively relates to effective leadership (Teven, 2007). Moreover, it was reported that gestures aid making sense of utterances, especially when abstract ideas are addressed (Cornelissen et al., 2012). Sense making increases comprehension and, therefore, also the perceived competence of a speaker. These results can be linked to the phenomenon of mimicry. If followers mimic the gestures of their leaders it can serve and enhance mutually shared meanings (Holler & Wilkin, 2011) of information discussed and augment precise memory retrieval (Parrill & Kimbara, 2006). A better comprehension of issues discusses does not only influence a message's effectiveness, but also the perception of a speakers competence. Competencies in the sense of know-how as well as competencies for people management are indispensable for effective leadership (Vaculi, Prochazka & Smutny, 2014).

Furthermore, greater gesturing, not only related to the utilization of the gestures but also regarding the space of gestures, and more open gestures signify dominance. Literature indicates that a greater range of gestures relates to higher self-confidence (Poggi & Vincze, 2008), which in turn reveals in more expansive gestures (Mandal, 2014) increasing the perception of dominance in group discussion (Maricchiolo et al., 2011). Moreover, literature reports that open body postures, including expanded limbs and object-adaptors (e.g. touching chair) (Cashdan, 1998) as well as wide-ranging gestures (Bailey & Kelly, 2015), pertain to dominance and a sense of toughness (especially in women, Cashdan 1998). Additionally, Hall and colleagues (2005) report that higher rate of gestures as well as more expansive gestures correlate with a greater verticality indicating higher degrees of dominance, power and status in organizational settings. The traits of dominance, power and competence are vital to leadership effectiveness in order to be accepted as a leader and to thoroughly guide followers towards success. Consequently, leaders with a higher rate of gestures as well as more expansive gestures seem to be more effective as they appear more positive and enhance communication effectiveness, thereby increasing outcome performances for organizations.

Proposition 1a: Compared to less effective leaders, effective leaders exhibit a higher utilization rate of gestures.

Furthermore, the results indicate that, particularly, deictic gestures have a positive influence on listener's attention and comprehension. For example, pointing at certain information depicted on a white board intensify the relevance of information and supports the information uptake while also reinforcing the information for better memory retrieval (Kelly et al., 2002; Richland, 2015). Therefore, it can be assumed that effective leaders include a higher rate of deictic gestures in order to enhance followers understanding and information uptake.

Proposition 1b: Compared to less effective leaders, effective leaders exhibit a higher rate of deictic gestures in their speeches.

Consequently, the current knowledge about gestures in effective leadership offers that effective leaders depict their status, power and competence by engaging into greater gesturing. Moreover, it can be assumed that effective leaders also use more space-occupying gestures as well as deictic gestures in order to enhance followers' comprehension and memory retrieval.

6.2 Warmth, Trustworthiness, Harmony & Cooperation

It was clearly outlined by the reviewed literature that an important focus of effective leadership is the management of emotions. The expression of emotions in workplaces is, to a large amount, transmitted through nonverbal cues. Therefore, the ability to sufficiently en- and decode body language of followers is vital for effective leadership. Literature refers to such mechanisms as emotional expressivity (Boone & Buck, 2003; Riggio & Reichard, 2008). A case study by Mayer and Caruso (2002) indicates that the management of emotions can be complex and difficult. There is a thin line between realizing emotions correctly or only grasping them on the surface as they are most of the time not expressed clearly. It appears that technical issues can turn into emotional difficulties and vice versa. The case of Mayer and Caruso (2002) addresses the issue of relocating the work space which triggered staff's resistance. Suddenly, the staff involved reported unfavorably technical conditions, such as a seemingly defective ventilation systems or little parking space. Their emotional resistance was revealed by pin pointing technical complications. Such situations require high emotional intelligence of leaders in order to approach the problem by its roots (the negative emotions of resistance) and not just the symptoms of it (the expression of technical terms).

Also Bono, Folders, Vinsons and Muros (2007) clearly describe the relevance of emotions in leadership management, particularly transformational leadership (which is known to have a compelling link to effective leadership, e.g. Rubin et al., 2005; Yukl, 2012). Bono and colleagues (2007) outline that subordinates face stress when interacting with superiors and found that this stress reduces in interactions with transformational leaders. Furthermore, it was found that especially charismatic leaders reveal a higher rate of positive emotions, thereby enhancing the positive mood of the group of followers (Sy et al., 2013), which further stresses the importance of managing positive emotions in effective leadership. The emotional contagion process indicates that a leader's attitude, positive as well as negative, can apt to followers (Elfenbein et al., 2007) and, thereby, affect a group's

mood and performance; which is also a reciprocal process (Sy et al., 2013). Therefore, also the management of a leader's own emotion is of importance in order to successfully manage followers. Investigations by Lewis (2000) indicate that the expression of negative emotions of leaders are adapted by followers resulting in poorly defined judgments of a leader's effectiveness as well as resulting in the perception of low self-confidence. Consequently, effective leaders are assumed to have the ability of high emotional sensitivity. Effective leaders are rather endowed to be of high control of their own emotions while simultaneously being able to sufficiently read their followers' emotions in order to guide them successfully and let the group thrive to their best performance.

