Running head: Characterizing Positive and Negative Voicers in Sport Teams

**Characterizing Positive and Negative ‘Voicers’ in Elite Sport Teams: The Role of the
Five Factor Model and Narcissism in Players’ Frequency and Passing on of Voice**

Abstract

Objective: This study examined the role of the Five Factor Model and grandiose narcissism in players' positive (i.e., constructive voice, supportive voice) and negative voice (i.e., defensive voice, destructive voice) in elite sport teams. **Method:** Players from six field hockey and seven korfbal teams from the two highest national levels were assessed for four weeks. Using social network analyses, players' personality was related to their self-reported voice frequency, their voice frequency as perceived by all teammates (other-ratings), and the extent to which they pass on voice. **Results:** Extraversion was positively related to players' frequency of positive and negative voice. Other traits such as conscientiousness and emotional stability were only related to, respectively, positive or negative types of voice. Not all personalities (e.g., extraversion) were consistent in how they assess their own voice versus how others perceive this. Interestingly, traits such as extraversion, emotional stability and the agentic facet of narcissism were found to predict the passing on of voice. **Conclusion:** This study explored the importance of personality for (a) players' frequency of a differentiated set of positive and negative voice and (b) the extent to which they function as 'gates' that more covertly pass on voice. Further, the results provide perspective on how specific personalities view their voice behavior versus how their teammates perceive their voice behavior. In this way, this study is a first step in identifying players who have the potential to endanger or strengthen a team in a clear or subtle, yet influential way.

Keywords: Five Factor Model, narcissism, voice behavior in sport teams, social network analyses

Characterizing Positive and Negative ‘Voicers’ in Elite Sport Teams: The Role of the Five Factor Model and Narcissism in Players’ Frequency and Passing on of Voice

Intra-team communication is a key process underlying performance in interdependent team settings (Marks, Mathieu, & Zaccaro, 2001). In particular, voice behavior, defined as “an individual’s voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of the work environment” (Maynes & Podsakoff, 2014, p. 88), has commonly been believed to be beneficial for team performance (e.g., Morrison, 2011, 2014). However, several studies from sport and organizational psychological literature suggest that voice can function as a double-edged sword in sport teams and businesses. On the one hand, voice can consist of positive behaviors, such as giving constructive suggestions, correcting and defending others. Displaying such positive voice behavior has been shown to result in beneficial outcomes for individuals and teams in sports and organizational contexts. For example, positive ‘voicers’ obtain better impressions and career outcomes, while also improving group cohesion, decision making, commitment, effort and performance (Morrison, 2011, 2014; Ntoumanis, Taylor, & Thogerson-Ntoumani, 2012; Vazou, Ntoumanis, & Duda, 2005). On the other hand, voice can also take the form of negative behaviors, such as covertly criticizing organizational policies, other team members and coaches behind their backs or voicing excuses for failures (Kassing & Anderson, 2014; Maynes & Podsakoff, 2014; Van Dyne, Ang, & Botero, 2003; Van Puyenbroeck, Stouten, & Vande Broek, 2019). Such pessimistic and destructive tones can be harmful for individuals who express such voice behaviors as these persons are often perceived to be less trustworthy (Maynes & Podsakoff, 2014), while their behavior can also negatively affect teams’ cohesion and performance (Cope, Eys, Schinke, & Bosselut, 2010; Maynes & Podsakoff, 2014). Given the important role of positive and negative voice behaviors for a team’s functioning and performance, rendering insights about the antecedents of different types of positive and

negative voice is crucial. Such insights would provide leaders and teams with knowledge about how they could manage these voice behaviors, which is especially relevant in competitive team sports settings. In such settings, outbursts in negative voice frequently occur as they can be rapidly triggered by situational circumstances such as a single game loss (Van Puyenbroeck et al., 2019). Preventing such outbursts from spreading throughout the team and maintaining an atmosphere in which players are displaying positive voice is often crucial to optimize the team's functioning and to prevent a negative impact on cohesion and performance.

Regarding antecedents of voice, research shows that individuals' engagement in voice depends on their personality (e.g., LePine & Van Dyne, 2001; Morrison, 2014; Nikolaou, Vakola, & Bourantas, 2008). However, these previous studies conceptualized voice as change-oriented, constructive communication to improve the current situation. By considering voice as a positive well-intentioned type of behavior, these studies did not account for (a) the fact that, apart from positive voice, people can also engage in negative voice, and (b) that both positive and negative voice cannot be captured using a single voice behavior, but instead pertain to a collection of individual voice behaviors. To our knowledge, research on dispositional antecedents of negative voice are scarce and limited to one study in a business setting that has related personality to different types of positive and negative voice (Maynes & Podsakoff, 2014). However, because they aimed to develop a voice measurement, studying the personality-voice relationships was not at the core of the paper and personality was operationalized using only the Five-Factor Model (FFM: Costa, 1996; Costa & McCrae, 1992; McCrae & John, 1992), implying that the relation with dark traits was not tested.

Here, we not only examine the Big Five traits but also study the role of narcissism, being a dark side personality trait (Schyns, 2015). More specifically, this study will focus on grandiose narcissism, which refers to a general, non-pathological form of narcissism as a

personality trait, characterized by having an inflated self-image and tendency to maintain superiority (e.g., Back et al., 2013; Morf & Rhodewalt, 2001). On the one hand, grandiose narcissism consists of an agentic subdimension containing characteristics such as exhibitionism, self-promotive tendencies, authoritativeness, high self-esteem and social potency (e.g., Back et al., 2013; Crowe, Lynam, Campbell, & Miller, 2019). These elements might cause players to thrive well in performance-oriented environments such as sport because these settings offer them the opportunity for glory (Roberts, Woodman, & Sekides, 2017). On the other hand, grandiose narcissism also consists of an antagonistic subdimension covering characteristics such as exploitativeness, entitlement, egotism and antisocial tendencies (e.g., Back et al., 2013; Crowe et al., 2019; Miller et al., 2016). These elements might especially be triggered in sport as it is also a setting in which athletes encounter failures, such as negative performance-feedback, losses, setbacks and being outperformed by teammates, which might threaten grandiose narcissists' superior self-image.

