Chapter 1

General Introduction
Leadership is one of the most studied topics in work and organizational psychology and can been seen as central to understanding human behavior in organizations (Yukl, 2010). Almost 20% of the papers published in top journals on organizational behavior include leadership (Morrison, 2010). This extreme popularity instigates a couple of important questions. For one, how is leadership defined? What constitutes a comprehensive leadership model? How can leadership best be measured? What is effective leadership?

When studying the leadership literature an overwhelming number of leadership models have been proposed. Each model focuses on different aspects of leadership. Often these models zoom in on the positive side of leadership, such as charisma (Avolio & Bass, 1991; De Hoogh, Koopman, & Den Hartog, 2004), and sometimes on the darker side of leadership, such as despotic leadership (De Hoogh & Den Hartog, 2008; Hogan & Hogan, 2001). Recently, there has been quite some debate about these models, about their content, theoretical grounding, and the psychometric quality of their operationalizations (Avolio, 2007; DeRue, Nahrgang, Wellman, & Humphrey, 2011; Yukl, Gordon, & Taber, 2002). The first part of this dissertation (Chapter 2) will therefore attend to the problems with existing leadership models and will propose a new model, with an accompanying operationalization. This model provides the opportunity to summarize leadership comprehensively using a more overarching and theoretically grounded conceptualization of leadership styles. This model was developed to also include the opportunity to measure leadership with both self- and other-ratings. One of the reasons for using other-ratings is that research has shown that self-ratings alone are quite inaccurate and invalid (e.g., Fleenor, Smither, Atwater, Braddy, & Sturm, 2010; Harris & Schaubroeck, 1988; London, & Smither, 1995). Therefore, more and more researchers, but also practitioners, use ratings from multiple sources. These multisource ratings provide a lot of insights, but also raise one very important, but often understudied, question: What is the influence of characteristics of both the leader and the rater on perceptions of leadership? To answer this question, the second part of this dissertation (Chapters 3, 4, & 5) zooms in on a) two important characteristics, i.e., hierarchical perspective of the leadership-rater, and gender of the leader and the leadership-rater and its influence on leadership ratings, b) the stereotypes that exist with respect to gender, leadership styles, and leader effectiveness, and c) the perceptual inferences individuals make based on the facial characteristics of people in leadership positions. The
remaining part of this introduction will provide an overview of the literature concerning the issues that are covered in the first and the second part of this dissertation.

**Leadership models**

As mentioned above, there has been quite some debate about existing leadership models. Three important issues are raised in this debate, two of which will be discussed below. First, scholars have stressed the need to integrate these models into one overarching model (Avolio, 2007; DeRue et al., 2011; Yukl et al., 2002). Most models either describe the positive side of leadership or only deal with the darker side of leadership, failing to measure a complete range of leadership styles (Avolio & Bass, 1991; De Hoogh et al., 2004; De Hoogh & Den Hartog, 2008; Hogan & Hogan, 2001). A second issue in this debate is the lack of theoretical grounding of leadership. Most definitions of leadership refer to influencing others as the core characteristic of leadership (Vroom & Jago, 2007; Yukl, 2010). Influencing others presupposes interpersonal interaction between the leader and the people being led. Accordingly, most leadership questionnaires use items describing interpersonal behaviors of a leader vis-à-vis his/her subordinates. Using this as a foundation, it may be possible to ground leadership research more strongly in theoretical notions of interpersonal behavior. Interpersonal interaction, which has been intensively studied by personality researchers, is best summarized by two dimensions. These dimensions, which have been named agency (or dominance/control) and communion (or affiliation/love) form the basis of the most well-known conceptualization of interpersonal interaction theory, the interpersonal circumplex (Acton & Revelle, 2002; Freedman, Leary, Ossorio, & Coffey, 1951; Gurtman, 1992; Kiesler, 1983; LaForge & Suczek, 1955; Leary, 1957; Trapnell & Wiggins, 1990; Wiggins, 2003; Wiggins, Phillips, & Trapnell, 1989). Summarizing leadership behaviors using these same dimensions may offer a possibility to integrate leadership into one comprehensive circumplex model and may provide justice to the inherently interpersonal nature of leadership.