In order for leaders to appear positive and effective to their followers' nonverbal cues depicting warmth, trustworthiness, credibility and integrity should be utilized. With regards to gestures, this means that haptics as well as open gestures with expanded limbs and revealing palms should be applied. Despite the findings of Knapp et al. (2013) indicating a low rate of touch of others in formal interactions, academic literature shows that it can be useful for effective leadership. The touching of others by high status/power people is perceived as a warm behavior (Carney et al., 2005). Such warm behavior indicates traits like friendliness, trustworthiness, empathy and kindness (Teven, 2007; Cuddy, Glick & Benninger, 2011) which are important traits to effective leadership (Mayer & Caruso, 2002) and create a climate of harmony. Boone and Buck (2003) investigated that a high perceived trustworthiness positively relates to the likelihood of cooperation, which is important for effective team management (Elfenbein et al., 2007). Furthermore, warm behavior is an indicator for immediacy which positively relates not only to the likeability of leaders (Talley & Temple, 2012) but also to the performance outcomes of teams (Richmond & McCroskey, 2000; Darioly & Mast, 2014). Thus, it appears that effective leaders are more likely to engage in haptics in order to create a working climate of harmony and belonging.

Proposition 2: Compared to less effective leaders, effective leaders exhibit a higher rate of touching others.

On the contrary, gestures revealing antagonism, e.g. self-adaptors, should not be utilized as it was indicated that such gestures are related to negative emotions, especially in work settings. As such, self-adaptors are perceived to reveal submissive behavior (Hall et al, 2001: Carney et al., 2005) and relate to low verticality (Hall et al., 2015). The concept of lower verticality, relating to lower status positions with less power and less dominance already imply the occurrence of submissive behavior to some extent. Moreover, Mandal (2005) mentions that self-adaptors are characteristics of worried or fearful people, which aligns with the investigations of Ekman and Friesen (1969) who report that self-touch is linked to anxiety or inner conflict. Furthermore, Mayer and Caruso (2002), founders of an emotional intelligence test, address the issue that emotions are important information transmitter. It was mentioned that happiness is more likely expressed when cordial consensus prevails, whereas fear rather indicates hazard. Additionally, Lewis (2000) relates the expression of negative emotions to the circumplex model of affect by Larsen and Diener. It was investigated that leaders who express anger affect followers emotions by increasing a feeling of nervousness and being less relaxed, which negatively affects group performance (Mayer & Caruso, 2002) as well as followers satisfaction and commitment (Lewis, 2000). The associations of self-adaptors with fear, worries, anxiousness and conflicts suggest that self-touch negatively influence the perception of effective leaders.

***Proposition 3*:** Compared to less effective leaders, effective leaders exhibit less self-adaptors.

Thus, in sum, leaders benefit from gestures revealing palms up as well as gestures touching others. Leaders depicting such gestures are perceived as warm and immediate which results in followers feeling positively inclined towards their leaders and, in turn, also positively influencing team performance. Contrary, self-adaptor gestures are more likely to have a negative impact on the perception of leaders and, therefore, should be excluded from the gesture repertoire of leaders.

Besides the aforementioned findings, emblematic gestures are greatly discussed in academic literature, but are rather neglected in examinations of nonverbal cues or gestures in organizational work settings. Although there are a few emblems sharing consistent meanings in different cultures, the impression occurs that such gestures rather relate to highly informal interactions. Therefore, it appears that emblems do not relate to hierarchical intercourses in specific.

Nevertheless, while analyzing literature regarding emblems it occurred that there are inconsistencies between various researchers about the distinct definition of a gesture. Siegmann and Feldstein (2014), for instance, mention handshakes in the category of emblems which contradicts to the definition of gestures by Maricchiolo and colleagues (2009) and Novack et al. (2016); whose definition aligns with the definition of this thesis. Various investigations in the past indicated that gestures are defined to be hands and arms in motion performed without a purpose (Maricchiolo et al., 2009; Novak et al., 2016). Additionally, Cutica and Bucciarelli (2015) investigated that gestures are non-deterministic. A handshake, on the other hand, is a purposefully engaged act which excludes it from the range of gestures. In relation to that, Knapp et al. (2013) address handshakes under the term of haptics which stands in contrast to the classification of Kendon (2004) and Mandal (2014).

The broad range of literature about gestures reveals that there is no unified definition or clear boundaries to the concept of gestures. Future research could aim on providing a consolidated overview of the concept.

In essence, the literature review uncovered that the significance of hand and arm movements in effective leadership is not yet fully determined. The impacts of nonverbal cues has been greatly acknowledged in literature, however the influence of gestures in this mechanism are still rather vaguely defined. The outcomes present that communication research greatly investigated the comprehension of hand and arm movements, whereas leadership research remains lacking thereof. The underlying investigations indicate a blueprint of associating the two research areas, thereby providing clearly expressed suggestions for future research. Therefore, this analysis augments to current academic research in the field of organizational leadership by enlarging the knowledge about gestures in work settings and discovering original links between the impact of gestures and their relation to effective leadership.