In addition to the lack of systematic research on the relation between personality and both positive and negative voice, previous studies only focused on frequency of voice behavior (e.g., LePine & Van Dyne, 2001; Nikolaou et al., 2008). As a result, these studies ignored the probability of players passing on voice after its reception. Players who function as such 'gates' that pass on voice from one teammate to another take up an influential position within the team as they are capable of accelerating or decelerating the diffusion of negative and positive voice-flows (Freeman, 1979). Such players instill destructive or defensive tones within the team or, respectively, take up a coordinative role. Identifying such players is crucial as the diffusion of negative (positive) tones can substantially decrease (increase) cohesion, progress and performance (Cope et al., 2010).

Most studies related voice behavior to personality traits using cross-sectional designs (e.g., LePine & van Dyne, 2001; Nikolaou et al., 2008). In such designs, participants are

instructed to reflect about a longer time period regarding the amount of voice their team members displayed. However, voice can fluctuate during very short time periods (Morrison, 2011), and players' perceptions of their teammates' voice behavior will be biased by the prevailing power and social relations, hierarchy and norms within the team. Such a design would result in an inaccurate measurement of actual voice behavior. This study will address this issue by repeatedly assessing voice over short time-intervals, which will result in more reliable and valid voice measurements in order to test the hypothesized relations.

To conclude, this study will explore the role of both the FFM and narcissism in the prevalence of different types of positive and negative voice in elite sport teams. In this study, we will first of all contribute to the sport and voice literature by expanding the scarce knowledge about antecedents of negative (types of) voice behavior in sport teams. In a similar vein, we will also contribute to the accumulation of evidence about dispositional antecedents of a differentiated set of positive voice behaviors. Second, we will move beyond self-reports of voice behaviors, which are inherently limited by several methodological issues (Morrison, 2011, 2014). For example, Burris, Detert, and Romney (2013) found that respondents' self-reported voice behavior can substantially differ from the amount of voice they produce according to their environment. Relating self-reported personality traits to self-reported behavior might also result in overestimated effect sizes (Back & Egloff, 2009), making it hard to perform a strong test of the personality-voice relationship with only self-ratings. To circumvent this issue, Breil et al. (2019) indicate that including other-reports, and more specifically interaction partner-reports of behavior, provides additional value in testing the relation between personality and social behavior. Accordingly, we draw on self-ratings as well as such other-ratings (by the teammates) of voice behaviors, which will also provide insights on how particular personalities view themselves in terms of voice behaviors as compared to how they are being perceived by their teammates. Third, while previous studies

have exclusively focused on predicting the amount of voice or the probability of expressing voice behavior, we will additionally focus on the extent to which one passes on voice behaviors within the team. Fourth, we will conduct an experience sampling approach by frequently assessing voice over short-term intervals in order to obtain a more valid and reliable voice measurement.

A Differentiated Set of Voice Behaviors

Voice research has mainly been dominated by a focus on voice as inherently constructive and improvement-oriented (Morrison, 2011). More recently, however, and based on the seminal work from Gorden (1988) and Hirschman (1970), others argued that voice needs to be considered as a more general construct pertaining to the expression of ideas, information and opinions (Maynes & Podsakoff, 2014; Van Dyne et al., 2003). These expressions need to be openly communicated, focused on influencing the environment or context, and received by others within the organization or team (Maynes & Podsakoff, 2014). While such expressions will be predominantly verbal, this is no necessary precondition to be considered as voice because, for example, communication can also run through digital channels (Hirschman, 1970; Maynes & Podsakoff, 2014; Van Dyne et al., 2003).

Most importantly, the consideration of voice as a more general construct, including these features, does not limit voice to be improvement-oriented and leaves room for fine-grained operationalizations of positive and negative types of voice. Maynes and Podsakoff (2014) developed an organizing framework of voice based on two dimensions, which allows distinguishing four types of voice behaviors. A first dimension distinguishes positive voice behaviors (i.e., voice aimed at encouraging, endorsing and advocating) from negative voice behaviors (i.e., voice aimed at stopping, blocking and discouraging). A second dimension differentiates voice behaviors that preserve the status quo from voice behaviors that challenge the status quo. Based on both dimensions, Maynes and Podsakoff (2014) distinguished

supportive voice (i.e., positive, preserving), constructive voice (i.e., positive, challenging), defensive voice (i.e., negative, preserving) and destructive voice (i.e., negative, challenging).

Supportive voice pertains to voice behaviors aimed at preserving the status quo in a promotive or positive manner. This type of voice includes voluntarily expressing support for the existing state of affairs, the current objectives and policies and defending them when they are being criticized. Constructive voice is another type of positive voice but is aimed at challenging the current state of affairs by voluntarily expressing ideas or opinions for improvement. Defensive voice behavior, in turn, aims to preserve the status quo in a prohibitive or negative way, including the expression of resistance to changes in procedures or policies, even when they have merit (Maynes & Podsakoff, 2014). Accordingly, defensive voice has been conceptualized as self-protective behavior, including expressing external attributions for outcomes or making excuses after failures (Van Dyne et al., 2003). Voicing external attributions comprises an opposition to change (i.e., adapting) and the protection of one's self-worth, even though one could learn from their mistakes and thereby benefit their own and the team's improvement. Finally, destructive voice is a negative type of voice, encompassing attempts to change the status quo by bad-mouthing, expressing debasing comments and overly criticizing the prevailing policies, procedures and/or objectives (Maynes & Podsakoff, 2014).