**From interpersonal circumplex to leadership circumplex**

A model is referred to as a circumplex structure when variables are located, equally spaced, on the circumference of a circle (indicating equal vector length measured from the origin of a circle). This circular structure is spanned by two main dimensions. Placing of variables is
based on the strength of their associations, in which the distance between variables increases when the strength decreases (Fabrigar, Visser, & Brown, 1997; Guttman, 1954). Thus, variables on opposite poles of one axis are negatively related, while variables on orthogonal poles are unrelated. Taken together, this means that a circumplex model shows a continuous ordering of variables. The interpersonal circumplex is the most well-known circumplex structure conforming to these criteria (Acton & Revelle, 2002; Browne & Cudeck, 1992; Fabrigar et al., 1997; Gurtman, 1992; Schmidt, Wagner, & Kiesler, 1999; Wiggins, Phillips, & Trapnell, 1989). The two dimensions defined in the interpersonal circumplex, agency and communion, are respectively defined as the condition of being a differentiated individual, which is manifested in strivings for mastery and power, and as the condition of being part of a larger social or spiritual entity, which is manifested in striving for intimacy, union, and solidarity within that larger entity (Wiggins, 2003).

To what extent can leadership be integrated into a similar circumplex? In this dissertation it is argued that leadership – and thus most of the currently known operationalizations of leadership styles – can be summarized by two main dimensions and that these dimensions are similar to the interpersonal dimensions ‘agency’ and ‘communion’.

**Agency and communion as leadership dimensions**

Visualizing the notion that leadership is inherently interpersonal, both older and newer conceptualizations of leadership show great resemblance between leadership scales and dimensions and the interpersonal dimensions agency, the vertical axis, and communion, the horizontal axis. First of all, numerous leadership articles, especially the ones discussing gender differences, stress the importance of agency and communion (Deaux & Kite, 1993; Eagly, Johanessen-Schmidt, & Van Engen, 2003; Judge, Piccolo, & Kosalka, 2009). Moreover, early theories have conceptualized leadership by using two main independent leadership dimensions that seem to resemble the agency and communion dimensions. They have been named consideration and initiating structure (Fleishman, 1953; Judge, Piccolo, & Ilies, 2004), employee- and production-centered leadership (Kahn & Katz, 1953), or human- and task-oriented leadership (Blake & Mouton, 1964). The full range leadership model (Avolio & Bass, 1991), again, shows similar dimensions. The full range leadership model contains a facet of transformational leadership which is called individualized consideration, which shows face
resemblance with dimensions as consideration (Judge, Piccolo, & Ilies, 2004) and possibly communion. Therefore, it seems that the axes of the circumplex show similarities with previously proposed dimensions.

The axes of a circumplex divide the circular structure into four quadrants. Different leadership styles from the literature may be represented in these quadrants. The upper-right quadrant, which houses behaviors both high in agency and high in communion, may represent styles such as transformational or charismatic leadership (Multifactor Leadership Questionnaire (MLQ); Avolio, Bass, & Jung, 1999). These two styles are related to both consideration and initiating structure (De Vries, Roe, & Taillieu, 1999, 2002; Seltzer & Bass, 1990). Furthermore, transformational leadership has been found to have the strongest correlation with both extraversion and agreeableness (Judge & Bono, 2000), the two interpersonal Big Five factors which have been found to be most closely aligned to the two circumplex dimensions agency/control and communion/affiliation (Trapnell & Wiggins, 1990, Wiggins, 2003).

The upper-left quadrant and left side of the leadership circumplex may represent the negative or darker side of leadership. Destructive leadership has one central construct, hostility, which appears to be related to the left side of the circumplex (Ruiz, Smith, & Rhodewalt, 2001; Schaubroeck, Walumbwa, Ganster, and Kepes, 2007). Despotic leadership (De Hoogh & Den Hartog, 2008), which is described as being based on personal dominance and authoritarian behavior serving the self-interest of the leader, may also be on the left side of the circumplex, but may be more strongly related to agency as well. Therefore, this style may be represented by the upper-left quadrant of the circumplex.