6.3 Practical Implications

The findings hold pertinence for actual management decisions in organizational leadership as they provide a succinct recap of the knowledge about gestures and relate these to organizational work settings which, thus far, has been widely neglected by current academic literature. The compiled results indicate that also the way of gesturing influences the perception of leaders. It was found that a person's NVB influences emotion management in work settings, which is a crucial variable in order to lead groups effectively towards planned outcomes. Hand and arm movements are a small, but significant, part of nonverbal cues depicted and, therefore, hold relevant

information in order to let leaders appear more effective in reality. It was indicated that effective leaders might deploy a higher rate of gestures and also more space taking gestures, which can be evaluated as indicators for competence, dominance and power. Especially, deictic gestures could help to fixate the followers' attention to focal points enhancing the awareness of important issues which might in turn positively impact organizational outcomes. Furthermore, literature revealed that gestures have the potency to influence emotion management. The emotional contagion concept and the theory of mimicry also hold applicability for hand and arm movements. Therefore, gestures indicating rather negatively related signals, such as self-adaptors, should be prevented and, for instance, haptics should be used. While doing so, positive emotions in work groups are triggered making it more likely to lead towards better results. Consequently, the outlined insights disclose new possibilities for the gesture behavior of leaders which can lead to more beneficial outcomes of actual organizational leadership.

6.4 Limitations

The investigations present some limitations which are mentioned hereinafter.

Nonverbal behavior is a multi-facetted mechanism, focusing solely on one aspect can lead to distorted results. Therefore, NVB should be considered in its sum, incorporating the different aspects which influence each other. Especially, the field of gestures underlies the influence of e.g. posture (Knapp, Hall & Horgan, 2015) or facial expressions. To illustrate, a self-adaptor like scratching the head with a pensive face expression might indicate ignorance, whereas a self-adaptor such as hands lying on thigh with fingers tapping and a rather relaxed posture can show impatience. Consequently, a gesture can inhibit different meanings regarding the context of speech and other nonverbal behavior depicted (Parrill & Kimbara, 2006). In addition, gestures are connected to speech rate, which has not been considered in this paper. A higher rate of gestures is naturally caused through a greater proportion of speech rate. A speaker might reveal greater gesturing due to more time speaking compared to other interlocutors, though a higher speech rate does not explicitly indicate a better effectiveness of that speaker. Furthermore, the usage of gestures and their meaning can highly depend on variables like gender, race and culture (Hall & Friedmann, 1999; Cashdan, 1998; Cuddy et al. 2011; Matsumoto & Hwang, 2013) which has been neglected in this investigation due to time and space limitations. Particularly gender differences are a great factor influencing the perception of gestures. Literature suggests that men depicting uxorial traits (see figure 2), such as sitting in female poses or touching others more, are perceived as strange compared to women depicting masculine nonverbal behavior (Bailey & Kelly, 2015). However, uxorial cues, especially touching others, are more likely positively related to the perception of warmth and immediacy which in turn positively influences effective leadership. The imbalance of perception between uxorial and masculine behaviors greatly influences the outcomes of effective leaders. Moreover, the perception of gestures is liable to personal biases. The large body of research about gestures is predominantly carried out by investigating the perception of a third party coder or by evaluating the perception of direct interlocutors who have been confronted with gestures. Yet, perceptions leave room for personal biases which diminish the validity of results. In turn, those biases affect this literature review as different methodological approaches have been reviewed and openly coded. Additionally, there have been time limitations on the duration of the investigation as well as space limitations concerning the written outcome. These limitations led to restrictions regarding the depth of the analysis. Also, the empirical material used is fairly static due to solely investigating video-taped meetings; so-called video-shadowing in organizations has not yet been performed.

7. CONCLUSION

The harvest of this review supplement the existing knowledge of hand and arm movements in effective leadership by contributing unique insights to the field of NVB in effective leadership. The first part of the research question addressing the knowledge about hand and arm movements has been extensively discussed and outlined. The second part concerning the relation of gestures to effective leadership has been illustrated by interpreting argumentations of communication research to leadership research, thereby providing suggestions for further research which yet have to be proved. Heretofore, the results indicate that effective leaders are assumed to reveal a higher rate of gestures, especially deictic gestures, and engage with more haptics. But self-adaptors occur to negatively relate to the effectiveness of leaders, whereas emblematic gestures appear to have no influence in hierarchical interactions.

Therefore, this inquiry put the first brick to the research construct of gestures in organizational leadership while simultaneously providing ideas for an enhanced guidance of actual leadership practices.