Also, team sport settings are undeniably subject to positive and negative voice behaviors. In line with the conceptualization of supportive voice, players need to try to reverse critical noises or refute negative comments when these arise as it is necessary to internally manage negative interpersonal behaviors in order to prevent them from affecting the team's functioning (Felps, Mitchell, & Byington, 2006). Players also tend to engage in constructive voice drawing on the idea that such voice allows correcting team members, which in turn should improve their and their team's functioning (Vazou et al., 2005).

Moreover, instead of trying to adapt and overcome their own limitations, players might utter excuses and external attributions for mistakes (e.g., Mezulis, Abramson, Hyde, & Hankin, 2004). In line with the idea of destructive voice behavior, it is not uncommon for players to express negativity within a team by covertly bad-mouthing team members or coaches (Cope et al., 2010; Kassing & Anderson, 2014; Van Puyenbroeck et al., 2019). To conclude, refuting negative comments, correcting others in function of a more optimal functioning, expressing excuses after failure and talking badly about team members or talking badly about the coach can be denoted as supportive voice, constructive voice, defensive voice, destructive voice about team members and destructive voice about the coach, respectively.

These constructs of positive (supportive, constructive) and negative (defensive, destructive) voice in sport teams partially align with prosocial and antisocial behavior. Framed within the domain of morality, prosocial and antisocial behavior are described as a wide range of interpersonal behaviors intended to benefit or, respectively, harm others (Batson & Powell, 2003; Dovidio, Piliavin, Schroeder, & Penner, 2005). In sport, prosocial behavior is measured as sportsmanship, helping teammates, and providing positive and constructive feedback (Kavunassu & Boardley, 2009). Some of these specific behaviors (e.g., constructive feedback) clearly show similarities with positive voice (e.g., constructive voice). Sport-specific antisocial behavior has been operationalized as a collection of behaviors such as swearing, aggression towards opponents, rule-breaking, and openly criticizing teammates or opponents (Kavunassu & Boardley, 2009), thereby showing some substantive overlap with negative voice behavior (e.g., covertly bad-mouthing teammates).

However, as opposed to the different specific types of voice, sport scientists have examined prosocial and antisocial behaviors as an umbrella construct in sport, thereby not focusing on specific behaviors such as constructive feedback (Kavunassu & Boardley, 2009). Antisocial behavior also mainly includes overt behaviors (e.g., verbal aggression) instead of

covert behavior such as destructive voice about teammates. In addition, prosocial and antisocial behaviors have been studied as moral behaviors and are often framed in terms of how they (intent to) affect others well-being (Kavunassu & Boardley, 2009; Rutten et al., 2007). This does not correspond to voice behaviors, which are mostly studied in terms of contributing to improvement, decision-making, performance and group functioning (Morrison, 2011, 2014).

Personality: The Five Factor Model and Narcissism

Research on the relation between personality and social outcomes is vastly expanding (e.g., Back & Vazire, 2015). This research field has already related personality traits to a wide range of social or interpersonal outcomes such as status in groups, leadership behaviors in teams, relationship commitment, friendship, and prosocial and antisocial behavior (e.g., Anderson, John, Keltner, & Kring, 2001; Franssen, Boen, Haslam, Steffens, & Vande Broek, 2019; Habashi, Graziano, & Hoover, 2016; Harris & Vazire, 2016; Jackson, Dimmock, Gucciardi, & Grove, 2010; Jackson, Dimmock, Gucciardi, & Grove, 2011; Miller & Lynam, 2001; Rauthmann, 2012). Importantly, personality effects were revealed for actors and partners, and for self-, peer- or interaction partner-rated behavior. To illustrate, Jackson et al. (2011) found that players who scored high on extraversion, reported higher relationship commitment within their coach-athlete dyad, but also coaches reported higher commitment towards these players. In other words, there is clear evidence that illustrates the potential role of personality in social behaviors and relations in groups, teams, and among peers.

Probably the most commonly used model within the domain of personality psychology is the Five Factor Model (Costa, 1996; Costa & McCrae, 1992; McCrae and John, 1992). According to this model, personality can be described by five overarching personality factors or traits, usually labelled extraversion, agreeableness, openness, conscientiousness, and emotional stability (or neuroticism). Extraversion refers to the

frequency and intensity of social interactions, with extraverts being talkative, sociable, and outgoing (Barrick & Mount, 1991; Costa & McCrae, 1992). Research based on the interpersonal circumplex (IPC: Gurtman, 2009; Wiggins, 1979), showed that extraversion predicts more self-assured, dominant, and assertive behavior (DeYoung, Weisberg, Quilty, & Peterson, 2013; McCrae & Costa, 1989) and people who are highly extraverted are comfortable to express their opinions and will speak up when they think it is required (Crant, Kim, & Wang, 2011; LePine & Van Dyne, 2001). As extraversion is related to being more expressive in general and effusively responding (Swann & Rentfrow, 2001), it could also be expected to predict more negative voice. However, several meta-analytic reviews demonstrated a weak to non-significant link between extraversion and antisocial behavior (Cale, 2006; Miller & Lynam, 2006). Heisel, La France, and Beatty (2003) even revealed that self-reported extraversion was associated with less peer-rated verbal aggression. Based on these findings, we formulated no specific hypotheses regarding the relation between extraversion and negative types of voice, and took an exploratory point of view on this relation. To conclude, we hypothesize:

Hypothesis 1: Players' extraversion is positively related to the frequency with which they express supportive voice (Hypothesis 1a) and constructive voice (Hypothesis 1b).