The lower-left quadrant and lower side of the circumplex house the behaviors that are both low in communion and low in agency. These behaviors may be related to leadership styles that are characterized by the absence of a leader. A good example is laissez faire leadership (Avolio & Bass, 1991). However, a leadership style that is characterized both by the absence of the leader, but also shows behaviors that are low in communion may be ‘management-by-exception’ (Avolio & Bass, 1991). Leaders using this style are mainly characterized by being absent, with their presence often triggered by problems. Consequently, leadership
characterized by a management-by-exception style seems to be associated with both inactivity and conflicts.

Finally, the lower-right quadrant, containing leadership behaviors that are both high in communion and low in agency may represent the styles in which leaders are putting the needs of the people around them above the needs of themselves and the organization. This is a central characteristic of servant leadership (e.g., Ehrhart, 2004; Greenleaf, 1977; Sendjaya & Sarros, 2002).

Consequently, theoretically, it appears that both older and newer notions of leadership have a lot in common with concepts derived from the interpersonal circumplex. Therefore, conceptualizing a leadership model using the interpersonal circumplex may help to integrate an important part of the leadership literature into one framework while at the same time explicitly acknowledging the interpersonal nature of leadership. Moreover, this leadership circumplex may enable a broader spectrum of leadership styles to be housed in one model. One of the major benefits of a leadership circumplex model is the continuous ordering of the leadership behaviors. A circumplex model enables the measurement of not only the behaviors that are either agentic or communal, but also all those behaviors that are a combination of these two dimensions. By operationalizing the leadership circumplex it may be possible to measure this broader spectrum with one questionnaire, answering to the call for an integration of research on leadership (Avolio, 2007; DeRue et al., 2011; Yukl et al., 2002). Therefore, the first part of this dissertation (Chapter 2) focuses on the development of a leadership circumplex and an accompanying leadership instrument.

Individual characteristics and perceptions of leadership

An important goal in the development of the abovementioned instrument was to make sure that it cannot only be used to measure self-ratings of leadership behaviors, but also to be able to assess other-ratings, such as subordinate, peer, and supervisor ratings, providing 360 degrees feedback. This is important, because the measurement of leadership with self-ratings alone has proven to be quite inaccurate and invalid (e.g., Harris & Schaubroeck, 1988). Furthermore, the importance of interpersonal interaction in the understanding of leadership stresses the importance of the interaction partners of a leader, namely the individuals surrounding a leader. Interestingly, previous research has shown that
interpersonal interactions are influenced by the characteristics of the persons who are interacting, such as personality (e.g., McCrae & Costa, 1989; Saucier, 1992; Trapnell & Wiggins, 1990). These findings underline the importance of characteristics of both the leader and the individuals surrounding a leader and their possible influence on ratings of leadership. Therefore, the second part of this dissertation will focus on leadership perceptions of individuals other than the leader. We will focus on individuals with whom a leader is interacting, but will also examine stereotypical leadership perceptions that are formed based on minimal cues – i.e., without actual interactions between leader and led. When studying the influence of individual characteristics and leadership, both characteristics of the individuals with whom a leader is interacting and characteristics of the leaders themselves are taken into account. We will start the second part of this dissertation by focusing on actual leader-follower interactions and the influence of the hierarchical perspective of the rater and gender of both rater and leader on the perceptions of leadership. We will then zoom in more closely on the importance of gender stereotypes in predicting ratings of leadership. Finally, we will examine facial characteristics of leaders to get more insight in the relationship between first impressions, expected and actual leader behaviors.