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9. APPENDIX

9.1 Appendix 1 – Summary of Gesture Typologies

Authors	Type of Gesture	Definition
Kendon (2004) Caso et al. (2006)	pointing gestures deictic gestures	gestures pointing on objects or people
Kendon (2004) Ekman & Friesen (1996)	gestures portraying a meaning emotional display gestures	gestures expressing feelings and emotions
Kendon (2004) Ekman & Friesen (1996)	universal gestures emblems	gestures expressing a certain state, such as 'thumbs up' indicating everything goes fine
Ekman & Friesen (1996)	regulator signals / rhythmic gestures	gestures applied to keep the flow of a conversation
Ekman & Friesen (1996)	adaptors	gestures referring to touching oneself, others or objects
Ekman & Friesen (1996) Caso et al. (2006)	illustrators metaphoric gestures	gestures illustratic what is said, for instance showing the shape of a woman when talking about a woman's attractiveness
Ekman & Friesen (1996)	cohesive gestures	an idiosyncratic hand movement appearing repetitively by doing the same movement

Table 1: Summary of typology and definition of gestures

Discourse Linked Gestures	Non-discourse Linked Gestures
pointing gestures rhytmic gestures cohesive gestures emblems & illustrators *(only in a broader perspective related to speech content)*	adaptor gestures
emotional displays (can be used in both scenarios)	

