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THE EMERGENCE OF INDIVIDUAL AND COLLECTIVE LEADERSHIP IN TASK GROUPS: A MATTER OF ACHIEVEMENT AND ASCRIPTION [1]

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Abstract

This review synthesizes conceptual and empirical research on the emergence of individual and collective leadership in task groups, and proposes avenues for leadership research. To advance multilevel study of leadership emergence, including emergence of distributed and shared leadership, the paper reviews research on individual leader emergence, structured around two identified theoretical mechanisms—one of leadership achievement (i.e., based on functional behaviors) and another of leadership ascription (i.e., based on nominal characteristics). These approaches compete to elucidate individual leader emergence in task groups as influenced by individual traits, states, and behaviors. However, current approaches to leadership in groups rely on functional achievement explanations of how collective leadership emerges, influenced by positive states and behaviors. Attention to ascription-achievement mechanisms in leadership emergence is warranted at the collective level of analysis.

Keywords: leadership emergence, leadership perception, shared leadership, distributed leadership, collective leadership, status achievement, status ascription, groups, teams

THE EMERGENCE OF INDIVIDUAL AND COLLECTIVE LEADERSHIP IN TASK GROUPS: A MATTER OF ACHIEVEMENT AND ASCRIPTION

In my stars I am above thee; but be not afraid of greatness:
some are born great, some achieve greatness, and some have greatness thrust upon 'em.
–Shakespeare, *Twelfth Night, II, v*

1. Introduction

This comedic line is often used to inspire since it suggests that greatness can be attained through hard work. The steward Malvolio is told that he too can become great, despite being of lower birth rank, if he follows a set of instructions, each of which more absurd than the next. Shakespeare was not alone in pondering whether one can achieve greatness despite an unpromising point of departure. Since the 1930s, sociologists (Nock & Rossi, 1978; Stovel et al., 1996) have contrasted the notion of ascription with achievement to examine two disparate sources of greatness, or superior social status: one based on performance and effort, and the other assigned to individuals without regard for performance and effort (Linton, 1936). This review suggests that achievement and ascription matter not only to large-scale societal phenomena such as social mobility, but also to how leadership emerges in smaller groups. The achievement perspective posits that potential group leaders are judged by how competent they are and what they have accomplished. The ascription perspective posits that leadership is attributed to nominal characteristics beyond a potential leader's control such as sex, ethnicity, age, height, etc. This review synthesizes research on leadership emergence according to these two perspectives to inform future research.

Whether the path to leadership in task groups is one of achievement or ascription is a pertinent topic not only for justice and fairness, but also for how groups perform. Bass (1990: 280) notes:

> *It seems obvious that if those with high status are incompetent, the group will be less productive, successful and satisfied. Conversely, competence at high-status levels should produce less conflict, more satisfaction, and group success. Some curvilinearity in outcomes may be expected, for leaders sometimes may be too able for the groups they*

lead. Nevertheless, strong positive associations between such congruence and effectiveness have been found in surveys and experiments.

In theory, groups have strong incentives to place the right person in charge, and strive to do so. In practice, they often fail (Anderson & Brown, 2010), and one reason is that they ascribe leadership quickly before it can be earned by demonstrating competence. A simulation study of the evolution of hierarchies in thousands of small groups suggests initial judgments of group members (i.e., based on nominal characteristics or chance, prior to any member demonstrating competence) have serious and long-lasting consequences (Lynn et al., 2009). Initial judgments are insurmountable despite that groups care deeply about meritocracy. Although competence was the only variable used to allocate status after the first judgement, nineteen subsequent periods of competence-only status rewards did not rid the resulting group hierarchy of the initial, biased judgment. Studies of human rather than simulated hierarchies confirm the lasting effects of judgments that form within seconds (Levine & Moreland, 1998; Magee & Galinsky, 2008).

Groups perform worse not just when individual leaders are incompetent (Bass, 1990), but also when overall, group-level patterns of leadership align with nominal characteristics such as gender and ethnicity rather than indicators of competence such as company experience and education (Bunderson, 2003; Joshi & Knight, 2015). Recently, there has been increasing interest in the emergence of multiple leaders in task groups, and yet less interest in the competence these do or do not possess. This review suggests ways in which recent research in the leadership "process versus a person engaging multiple members of the team" (Avolio et al., 2009: 431) can be complemented with an understanding of achievement and ascription processes. Many researchers highlight the distinction between leadership as a collective, group property and that conceived in the traditional great-man theory (Borgatta et al., 1954), or in *prima donna* terms (O'Toole et al., 2002; see also Contractor et al., 2012; Gronn, 2002). However, status and ascription are largely absent from impending research on leadership in the plural, particularly research on shared leadership (Denis et al., 2012).

In 2014, three meta-analyses of shared leadership—defined as an emergent phenomenon in which leadership is performed collectively by multiple members of a task group—were published and they all showed that *the more, the better* (i.e., that shared leadership has positive effects on a number of group outcomes, including group performance; D'Innocenzo et al., 2014; Nicolaides et al., 2014; Wang et al., 2014). However, all three point out that sources of shared leadership remain understudied. How does this emergent phenomenon actually emerge? It is a matter of achievement and ascription. This review considers extant research regarding antecedents of leadership emergence, the bulk of which remains at the individual level, and suggests ways to bring knowledge to the collective level. The purpose is to identify ambiguities and controversies at the individual level that inform future research on collective leadership emergence. A reading of the literature on individual and collective emergent leadership through the lens of achievement and ascription uncovers assumptions of causality, links levels of analysis and connects previously unconnected streams of research.

2. Why and how does leadership emerge?

2.1. Leader(ship) emergence defined

Leadership emergence is a process that results in group members possessing peer recognition of leadership status (Dinh et al., 2014). Several scholars define leadership emergence by comparing it to leadership effectiveness, and discussing the central role of perception in emergence (Hogan et al., 1994; Lord et al., 1986; Judge et al., 2002). Leader emergence refers to whether or to what degree an individual is viewed as a leader (Judge et al., 2002). Similarly, leadership emergence refers to the perception of leadership in groups, usually with no formal leader (Lord et al., 1986). Unlike leader emergence, leadership emergence does not necessarily imply the emergence of a single leader. Early research by Bales and colleagues (Bales, 1955; Bales & Slater, 1955; Borgatta et al., 1954; Slater, 1955) suggests that two leaders can emerge in leaderless groups—a task specialist and best-liked member (subsequently and

perhaps erroneously labeled a socioemotional specialist; Prince, 1984; Wheeler, 1957).[2] However, most literature equates leadership emergence with leader emergence, with the process by which an individual becomes a leader in a new group (Hogan et al., 1994; Judge et al., 2002; see also Carson et al., 2007). In other words, most "research on leadership emergence identifies the factors associated with someone being perceived as leader-like" (Hogan et al., 1994: 496).

Allowing the possibility that more than one person within a group can be perceived and emerge as a leader, the study of collective leadership in groups progressed. Gibb (1954) is credited as first to suggest the idea of two forms of task group leadership: distributed and focused. However, Mumford (cited in Bass, 1990: 11) is among one of many early scholars to observe that "leadership is the preeminence of one or a few individuals in a group." Today, there is "a reorientation of leadership away from understanding the actions and interactions of 'leaders' to understanding the emergent, informal, and dynamic 'leadership' brought about by the members of the collective itself" (Contractor et al., 2012: 994). Emergent leadership might coexist with formal, hierarchical leadership in a variety of organizational and social settings (Ensley et al., 2006; Klein et al., 2006; Pearce & Sims, 2002), but most research on leadership emergence has been conducted with task groups that have no formal leadership such as leaderless group discussions (Bass, 1946; 1954), and more recently, self-managing (also self-managed or autonomous) teams (Hackman, 1987; 2005; Manz & Sims, 1980). For the purpose of this review, leadership emergence might produce one or multiple informal leaders. Leadership emergence is understood here as patterns of perceived interpersonal influence and deference that emerge from relationships between all members of a group.

Emergent patterns of leadership in task groups might vary along two fundamental dimensions: (1) centralization versus distribution and (2) density versus sparsity (D'Innocenzo et al., 2014; Gockel & Werth, 2010; Nicolaides et al., 2014). Patterns of leadership are centralized when group members differ in

[2] I am grateful to an anonymous reviewer for noting the difference between socioemotional leader and best-liked group member. In fact, these terms have been used as synonymous but future research must attend to the nuance in meaning.

leadership (i.e., are perceived as leaders to varying degrees), but are distributed when members exhibit equal amounts of leadership (i.e., are perceived as leaders to the same degree). Emergence of a single leader in a group can therefore be conceived as emergence of highly centralized leadership. Patterns of leadership are dense when there is abundant leadership in a group—overall (i.e., high perceptions of leadership) and sparse when groups are devoid of leadership (i.e., low perceptions of leadership). Density is a measure of average, whereas centralization is a measure of variability. The emergence of collective leadership must be studied along both dimensions since when leadership is distributed (i.e., not centralized in a single leader), it might also be absent, and when leadership is moderately dense, it might be very centralized or not at all (Mehra et al., 2006). Shared leadership has often been measured as a group-level average or density only, while distributed leadership as (de)centralization, though both terms in theory refer to leadership that is high in density and low in centralization (D'Innocenzo et al., 2014). This review uses the terms *shared* and *distributed* leadership as used originally, but notes their operationalization. Collective leadership is used as an umbrella term to include both shared and distributed leadership.[3] The focus of this review is on *how* one and multiple leaders emerge, but some consideration is given to *why* one or multiple leaders emerge.

2.2. Two mechanisms of leadership emergence

Several in-depth analyses of social hierarchy and its (dys)functions have appeared in recent years (i.e., *why* centralized leadership emerges; Anderson & Brown, 2010; Magee & Galinsky, 2008; Van Vugt, 2006). However, two additional immediate causes, or mechanisms, of leadership emergence in task groups can be identified (i.e., *how* leadership emerges). Leadership can be viewed as a reward that one or several group members earn by serving the group and helping it achieve its goals. This view can be summarized in the maxim "the emergence of a leader is sustained by its positive consequences" (Bass & Bass, 2008: 149). This is the more widespread (Bass, 1990; Bass & Bass, 2008) and older (Levine &

[3] Issues in operationalizing collective leadership have been discussed extensively elsewhere, and are worthwhile areas for future research (D'Innocenzo et al., 2014; Gockel & Werth, 2010; Nicolaides et al., 2014). Operationalization is not the focus of this review but will be briefly discussed.