Different perspectives on leadership

Popularity of feedback based on multisource or 360 degrees ratings has increased over the past years. Both empirical, such as the inaccuracy of single self-ratings, and practical reasons for this popularity can be found (e.g., Fleenor, Smither, Atwater, Braddy, & Sturm, 2010; Harris & Schaubroeck, 1988; London, & Smither, 1995). Unfortunately, there are also some disadvantages to multisource ratings, with the lack of agreement between raters from different hierarchical levels being the most studied example (Atkins & Wood, 2002; Fleenor et al., 2010; Ostroff, Atwater, & Feinberg, 2004; Harris & Schaubroeck, 1988; Solansky, 2010). Why do different raters have different perceptions of leaders? What are possible determinants of these differences and how can these be theoretically explained? The present dissertation uses different perspectives to examine factors that might determine how people perceive leadership. We build on role theory to examine potentially crucial causes for these different ratings. Central to role theory is the notion that individuals are in a social position and hold expectations about their own and other people’s behavior in
relation to this position or role (Biddle, 1986). First, the present dissertation will focus on two specific roles that have shown to be crucial in organizations, i.e., the role associated with someone’s hierarchical position and with someone’s gender (e.g. Moskowitz, Jung Suh, & Desaulniers, 1994). The influence of someone’s gender will then be more closely examined by focusing on stereotypes that people have about men and women, and, more specifically, stereotypes that people have regarding male and female leadership. Finally, research on facial characteristics has shown that people tend to judge others on the basis of very small interaction moments and even just by looking at them once. Because these thin slices of behavior help people to quickly form impressions of others, people will most likely also use them to anticipate their leadership behaviors. Whether or not these impressions are actually appropriate will be addressed later on. Now, we will zoom in on why the hierarchical perspective and gender of both leader and rater may influence leadership ratings.

Hierarchical perspective of the rater

In multisource ratings, the individual being rated (i.e., the target) is in a different hierarchical role towards each of the rater-groups. A rater is either in the role of subordinate, peer, or supervisor. When subordinates rate their leaders, their ratings are based on the role that the target has in their interaction, that is that of their leader. In comparison, when a target is rated by supervisors, the targets’ role in interactions is most often that of a subordinate. This hierarchical role is likely to shape behavioral expectations, prescribing different behaviors from each of the raters towards the leader and vice versa.

In line with this reasoning, Moskowitz et al. (1994) examined the influence of the hierarchical perspective of the interaction partner on interpersonal behavior of the participant. Individuals self-reported their behaviors in interactions with either a supervisor, peer, or subordinate. More dominant behaviors were reported when interacting with a subordinate, compared to interactions with a supervisor or a peer. Furthermore, more submissiveness was reported when interacting with a supervisor, compared to interactions with subordinates and peers. Additional support for differences in ratings of raters from a different hierarchical perspective can be found in studies examining the complementarity of interpersonal behaviors in the interpersonal circumplex. Leary (1957) proposes a model in which control behaviors exhibited by an individual are complemented with contradictory
behaviors (i.e., submissive behaviors) of the interaction partner, and vice versa. That is, interacting with people with a higher hierarchical position will most likely lower dominance of your behaviors, whereas interacting with people in a lower hierarchical position will increase your agentic behaviors. On the other hand, behaviors on the communion axis are complemented with similar behaviors by the interaction partner. An individual showing behaviors on the positive side of the communion axis will most likely evoke similar positive communal behavior in his/her interaction partner.

Based on these considerations, we will examine differences of the hierarchical role between raters and its influence on ratings of leadership styles.

**Gender of the leader and the rater**

A second widely discussed issue in leadership research are gender differences (e.g., Eagly, Johannesen-Schmidt, & Van Engen, 2003; Eagly & Johnson, 1990). It has been argued that differences in social behaviors might be caused by the tendency of men and women to behave according to their gender. Differences in gender prescribe highly gender stereotypic behaviors for both men and women (Eagly, 1987). Femininity has been associated with communal and warm behaviors, such as being gentle, compassionate, and sympathetic. Masculinity is often related to agentic and dominant behaviors, such as being forceful, competitive, and individualistic. In sum, interpersonal behaviors are highly affected by (knowledge of) someone's gender.

Regarding leadership, it has been found that perceptions of effective leadership have often been related to being male (Bem, 1974; Cann, 1990; Powell, Butterfield, & Parent, 2002; Schein, 1973, 1975; Schein, Mueller, Lituchy, & Liu, 1996). However, it has been demonstrated, most noticeably in laboratory research, that women often actually use more effective leadership styles. Female leaders have been found to be more transformational than male leaders. Male leaders are usually rated higher on the styles transactional leadership, management by exception (both passive and active), and laissez faire leadership, and are perceived as more agentic. That is, in circumplex terms, whereas female leaders are primarily rated as more communal than male leaders, male leaders are often rated as more agentic than female leaders. Interestingly, when solely focusing on organizational settings,
actual differences between male and female leadership tend to be small (Eagly, Johannesen-Schmidt, & Van Engen, 2003; Eagly & Carli, 2003; Eagly & Johnson, 1990).