Table 2: Relation between type of gestures and speech content

9.2 Appendix 2[1] - Literature Review Results

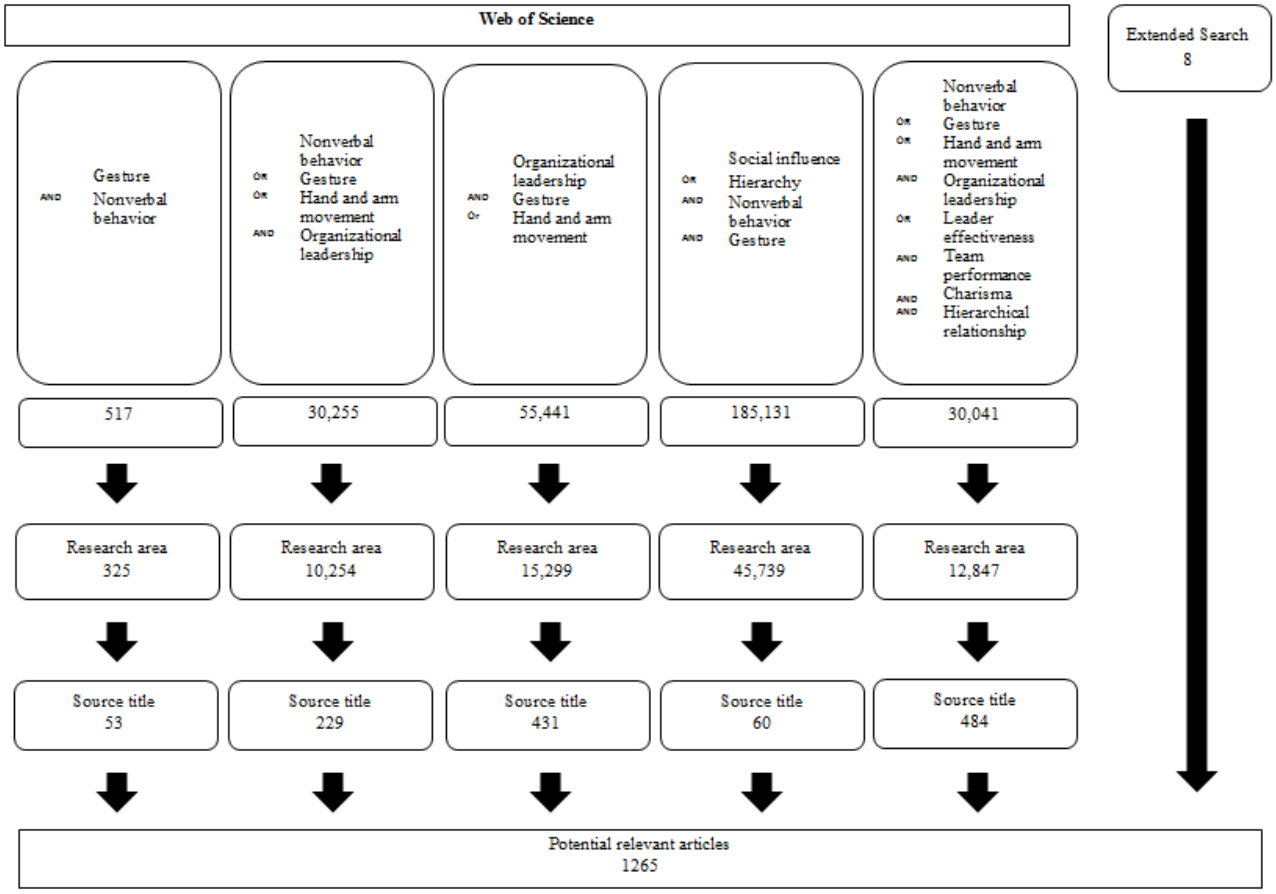

Figure 4: Database search results

[1] Figure 4 documents the search of articles in the database Web of Science. In five different search steps the findings resulted in each case in (a) 517; (b) 30,255; (c) 55,441; (d) 185,131 & (e) 30,041 articles. Subsequently, the search was further defined by the Research areas: psychology, communication, behavioral sciences and business economics; which respectively resulted in each case in (a) 325; (b) 10,254; (c) 15,299; (d) 45,739 & (e) 12,847 articles. The following limitation 'source title' shows the results after refining the search to relevant journals such as: applied psychology, nonverbal behavior, leadership, business or economics, communication and cognitive sciences. An extended search through forwards- and backward citation resulted in finding another eight relevant sources. Consequently, this search process completed to find 1265 potential relevant articles which have been further selected by screening titles, abstracts as well as the introduction and discussion part (see Figure 5). In the selection step of screening titles and abstracts another 1121 articles were excluded resulting in 136 remaining potential relevant articles. In a last step the potential amount of relevant articles has been screened by skimming through the introduction and discussion parts of the articles. Thereby, further 81 articles have been excluded due to the exclusion criteria mentioned above. Consequently, 47 articles have been valued relevant for the literature review.

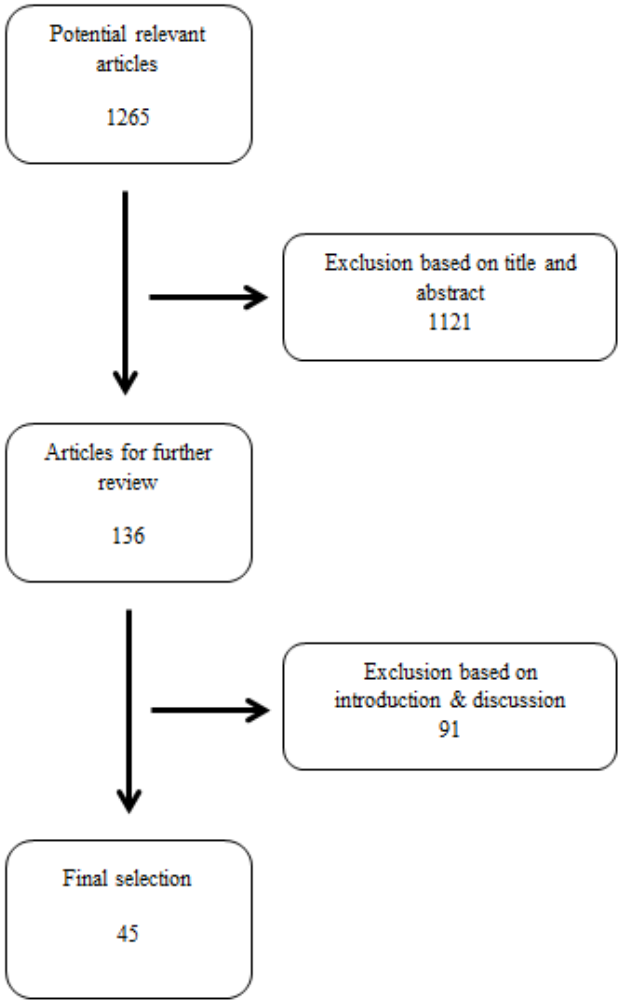

Figure 6: Article selection process

Summary of Literature Review							
	Authors	**Methodological Approach**	**Concepts Discussed**	**Operationalization of Gesture**	**Typology of Gesture**	**Dimension of Leadership Effectiveness**	**Key Findings**
1	Agliati, A., Vescovo, A., & Anolli, L. (2006)	Descriptive	Expressive vs. passive gestures related to cultural background	Manual coding of video tapes	Self-adaptors, cross hand, pianist & ball-hand gesture		The frequency of gestures varies with cultural backgrounds, especially Italians use more gestures
2	Bailey, A. H., & Kelly, S. D. (2015)	Descriptive	Dominance related to gender & body movement	Perception of body movement	Male/dominant/expressive gestures vs. female/submissive/small gestures	Dominance/Power	Pose has a greater impact on the perception of power than gender itself; women poses are rather rated submissive and men poses are rather rated dominant; wide-ranging gestures positively relate to the perception of dominance and toughness
3	Boone, R. T., & Buck, R. (2003)	Literature Review	Expressivity & trustworthiness in cooperations			Motivating followers	A higher degree on emotional expressivity enables to better read people and detect trustworthiness; people who are perceived trustworthy are more likely to engage in cooperate actions compared to people who are perceived untrustworthy; people who have a high expressivity of emotions are better able to read other people's emotions
4	Burgoon, J. K., Schuetzler, R., & Wilson, D. W. (2015)	Experiment	Adaptor/illustrator gestures in deception	Software coding	Self-/object adaptors, illustrator gestures		Truth tellers engage more in self-adaptor gestures, whereas deceivers rather gesture with only one hand (expression of discomfort, negative emotions are associated with fewer adaptor gestures and higher illustrator gestures)