Agreeableness pertains to the quality of one's interpersonal orientation, with agreeable individuals being compassionate, likable, and cooperative (Costa, 1996). In addition to extraversion, agreeableness is a trait that is consistently related to interpersonal tendencies, with agreeableness predicting warm and polite interpersonal behaviors (DeYoung et al., 2013; McCrae & Costa, 1989). Further, this trait has been associated with helping, conflict resolution, and inter- and intra-team cooperation (Caprara, Alessandri, & Eisenberg, 2012; Graziano & Tobin, 2013; Habashi et al., 2016). Agreeableness also predicts less antisocial behaviors such as behavioral aggression and making hurtful comments or cursing

to coworkers (e.g., Lee, Ashton, & Shin, 2005; Martin, Watson, & Wan, 2000). People scoring high on agreeableness also value social coherence, conformity, and stability (e.g., Barrick & Mount, 1991; LePine & Van Dyne, 2001). We hypothesized the following:

Hypothesis 2: Players' agreeableness is positively related to the frequency with which they express supportive voice (Hypothesis 2a), constructive voice (Hypothesis 2b), and negatively related to the frequency with which they express destructive voice about team members (Hypothesis 2c) and destructive voice about the coach (Hypothesis 2d).

Openness can be described as actively seeking and valuing new experiences (Costa & McCrae, 1992). Based on this definition alone, one might expect players scoring high on openness to be more likely to express change-oriented voice (i.e., constructive and destructive voice). However, studies focusing on constructive voice revealed no predictive value of openness (Nikolaou et al., 2008). Others research revealed that despite the fact that individuals who are highly open to experience are indeed more open to new ideas from others (McCrae & Sutin, 2009), they have also been shown to be less cooperative and friendly (Stewart, Fulmer, & Barrick, 2005). Because of several mixed or nonsignificant findings regarding the link between openness and interpersonal behavior (Ozer & Benet-Martinez, 2006), which are in line with the notion that openness to experience is the most heterogeneous trait within the Big Five model (Hough, 2003), we proposed no specific hypotheses regarding the relation between openness to experience and voice.

Conscientiousness refers to the tendency to work hard, be punctual and show persistence towards achieving particular goals (Costa & McCrae, 1992). Individuals who are highly conscientious are generally very responsible, dependable and display more prosocial behaviors such as helping and consoling (Crant et al., 2011; Kanacri et al., 2014). Hence, highly conscientious players can be expected to correct others, and to take their responsibility to reverse criticism when it arises. However, empirical evidence regarding the link between

negative interpersonal behaviors and conscientiousness is rather mixed. On the one hand, it has been related to effectively handling stressful situations, less interpersonal deviance and less antisocial behaviors (Carver & Connor-Smith, 2010; Lee et al., 2005; O'Neill et al., 2011). At the same time, conscientiousness has been shown to be a positive predictor of abusive supervision (Camps, Stouten, & Euwema, 2016) and the use of abusive interpersonal tactics for goal achievement (e.g., Liu, Liao, & Loi, 2012). For this reason, we opted to explore the relations between conscientiousness and defensive and destructive voice. Regarding positive types of voice, we hypothesized the following:

Hypothesis 3: players' conscientiousness is positively related to the frequency with which they express supportive voice (Hypothesis 3a) and constructive voice (Hypothesis 3b).

Emotional stability refers to one's tendency to experiencing stable moods over time, even during stressful experiences (Barrick & Mount, 1991). Individuals who are highly neurotic, which corresponds to having a low level of emotional stability, have a general tendency towards experiencing negative affect, are highly anxious and insecure (Barrick & Mount, 1991; Costa & McCrae, 1992; Judge & Bono, 2001). In this sense, individuals often suppress voicing their opinions because of insecurity or fear of repercussions and image (e.g., Milliken, Morrison, & Hewlin, 2003; Morrison & Milliken, 2000). It can be argued that players scoring high on emotional stability are able to manage or reappraise these emotions under pressure and will therefore dare to correct others or defend the current state of affairs when it is being criticized. However, Hilbig, Glöckner, and Zettler (2014) did not find any relation between neuroticism and prosocial value orientation, which is a predictor of cooperation. Other empirical work revealed that neuroticism was related to increased stress in helping situations but unrelated to the actual decision to offer help (Habashi et al., 2016). The relation between neuroticism and negative interpersonal or antisocial behaviors, is more established and verified. Neuroticism has been linked to hostile submissiveness and being

quarrelsome (Côté & Moskowitz, 1998; Smith, Traupman, Uchino, & Berg, 2010). Neurotics also express more (direct and indirect) criticism, ask questions in a hostile manner and avoid responsibility in relationship problems (McNulty, 2008). They also display more self-handicapping behavior and are more likely to externally attribute causes for mistakes or underperformances (Ross, Canada, & Rausch, 2002), aligning with the notion that neurotics respond in maladaptive ways to changes in the environment (Barrick & Mount, 1991).