The salience of gender in laboratory settings, compared to organizational settings where the function of an individual may be more salient, has been mentioned to account for the larger differences between male and female leaders in laboratory settings (e.g., Maccoby, 1990). That is, the gender role, compared to the functional role, may have a stronger influence on ratings of leadership in laboratory studies. In line with this reasoning, it has been suggested that the salience of gender may be related to the composition of the group in which a person is interacting as well. When interacting with an individual of the same gender, this individual’s gender may be less salient, compared to the salience of gender when interacting with someone from the opposite gender (e.g., Maccoby, 1990). This indicates that the gender composition of the interaction dyad, or the rater-ratee dyad, may be of influence on the rating of behaviors. We expect that when gender becomes more salient (i.e., in mixed gender dyads), the stereotypes regarding the gender role will have a stronger influence on ratings of leadership. In sum, when raters judge an individual’s leadership style, their own gender as well as the gender of the leader may influence their ratings. In this light, gender has been related to communal and agentic behaviors, that is femininity has been related to communal behaviors, while masculinity has been related to agentic behaviors (e.g., Bem, 1974; Eagly & Johnson, 1990). The leadership circumplex, with the communion axis, which possibly represents feminine behaviors, and an agency axis, which may represent more masculine behaviors, provides the opportunity to closely examine the influence of gender on ratings of leadership styles.

Based on the above, we will study the influence of gender of both the rater and ratee on ratings of leadership styles. As argued before, the salience of gender over functional role will possibly evoke ratings that are closer to stereotypes of masculine and feminine leadership. When studying the literature, numerous studies can be found either examining stereotypes related to being a man or a woman (e.g., Bem, 1974) or the gender stereotypes that are related with the word ‘manager’ (e.g., Schein, 1973, 1975). However, to determine whether perceptions of leadership are influenced by the gender stereotypes, it is also important to determine what those stereotypes are. In sum, we predict that the gender of the rater and ratee will matter in perceptions of leadership behavior. It now becomes important to zoom
in closer on these gender biases and find out which stereotypes about leadership and gender may account for these differences. Therefore, the present dissertation will focus on the stereotypical perceptions people have about leadership. Specifically, we will focus on gender stereotypical beliefs people have about leadership viewed from a leadership circumplex perspective.

**Gender stereotypes in leadership styles**

Although the number of female managers has been slowly increasing in the past years, the top positions are still occupied by men more often than by women (e.g. in academics: Ellemers, Van den Heuvel, De Gilder, Maass, & Bonvini, 2004). As a consequence, the most commonly cited belief is the "think manager think male" phenomenon (Brenner, Tomkiewicz, & Schein, 1989; Cann & Siegfried, 1990; Dodge, Gilroy, & Fenzel, 1995; Duehr & Bono, 2006; Powell, Butterfield, & Parent, 2002; Schein, 1973, 1975; Schein, Mueller, Lituchy, & Liu, 1996; Sczesny, Bosak, Neff, & Schyns, 2004). This globally present phenomenon (Schein, 2001) entails that when both men and women are presented with the word manager, they associate this with masculine, rather than feminine, characteristics. So, in general, this work would propose that people tend to see leadership as more stereotypically "male" than "female". Does this mean that people have no feminine association with leadership?

In the present dissertation, we aim to show that when looking at an overarching set of leadership styles, the situation may be more nuanced. That is, this dissertation aims to show that there are as many styles ascribed to female leaders as to male leaders. This notion is supported by some preliminary support from previous research. For example, Cann and Siegfried (1990) showed that consideration behaviors are perceived to be more feminine than masculine and structuring behaviors are stereotypically perceived to be more masculine than feminine. Vinkenburg, Van Engen, Eagly, and Johannesen-Schmidt (2011) and Embry, Padgett, and Caldwell (2008) showed that female leaders are expected to use more often transformational leadership styles than men do, while men are expected to use transactional styles more often. If some leadership behaviors can be ascribed to men and others to women, the question then becomes which leadership styles are perceived to be more effective.
Gender stereotypes in leadership effectiveness.