Moreland, 1998) approach to understanding small-group leadership, found today largely within I/O psychology (Kozlowski & Bell, 2003). From Hollander and Julian (1969), a person who fulfills expectations and achieves group goals, thereby providing rewards for others, is reciprocated in the form of status, esteem, and heightened influence. This view relates closely to functional leadership theory (McGrath, 1962), which emphasizes that a leader's main job is to do or get done whatever functions are not handled adequately in terms of group needs (Zaccaro et al., 2001). A functional approach to leadership emergence suggests that there is a set of leadership behaviors required for groups to function effectively. Those who perform these behaviors are rewarded with higher leadership status (Lord, 1977). This approach emphasizes how one or more members of a group achieves leadership status by satisfying group needs, getting things done, and fulfilling important group functions.

Instead of an achieved, well-earned reward, leadership status might be ascribed. A focus on ascription versus achievement is less common in management research, but is common in small-group research, sociology, and social psychology (Levine & Moreland, 1998; Ridgeway & Johnson, 1990). Instead of functions a leader performs or should perform, this view is anchored in perceptions of leadership within a group. Perceptions of leadership are often highly consensual yet not strictly indicative of functional behaviors (Ridgeway, 1991). This approach, which emphasizes leadership categorization, relates to functional leadership as follows: "Functional leadership behavior, leadership perception, and social influence should be viewed as separate, but related, leadership processes. Leadership perceptions are more highly related to perceived social power than to functional behavior" (Lord, 1977: 129).

In both views, leadership emergence is a product of social interaction, and results in consensus among group members that one or more individuals could serve the group more usefully in attaining group goals than the other members could. However, the achievement and ascription approaches diverge regarding how much social interaction is needed for consensus to form. Leadership categorization suggests that consensus is often immediate, reached at first glance. Conversely, functional leadership theory suggests that consensus is reached over time, once members have had the opportunity to observe each other performing functional behaviors. A decades-old review of contemporary trends in the analysis

of leadership processes attended to both perspectives, suggesting that in addition to competence in helping a group achieve its goals, a person's potential to be influential arises out of positive dispositions others hold of the person since "the group provides reinforcement which in turn elicits favored behaviors" (Hollander & Julian, 1969: 390). Today, most leadership-emergence scholars recognize the interplay of achievement and ascription mechanisms in groups. However, this review underscores how assumptions about the primacy of achievement versus ascription carry assumptions about the proximal causes of leadership perceptions (i.e., functional leadership behaviors or nominal leadership categories; see also Levine & Moreland, 1998).

A trait-behavior distinction is partially suited to understand the achievement-ascription dichotomy. The achievement approach recognizes leadership personality traits and abilities (and, for example, mediating motivational states), but underscores that observable, functional behaviors are the most proximal antecedents of leadership perceptions (Judge et al., 2009). The ascription approach does not disregard leadership behaviors, but emphasizes the role of leadership traits, particularly demographics and other easily observable traits such as height. The approach might show how a leader's trait shapes followers' expectations of that leader's behaviors, and subsequently, followers' perceptions of (the effectiveness of) that leader's behaviors, as well as actual leader behaviors (Ridgeway & Johnson, 1990).

Achievement approaches to leadership emergence rely largely on traits, mediating processes, and behaviors to explain who is perceived as a leader (i.e., trait → state → behavior → perception), in line with dominant leadership-effectiveness theories (Yukl, 2013; Zaccaro, et al., 2004). This approach is visible in much research on collective leadership (e.g., Carson et al., 2007; Friedrich et al., 2009), in which group traits such as high collectivism, positive group-level psychological states such as shared purpose, and functional behaviors such as social support are used to predict shared leadership. From an ascription perspective, research has also examined traits, states, and behaviors as they relate to individual leadership emergence, but the proposed mechanism is different (i.e., trait → perception → state → behavior; Anderson & Kilduff, 2009a; Driskell & Mullen, 1990; Ridgeway & Johnson, 1990). This distinction can be illustrated by comparing the statements "Pat contributes more, thus I perceive Pat as a

leader" and "I perceive Pat as a leader, thus Pat contributes more."

The ascription-achievement dichotomy is not strict, and a number of scholars have conducted research that can be assigned to either side of the conjectural fence. Albeit their differences, information processing theories (Lord & Maher, 2002; Dinh & Lord, 2012) and social identity theories of leadership (Hogg, 2001) both emphasize follower cognitive categories, but also simultaneously emphasize leader- or group-typical traits and behaviors. Both are interested in the fit between follower cognitive schema and leader traits and behaviors, and this fit propels leadership emergence. Although the traits and behaviors these perspectives attend to are not necessarily functional but stereotypically/prototypically leader-like, they do not come before or after perceptions, but come together with perceptions to explain leadership emergence. This feature makes these two theories difficult to categorize within an order of traits, states, behaviors, perceptions. However, the feature also hints at the possibility these theories provide for linking previously disconnected research. For the purpose of this review, and given that these theories are generally silent on the functionality of leadership traits, states, and behaviors, research within these traditions are classified as ascription rather than achievement.

In line with the perspectives described, research on leadership emergence in task groups can be summarized in terms of focus (i.e., individual versus collective leadership) and enactment mechanism (i.e., ascription versus achievement). The following sections synthesize research from each of the four resulting approaches (see Table 1). The review acknowledges the importance of situational factors, but is nonetheless organized around a trait, state, and behavioral framework. Situational and contingency factors are rarely studied in isolation (i.e., without consideration of traits, states, and behaviors), and thus they are included as they have been studied, usually to influence a specific relationship (e.g., between a trait such as extraversion and leadership emergence).

Insert Table 1 here

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3. The emergence of individual leadership through achievement

3.1. Traits

Trait approaches to leadership emergence, with a few exceptions outlined later, assume that some traits activate behaviors that are functional to a task group. As Zaccaro (2007: 8) points out:

> *Leader traits are defined in reference to leader effectiveness. This follows from functional approaches to leadership that define leadership in terms of organizational problem-solving activities… Such an approach implicitly assumes congruence between leader effectiveness and leader emergence or, more broadly, leader role occupancy. One can argue that the individual differences promoting effectiveness also should promote leader emergence.*

3.1.1. Personality

Functional approaches to the role of leader personality in leader emergence comprise a tremendous body of work. Therefore, this section cites only recent examples, and refers to extant meta-analyses. One study of leaderless group discussions suggests that two of the Big Five personality traits, extraversion and openness to experience, relate to individual leadership emergence through mediation of contributions to group success (Colbert et al., 2012). Another Big Five trait, conscientiousness, also gives rise to leadership, mediated by both competing and helping behaviors, though helping behaviors from conscientious individuals had the strongest direct effect on leader emergence among employees in Fortune 500 firms (Marinova et al., 2013). Several quantitative reviews of personality and leadership emergence appear in the literature. Mean correlations between leadership emergence and extraversion, openness, and conscientiousness are significant, despite incongruence between traits with leader emergence versus leader effectiveness (Judge et al., 2002). Based on these findings, approximately 17% of the variance in leadership emergence can be explained by genetics, mediated by intelligence and the Big Five (Ilies et al., 2004). A meta-analytical integration of research in leaderless group discussion settings examines individual traits beyond the Big Five but once again finds a strong positive effect of extraversion (Ensari et al., 2011). It is speculated that extraversion makes individuals appear more leader-like because image management is a critical component of effective leadership (Ensari et al, 2012). However, an earlier review by Lord and colleagues (1986) suggests that traits perceived by others, not

traits and resultant behaviors *per se*, influence leadership emergence. Bendersky and Shah (2013) similarly argue that personality informs leadership expectations through perceptions of competence, but only when groups first form. Over time, contributions to a task become a more important basis for reallocating status, a finding corroborated in a longitudinal study in which extraversion associated with status losses over time due to disappointing expectations of contributions to group tasks. Neuroticism, however, associated with status gains due to surpassing expectations for group-task contributions (Bendersky & Shah, 2013).

3.1.2. Ability

If the relationship between some personality traits and leader emergence is assumed functional (e.g., extraverted individuals achieve leadership because they have superior social skills), so is the relationship between ability and leader emergence. Bass (1990; Bass & Bass, 2008) provides an extensive summary of the research on general mental ability and leadership, suggesting strong positive effects of intelligence, but only up to a point since "the leader cannot be too superior in intelligence to those to be led; the leader must be more able to solve the problems of the group, but not too much more able" (Bass, 1990: 106). Correspondingly, a meta-analysis shows that the relationship between intelligence and leadership emergence is not commonsense since it is considerably weaker than previously thought (Judge et al., 2004). This effect is weaker than the effects of extraversion, openness, and conscientiousness found earlier (cf. Judge et al., 2002; 2004). Relationships of intelligence with leader emergence and subjective measures of leader effectiveness are weaker than the relationship of intelligence with objective measures (Judge et al., 2004). These findings highlight an important discrepancy between emergent and effective leadership, and care should be taken that measures do not conflate the two (Lord et al., 1986).

Beyond cognitive ability, research on emotional ability and leadership emergence in groups has burgeoned (e.g., Côté et al., 2010; Kellet et al., 2002; 2006). In a longitudinal study of self-managing teams, empathy predicted leadership emergence through its effect on emotional and cognitive skills and behaviors (Wolff et al., 2002). In another study, emotion recognition and extraversion related interactively with an individual's task coordination behaviors, which in turn influenced the likelihood of

emerging as a leader (Walter et al., 2012). Emotional abilities played complementary roles in a longitudinal analysis of leader networks; the abilities to perceive and manage emotions facilitated emergence of relationship leaders, and the abilities to use and understand them facilitated emergence of task leaders (Emery, 2012). Meta-analytical support for social intelligence/social skill has also been found (Ensari et al., 2011). In addition to cognitive and emotional intelligence, cultural intelligence and other global characteristics (i.e., global identity and openness to cultural diversity) relate to leadership emergence in teams characterized by cultural diversity (Lisak & Erez, 2014).

Cutting across traits and abilities, the stable characteristics in leadership found to account for approximately 50% or more of leadership variance are not a traditional personality trait, but instead involve the ability to perceive the needs and goals of a constituency, and adjust one's personal approach to group actions accordingly (Kenny & Zaccaro, 1983). The pattern approach also simultaneously attends to personality traits and ability to show how a pattern (i.e., combination) of individual attributes relates to leadership emergence (e.g., Foti & Hauenstein, 2007; Smith & Foti, 1998). High intelligence, combined with high dominance, general self-efficacy, and self-monitoring, is a pattern related to engaging in leader behaviors as rated by trained observers, leader emergence as rated by peers, and leader effectiveness as rated by superiors. Surprisingly, the same individuals (i.e., those who possess this same personality-ability pattern) emerge consistently as leaders in a variety of tasks, including tasks that require initiating structure and tasks that require consensus and team-building behaviors (Foti & Hauenstein, 2007). In summary, some traits associate consistently with leadership emergence, possibly because they give rise to functional behaviors. However, traits also relate to leader emergence and effectiveness in distinct ways; why this is the case is not fully established (Zaccaro, 2007).