In addition, highly neurotic individuals are more susceptible for negative emotions and will quickly adopt or mirror others' emotions (Doherty, 1997). Accordingly, we expect that after receiving negative voice, which is often a result of frustration or dissatisfaction (Van Puyenbroeck et al., 2019), highly neurotic players will be easily infected by negative messages and pass them on. We postulated the following hypotheses:

Hypothesis 4: players' emotional stability is negatively related to defensive voice (Hypothesis 4a), destructive voice about team members (Hypothesis 4b) and destructive voice about the coach (Hypothesis 4c). Further, players' emotional stability is positively related to the extent to which they pass on defensive voice (Hypothesis 4d), destructive voice about team members (Hypothesis 4e) and destructive voice about the coach (Hypothesis 4f).

The agentic facet of grandiose narcissism is related to increased self-esteem, self-perceived leadership, and goal persistence (Ackerman et al., 2011). Narcissists have also been found to display more helping behavior but only when visible and therefore are an opportunity to receive attention, indicating the egoistic motives of narcissists (Konrath, Ho, & Zarins, 2016). We therefore expect the agentic facet of narcissism to be associated with positive voice behaviors as such behavior might fuel their self-image, especially as there are many occasions where these behaviors will be visible within sports. The antagonistic facet of narcissism has been empirically related to maladaptive interpersonal outcomes such as antisocial behavior (e.g., insulting roommates), the devaluation of others, and entitlement-

rage (Ackerman et al., 2011). Accordingly, grandiose narcissism has been associated with overt (e.g., fighting) and covert aggression (e.g., relational conflict), decreased compliance with authority figures, high agency, dominance, arrogance and low communion (e.g., Barry, Lui, & Anderson, 2017; Bradlee & Emmons, 1992; Golmaryami & Barry, 2010; Miller, Price, Gentile, Lynam, & Campbell, 2012; Miller et al., 2016). Further, narcissists have been found to be more likely to blame failure to external causes (Barry & Malkin, 2010; Rhodewalt & Morf, 1995). Thus, we expect that players who score high on the antagonistic aspect of narcissism will talk badly about others in order to downgrade them and to confirm or defend their superior self-image and, in order to maintain their self-image, will more likely voice excuses for their mistakes.

We also expect narcissists to take the opportunity to pass on negative voice as this might downgrade others or strengthen their self-image. Such subtle, covert yet influential behavior would also be in line with the manipulative nature that is inherent to narcissists (Schyns, 2015). It should be noted that we originally intended to focus on grandiose narcissism as a general construct. Yet, the facet-specific hypotheses were formulated during the review process and therefore should be considered as more exploratory but also more consistent with the conceptual and empirical literature on narcissism.

Hypothesis 5: the agentic facet of players' narcissism is positively related to the frequency with which they express supportive voice (Hypothesis 5a) and constructive voice (Hypothesis 5b). The antagonistic facet of players' narcissism is positively related to the frequency with which they express defensive voice (Hypothesis 5c), destructive voice about team members (Hypothesis 5d) and destructive voice about the coach (Hypothesis 5e). Further, the antagonistic facet of players' narcissism is positively related to the extent to which they pass on defensive voice (Hypothesis 5f), destructive voice about team members (Hypothesis 5g) and destructive voice about the coach (Hypothesis 5h).

A summary of all hypotheses can be found in Table 1. Although we formulated several hypotheses, we want to note that the present study aims to conduct a first exploration of the relation between the Big Five traits and narcissism on the one hand, and a wide range of voice behaviors in sport teams from different perspectives on the other hand. None of the hypotheses were preregistered.

Method

Participants and Procedure

As power analyses for multilevel regressions are not straightforward (Astivia, Gadermann, & Guhn, 2019), we determined our sample size based on (a) the minima suggested by Maas and Hox (2005) and by Hox and Maas (2001) for multilevel regression analyses, (b) similar studies in sport that included weekly measurements (e.g., Delrue et al., 2017), and (c) practical feasibility. Using these criteria, we contacted all sixteen korfbal teams of the two highest national leagues and all thirteen field hockey teams from the highest national league by email or phone to participate in this study. Six hockey teams and seven korfbal teams confirmed their participation. In total, 193 players (128 female, 65 male) participated in this study, which was comparable with the study sample of Maynes and Podsakoff (2014). The participants had an average age of 23.19 years ($SD = 4.20$), and they practiced their sport on average for 16.54 years ($SD = 4.71$). Participation was voluntarily but all coaches were promised to be invited to a lecture from the last author, who has coaching experience at the highest national level in volleyball and is head coach of the national volleyball team of [REDACTED], in which the general results would be presented and translated to the field.

Participants were requested to complete paper-and-pencil questionnaires for four weeks. Each week, these assessments took place at the same weekday in each team. Seventy-eight players were measured on all four occasions, 131 on at least three occasions, 170 on at least two occasions and 193 on one occasion. The average proportion of players that were

present was .67 ($SD = 0.16$). These response rates were similar to previous longitudinal studies including elite level sport teams (e.g., De Backer, Reynders, Boen, Van Puyenbroeck, & Vande Broek, 2018). During data collection, a research assistant was present to answer possible questions. The assistant also inquired about the reasons of absences, which were all due to sickness, injuries or school work. The first page of the first questionnaire included an informed consent. This study was approved by the Social and Societal Ethics Committee of the research institution. In light of openness and transparency in science, we made the data and scripts for the analyses publicly available at https://osf.io/596k4/?view_only=1d9a2f232ad6426e9295113813735402. We also confirm to have reported all measures, conditions, data exclusions, and how we have determined our sample size throughout the manuscript.