Meta-analyses show that transformational leadership is positively related to leadership effectiveness (Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). Based on these results, Vinkenburg et al. (2011) concluded that female leaders are perceived to use the more effective styles and male leaders are expected to use the more ineffective styles. However, it is possible that people have strong beliefs about what is effective in leadership and that these beliefs are not in line with the actual relation between leadership styles and leadership effectiveness. Furthermore, people may also have strong beliefs regarding what is effective leadership for female and male leadership. This possible discrepancy between the actual relation between leadership styles and effectiveness on the one hand and the beliefs about this relation on the other hand may be one of the many causes for finding so few women at the top positions of organizations.

In line with this reasoning, it has been shown that male and female leaders evoke very different reactions. That is, even if a person shows leadership behaviors that may be objectively effective, this does not necessarily mean that this behavior is indeed perceived to be effective, but that this may depend on the person's gender. This can be explained by the previously mentioned role theory, which states that individuals hold behavioral expectations related to the role that they or other individuals are in. Male and female leaders are expected to behave according to their gender, but are also expected to behave according to their occupational role as a leader. In this respect, it has been shown that women's leadership behaviors are reacted to more negatively than men's leadership behaviors, mostly resulting in women to be rated less competently (Butler & Geis, 1990; Carli, 1990; Carli, 1999; Ridgeway, 1982; Wood & Karten, 1986). Where the reactions to self-promoting men are favorable, women face the opposite judgment (Giacalone & Riordan, 1990; Rudman, 1998; Wosinska, Dabul, Whetstone-Dion, & Cialdini, 1996). However, women tend to receive more favorable evaluations when they use more stereotypically feminine behaviors, such as warmth or agreeableness, or when women lead in a democratic manner compared to women who show less feminine behaviors (Carli, 1990, 1995; Eagly, Makhijani, & Klonsky, 1992). These findings all suggest that there are clear beliefs how male and female leaders should act and that these beliefs have a profound influence on their perceived effectiveness. Applying this to the leadership circumplex, this would mean that male leaders
will be reacted to more positively on most of the styles. A small exception may lie in the leadership styles that are high in communal behaviors, namely coaching and participative leadership.

In sum, the present dissertation aims to illuminate how gender stereotypes about leadership are related to stereotypes about effective leadership. By using the leadership circumplex, with its comprehensive description of leadership behaviors, it may be possible to obtain a fine-grained picture of the beliefs about the femininity and masculinity of leadership behaviors, beliefs about effective leadership behaviors, and finally, beliefs about what is effective leadership behavior for men and for women. Stereotyping has shown to happen within 100 ms (Olivola & Todorov, 2010). Furthermore, not only femininity and masculinity have shown to play an important role in stereotyping in leadership. Specific facial characteristics have also been found to be important in leadership settings. Therefore, the present dissertation also focuses on perceptions that are based on the fastest interaction, by studying the perceptions people form about the behaviors from the leadership circumplex based on a look at a photo alone. We will focus on the relation between facial characteristics of leaders and its influence on perceptions of leadership. Furthermore, we will compare these perceptions of leadership to the actual leadership styles (self- and subordinate rated), to examine whether people can rely on the stereotypical beliefs that may influence the ratings of leadership.