3.2. States

Individual leadership motives link to emergence as a leader. In a military context, motivation to lead mediates between individual differences (i.e., ability, traits, and values) and leader behaviors, such that recruits with higher motivation to lead receive higher rankings on leadership potential (Chan & Drasgow, 2001). Also in this context, motivation to lead couples with cognitive rather than emotional

ability to explain teamwork behaviors, and in turn one's emergence as both informal and formal group leader (Berson, 2013). From a pattern perspective of achievement- and affiliation-related motives, the functional value of positive motivation in all-male groups has been demonstrated (Sorrentino & Field, 1986). Individuals who were both achievement- and affiliation-oriented were more likely to exhibit leadership behaviors and emerge as leaders, and these effects persisted over a five-week period. An achievement-/affiliation-oriented person had the highest participation rate, and although he was not necessarily performing well on a specific task, he was still most likely to emerge as leader. This discrepancy was explained: "the confidence, competence, influence, motivation, contribution, and interest exhibited elsewhere carry over into the specific situation" (Sorrentino & Field, 1986: 1098).

In addition to motivation, individual skills are conceptualized as a state that explains the relationship between stable traits and functional behaviors (Zaccaro et al., 2004). Skills in pattern recognition and perspective-taking arise from empathy, a facet of emotional intelligence, and give rise to supporting/developing others and task coordination, and ultimately to percentage of leadership votes received (Wolff et al., 2002). However, social and emotional communication skills might be overrated: groups elect leaders who speak most (i.e., total speaking time, as rated by observers) and are extraverted but are not necessarily more socially skilled (as self-reported; Riggio et al., 2003).

3.3. Behaviors

Lord (1977) identifies a generic set of eight task-related and four socioemotionally related functional leadership behaviors, linking them to perceptions of power and leadership in four-person, problem-solving groups. Subsequently, several typologies of functional behaviors have been proposed (e.g., Fleishman et al., 1991; Zaccaro et al., 2001). Day et al. (2004) offer a functional account to leadership in teams that is equally applicable to individual and collective leadership. They review research and theory on how leadership emerges or is drawn from teams as a function of working on and accomplishing shared work. More recently, Morgeson et al. (2010) provide an account of team leadership, suggesting that team leadership is internal and/or external to a team, and formal and/or informal. Internal and informal leadership (i.e., emergent individual and collective leadership) is suited to accomplish (and

thus might arise from) nearly all of the fifteen functions that help teams satisfy critical needs. Implicit in most of this work is the assumption that functional behaviors predict leader emergence, leader role occupancy, leader effectiveness, and group effectiveness equally. The last assumption, that functional behaviors predict group effectiveness, has been substantiated through meta-analysis (Burke et al., 2006). Task-focused behaviors relate to perceived team effectiveness and productivity, and person-focused behaviors relate to perceived team effectiveness, productivity, and learning. It is unclear from this meta-analysis whether individuals are rewarded with leadership when they engage in task-focused behaviors and/or person-focused behaviors, though other empirical research links engaging in functional behaviors and emerging as a leader.

Many studies reviewed earlier (e.g., of individual leader personality traits, abilities, and states) suggest that functional behaviors mediate between these and leadership emergence (e.g., Marinova et al, 2013; Walter et al., 2012; Wolff et al., 2002). A number of studies focus on only behaviors (e.g., Myers et al., 1990; Schneier & Bartol, 1980), though few apply functional behavior typologies directly. This is a worthwhile area for future research. Studies have also begun examining the role of contributing to the group in individual leadership emergence in open source/innovation communities (Fleming & Waguespack, 2007; O'Mahony & Ferraro, 2007). This research demonstrates that technical contributions also relate to leadership emergence in open-source communities. The quality, and not necessarily quantity, of technical contributions counts (O'Mahony & Ferraro, 2007). Social behaviors such as organization-building (O'Mahony & Ferraro, 2007) and boundary-spanning (Fleming & Waguespack, 2007) are also functional for a community, and relate to leader emergence. One type of functional behavior, participation in the communication of a group, has been the focus of empirical research on functional behaviors.

3.3.1. Participation (quality of talk)

Much research focuses on participation as a correlate of leader emergence. Bass (1949) and Bales et al. (1951) report that hierarchies in experimental groups were formed based on group members' unequal amounts of participation, and Manz and Sims (1984) corroborate this in self-managed production

teams. Early research by Zeleny (1939) implies a functional explanation; leaders in discussion groups differ from non-leaders regarding participation but not appearance. Bass's research on leaderless group discussions also supports the functional relationship of participation and leader emergence (see Bass, 1990; Bass & Bass, 2008 for a summary). Several rhetorical analyses have shown that participation in communication that is task-relevant and facilitates group activity is associated with individual leader emergence but participation in communication that is task-irrelevant or harmful to group activity is not (Hawkins, 1995; Morris & Hackman, 1969; Sharf, 1978). In permanent groups, leaders emerge as a consequence of how well they fulfill various communication functions (Anderson & Wanberg, 1991; Johnson & Bechler, 1998). They are chosen based on those who offer the best guidance and direction, even when they also embody negative qualities (Schultz, 1974; 1978; 1986). More recently, this was confirmed in a comparison of virtual and traditional face-to-face teams; activity level and linguistic quality of written communication predicted leadership emergence in virtual teams, but personality did not matter in this context (Balthazard et al., 2009).

Sudweeks and Simmoff (2005) describe a methodology to predict leadership emergence in virtual teams based on participation, including verbosity (i.e., word count), number of utterances, and activity-related content. The relationship between participation and leader emergence has been demonstrated so consistently that the two have sometimes been used interchangeably, and some authors even operationalize leadership emergence as rate of participation (e.g., Sorrentino & Field, 1986). The role of quality versus pure quantity of participation is a non-trivial topic that has received much attention in leadership emergence research. Alternative perspectives are reviewed later.

3.4. Summary and future research

Functional leadership research focuses largely on the role of two broad types of behaviors, task and socioemotional behaviors, in facilitating group work, thereby explaining the emergence of individuals who perform these behaviors as leaders. Boundary-spanning behaviors are now also assessed. Ravlin and Thomas (2005: 980) identify the roots of this research in the work of Bales and colleagues (citing Hare et al., 1955), who believed that:

> *Status hierarchies assisted groups in managing their external environment and in accomplishing their tasks, especially, of course, when more competent members were given higher status. Thus, all members would have an interest in defining an appropriate ordering of their membership. These authors did admit that such structures might be problematic for another key aspect of group function, namely, cohesiveness of members. This idea, that the task performance of the group would be facilitated by status hierarchy, whereas cohesiveness would suffer, was one influence on the development of the conceptualization of groups having two leaders—a task leader and a socioemotional leader.*

Traditionally, cognitive abilities and differences in traits such as conscientiousness have been linked to engaging in and mastering task-related functions, whereas personality traits such as agreeableness, extraversion, self-monitoring, and more recently emotional and social abilities have been linked to engaging in and mastering socioemotional functions. Research employing pattern rather than variable approaches suggests that the relationship of personality and ability with task and socioemotional behaviors is multifaceted.

Despite a strong tradition of the functional approach to individual leader emergence, some issues remain unsolved. Research might further (a) explore why individuals with particular (combinations of) traits consistently emerge as leaders, even though different traits relate to different types of functional behaviors; (b) assess which functional behaviors explain leadership emergence best, and which contextual factors moderate or alter this relationship. These issues suggest the need to (c) provide direct tests of new typologies of functional behaviors in task groups, both in terms of how behaviors relate to trait and state antecedents, and in terms of how behaviors relate to leadership emergence, thereby also linking the individual and collective levels (see Section 5.4). Overall, it is not understood from a functional perspective why individual traits, states, and behaviors relate disparately to leader emergence and effectiveness. Why are some people perceived as leaders even when they are ineffective, and why are some people not perceived as leaders even when they are effective? Research discussed in the following section addresses these questions partially.

4. The emergence of individual leadership through ascription

Some social groups are perceived better at task and/or socioemotional behaviors, and are thus given more opportunities to engage in these behaviors (Galinsky et al., 2013). The emergence of task and socioemotional leadership might correspond to judgments of competence (e.g., intelligence, power, efficacy, and skill) and warmth (e.g., friendliness, trustworthiness, empathy, and kindness), which are fundamental to how leaders are perceived. Cuddy et al. (2011: 74) observe:

> *An important source of error in warmth and competence judgments stems from pervasive stereotypes based on others' race, gender, nationality, religion, profession, socioeconomic status, and similar social categories that influence whether we view another person (or another views us) as warm or cold, competent or incompetent…. This has been especially well documented in the gender and leadership domain*.

This section begins with an overview of what is known about leadership emergence as influenced by gender, race/ethnicity, and other nominal characteristics (i.e., social categories and biological features such as height). It moves to overview research that demonstrates that an ascription mechanism might be involved in the relationship between leadership emergence and individual personality traits, states, and behaviors.

4.1. Traits

4.1.1. Gender

There is consensus that women are less likely to emerge as leaders, but this depends on context. Eagly and Karau's (1991) meta-analysis of laboratory and field studies of gender and the emergence of leaders suggests that men emerge as leaders to a greater extent than women do, particularly in short-term groups and in groups carrying out tasks that do not require complex social interactions. Women emerge as social leaders slightly more than men do, predicted by social role theory (Eagly, 1987). Like Eagly[4], Ridgeway and her colleagues account for gender differences in leadership emergence, but do so through status characteristics and expectation states theory, which posit that gender is a status characteristic

[4] Eagly and colleagues also quantitatively summarize research on gender and the evaluation of leaders (Eagly et al., 1992), gender and leadership style (Eagly & Johnson, 1990; Eagly et al., 2003), and gender and stereotypes of leaders (Koenig et al., 2011).

sufficiently powerful to create expectations about one's future performance as a member of a task group (Ridgeway, 1991; 2001; Ridgeway & Smith-Lovin, 1999; Ridgeway et al., 2009). Ridgeway and colleagues highlight that gender cues social status in addition to social roles. Gender differences in leadership emergence appear to depend on a number of factors, some of which Eagly, Ridgeway, and associates discuss. This review only briefly mentions some interesting contingencies.

There might be small or non-significant biological sex effects on leader emergence in task groups, but masculine and androgynous individuals emerge as leaders with greater frequency than feminine or undifferentiated individuals do (Kent & Moss, 1994; Kolb, 1997). Group salience and leader match with a local group prototype might outweigh the effects of leader categorization, status characteristics, and social roles (Hogg et al., 2006). Tokenism might influence participation and leadership of individuals with a solo status in a task group (Kanter, 1977). However, the proportional representation of men and women in a group couples with the gender orientation of a group's task to influence the degree of leadership behavior exhibited (Karakowsky & Siegel, 1999). Labeling a task, rather than its gender orientation *per se*, might be important. In two experimental studies, the emergence of male and female leaders depended on identical tasks being labeled building versus art project and knot-tying versus hair-braiding project (Ho et al., 2012).