Measures

Voice. We assessed supportive voice, constructive voice, defensive voice, destructive voice about team members and destructive voice about the coach for four weeks using a social network approach (Freeman, 1979). First, we presented and defined each construct (i.e., all types of voice) in the questionnaire to participants (i.e., players) as follows: (1) “reversing negative atmosphere/refuting negative comments” (i.e., supportive voice), (2) “corrections in function of a more optimal functioning” (i.e., constructive voice), (3) “external attributions/finding excuses after failure” (i.e., defensive voice), (4) “criticizing/talking badly about team members (who did not hear this) (i.e., destructive voice about team members)”, and (5) “criticizing/talking badly about the coach (who did not hear this) (i.e., destructive voice about the coach).”

After the presentation and definition of each construct, players had to indicate for each teammate (and themselves) the frequency with which the different types of voice behavior were displayed in the period between the latest game and the moment of assessment. Frequency of voice behaviors was rated using a 7-point Likert scale ranging from

1 (*never*) to 7 (*continuously*). This approach has been shown to be a suitable method to measure voice or communication in groups (e.g., Detert, Burris, Harrison, & Martin, 2013).

For each team containing N players and for each voice behavior, this procedure resulted in an NxN matrix. In these matrices, the rows represent the players that are giving the ratings, while the columns represent the players that are ‘receiving’ the ratings. These matrices are the numerical representations of voice networks. Such a network consists of nodes (i.e., the players) and ties between players (i.e., connections between two players of which the strength is determined by the frequency of voice between two players). In our voice networks, the ties are directed (e.g., the extent to which player A voices towards player B is not the same as the extent to which player B voices to player A) and valued instead of binary (i.e., a score is given instead of merely the absence vs. presence of voice between players). To test our hypotheses, we used players’ self-ratings and calculated players’ indegree centrality and their normalized betweenness centrality for each type of voice (see appendix A for a graphical depiction)

Players’ indegree centrality. A player’s indegree centrality equals the average score s/he received from all teammates, representing the average strength of his/her outgoing voice ties (Borgatti et al., 2013). In other words, this centrality measure is the average frequency with which a player expresses voice behavior according to his/her teammates. In order to justify this aggregation, we calculated the intraclass correlation (ICC) for all types of voice and time points separately (McClean, Martin, Emich, & Woodruff, 2018). This statistic indicates the agreement among raters and can range from 0 (no agreement) to 1 (full agreement). For our data, ICC(1)’s ranged from 0.63 to 0.91, and the ICC(2)’s ranged from 0.64 to 0.91. These values can be considered good to excellent (Cicchetti, 1994). A detailed overview of the ICC’s can be found in appendix B.

Players' betweenness centrality. A player's betweenness centrality represents the number of times this player is located on the geodesic path (i.e., shortest path) between two other nodes (Freeman, 1979). In other words, it measures how often the player serves as a link between two teammates in the voice network. Because binary data is necessary to calculate betweenness centralities (Borgatti et al., 2013), we dichotomized the networks such that a Likert scale rating of 1 (*never*) represented the absence of a tie, while all other ratings represented the presence of a voice tie. It should be noticed that betweenness centrality is influenced by the size of the network as the more nodes (i.e., players) are present within a network, the more possibilities there are for a node to be located between two nodes. This impedes an accurate comparison of betweenness centralities of players from different teams of different sizes (Everett & Borgatti, 1999). For this reason, we calculated the normalized betweenness centrality, which is equal to the percentage of the maximum possible betweenness centrality a node can have. This measurement accounts for the network (team) size and enables the comparison of betweenness centralities between players of different teams (Everett & Borgatti, 1999).

Big Five personality traits. We assessed players' self-reported Big Five personality traits once using the Dutch Ten-Item Personality Inventory (Dutch TIPI: Hofmans, Kuppens, & Allik, 2008). The TIPI is the Dutch translation of the original TIPI, developed by Gosling, Rentfrow, and Swann Jr. (2003), which provides a short personality measure. This questionnaire contains ten items that each consist of two descriptors of one of the Big Five personality traits. Two items assessed extraversion (e.g., "extraverted, enthusiastic" and "reserved, quiet"), two items emotional stability (e.g., "calm, emotionally stable" and "anxious, easily upset"), two items conscientiousness (e.g., "dependable, self-disciplined" and "disorganized, careless"), two items agreeableness (e.g., "sympathetic, warm" and "critical, quarrelsome") and two items measured players' openness (e.g., "open to new

experiences, complex” and “conventional, uncreative”). Participants had to rate the extent to which each item applied to them on a Likert scale, ranging from 1 (*does not describe me at all*) to 7 (*describes me very well*). The TIPI was developed with the goal to obtain a broad coverage of the Big Five personality traits with only ten items and avoid redundancy, content overlap and simple negations. Importantly, the developers prioritized content validity over reliability, resulting in low-to-moderate Chronbach alphas (ranging from .40 to .73; Gosling et al., 2003). Due to the small number of items that are explicitly designed to cover the whole trait domain, rather than a small set of homogeneous items that would only cover part of the traits, Gosling et al. (2003) advocate the use test-retest reliability. Gosling et al. (2003) showed that these test-retest reliability correlations ranged from .62 to .77. In addition, the TIPI has good convergent validity, discriminant validity and represents the core aspects of each of the Big Five personality traits (for more detailed information, see Gosling et al., 2003; Hofmans et al., 2008).