**Stereotyping in its purest form**

The most basic form of stereotyping may happen when individuals form an impression about another individual based just by looking at this individual’s face. A glance at someone’s face can provide an enormous amount of information, which is not surprising given the fact that this intuitive perception is fast, effortless, and automatic (Kahneman, 2003). Studies have shown that facial characteristics have great predictive value for leadership related outcome factors. For example, it has been shown that presidential elections can be quite accurately predicted from the pictures of the faces of the candidates alone, even when this prediction is made by children in the age range of 5-13 years and there is no possible familiarity with the candidates (e.g., Antonakis & Dalgas, 2009; Ballew & Todorov, 2007; Lawson, Lenz, Baker, & Myers, 2010; Martin, 1978; Todorov, Mandisodza, Goren, & Hall, 2005). The facial
characteristics of these leaders somehow made them more eligible to be elected. It seems people assess from a person’s face whether this person is expected to be effective in his/her role as a leader. How do people get to this effectiveness assessment? It has been shown that different leaders, with different facial characteristics are chosen in war or in peace time (Little, Burriss, Jones, & Craig Roberts, 2007), indicating that people do not have one preferred leader for all situations. People make inferences about a leader’s effectiveness and possibly someone’s leadership style based on that person's face. Thus, people possibly make inferences about the behavioral style of that leader. What are the facial characteristics that can account for these differences? In the present dissertation, the dimensions of babyfacedness and dominance are examined because we believe these facial characteristics to be closely related to the two main dimensions in the interpersonal interactions: communion and agency.

By focusing on babyfacedness and dominance, the present dissertation aims to illuminate the relation between facial characteristics, expected leadership style and expected leadership effectiveness. Furthermore and more importantly, it aims to study whether these expected leadership styles accurately reflect the leadership styles a person shows.

**Babyfacedness vs. Dominance**

Both dominance and babyfacedness have been shown to be important in predicting outcome variables related to leadership (Perrett, Lee, Penton-Voak, Rowland, Yoshikawa, Burt, Henzi, Castles, & Akamatsu, 1998). It has been shown that people prefer a dominant face when choosing a leader (Little, Burriss, Jones, & Craig Roberts, 2007). Facial dominance predicts higher eventual rank in the military. However, facial dominance is negatively related to warmth, emotionality, honesty and cooperativeness (Perrett et al., 1998), characteristics that are also valued in effective leadership styles. The second facial type is babyfacedness, which is argued by Zebrowitz and Montepare (2005) to account for the differences found in the preference for political candidates to be elected. Although babyfacedness is unrelated to age, people tend to ascribe more babyish characteristics to a babyfaced person. People with more babyfacedness are perceived as weaker, more submissive, more naïve, and less competent. Rule and Ambady (2008) have examined the relation between leadership success and babyfacedness and have demonstrated it to be negative. On the positive side,
babyfaced people are also perceived as warmer and more honest (Keating, 1981; Montepare & Zebrowitz, 1998; Zebrowitz, 1997).

The axes defined in the leadership circumplex model appear to be highly valuable to examine the relation between leadership styles and these facial types. That is, facial dominance appears to be closely linked to the positive pole of the agency axis and the negative pole of the communion axis. Similarly, associations made with babyfacedness seem to be related to higher scores on the communion axis and relatively lower scores on the agency axis. Stereotypically, then, people should associate a dominant face with more agentic and less communal leadership behaviors and a babyface with less agentic and more communal leadership behaviors.

The question then becomes whether in actual leader-follower interactions, these stereotypical beliefs will also be supported by measures of leadership behaviors as reported by leaders and their subordinates. Studies on zero-acquaintance situations, in which unacquainted individuals rate themselves and others on different dimensions, show that strangers can quite accurately rate another person’s personality (e.g., Paunonen, 1989). Based on the assumption that people can also accurately assess leadership styles, one would expect the actual leadership styles of the leaders to be similar to the expected styles. This would lead to very straightforward hypotheses predicting an overlap between perceived and actual behaviors based on facial characteristics. However, previous studies show that the story may be more complicated than this.

The complication arises because actual behaviors seem to contradict expected behaviors of babyfaced people. The babyface overgeneralization hypothesis (Zebrowitz & Montepare, 1998) posits that the responses to babies and the accompanying facial cues are overgeneralized to adults. However, according to Zebrowitz and Montepare (1998), the impressions people have of the babyfaced are often found to be inaccurate. Babyfacedness has been related to actual higher levels of hostility, assertiveness, quarrelsomeness, and higher academic achievement in boys (Zebrowitz, Andreoletti, Collins, Lee, & Blumenthal, 1998; Zebrowitz, Collins, & Dutta, 1998) more delinquency (Zebrowitz, Andreoletti et al., 1998), and more military awards in men (Collins & Zebrowitz, 1995). The incongruency between facial type and actual behavior, especially found in men, has been labeled the self-
defeating prophecy effect, whereby the undesirable expectations related to babyfacedness are countered by behaving in a contrary manner (Zebrowitz et al., 1998). The latter effect suggests that the inferences made from facial characteristics and actual behavior is not always similar and that people are unable to accurately assess characteristics from faces.