Gender interacts with individual and structural characteristics to predict informal leadership emergence. In intact manufacturing teams, high degrees of conscientiousness, emotional stability, and team-member network centrality predicted informal leadership more for men than women, but a high degree of general mental ability predicted informal leadership more for women than men (Neubert & Taggar, 2004). This finding was interpreted with (in)congruence between leadership and gender stereotypes. However, more research is needed to understand disparate gender effects of general mental ability and network centrality. Interest also emerged in genetic influence on emergent leadership, not for personality and ability alone, but also for gender and age. The magnitude of genetic influence varies with age, but only for women, with the heritability estimate being highest for middle-aged women and lowest

for older women (Chaturvedi et al., 2012). Research suggests that group characteristics and task-framing, among other factors, influence the emergence of male and female leaders.

4.1.2. Race/ethnicity

Some evidence exists that racial and ethnic minorities are less likely to emerge as leaders in task groups. One account for this finding is that race is part of a general leader prototype (Gündemir et al., 2014) and a business leader prototype, regardless of base rates of an organization's racial composition, the racial composition of organizational roles, the business industry, and the types of racial minority groups in an organization (Rosette et al., 2008). White college students receive higher peer evaluations than students of color do, and this difference reflects trends in group leadership and course performance, with more white college students self-reporting being leaders and receiving higher grades (Dingel & Wei, 2014). As with gender, research suggests a criticality of contextual factors, including the composition of the group and task. On average, Caucasians have more airtime, and are more likely to emerge as leaders in mixed Caucasian and Asian groups (Kelsey, 1998; Li et al., 1999). These effects generally depend on numerical representation, though status characteristics and expectation states theory describe these findings better (Kelsey, 1998).

Perceptions of leadership might be a function of occupation, in addition to race. Race and occupation exhibited differential effects for between- and within-race comparisons in two industry samples. Leadership perceptions of Asian Americans were low relative to those of Caucasian Americans, but leadership perceptions of Asian Americans were higher when race-occupation was a good (e.g., engineer position) versus poor fit (sales position; Sy et al., 2010). These results were interpreted as symptomatic of implicit leadership theories. Alternatively, race might be gendered, explaining why racial groups stereotypically fit better in some types of leadership positions (Galinsky et al., 2013). In a multi-study paper, explicit and implicit gender content of racial stereotypes was discovered; in comparison to White stereotypes, Asian stereotypes are more feminine and Black stereotypes more masculine. As a result, Blacks are more likely and Asians less likely than Whites to be selected for a masculine leadership position (Galinsky et al., 2013).

An historical trend toward more egalitarian outcomes for explicit attitudes and nonverbal behavior was established in a summary of 40 years of research on dyadic interracial interactions, predominantly featuring Black and White American lab participants (Toosi et al., 2012). However, participants' emotional responses and performance remained consistently biased. Meta-analyses of racial and ethnic effects on work and organizational outcomes such as interview evaluations and performance ratings, but not leader emergence, are common (e.g., Huffcutt & Roth, 1998; Kraiger & Ford, 1985; Roth et al., 2003). Studies of non-Black racial/ethnic groups remain scarce (Roth et al., 2003). In a critical review of race and ethnicity in leadership literature, Ospina and Foldy (2009) explain the effects of race/ethnicity on leadership emergence at the individual level. The leadership disadvantage encountered by people of color has generally associated with their marginalization and disempowerment. However, scholarly research also attributes this disadvantage to achievement and not ascription. Ospina and Foldy refer to and criticize Bass (1990; Bass & Bass, 2008), who suggests that lower cognitive abilities among Blacks explain the leadership disadvantages they encounter.

Twenty years ago, we knew very little about ethnicity and race as they relate to leadership (DiTomaso & Hooijberg, 1996). Despite interest in racial and ethnic minorities occupying top management positions in organizations (e.g., Cook & Glass, 2014), extant work has only marginally advanced understanding of the emergence of racial and ethnic minorities as leaders in task groups. Organizational scholarship in the United States still largely focuses on the White/non-White distinction (Leslie, 2014), so most of what we know is lumped into a generic, non-White category. Future work is needed on how members of various non-White ethnic groups are perceived as leaders, not only in the United States, but also in other multicultural societies, and especially in multicultural/global task groups. A meta-analytical study of differences in the self-esteem of Black Americans, Asian Americans, American Indians, and Hispanic Americans relative to White Americans suggests that apart from Black Americans, all groups score lower on self-esteem (Twenge & Crocker, 2002). Given a moderate but positive association between self-esteem and leadership (Hill & Ritchie, 1977; Judge et al., 2002), it

would be interesting to study whether and under what conditions racial and ethnic minorities are differently likely to emerge as leaders in task groups because of self-esteem.

Race and ethnicity seldom operate in isolation from other identities such as class, gender, sexual orientation, nationality, and religious preference (Ospina & Foldy, 2009). However, little empirical research assesses two or more of these identity categories simultaneously as they relate to leadership emergence. One exception is from Bloom (1980), who explores the relationship of three status characteristics—age, ethnicity, and occupational status—with leadership hierarchies in nursing teams. Nurses who were associate-degree nursing students, younger, and White were more active and influential than nurses who were vocational nursing students, older, and Black. The degree to which these characteristics associated with the emergence and acceptance of a leadership hierarchy on the nursing team influenced the performance of the team. Future research should draw inspiration from the study, from pattern approaches to individual traits reviewed earlier (Foti & Hauenstein, 2007; Smith & Foti, 1998), and particularly from perspectives on intersectionality (Sanchez-Hucles & Davis, 2010; Walby et al., 2012), which suggest that analyzing one social category at a time, for example gender or race, is insufficient to develop nuanced understanding of leadership emergence. Several other suggestions for future research are outlined in the next section.

4.1.3. Beyond gender and ethnic categories

Although some research appears in the literature regarding the relationship between sexual orientation and leadership self-efficacy, identity, and style (Martinez et al., 2006; Renn, 2007), no article addresses the relationship between sexual orientation and leadership emergence/perception. Highlighting that research on the unique leadership issues that lesbian, gay, bisexual, and transgender (LGBT) people experience is nearly nonexistent, Fassinger et al. (2010) provide a model to guide future research. No research exists on the relationship of religion with leader emergence, despite a recent upsurge of ethical/moral leadership theories (Dinh et al., 2014). Recent global events urgently call for more research on social and leadership categorization based on religion. In addition to sexual orientation and religion, social class is a category that requires closer study. Bass briefly summarizes early research on

socioeconomic status and leader emergence, pointing out that "leaders tend to come from a socioeconomic background that is superior to that of the average of their followers" (Bass, 1990: 71). A recent framework from Côté (2011), which hints at the nuanced mechanisms that relate social class and leadership emergence, may be used to reinvigorate early research.

Findings on age and leadership emergence have been mixed, but interest in age and other physical characteristics has declined (Bass, 1990). Despite an aging population in many Western countries, the topic is under-researched, perhaps because the age-leadership relationship is likely context-specific (Van Vugt, 2006). Although not directly focused on leadership emergence, recent reviews of research on age and leadership (Walter & Scheibe, 2013), and age stereotypes in the workplace (Posthuma & Campion, 2009) exist. Research on health and leadership emergence is also scant. A large number of studies examine ability as a predictor of leader emergence, including physical ability in military settings, but we know very little about disability and leader emergence. One exception is a study of over 1000 soldiers, which demonstrates that learning disability correlates negatively with leadership emergence and leadership role occupancy. However, leaders with and without learning disabilities are equally effective (Luria et al., 2014). It is unclear whether and how health and physical ability matter to leadership effectiveness in a knowledge-based economy, though they appear related to leadership emergence across contexts (for reviews, see Bass & Bass, 2008; Van Vugt, 2006).

To understand the relationship of leadership emergence with sexual orientation, religion, social class, age, disability, nationality, and other social categories, researchers may draw on the Behaviors from Intergroup Affect and Stereotypes (BIAS) Map (Cuddy et al., 2007). This model systematically links behavioral tendencies toward social groups to the content of stereotypes, in terms of warmth and competence. Social groups are stereotypically perceived as high in competence, high in warmth, high in both, or high in neither.[5] Individuals associate and cooperate with groups stereotypically perceived as

[5] For example, U.S. social groups stereotypically perceived as competent but not warm include rich people and Jews; perceived as warm but not competent are elderly and disabled people; perceived as both warm and competent are Black professionals and Christians; and perceived as neither warm nor competent are poor people and Arabs (Cuddy et al., 2007).

competent, and are therefore likely to select members of these groups as leaders. The stereotype content model and the BIAS map can help relate social categories, competence stereotypes, and leadership emergence. Given the centrality of both competence and warmth in this model, it might facilitate understanding of both task and socioemotional leadership emergence (see also Galinsky et al., 2013).

4.1.4. Physical appearance

Laboratory studies suggest that facial appearance, expressions, and attractiveness relate to leadership perceptions, defined broadly (Little, 2014; Trichas & Schyns, 2012). Rankings of cadets in the United States Military Academy at West Point on leadership, determined by annual ratings of the senior class and a commissioned officer in charge, relate more closely to bearing and appearance than to other qualities, including tactics and athletics (Page, 1935). Emergent leaders (both men and women) in task groups performing sex-neutral tasks for valued rewards over many weeks of interactions, score higher in interpersonal attractiveness (Goktepe et al., 1989). The what-is-beautiful-is-good hypothesis (Dion et al., 1972) receives significant support (Hosoda et al., 2003 provide a meta-analysis of physical attractiveness and job-related outcomes). Apart from good looks, a moderate, positive relationship between height and leadership emergence—election, nomination, or ranking of individuals in leadership positions—and between height and social esteem, was documented in a meta-analysis by Judge and Cable (2004). Men with a specific waist-to-hip ratio are also more likely to emerge as leaders in leaderless groups (Campbell et al, 2002). Ethological (i.e., biosocial) models (e.g., Mazur, 1985) account well for these findings, and supplement expectation states theory when accounting for status hierarchies in groups (Levine & Moreland, 1998).

4.1.5. Personality and ability

In addition to observable traits, personality traits such as dominance might produce the ascription of leadership. Individuals high in trait dominance consistently attain high degrees of influence, and emerge as leaders in groups. However, mainstream theory asserts that people cannot attain influence simply by behaving assertively and forcefully; they must possess superior task abilities and leadership skills. Individuals high in trait dominance attain influence because they behave in ways that make them

appear competent, even when they lack competence (Anderson & Kilduff, 2009a; see Anderson & Kilduff, 2009b for how individuals pursue status by enhancing the apparent value they provide to their groups). Although "there is a great deal of difference between a person being intelligent and appearing intelligent" (Geier, 1967: 317), keeping cognitive ability constant, emotional expression in the form of both contempt and compassion influences perceived intelligence and leadership emergence in turn (Melwani et al., 2012).