5	Carney, D. R., Hall, J. A., & LeBeau, L. S. (2005)	Descriptive	Power (rank & status) and perceived NVB	Perception of NVB of imagery images	Space invading and self-adaptor gestures	Power/dominance	individuals ranked with high power are less likely to use self-adaptors (and lower positioned individuals are expected to use more self-adaptors), have open body posture, rather use broad gestures, act animate and express intimacy in greeting; people high on power are believed to show freely NVB as in touching and invading other's space
6	Cashdan, E. (1998)	Experiment	Sociometric status, power (toughness), smiling and body posture (gender specific)	Manual coding of video tapes	Closed/relaxed/open arms	Power	Women are associated with higher affiliative actions, compared to men who appear rather assertive; open posture relates positively to dominance & it was found that open body posture and ratings of toughness have an influence on female leader perception
7	Caso, L., Maricchiolo, F., Bonaiuto, M., Vrij, A., & Mann, S. (2006)	Experiment	Discourse linked hand movements & deception	Manual coding of video tapes	Self-/object adaptors, deictic/iconic, metaphoric, emblematic, iconic, rhythmic gestures		Deception can be associated with more metaphoric gestures and less deictic or cohesive gestures; deception is related to less self-adaptors (due to cognitive awareness of the speaker)
8	Cesario, J., & Higgins, E. T. (2008)	Experiment	Various nonverbal cues & persuasion	Perception of gestures evaluated by a questionnaire	Broad/open arm movements, pushing motions	Meeting effectiveness, motivating followers	a message becomes more effective when delivered in an eager style (rather palms open/facing to the ceiling; animated, broad opening hand movements)
9	Cook, S. W., Mitchell, Z., & Goldin-Meadow, S.	Experiment	Gesturing & memory retrieval	Manual coding of video tapes	Deictic gestures	Comprehension	Pointing gestures are positively related to message comprehension & memory retrieval

	(2008)						
10	Cornelissen, J. P., Clarke, J. S., & Cienki, A. (2012)	Micro-ethnographic study	Rationale of sense making & embodied gestures	Manual coding of video tapes	Metaphoric gestures	Comprehension	Gesture employment for sensegiving in an entrepreneurial context; metaphorical gestures along speech help making sense about an venture idea not only to the pitcher, but also to investors; metaphoric gestures help stressing out utterances in pitches
11	Cuddy, A. J. C., Glick, P., & Beninger, A. (2011)	Literature Review	Warmth & competence			Warmth (e.g. friendliness, trustworthiness, empathy, kindness) & competence (e.g. intelligence, power, efficacy, skill)	NVB communicating warmth and competence influence the impressions of social judgments; relaxed but nonintrusive gestures communicate warmth and engagement (immediacy cues); warmth of a leader also effects performance of a group through e.g. mirroring; competence relates to expansive NVB (taking up more space) & open NVB (keeping limbs open, not touching torso)
12	Cutica, I., & Bucciarelli, M. (2011)	Experiments	Comprehension of gestures during discourse	Manual video coding & manual coding during real life interactions	Spontaneous ("semantic") gestures: illustrator, deictic vs. beats	Comprehension	Gesturing supports creating a mental model of speech as well as organizing thoughts in order to express these clearly
13	Cutica, I., & Bucciarelli, M. (2015)	Experiments	Effects of unrelated/mismatching gestures on comprehension	Perception of computer animated gesturing		Comprehension	Unrelated gestures are neglected (listeners can blend these out), information retrieval of gestures is non-deterministic (happens rather subconsciously)
14	Darioly, A., & Mast, M. S. (2011)	Experiment	Relation of leader's expertise (various competencies) on perceived NVB	Questionnaire about perceived behavior		Meeting effectiveness	High competence positively influences dominance perception, leaders with low competence have little influence on subordinates

15	Driskell, J. E., & Radtke, P. H. (2003)	Experiment	Gesture & memory retrieval	Manual coding of video tapes		Meeting effectiveness	Using gestures helps the speaker to be more precise while explaining; gesturing increases listeners comprehension
16	Druckman, D., & Olekalns, M. (2008)	Literature Review	Gestures, emotional expression and information-processing in deception			Rapport building	Deceivers show a higher rate of crossed hands, a gesture relating to the feeling of stress; when a speaker is honest s/he tries to involve and interact with others
17	Elfenbein, H. A., Foo, M. D., White, J., Tan, H. H., & Aik, V. C. (2007)	Experiment	Relation of emotional intelligence on goal directedness			Motivating followers, rapport building	Better skills on decoding emotion recognition leads to better outcomes (not only perceived outcomes, also actual outcomes)
18	Elfenbein, H. A., Polzer, J. T., & Ambady, N. (2007)	Field Study	Emotional intelligence & team performance			Motivating followers, rapport building	A team naturally high in understanding individuals emotional states and acting upon it with empathy can show better results than ineffective teams, therefore effective leadership needs to consider emotional contagion processes in team allocations
19	Gullberg, M., & Kita, S. (2009)	Descriptive	Speakers' visual attention on own gestures & information uptake	Software coding	Abstract gestures (excluding deictic/pointing gestures)	Comprehension	Listeners rather (actively) notice gestures when speaker visually fixates them on his own and when these gestures have a post-stroke hold; moreover, listeners understood the directional information of a gesture better when speaker fixated such gestures