The present dissertation

In sum, the present dissertation will study leadership behaviors as interpersonal behaviors between a leader and the individuals surrounding this leader. In line with this notion, one chapter of the present dissertation proposes a model, the leadership circumplex, and its operationalization, the circumplex leadership scan. With this model and its operationalization, different perceptual issues in leadership will be examined and discussed. Three empirical chapters will investigate 1) the hierarchical and gender differences in ratings of leadership, 2) gender stereotypes in leadership styles and effectiveness, and 3) the relation between facial characteristics and leadership styles and leadership outcome variables. A more elaborate description of each of the chapter is provided below.

Overview of the chapters

This dissertation presents four empirical chapters elaborating on the measurement and perception of leadership. Some of the chapters will overlap in their theoretical background and methodology. This overlap is necessary to enable each chapter to be read separately as well.

Chapter 2 proposes an overarching model, the leadership circumplex, which integrates different leadership conceptualizations. The purpose of the studies described in this chapter was to both theoretically and empirically examine the possibility of measuring leadership styles with the leadership circumplex, which is strongly grounded in the idea that leadership is inherently interpersonal. Five studies are conducted to investigate a) the number of dimensions needed to capture leadership behaviors, b) the circumplex properties of these behaviors, resulting in the circumplex leadership scan, c) whether the circumplex properties hold for both self- and subordinate ratings, d) the convergent and predictive validity as well as the test-retest reliability of the circumplex leadership scan, and finally e) whether the predictive validity holds when other-rated leadership effectiveness criteria are used.
Chapter 3 examines the relation between important roles in organizations and its effect on ratings of leadership styles. The influence of hierarchical role of the rater towards the leader, which can either be the leader’s supervisor, peer, or subordinate, on ratings of leadership style is investigated. The agency axis of the leadership circumplex is expected to be closely related to differences in ratings from raters of a different hierarchical perspective. Furthermore, the gender of both the leader and the rater is examined in relation to ratings of leadership styles. Differences between male and female leaders are expected to be represented by the agentic axis in being more masculine and the communal axis, by being more feminine. In one comprehensive study, ratings of leadership are collected from 360 degrees sources to examine the importance of the characteristics of the rated and ratee in leadership perceptions.

Chapter 4 extends the research in Chapter 3 by zooming in on gender stereotypes in leadership. The first study examines the beliefs people have about the femininity and masculinity of leadership styles, by rating all the items of the CLS on both masculinity and femininity. As in Chapter 3, it is expected that perceptions of femininity are closely related to communal leadership, while perceptions of masculinity will be more closely related to agentic leadership. A second study investigates if there are beliefs about leadership effectiveness. In this study all items are rated on their perceived effectiveness. It is expected that perceptions of effectiveness in leadership are related to leadership styles high in agency and high in communion. The third study combines the first two and studies the perceived effectiveness of leadership behaviors when shown by male versus female leaders.

Chapter 5 studies the relation between facial characteristics of leaders and their perceived and actual leadership style and leadership effectiveness. With the photos of one group of leaders, rated on their babyfacedness and facial dominance, a set of 3 substudies was conducted. The first examines the expected leadership style of the leader, having a group of participants unfamiliar with the leader rate these leadership styles by just looking at the photo of the leader. Second, we examine the actual self-rated leadership style of the leader, by asking each leader to complete the CLS questionnaire. The third study investigates the actual other-rated leadership style and leadership effectiveness of these leaders. One subordinate rated each of the leaders on the CLS and a leadership outcome measure.
Chapter 6 provides a summary and discussion of the four empirical chapters. It starts by presenting a summary of the methodology and main results of the four empirical chapters. Secondly, the theoretical implications are discussed. This is followed by a description of some of the practical implications of the results. Finally, some limitations and ideas for future research are discussed.