Research on narcissism (and the dark side of traits; Judge et al., 2009) provides an interesting perspective on traits and leadership emergence. Narcissists emerge as leaders irrespective of individual performance (Brunell et al., 2008; Nevicka et al., 2008; see also Judge et al., 2006). Although some functional explanations for this phenomenon exist (e.g., Paunonen et al., 2006; Post, 1986; Sedikides et al., 2004) and there is a debate on whether narcissistic leaders provide a net gain or loss, the disadvantages of narcissistic leadership appear to largely outweigh the advantages (Campbell & Campbell, 2009; Rosenthal & Pittinsky, 2006). This is a conundrum in the functional approach to leader emergence, and an ascription discourse appears to be more common in this area of research. Lord et al.'s (1986) meta-analytical review suggests some ways that individual traits such as masculinity and dominance lead to ascription rather than achievement of leadership, and information-processing theories of leadership (e.g., Lord & Maher, 2002) provide further explanation. Although potentially functional, social judgment might be biased in some contexts. In line with these ideas, researchers began considering the relationship of both self and other assessments of personality with leadership emergence (e.g., Colbert et al., 2012; Shyamsunder & Barney, 2012). Since competence is rarely observable, group members might attribute leadership based on what they believe their peers' competence to be, beliefs formed based on nonverbal and verbal communication styles that mirror personality in addition to social category membership. Collecting both self and other ratings of personality and ability might be a worthwhile approach to combining the trait perspective with considerations of achievement and ascription.

4.2. States

The ascription of leadership can also be understood as affected by individual psychological states, as Kilduff and Galinsky (2013) suggest. In three studies, experimentally created, approach-oriented mindsets influenced status attainment in groups, both immediately and over time, days after the original mindset had dissipated, due to the self-reinforcing, status-behavioral cycles in groups. In experiment 1, individuals primed with a promotion focus achieved higher status in newly formed groups, mediated by proactive behaviors as rated by themselves and teammates. Experiment 2 revealed that individuals primed with power achieved higher status, both immediately following priming and when groups reassembled two days later to work on new tasks. During experiment 3, priming happiness led to greater status and acquisition of material resources, and these immediate and longitudinal effects were independent of stable dispositional traits. The authors conclude that these results indicate the importance of psychological states beyond stable characteristics emphasized in extant research, and provide the most direct test of the self-reinforcing nature of status hierarchies. The same group might organize itself differently depending on members' incoming psychological states. Once it has emerged, leadership perpetuates, as also shown by Emery and colleagues (2011): self-views as a leader determine individual leadership emergence, which in turn strengthens self-views as a leader. Individual propensity to take a lead depends on self-perceived propensity to take risks relative to that of others in a group, rather than on absolute self-perceived propensity to take risks (van Knippenberg et al., 2000), implying that leadership states and mindsets are activated by context to produce distinct leadership patterns in groups, independent of contributions.

4.3. Behaviors

The notion that leadership emergence is occasionally unmatched by leadership effectiveness has been labeled recently as *leadership over-emergence* (Lanaj & Hollenbeck, 2015). Based on data collected over the course of seven months from self-managing MBA teams, team members' perceptions of whether someone was exerting more influence than he or she should (i.e., whether someone over-emerged as a leader) were evaluated, suggesting men over-emerged as leaders. However, women were more likely to over-emerge as leaders than men were when they engaged in agentic leadership behaviors (i.e., task

behaviors and boundary spanning behaviors). In comparison, men who performed more social behaviors did not over-emerge as leaders. Social behaviors did not play a role in the emergence of either women or men, even though the influence of social behaviors on effectiveness was significant for both women and men. Regardless of gender, individuals who engage in social behaviors appear to under-emerge as leaders, not influencing a task group as much as they should. That socioemotional skills are undervalued has been suggested elsewhere (e.g., Slater, 1955), and is something that future research should explore more completely.

In addition to task and social behaviors, which are functional for a group but do not necessarily lead to achievement of leadership, a variety of other behaviors might lead to leadership ascription. Non-verbal behaviors such as gaze, interpersonal distance, body movement, facial behavior, touch, vocal behaviors, posed encoding skills, etc. relate to perceptions of leadership, power, dominance, and status, perceptions labeled under the umbrella term *vertical perceptions of social relations* (Hall et al., 2005). According to Hall et al.'s meta-analysis, vertical perceptions of social relations are stronger and much more prevalent than are real vertical social relations. The strength and consistency of phenomena such as "dominant individuals use touch, Pat uses touch, thus Pat is leader-like" are exaggerated in perceivers' minds, highlighting the role of stereotypes and faulty attributions.

4.3.1. Participation (quantity of talk)

How much one talks, and not necessarily what one says, relates to emergent leadership. A quantitative summary of research on leadership status and participation rates shows that leader participation is both task-relevant (i.e., contributes to task performance) and status-driven (i.e., does not contribute to task performance; Stein & Heller, 1979). Speaking time is a robust indicator of leadership status, according to a meta-analysis of emergent leadership and dominance measured otherwise, and the relationship between speaking time and emergent leadership in comparison to other measures of dominance is the strongest (Schmid Mast, 2002). Dominance and speaking time relate more strongly in studies that ask participants to infer dominance based on speaking time (i.e., nominate a leader based on behavior) than in studies in which dominance is expressed in speaking time (i.e., trait dominance

produces behavior), suggesting that the behavior-perception link is stronger than the trait-behavior link, but not necessarily corroborating the achievement or ascription mechanism of leadership emergence.

Mullen et al. (1989) disentangle achievement from ascription by meta-analytically testing several proposed theoretical mechanisms that explain why an individual with the greatest verbal participation is more likely to emerge as a group leader. Achievement accounts, which propose that participation is rewarded largely or only when participation moves a group's effort toward task completion, find no support. The relationship between participation and leadership emergence marginally decreases as a function of participator expertise, which contradicts the pattern predicted by functional achievement accounts. Participators emerge as leaders not because of their expertise, but because of their salience (i.e., proportional rarity) in the group. Proportional rarity substantially strengthens the relationship between participation and leadership, suggesting that the quantitative novelty of the high participator in increasingly larger groups makes the participator more prominent. These findings imply ascription mechanisms since if leadership were achieved through participation, (1) participators with more expertise would be rewarded, and (2) all who participate would be rewarded, regardless of group size, or especially in larger groups. The second point particularly raises a question about the possibility of collective leadership, especially in larger groups, and it is a point to which this review returns. Bass (1990: 93) dismisses "the babble hypothesis" of leadership—to emerge as a leader, all that matters is how much one talks, not what one talks about—suggesting:

> *Members compete with each other for the group's attention, so that a 'babbler' will be squelched by fellow members. The talking needs to be relevant to dealing with the group's task; the quality of the talk affects its quantity; each group member's rate of talking is regulated by the other members of the group.*

Even if the assumption that members compete for attention is correct, it does not acknowledge that some members have an unfair advantage. Research suggests that something as mundane as seating arrangement (Howells & Becker, 1962; Ward, 1968) influences how much one gets to speak and how likely one is to emerge as leader. Seating arrangement might be deemed irrelevant in real, long-term work groups, but as pointed out earlier, status and leadership hierarchies emerge just minutes after groups form

(Barchas & Fisek, 1984; Kalma, 1991) and are surprisingly stable (Heinicke & Bales, 1953; Levine & Moreland, 1998; Kilduff & Galnisky, 2013). Thus, disparities that form within seconds produce hierarchical differentiation that lasts for years (Magee and Galinsky, 2008).

4.4. Summary and future research

The strong relationship between emergent leadership and speaking time is explained well by expectation states theory (Berger et al., 1974; 1977), which posits that expectations regarding group members' abilities to contribute to a task solution become self-fulfilling prophecies, and form a basis for dominance or status differences within groups. A meta-analysis demonstrates that one's status characteristics (e.g., age, race, and sex) influence behaviors (e.g., leadership and talking behaviors), largely through and because of the expectations of others (i.e., expectations formed based on status characteristics; Driskell & Mullen, 1990). Research on gender and to some extent race/ethnicity demonstrates the effects of social categories on leadership emergence, though some debate persists about the mechanisms through which these social categories operate (see Berdahl, 1996 for a test of competing explanations of gender effects on leadership). Expectation states theory outlines a mechanism of leadership ascription, and future research may (a) apply expectation states theory outside of the domains of gender and race/ethnicity to assess the effects of other social categories, and (b) combine it with pattern/intersectional approaches to social categories. Considering multiple categories simultaneously and going beyond male/female and White/non-White distinctions to include a wider variety of ethnic categories, sexual orientation, nationality, religion, disability, etc. is necessary for leadership research, given increasing diversity in the workplace (Chrobot-Mason et al., 2014). Research may also (c) draw on the BIAS map to examine perceptions of competence and warmth in the ascription of leadership.

Only recently have scholars begun to discuss and test non-functional explanations of the relationship of leader emergence with stable personality traits and context-activated states. Researchers interested in traits are advised to (d) collect both self- and other-ratings of personality and ability (Lord et al., 1986). Achievement perspectives posit that self-ratings of traits are more relevant than other-ratings to understand leadership emergence, whereas ascription perspectives posit the opposite. Self-ratings are

expected to associate with functional behaviors directly, and with leadership perceptions indirectly (i.e., traits give rise to behaviors, which in turn shape peer perceptions of leadership). Other-ratings are expected to associate with leadership perceptions directly, and with functional behaviors indirectly (i.e., peer perceptions of traits shape peer perceptions of leadership, and in turn make enactment of certain behaviors possible). Scholars who want to acknowledge achievement in the relationship between nominal characteristics and leadership emergence may (e) measure self-perceptions (self-confidence, self-esteem, self-views as leader, etc.). Minority groups in society experience a generalized sense of inferiority (Jost et al., 2004), which might decrease their likelihood to claim leadership roles in a newly formed group.

Overall, a debate over the primacy of categorization versus functional behaviors is futile since functional behaviors influence leadership perceptions, and the reverse is true. Thus, research on both individual and collective leadership emergence is encouraged to examine both achievement and ascription as it moves forward (i.e., study how functional behaviors relate reciprocally to leadership perceptions). The following two sections review the antecedents of collective leadership, a nascent line of research.

5. The emergence of collective leadership through achievement

Research on the emergence of collective leadership through achievement has naturally drawn from team and teamwork literature. Group traits (i.e., inputs) include stable characteristics of a task group or team such as composition, size, tasks, interdependence, etc. (Marks et al., 2001; Mathieu et al., 2008). In contrast, emergent states include groups' collective efficacy, potency, safety climate, trust, cohesion, shared mental models, norms, affect, etc. Finally, group behaviors (i.e., processes) include "members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward organizing task-work to achieve collective goals" (Marks et al., 2001: 357). The trait, state, and behavioral model often applied to individuals can be superimposed to the group level such that group inputs represent stable characteristics that are often exogenous (i.e., traits that include global properties such as size but also composition in terms of individual member traits), and states include group properties that are more dynamic and vary as a function of context, inputs, processes, and

outcomes. The conventional definition of task-group processes (e.g., transition-action-interpersonal) matches the typology of functional leadership behaviors Morgeson et al. (2010) propose closely.