Trait narcissism. Players’ self-reported grandiose narcissism was measured once using the Dutch version of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988; Dutch NPI: Barelds & Dijkstra, 2010), which was included in one of the four questionnaires. Based on Ackerman et al. (2011), we measured the agentic facet of narcissism by the Leadership/Authority subdimension of the NPI, which consisted of 11 items (e.g., “I am assertive”) ($\alpha = .88$). We measured the antagonistic aspect of narcissism by the Entitlement/Exploitativeness subscale, which consisted of 4 items (e.g., “I find it easy to manipulate people”) ($\alpha = .62$). All items were rated on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Game result. As previous work revealed a relation between losing a game and voice behavior, we included game result as a control variable (Van Puyenbroeck et al., 2019). This was operationalized as a binary variable (0 = no loss, 1 = loss).

Data Analysis for Hypotheses Testing

Because we have repeated measures of players' voice behavior, our data has a nested structure with measurements nested within players and players nested within teams. To explicitly account for this three-level structure, we used multilevel modeling to test the hypotheses. In addition, one of the advantages of multilevel regression analysis is its ability to handle missing data. This analysis technique does not require an equal number of measurements for all respondents as it has no difficulties with unbalanced data, which was the case for the present study, in order to estimate the required parameters (Stoel, van Den Wittenboer, & Hox, 2003). More specifically, we tested a series of three-level regression models in which the individual voice behaviors are predicted using players' Big Five personality traits and the agentic (L/A) and antagonistic (E/E) facets of narcissism. As these variables were only measured at one occasion and therefore only varied between players, our predictors were level-2 predictors. All predictors were grand-mean centered. Game loss (0 = no loss, 1 = loss) was included at level 1 as a control variable. A level-3 random intercept was included to account for the nesting of players within teams¹. The same three-level model was used to predict players' indegree centralities, self-ratings and normalized betweenness centralities for all types of voice. Each model's proportional reduction in unexplained level-2 variance (pseudo- R_0^2) as compared to the random intercept-only (at level-2 and level-3) model was calculated to assess effect sizes.

In order to justify this type of analyses, we calculated the proportion of between-player variance, relative to within-player variance for all dependent variables and tested whether adding a random intercept for between-player differences to an intercept-only model significantly improved the model fit. The same procedure was followed to test whether

¹ At team level, random slopes tests were not conducted as the sample only consisted of 13 teams, which provides insufficient power for random slopes tests.

controlling for between-team differences was justified. In order to test the normality assumption for multilevel regression models, we checked for all models whether the residuals were normally distributed by examining the histogram and Q-Q plots of the residuals to estimate where the standardized residuals lie with respect to normal quantiles. The analyses were conducted in R (R Core Team, 2019). The multilevel models were fit using the lmer-function of the lme4 package (Bates, Maechler, Bolker, & Walker, 2015).

Results

Preliminary Analyses

The descriptive statistics and intercorrelations of the Big Five personality traits, narcissism and respectively players' indegree centrality, self-ratings, and normalized betweenness centrality for all types of voice can be found in Tables 2-4. The diagonals include the proportions of between-player variance, which ranged from .24 to .84 and between-team variance, which ranged from .01 to .38. Most importantly, adding a random intercept for between-player differences significantly improved the fit as compared to the intercept-only model. More specifically, $\chi^2(1)$ ranged from 43.81 to 1011.41 (all $ps < .001$). Similarly, adding a random intercept for between-team differences improved the fit, with $\chi^2(1)$ ranging from 12.92 to 491.81 (all $ps < .001$). A detailed overview of the correlations between players' self-ratings and players' indegree centralities (i.e., other-ratings) for each week separately were calculated and are depicted in Appendix C. Although mostly significant, these correlations were moderate to low, indicating that players' self-ratings and their indegree centralities only overlapped a small to moderate amount.

For players' self-ratings, inspection of the Q-Q plots and histograms of the residuals only revealed slight deviations from normality for some voice types. However, such slight deviations are not being considered problematic for parameter estimations (Heck & Thomas, 2015; Maas & Hox, 2005). Only strong deviations from the Q-Q line (depicting perfect

hypothetical normality) indicate non-normality (Hox, 2002). Yet, the residuals did not seem normally distributed for players' indegree centralities and betweenness centralities (for all types of voice). Based on the pattern of deviations from normality, we conducted a square-root transformation of these dependent variables (i.e., players' indegree centralities and betweenness centralities – for all types of voice). After re-running the models on the transformed dependent variables, re-inspection of Q-Q plots and histograms of the residuals now resulted in satisfying distributions with respect to normality. All Q-Q plots and histograms of the residuals are available at https://osf.io/596k4/?view_only=1d9a2f232ad6426e9295113813735402²

Table 5, Table 6 and Table 7 contain the results of the final multilevel regression models that were constructed to test the expected relations regarding players' indegree centralities (square-root transformed), self-ratings (not transformed) and betweenness centralities (square-root transformed), respectively. Table 1 provides an overview of the hypotheses and their corresponding results.

Predicting Players' Voice Frequencies - Indegree Centralities and Self-Ratings

Hypothesis 1 states that extraversion is positively related to players' frequency of supportive voice (Hypothesis 1a) and constructive voice (Hypothesis 1b). Regarding players' indegree centrality, extraversion positively predicted these positive types of voice, thereby confirming these hypotheses, based on other-ratings. In addition, extraversion was positively related to players' indegree centralities regarding destructive voice about the coach and team members, but was unrelated to players' defensive voice. In contrast, the results regarding players' self-ratings demonstrated only a positive relation between extraversion and

² Results were reported for the multilevel analyses without outliers. The results were largely similar with and without outliers, with the exception of the relation between the antagonistic facet of narcissism on the one hand, and players' supportive voice indegree centrality and constructive voice self-ratings on the other hand, and the relation between emotional stability and players' betweenness centrality regarding destructive voice about the coach. These relations slightly changed after excluding outliers (from $p < .1$ to $p < .05$).

constructive voice. This finding was in line with Hypothesis 1b, but did not align with Hypothesis 1a.