20	Hall, J. A., & Friedman, G. B. (1999)	Experiment	Organizational status (power & influence within a company) & nonverbal behavior (face, body, voice quality)	Manual coding of video tapes	Space of gesture, object adaptor	Meeting effectiveness	Gender differences: women touch partner more, women in higher status position use more space while gesturing and more touches of others; higher ranked employees use more hand gestures; difference in gesturing is not dependent of hierarchical status (rather on gender)
21	Hall, J. A., Carter, J. D., & Horgan, T. G. (2001)	Experiment	Status and power related to actual & perceived nonverbal sensitivity	Manual coding of video tapes	Self-adaptors	Meeting effectiveness, rapport building	People ranked with a higher status are expected to have less self-adaptors than subordinates; it is assumed that owners/higher ranked people expect self-touches from subordinates, and subordinates expect less self-touches from superiors
22	Holler, J., & Wilkin, K. (2011)	Descriptive	Mimicked gestures & comprehension	Manual coding of videos	Co-speech gestures, iconic gestures	Meeting effectiveness	"mimicked gestures play an important role in creating mutually shared understanding" (p.148)
23	Holler, J., Shovelton, H., & Beattie, G. (2009)	Experiment	Relation of iconic gestures to better semantic information	Manual coding of perceived gestures	Iconic gestures	Comprehension	Gestures contribute semantic information to a discourse
24	Hostetter, A. B. (2011)	Meta-analysis	Abstract vs. spatial gestures, link between gesture, discourse content & comprehension		Abstract & spatial gestures	Comprehension	Depicted motor gestures are more communicative than abstract gestures; positive effect of gesture on comprehension increases when there is a link to the content

25	Kelly, S. D., Iverson, J. M., Terranova, J., Niego, J., Hopkins, M., & Goldsmith, L. (2002)	Literature Review	Origins of gestures in the brain, its link to language & comprehension		Deictic gestures	Comprehension, Meeting effectiveness	When deictic gestures have been included participants performed "better on a secondary cognitive load" (p. 342), meaning on information retrieval then when they did not gesture; the action of gesturing and its link to cognitive effort frees "linguistic processing space to think through one's explanation" (p. 342)
26	Kendon, A. (2004)	Book	Overview of various gestures types and their usage and meaning in general		All gesture types	Comprehension, meeting effectiveness	Palms up are connected to positive utterances, palms down are connected to negative utterances; there exists a link between high rate of gestures and speech-rate
27	Knapp, M., Hall, J., & Horgan, T. (2013)	Book	General overview of NVB			Comprehension, meeting effectiveness	Memory retrieval linked to gesturing; gestures positively influence message comprehension; palms up are predominantly used in positive messages, whereas palms down relate to negative utterances; the investigations of gestures need to be considered in the broad context of NVB
28	Krauss, R. M., Chen, Y., & Chawla, P. (1996)	Experiments	Origins of gestures in the brain, its link to language & comprehension			Comprehension, Meeting effectiveness	Gestures are used to give more specific meanings to utterances (e.g. English has no article indicating that a cake is round or not, it is simply a cake, hence the speaker needs to make a circling gesture to indicate the shape of the cake); gesture do not help comprehension about the topic as such, but rather help understanding about the personality of the speaker; gesture

							help retrieve lexical memory and therefore enhance communication
29	Lakin, J. L., Jefferis, V. E., Cheng, C. M., & Chartrand, T. L. (2003)	Literature Review	Mimicry & affiliation			Rapport building	A higher rate of mimicked NVB indicates a higher likeability and affiliation of interlocutors
30	Lewis, C., Lovatt, P., & Kirk, E. (2015)	Experiment	Frequency of gestures in an improvised discourse	Manual coding of video tapes	Deictic gestures, self-adaptor gestures	Meeting effectiveness	In improvisation conversation a higher rate of gestures was depicted ; improvising (positive stress level) revealed a higher rate of deictic gestures; everyday speech (relaxed environment) was more likely to be accompanied by self-adaptor gestures
31	Mandal, F. B. (2014)	Literature Review	Nonverbal cues and personality traits		Adaptor gestures, gestural space		Self-confident people: flamboyant gestures; fearful people: hide face in hands, clutch hands together or grip objects, place hands in front of body, grab other people; open-minded people: embrace when greeting; worried people: show self adaptors (touching face, running hands through hair)
32	Maricchiolo, F., Gnisci, A., Bonaiuto, M., & Ficca, G. (2009)	Experiment	Various gesture types and their relation to composure/competence, communication style effectiveness and message persuasion	Perception of body movement by third parties	Pointing gestures, self-/object-adaptors, non-discourse linked gestures	Competence/persuasion, meeting effectiveness	Effectiveness of gestures is higher for pointing gestures compared to adaptors; self-adaptors negatively relate to composure & competence; perception of competence is related to ideational or adaptor gestures; also ideational gestures let speaker appear more composed & competent, having a more effective style and conveying a more persuasive message