5.1. Traits

There is some interest in how stable group characteristics affect the emergence of collective leadership. One theme in collective leadership theory concerns group-level tasks and interdependence (e.g., Gronn, 2002; Pearce & Sims, 2000). Empirically, this theme is less developed than research on the composition of a group in terms of its members' traits. Specifically, members' collectivism value orientation has been studied. The average collectivist orientation, yet not the average power distance, has a positive effect on enacted, shared leadership roles across team members, including planning and organizing, problem solving, support and consideration, and development and mentoring (Hiller et al., 2006). In addition to the average, variation in collectivism matters. In virtual teams employed by many companies, diversity in in-group collectivism and conservation values increased shared leadership, measured as the average of perceived team proactive behaviors, while diversity in self-enhancement values decreased shared leadership (Hoegl & Muethel, 2010; Muethel et al., 2012). Again, there were no effects of power distance. In the same study, average social skills improved shared leadership, but there were no effects of performance-management skills or performance orientation. A higher female ratio increased shared leadership, but a higher mean age decreased it. Age diversity did not have the hypothesized negative effect, but national diversity had a positive effect on shared leadership. A functional/achievement explanation for these effects is suggested but not tested (e.g., young members of teams are more acquainted with the use of electronic devices and have more flexibility, both of which are required in the context of disperse collaboration that involves accomplishing complex, dynamic tasks; Muethel et al., 2012). The possibility is not examined that young members are perceived as better at electronic communication, though they are not necessarily so (Posthuma & Campion, 2009).

Although evidence of the effects of group composition in terms of values is now available, surprisingly little is known about composition in terms of personality and ability. Researchers should draw on Humphrey et al. (2007), who offer several propositions regarding how within-group variance in

extraversion and conscientiousness relates to group processes and emergent group leadership patterns. It is proposed, for example, that high variance in extraversion encourages emergence of a single leader, thereby improving group performance. A decade earlier, Barry and Stewart (1997) made a related but different suggestion; groups with a moderate proportion of extraverted members report higher leadership emergence than groups with too few or too many extraverted members. Unfortunately, this remained untested due to lack of within-group agreement on leadership ratings in the sample. Not focusing on collective leadership *per se*, Barrick et al. (1998) present pairwise correlations between mean, variance, minimum, and maximum concerning group members' personality traits and general mental ability, and a large number of group outcomes including viability, performance, cohesion, conflict, flexibility, communication, and workload sharing. Given distinct relationships between outcomes and trait configurations in groups, it remains to be hypothesized and tested whether and how ability and trait combinations relate to emergent collective leadership (Stewart, 2006; Stewart et al., 2011). At the intersection of trait and collective leadership theory, this is a worthwhile area for future research.

5.2. States

Scholars of collective leadership posit that group states (e.g., commitment and cohesion) and group behaviors are outputs in addition to inputs of collective leadership (Pearce & Sims, 2000; 2002). Accordingly, the effects of collective leadership on group performance through group-level mediators such as trust (Drescher et al., 2014), psychological safety (Liu et al, 2014), and positive affective tone (Hmieleski et al., 2012) have been demonstrated (see Wang et al., 2014 for a review). However, less research focuses on the effects of group states on collective leadership. Multisource, multimethod data collected at three points suggests that shared vision promotes emergence of multiple informal leaders in task groups (Zhang et al., 2012). In a longitudinal study, shared leadership—measured as leadership network decentralization—correlated with a group trait (i.e., collectivism) and state (i.e., trust), and increased over time (Small & Rentsch, 2010). The collectivism composition of the group correlated positively with shared leadership early in the group's life, but not subsequently, and trust measured early in the group's life did not influence shared leadership initially, but did later. Shared purpose, social

support, and voice, in addition to external coaching, affected shared leadership, measured as leadership network density, in a study of MBA teams (Carson et al., 2007). Unfortunately, shared purpose, social support, and voice were aggregated into a superordinate factor labeled *internal team environment* (i.e., a team state), yet social support and voice are facets of functional socioemotional behaviors. The conflation of intragroup environments and behaviors is not without problems (Marks et al., 2001), threatening collective leadership research. This review returns to this point later.

5.3. Behaviors

Contractor et al. (2012) offer a topology of collective leadership that integrates people, behavioral roles (i.e., leadership functions), and time. Related to this conceptualization, shared leadership is manifested in multiple leaders in multiple roles, and has been operationalized in terms of the number of members contributing behaviorally to the leadership of a task group (Bergman et al., 2012). The number of leaders that emerge in a group relates to the number of different leader behaviors exhibited (i.e., initiating structure, consideration, envisioning, and boundary spanning), so that when one leader emerges, one type of behavior tends to be exhibited, but when multiple members emerge, multiple behaviors are exhibited.

Communicative behaviors are important for collective—in addition to individual—leadership emergence, as demonstrated by two qualitative studies (Kramer & Crespy, 2011; Weibler & Rohn-Endres, 2010). Rooted in the premise that "communication is the currency of collective leadership" (Friedrich et al., 2009: 936), the framework for understanding collective leadership as selective use of team-member expertise suggests that shifting leadership responsibilities is a function of which individual expertise is most relevant to a problem. This framework links team members' abilities, skills, and knowledge to role behaviors, producing distributed/shifting forms of collective leadership. The framework suggests a number of propositions, most of which remain to be tested but some of which a longitudinal study addresses. Expressions of power shift among team members to align member capabilities (e.g., in marketing) with dynamic situational demands, but expressions of power are not always perceived as legitimate (Aime et al., 2014). Factors that shape perceptions of legitimacy are

arguably situational, but this is not tested. Situational factors likely matter, but research reviewed earlier shows that individual differences (including differences unrelated to competence) might shape perceptions of competence, expertise, and legitimacy.

5.4. Summary and future research

An interesting observation was made in a recent review of leadership in the plural (Denis et al., 2012): of nineteen contributions to shared leadership research, eleven were conceptual and/or normative, and only two examined antecedents of shared leadership. A few years later, the situation remains similar (see also D'Innocenzo et al., 2014). We know more about how collective leadership is delegated from above (e.g., Contractor et al., 2012; Klein et al., 2006; Locke, 2003; Pearce & Sims, 2002; Zhang et al., 2012; Friedrich et al., 2009) than how it emerges from within a group. Research at the collective level has to (a) directly apply typologies of functional behaviors in teams, thereby integrating research across multiple levels (see Section 3.4). Fulfilling a wider range of functional behaviors in task groups, as well as enacting collective leadership, may or may not benefit from diversity (e.g., in ability, knowledge and skills). For example, socioemotional skills and behaviors, which are undervalued at the individual level, likely have unique effects on collective leadership.

Most research is needed on group traits as antecedents of collective leadership, and researchers may (b) draw from extensive traditions in team design, which has shown that individual member traits and abilities combine to produce various outcomes (Barrick et al., 1998; Stewart, 2006). Furthermore, research may (c) consider other-ratings alongside self-ratings of traits (see Section 4.4). The scarcity of studies is surprising in light of interest in leadership traits at the individual level of analysis. This is a fertile area for multilevel research, particularly because research should (d) address challenges related to establishing causality among group states, group behaviors, and collective leadership (e.g., through adopting longitudinal designs). At the individual level, reverse causality between functional behaviors and leadership perception is likely, and there is no reason to expect that this is not the case at the group level. Similarly, a group state such as cohesion is just as likely to be influenced by collective leadership as it is to influence it (e.g., Pearce & Sims, 2002). Collective leadership research is as susceptible to biases

generally found in team literature, particularly when it comes to conflating intragroup states and behaviors in survey measures, a situation further complicated if researchers collect measures on leadership perception (see Marks et al.; 2001; Mathieu et al., 2008). Causality among collective leadership, group states (e.g., cohesion), and group performance is likely complex (Mathieu et al., 2015) and difficult to measure (Shondrick et al., 2010). In contrast, the configuration of any work group is less susceptible to the influences of collective leadership.

6. The emergence of collective leadership through ascription

Although limited, some research exists on the ascription dynamics during emergence of collective leadership. For example, a well-known effect of seating arrangement on individual leader emergence has been demonstrated to trickle up to the collective level, producing group-level implications for leader-centered versus distributed communication and decision-making (Cummings et al., 1974).

6.1. Traits

Gender compositions of groups matter, not only for individual leader emergence, but also for overall patterns of emergent group leadership. All-male groups are more likely than all-female groups to have one leader who contributes most to all facets of group performance, a centralized participation pattern, and a stable dominance order. In contrast, all-female groups are more likely than all-male groups to show equal participation and not develop stable status hierarchies (Berdahl, 1996). In intact manufacturing teams, the number of perceived informal leaders on a team divided by team size ("leadership dispersion") was positively related to gender composition (i.e., leadership dispersion was higher when females comprised a larger portion of those perceived as informal leaders) and negatively related to team size (i.e., leadership dispersion was lower in larger teams; Neubert, 1999). The positive effect of gender composition on team performance was much larger than the effect of leadership dispersion itself (but the magnitude of these effects was flipped with respect to team cohesiveness). In sum, limited evidence suggests that having more women in a group facilitates collective enactment of leadership, whereas having more men facilitates emergence of a single leader (see also Muethel et al., 2012). However, research can also examine whether these effects are non-linear (van Knippenberg &

Schippers, 2007), and contingent on context (Joshi & Roh, 2009) and time (i.e., stage in group's life). Time matters in task groups that are balanced on gender but not ethnicity. At time 1, ethnically diverse teams (i.e., comprised of members from three or more ethnic backgrounds) reported more interpersonal leadership than non-diverse teams, and non-diverse teams (i.e., comprised of White, U.S. Americans) reported more task and collective leadership (i.e., multiple members emerged as leaders). At time 2, there were no differences between teams, but at time 3, non-diverse teams again reported more task leadership, while ethnically diverse teams again reported more interpersonal leadership (Watson et al., 2002).

A social relations analysis of leadership raises an interesting question about the effect of group size, an important group input or trait, on emergent leadership patterns (Livi et al., 2008). Based on several older and recent studies, there is consensus in groups regarding who is a leader, consensus increases as group size increases, and the average degree of leadership does not vary much from across groups. These findings imply that collective leadership is (1) unlikely, but (2) more likely in small groups. Some researchers propose that increasing group size increases shared leadership (e.g., Seers et al., 2003), and others have shown that of all predictors, size has the strongest, positive effect on shared leadership, measured as leadership network density (e.g. Carson et al., 2007). It is likely that there is a curvilinear effect of group size on collective leadership (Pearce & Sims, 2000), so that collective leadership is lower in groups larger than those generally studied (e.g., Carson et al.'s teams had between 4 and 7 members). Several scholars have made a point about studying the effects of group size on both the density and centralization of collective leadership (D'Innocenzo et al., 2014; Nicolaides et al., 2014).

Overall, studies of collective leadership have simply controlled for group traits such as size and diversity. To some extent, lack of interest in group diversity is justified, given inconsistent main effects (Joshi & Roh, 2009). However, some newer approaches to diversity go beyond main effects. The study of faultlines, for example, which considers the effects of group member characteristics in combination rather than one at a time (Lau & Murnighan, 1998), suggests that faultlines fragment groups into subgroups and therefore affect group leadership. In an exploratory study of partially distributed teams, the configuration of the team and geographic, temporal, and cultural distances between subgroups had effects on emergent

leadership patterns (Ocker et al., 2011). These effects were summarized in testable propositions, but were not tested statistically. In another study with direct implications to collective leadership, participants evaluated peer group members using the Individual Process Scale (Barry & Stewart, 1997), which includes measures of individual behavioral contributions—task, process, and affective contributions (Lau & Murnighan, 2005). Participant ratings of same-sex and same-ethnicity peers on process and affective contributions depended more strongly on gender and ethnic faultlines than on gender or ethnic heterogeneity of the group. Ratings were more strongly positive when fautlines were stronger (i.e., when gender and ethnic categories overlapped), stemming from more pronounced categorizations of *us versus them*. Although perceptions of leadership—in addition to perceptions of behavioral contributions—were not studied, these findings reinforce the recommendation to examine the intersection of social categories, and suggest new avenues for collective leadership research.

6.2. States

A multi-level, longitudinal model of traits, states, behaviors, and perceptions, as they relate to the emergent patterns of leadership in task groups, was recently proposed and tested (DeRue et al., 2015). The density and centralization of emergent leadership in groups relates to perceptions of competence and warmth, and to group states and behaviors. At the group level, a dense pattern of warmth perceptions predicted emergence of more dense leadership. This effect occurred because at the individual level, members who viewed their groups as warm identified more strongly with the group, and as a result, contributed more informal leadership over time. In parallel, a centralized pattern of competence perceptions predicted emergence of more centralized leadership. This effect occurred because when group members were perceived as differentially competent, those perceived more competent took on and were granted roles that were more prototypical of leaders, whereas those perceived less competent were not afforded the same opportunities, and did not emerge as leaders to the same degree. Group-level leadership schemas (i.e., whether leadership was prototypically conceived as hierarchical or shared) moderated the relationship between competence and leadership centralization, but not between warmth and leadership density. This study is exemplary and unique in that it integrates stable group traits (i.e., incoming/average

leadership schemas), states (i.e., identification with the group), behaviors (i.e., taking on leadership roles), and perceptions (i.e., of competence and warmth) across levels of analysis to explain patterns of emergent leadership in groups (i.e., density and centralization of leadership perceptions).

6.3. Behaviors

Other research that integrates levels of analysis includes Joshi and Knight (2015). In a longitudinal field study of research and development teams, deference at the dyadic level had implications for teams. Due to perceived task contributions, low-status (i.e., less educated) actors deferred to high-status partners, while high-status (i.e., highly educated, male, and White) actors deferred only to other high-status partners. Actors also deferred to partners because of social affinity (i.e., liking based on demographic similarity), but this occurred symmetrically. Actors generally yielded to the opinions and perspectives of partners with whom they shared demographic attributes, regardless of status. For example, among non-White and female actors, gender and ethnic similarity to partners predicted deference because of social affinity, not because of perceived task contributions. Social categories of gender and ethnicity operated as powerful triggers of identity and categorization processes, leading to deference based on similarity rather than contributions. When deference was based on social affinity rather than task contributions, group performance suffered (Joshi & Knight, 2015).

In contrast to functional communication frameworks of collective leadership (e.g., Friedrich et al, 2009), it has been shown that when members of groups differ in perceived expertness ("expertness diversity"), they are more committed to and more likely to help those perceived to be more expert, a dynamic that frustrates intragroup learning and compromises group performance (Van der Vegt et al., 2006). Although not linking to leadership emergence directly, this suggests how perceptions of expertise, rather than actual expertise, influence task and interpersonal behaviors, potentially affecting collective leadership in a group. Similarly, while the mean and distribution of relational resources (i.e., how long members have worked with each other) relate positively to knowledge integration, the mean and distribution of experiential resources (i.e., members' organizational and professional tenure) relate negatively to knowledge integration (Gardner et al., 2012). These findings highlight the need for more

research on how group traits, including composition and diversity, affect communicative behaviors in groups and emergence of collective leadership.

6.4. Summary and future research

This review corroborates that research on collective leadership is largely gender-and color-blind (Ospina & Foldy, 2009), but this section highlights some exceptions. Others criticize extant research on team leadership that assumes teams are homogenous. Friedrich et al. (2009: 935) argue, "The first assumption under which [their] framework…operates is that team members are not all created equal." However, this framework accounts only for inequality in expertise and information since it assumes that shifts of power within a group are rooted in what expertise is required at a given time (Friedrich et al, 2009). However, members of groups often differ not only in terms of expertise, but also in terms of beliefs and social status. These three differences—in expertise, beliefs, and status—have dramatically different relationships with the dynamics and outcomes of task groups (Harrison & Klein, 2007; Carton & Cummings, 2012). Diversity in expertise, information, work experience, etc., also known as variety (Harrison & Klein, 2007), might produce emergent leadership as described by extant functional models (e.g., Friedrich et al, 2009; but see also Section 6.3).

However, the other two types of diversity are generally not modeled in literature on collective leadership. Diversity in beliefs, values, attitudes, etc., also known as separation (Harrison & Klein, 2007), produces identity subgroups that give rise to identity processes relevant to leadership (Hogg, 2001). Social identity approaches to leadership predict that leadership perceptions in a group are high (i.e., dense) when members match each other's mental models of leadership (i.e., are not separated by beliefs into identity subgroups; Carton & Cummings, 2012). Similarly, diversity in prestige, social status, authority, etc., also known as disparity (Harrison & Klein, 2007), produces status subgroups that give rise to status dynamics also relevant to leadership (Ridgeway, 2004). Social status approaches to leadership predict that hierarchical leadership centralized in the hands of a few group members is more likely when large disparities exist in group members' status (i.e., when high status resides entirely in a minority subgroup; Carton & Cummings, 2012).

Researchers may (a) study how diversity as separation and disparity, in addition to variety, affects emergence of collective leadership in task groups. This is a worthwhile topic of conceptual and empirical research. Of course, social categories such as gender, race, sexual orientation, etc. carry identity and status, both of which might produce ascription of leadership. Research on collective leadership is therefore encouraged to assess both identity and status. Research is also encouraged to (b) analyze how social categories intersect not just within individuals, but also within groups, producing faultlines (see also Section 4.4). Research should strive to (c) better understand the conditions that may facilitate participation and collective leadership in large groups. Since not only quality but quantity of participation is among the strongest predictors of individual leader emergence, including the emergence of highly centralized leadership in increasingly large groups, it is interesting to relate rates of participation and group size with collective leadership (Livi et al., 2008; Mullen et al., 1989). For example, assuming that members compete for airtime, what is the optimal group size and patterns of dominance/competence for (high yet equal) participation and leadership at the collective level?

7. Discussion

Groups in which leaders emerge outperform groups without emergent leaders (Goldman & Fraas, 1965; De Souza & Klein, 1995), and groups in which leaders emerge perform best when both the emergent, individual leader and non-leaders demonstrate leadership (Taggar et al., 1999). *The more, the better* premise of emergent leadership recently found support in three meta-analyses (D'Innocenzo et al., 2014; Nicolaides et al., 2014; Wang et al., 2014), and yet extant research on collective leadership focuses largely on the aggregate, failing to consider other ways in which emergent leadership configures (D'Innocenzo et al., 2014; Nicolaides et al., 2014). This might partially explain why collective leadership research neglects the critical difference between achievement and ascription. Ascription dynamics are particularly interesting in diverse groups (e.g., members are not the same height, do not subscribe to the same ideology, have different functional backgrounds, or are part of disparate generations), and diverse groups often have subgroups (Carton & Cummings, 2012). Aggregate measures such as density are problematic indices of shared phenomena (e.g., shared leadership) in groups that have subgroups

(Friedkin, 1981). Measures of aggregate leadership might therefore obscure dysfunctional leadership configurations (D'Innocenzo et al., 2014; Gockel & Werth, 2010; Nicolaides et al., 2014) that result from ascription and not achievement.

This article distinguishes the achievement and ascription mechanism of leadership emergence to highlight the critical difference between "Pat contributes more, thus I perceive Pat as a leader," and "I perceive Pat as a leader, thus Pat contributes more." This distinction is essential to studying the emergence of leadership, and is important to understanding when emergent leadership patterns are functional (Anderson & Brown, 2010). One goal of synthesizing research in terms of achievement and ascription was to suggest that findings at the individual level can guide research on the antecedents of collective leadership. Directions for future research were indicated throughout the review; Table 2 summarizes these. Collective leadership scholarship should draw on the extensive tradition on the individual level that debates the primacy of functional behaviors and nominal categories, and take care when designing measures (i.e., by being aware that measures of demographics/traits at time 1, emergent group states and behaviors at time 2, and emergent leadership perceptions at time 3 cannot demonstrate causality).

Insert Table 2 here

7.1. Contributions

This article contributes to leadership research in at least three ways. First, it highlights the implications of achievement versus ascription for causality, and therefore measurement. This is relevant particularly on the collective level where causality is more complex and measures may be confounded. In both the achievement and ascription views, leadership emergence is consensus among group members that one or more individuals could serve the group more usefully in attaining group goals. What the achievement and ascription approaches disagree about is how much social interaction is needed for consensus to form (i.e., after members observe each other's behavioral contributions over time or as soon

as members form first impressions based on traits). Thus, this review underscores ways in which time and the lifespan of a group matter. Although longitudinal research is desirable, it is not always feasible (Dinh & Lord, 2012; Dinh et al., 2014). This review also suggests ways in which collective leadership scholars can recognize both achievement and ascription through simpler designs, specifically through a framework that distinguishes traits, states, and behaviors as predictors of leadership perceptions.