33	Maricchiolo, F., Livi, S., Bonaiuto, M., & Gnisci, A. (2011)	Experiment	Gestural behavior & perceived social influence (persuasion, dominance)	Perception of body movement by experiment participants	Calm vs. expressive hand gestures, self-/object adaptors, ideational gestures	Credibility, Meeting effectiveness	In smaller groups (eight participants) perception of influence is higher if one speaks more, uses more ideational gestures or both; in competitive contexts gesture help making messages persuasive, especially when a speaker is having less speaking turns; however, is verbal dominance high, most gestures do not make a different, except object adaptors which have a negative influence; the combination of little verbal dominance & less gesturing is perceived social uninfluential
34	Marno, H., Davelaar, E. J., & Csibra, G. (2014)	Experiment	Gesture & comprehension	Manual coding of video tapes		Meeting effectiveness	It can be assumed that pointing gestures help remembering because they attract the attention towards the object talked about
35	Matsumoto, D., & Hwang, H. C. (2013)	Experiment	Emblematic gestures related to different cultural background	Decoding of certain emblems in specific regions/of specific cultures	Emblems		The authors provide a list of emblems that are coded the same in various cultures
36	Parrill, F., & Kimbara, I. (2006)	Experiment	NVB (also gestures) and mimicry	Perception of gestures depicted by participants		Meeting effectiveness	Mimicry is an important tool in understanding the usage of gesture, especially self-adaptors or illustrators are mimicked; it is said that such repetition leads to greater memory retrieval
37	Pine, K. J., Gurney, D. J., & Fletcher, B. (2010)	Experiment	Frequency of iconic gestures & information uptake	Software coding of videos	Iconic gestures	Meeting effectiveness	Depiction of gestures also helps the speaker to retrieve memory and is not only helpful in creating messages more comprehensible to the listener

38	Poggi, I., & Vincze, L. (2008)	Descriptive	Gesture & message persuasiveness	Manual coding of video tapes	Palms parallel to body/directed away from body, towards audience/diagonal, open/closed arms	Perception of persuasiveness	Using more gestures and gestures with palms up indicate confidence of speaker and let messages appear more persuasive
39	Richland, L. E. (2015)	Descriptive	Deictic gestures & comprehension	Manual coding of video tapes	Deictic gestures	Meeting effectiveness	Deictic gestures reveal a shared meaning and serve a representational communicational goal; deictic gestures point out the meaning of the utterance & stress importance; in-depth knowledge about a topic relates positively to a higher rate of gesture usage
40	Riggio, R. E., & Reichard, R. J. (2008)	Meta-analysis	Emotional intelligence & leadership theory			Rapport building, team performance	Emotional expressiveness positively relates to leader's charisma/effectiveness and a positive emotional climate; emotional sensitivity of leaders can be associated with well-functioning relations between a leaders and followers; emotional sensitive leaders are more likely to asses negative emotions among followers; emotional control is likely to help leaders with their impression management as well as their effectiveness; social sensitivity is associated to increase leadership success
41	Siegman, A. W., & Feldstein, S. (2014)	Book	General overview of NVB			Comprehension	Defining gestures as hand and arm movements in motion; Gestures evolve from same brain area than speech

42	Suppes, A., Tzeng, C. Y., & Galguera, L. (2015)	Descriptive	Iconic/deictic gestures & comprehension	Manual coding of video tapes	Iconic/deictic gestures	Comprehension	The usage of deictic/iconic gestures did not facilitate a better comprehension of the layout of a flat, this might be due to the huge amount of iconic and deictic gestures depicted; authors indicate that fewer of these gesture are better than too many
43	Sy, T., Choi, J. N., & Johnson, S. K. (2013)	Experiment	Charisma & group mood			Motivating followers	Charismatic leader reveal a higher rate of positive emotions compared to negative emotions, thereby enhancing a positive mood of the group of followers - it is a reciprocal process (also shaped by mimicry)
44	Talley, L., & Temple, S. (2015)	Experiment	Gestures, nonverbal immediacy	Perception of gestures	Positive hand gestures (palm faced up/vertical to ground/ clasping hands in front of body/hands forming steeple while fingertips touch), defensive hand gestures (hands in pockets/crossed arms/hands behind back)	Perception of warmth, meeting effectiveness, rapport building	Positive hand gestures create attraction towards the speaker (high immediacy); hand gestures can build emotional connection among a leader and his followers which positively influences success & effectiveness
45	Teven, J. J. (2007)	Experiment	Immediacy behavior, supervisors credibility (competence/trustworthiness/goodwill), power	Perception of NVB		Perception of warmth, meeting effectiveness, rapport building	Perception of credibility rises when supervisors employ pro-social power behavior; gender difference in the perception of supervisors are rather minimal, interaction styles are more important (high immediacy & positive power strategies are positively related to perceived competence, trustworthiness and goodwill)

Table 3: Literature Review Summary Table