Ways future research can explore trait predictors of collective leadership were suggested. Group configuration in terms of personality, ability, demographics, social group membership and other stable characteristics of individuals is less easily influenced by emergent leadership patterns than group states such as cohesion and trust, or group task and socioemotional behaviors, are. Two recent meta-analyses found that shared leadership relates more strongly to attitudinal outcomes, behavioral processes, and emergent team states than to team performance (Nicolaides et al., 2014; Wang et al, 2014). The strength of this relationship suggests that whenever group states and behavioral processes are theorized to predict collective leadership, reverse causation must be explored. Studying exogenous compositional and configurational correlates of emergent leadership is less problematic in that regard, though in the long run, attraction, selection, and attrition shaped by emergent leadership in real-life groups might lead to changes in group composition and configuration.

Second, the article provides suggestions to link individual and collective levels of analysis. Specifically, suggestions for future research on group traits are motivated by abundance of research on individual traits and individual leader emergence alongside scarcity of research concerning how individual traits combine at the group level. This is an obvious place to begin studying how individual elements combine to produce emergent collective leadership. Emphasis on composition and configuration should be complemented with a holistic perspective (Fulmer & Ostroff, 2015), and does not remove the need to study global (e.g., group size) and shared group properties (e.g., group states such as cohesion), as well as upper-level influences. Research on leadership in the plural should consider multilevel issues (Denis et al., 2012) in conjunction with the structural properties of collective leadership (D'Innocenzo et al., 2014; Nicolaides et al., 2014). The study of density and centralization of collective leadership fits well

with study of overall group composition and configuration (e.g., in terms of traits). Group averages of traits (and states; Carson et al., 2007) might be better suited to explain shared leadership as an average or density, while variance and diversity might predict leadership centralization better (Kozlowski & Klein, 2000; Mathieu et al., 2008). How different group composition/configuration measures, including complex measures such as faultlines, relate to properties of collective leadership is a worthwhile area of study (Nicolaides et al., 2014).

Third, the article connects disconnected strands of research by combining several emerging (and not established: Dinh et al., 2014) theories of leadership, including team leadership, emergence of leadership, and identity-based leadership. Team leadership research most often builds on established leadership theories such as trait and behavioral theories, but may fruitfully combine with emerging themes such as leadership emergence and identity theories (Dinh et al., 2014). This article hints how theories of social identity and leadership categorization can help move research forward. As specific directions for research, collecting self- and other-ratings of traits (i.e., in line with leadership categorization) and attending to social affinity and *us versus them* mechanisms in diverse groups (i.e., in line with social identity) are proposed.

This article has implications for research on ascriptive inequality in addition to leadership research. Inequalities in the broader society reproduce in the hierarchies of task groups and organizations, and exacerbate societal inequality in turn (Ridgeway, 2004; Soylu & Sheehy-Skeffington, 2015). Research on task groups, including leadership emergence research, can help explore the "how" questions about the specific mechanisms through which day-to-day interactions reproduce societal inequality over the long term (DiTomaso et al., 2007; Reskin, 2003). Restructuring work around task groups has promised to reduce stereotyping and ascriptive inequality in organizations (Kalev, 2009). It is unlikely that this promise will be realized if emergent leadership in task groups reproduces societal inequalities.

7.2. Limitations and future research

Future research that synthesizes leadership emergence literature should integrate not only the individual and collective, but also the dyadic level of analysis. For example, it should acknowledge

followers, in addition to leaders (Uhl-Bien et al., 2014). Repeated dyadic acts of influence and deference (e.g., DeRue & Ashford, 2010; Joshi & Knight, 2015) likely shape emergent leadership patterns in groups. Emphasizing the interface between individuals and groups, the levels at which most leadership emergence research is produced, this review suggests how lower-level factors influence collective leadership *from within*, but it does not explicate interpersonal dynamics. Relatedly, the review passes over important factors *from without*. This is partially because most reviewed research considers situational and contextual factors in tandem with individual traits, states, and behaviors, and rarely in isolation (exceptions include Howells & Becker, 1962; Ward, 1968). Research on collective leadership has just begun to consider the context within which groups are embedded (e.g., White et al., 2014). To some extent, accounting for social categories requires and presupposes considering social contexts. However, it is necessary for future research to do so explicitly. Future multilevel research on leadership emergence should emphasize not only the individual and group, but also dyadic and contextual factors.

7.3. Conclusion

A quotation from *Twelfth Night* illustrates the irony in achievement. Hard work is just one mechanism that may produce "greatness" and superior social status. Ascription matters as much as achievement in the emergence of leadership; perhaps even chance matters (Lynn et al, 2009). Employed extensively in individual-level research, achievement (i.e., functional behaviors) and ascription (i.e., nominal characteristics) have even been compared and contrasted. Controversies remain (see also Levine & Moreland, 1998), but most research on collective leadership overlooks ascription. This review simultaneously introduces status and multilevel issues on the agenda of collective leadership research, as encouraged (Denis's et al., 2012), by identifying that the emergence of individual and collective leadership is a matter of achievement and ascription.

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Table 1: Research on Antecedents of Leadership Emergence in Groups

	Emergence of Individual Leadership		Emergence of Collective Leadership	
	Achievement Mechanism	**Ascription Mechanism**	**Achievement Mechanism**	**Ascription Mechanism**
Traits	*Individual Personality* Bendersky & Shah, 2013 Colbert et al., 2012 Judge et al., 2002 *Individual Ability* Emery, 2012 Judge et al., 2004 Wolff et al., 2002 *Personality + Ability* Foti & Hauenstein, 2012	*Individual Gender* Eagly & Karau, 1991 Ridgeway, 2001 *Individual Race/Ethnicity* Galinsky et al., 2013 Sy et al., 2009 *Individual Personality & Ability* Anderson & Kilduff, 2009 Melwani et al., 2012	*Group Composition of Individual Traits* Barry & Steward, 1997 (personality) Hiller et al., 2006 (values) Muethel et al., 2012 (demographics) *Group-Level Traits: Tasks & Interdependence* Gronn, 2002 Pearce & Sims, 2000	*Group Composition of Individual Traits* Berhdahl, 1996 (gender) Neubert, 1999 (gender) Watson et al., 2002 (ethnicity) *Group-Level Traits: Size* Livi et al., 2008
States	*Individual Motivation* Chan & Drasgow, 2001 Sorrentinno & Field, 1986 *Individual Skills* Riggio et al., 2003 Wolff et al., 2002	*Individual Motivation* Kilduff & Galinsky, 2013	*Group Composition of Individual States* Carson et al., 2009 Small & Rentsch, 2010	*Group Composition of Individual States* DeRue & Ashford, 2010
Behaviors	*Functional Behaviors* Day et al., 2004 Lord, 1977 Morgeson et al., 2010 *Quality of Communication/ Participation* Balthazard et al., 2009 Bass, 1949; 1954	*Functional Behaviors* Lanaj & Hollenbeck, 2015 *Quantity of Communication/ Participation* Stein & Heller, 1979 Mullen et al., 1989	*Functional Behaviors* Bergman et al., 2012 Contractor et al., 2012 *Communication* Kramer & Crespy, 2011 Friedrich et al., 2009	*Functional Behaviors* Joshi & Knight, 2015 *Communication* Van der Vegt et al., 2006

Table 2: Suggested Topics for Future Research

Which functional behaviors are consistently associated with both leadership emergence and task group effectiveness, if any? *(Section 3.4; 5.4)*	Future research at both individual and collective levels should be integrated along existing typologies of functional behaviors (e.g., Day et al., 2004; Morgeson et al., 2010), and needs to include measures of both leadership emergence (individual or collective) and leadership effectiveness (leader or group effectiveness). This is critical to disentangling achievement from ascription.
How do patterns of functional behaviors associate with emergence of a single leader, two or three leaders (e.g., task leader, socioemotional leader, boundary spanner) and multiple leaders (i.e., collective leadership)? *(Section 3.4; 5.4)*	It is possible that one group member engages in all functional behaviors necessary and sufficient to be perceived a leader. However, when groups collectively enact leadership, it is unlikely that each member exhibits each functional behavior (Bergman et al., 2012). Functional behaviors might need to follow a distribution for collective leadership to emerge. The task/socioemotional leader distinction remains interesting even though socioemotional behaviors appear to be under-rewarded with leadership. Future research may draw on and rejuvenate earlier research on role differentiation (Bales, 1955; Slater, 1955).
How does collective leadership emergence (and the pattern of functional behaviors in groups) relate to group configuration of individual traits? *(Section 5.4; 6.4)*	The group configuration of personality traits (e.g., the Big Five, dominance), ability (e.g., cognitive, emotional), and nominal characteristics (e.g., gender, race/ethnicity, height) is likely to have implications for emergence of collective leadership. It is also likely to have implications for the distribution of functional behaviors in groups. The density of collective leadership might link more tightly to averages in traits, while the centralization—to variance and diversity indices (Kozlowski & Klein, 2000) but this needs to be hypothesized and tested.
What are the effects of social categories, particularly categories other than gender and race/ethnicity, on leadership emergence? *(Section 4.4; 6.4)*	To hypothesize how members of social groups are perceived as leaders, researchers should draw, for example, on the BIAS map (Cuddy et al., 2007). Since the map models intergroup relations, it can also be used to assess how subgroups (Carton & Cummings, 2012) influence collective leadership. Considering group diversity as separation and disparity (that potentially produce identity and status subgroups) might help incorporate social identity and expectation states theory into examination of collective leadership.
How does the pattern of social categories relate to leadership emergence? *(Section 4.4; 6.4)*	Intersectionality (Sanchez-Hucles & Davis, 2010) should be applied to assess leadership disadvantage some individuals encounter. At the group level, research on faultlines (Lau & Murnighan, 1998) may help explain how patterns of social categories within a group shape collective leadership.
How do self- and other-ratings relate to leadership emergence? *(Section 4.4; 5.4)*	Achievement perspectives posit that self-ratings of traits are more relevant than other-ratings to understand leadership emergence; ascription perspectives posit the opposite (Lord et al., 1986). Scholars who want to acknowledge achievement in the relationship between nominal characteristics and leadership emergence may measure self-perceptions (e.g., self-views as leader) and study whether minority groups are less likely to claim (apart from be granted) leadership roles in newly formed group.
How do group size and degrees of participation interactively relate to collective leadership emergence? *(Section 6.4)*	It is interesting to relate rates of participation with collective leadership, particularly as contingent on group size (Livi et al., 2008; Mullen et al., 1989). High variance in participation leads to highly centralized emergent leadership, especially in larger groups. What are the conditions that make collective leadership (i.e., of high density and low centralization) possible in large groups?
What is the relationship between context-activated individual and group states, functional behaviors and leadership emergence? *(Section 7.2: Limitations and future research)*	Both achievement and ascription perspectives, which focus on functional behaviors and nominal characteristics, respectively, overlook context-activated states. Situational and contextual factors can give rise to both individual and group states with long-term effects on leadership patterns in groups, but they were not emphasized in this review. This is due partially to the scarcity of studies that assess these factors. Collective leadership research can extend knowledge at the individual level that considers both achievement and ascription (e.g., Kilduff & Galinsky, 2013).