Hypothesis 2 states that agreeableness is positively related to supportive (Hypothesis 2a) and constructive voice (Hypothesis 2b), and negatively to destructive voice about team members (Hypothesis 2c) and destructive voice about the coach (Hypothesis 2d). Agreeableness was only revealed as a negative predictor of destructive voice about team members and destructive voice about the coach. This relation was found for players' indegree centralities and self-reports. These findings were only in line with Hypothesis 2c and Hypothesis 2d.

The relation between openness and voice was tested from an exploratory point of view. Openness only predicted players' indegree centralities of destructive voice about the coach, such that the more players are open to new experiences, the more they are perceived to express destructive voice about the coach. No relations were found between openness and self-reported voice behaviors.

We expected conscientiousness to be positively related to supportive voice (Hypothesis 3a) and constructive voice (Hypothesis 3b). Conscientiousness positively predicted players' indegree centralities and self-reports of constructive voice, but was unrelated to supportive voice. This result confirmed Hypothesis 3b based on self- and other-ratings, but rejected Hypothesis 3a.

Emotional stability was a negative predictor of defensive voice regarding players' self-reports and indegree centralities. This finding shows that players who are highly neurotic indicate and are perceived as expressing more defensive voice, which confirmed Hypothesis 4a. However, the expected negative relation with destructive voice about team members (Hypothesis 4b) and coach (Hypothesis 4c) were not found for self-or indegree centralities.

Hypothesis 5 stated that the agentic facet of narcissism is positively related to players' frequency of supportive (Hypothesis 5a) and constructive voice (Hypothesis 5b). Based on players' other reports (i.e., indegree centralities), these hypotheses were confirmed, while only a positive relation was found between the L/A facet of the NPI and constructive voice for players' self-ratings. In addition, the L/A facet also positively predicted other-rated defensive voice and destructive voice about team members.

We expected the antagonistic facet of narcissism to positively predict players' frequency of defensive voice (Hypothesis 5c), destructive voice about team members (Hypothesis 5d) and destructive voice about the coach (Hypothesis 5e). The E/E facet of the NPI was unrelated to players' indegree centralities and self-ratings of these types of voice. However, this facet was negatively related to players' constructive and supportive voice indegree centrality.

Predicting Players' Normalized Betweenness Centralities

We hypothesized that emotional stability would be positively related to the extent to which players pass on defensive voice (Hypothesis 4d), destructive voice about team members (Hypothesis 4e), and the coach (Hypothesis 4f). The results showed that emotional stability only negatively predicted defensive voice. This finding indicates that players who are highly neurotic will more often function as an intermediate through which defensive voice flows from one player to another than people who score lower on neuroticism. We also expected the antagonistic facet of narcissism to positively predict the extent to which players pass on defensive voice (Hypothesis 5f), destructive voice about team members (Hypothesis 5g) and the coach (Hypothesis 5h). However, these relations were not found. Although no specific hypotheses were formulated regarding the agentic facet of narcissism, L/A positively predicted normalized betweenness centrality for defensive voice and destructive voice about team members. In other words, players who score high on this subdimension of narcissism

will function more as a gate through which these negative types of voice flow than players who score low on this subdimension. Extraversion predicted supportive voice. This indicates that players high on extraversion are more likely to function as a gateway between other players through which supportive voice flows. It should be noted that the predictive model for supportive voice did not converge. As this is often caused by the complexity of the model, we removed the random intercept at team-level, which solved the convergence issue.³ Agreeableness, openness and conscientiousness were unrelated to betweenness centrality for the different voice types.

Discussion

Our findings revealed that personality is related to players' frequency of expressing specific voice behaviors and to the extent to which they pass on particular types of voice to team members. Moreover, the personality predictors of both voice-related processes (i.e., expressing voice and passing on voice) are not always the same.

Our findings corroborate previous findings that, in terms of the Big Five traits, extraversion and agreeableness are related to interpersonal tendencies (DeYoung et al., 2013; McCrae & Costa, 1989). With respect to players' indegree centralities, a first finding was that highly extraverted players were perceived as displaying more constructive voice, supportive voice, destructive voice about their team members, and destructive voice about their coach. Extraversion was only related to players' self-ratings of constructive voice, and unrelated to their self-ratings of defensive and destructive voice. These findings offer refined insights on the relation between extraversion and negative voice and might be of value in the debate pertaining to whether extraverts are more likely to engage in constructive expressions

³ As an additional test, we also estimated a three-level model without openness as this trait was included from an exploratory point of view and did not correlate with supportive voice betweenness centrality. This also decreased the complexity of the model and resolved the convergence issue. The findings for the remaining predictors were identical as compared to removing the random intercept at level-3.

(Maynes & Podsakoff, 2014), or whether they also even express more negativity (e.g., Nikolaou et al., 2008). At least in sport teams, our findings might suggest that players scoring high on trait extraversion indicate that their assertive and talkative nature only results in expressing constructive voice, while their teammates perceive them as more assertive and talkative in general, expressing both positive and negative voice. This differs from the absent or negative link that has been found between extraversion and self- and peer-rated antisocial behaviors (e.g., Cale, 2006; Heisel et al., 2003). Yet, antisocial behaviors are often directly and overtly aimed at specific targets (e.g., verbal aggression), while destructive voice pertains to covertly speaking badly about someone.

Players who score high on agreeableness indicate and are being perceived as expressing less destructive voice about team members and destructive voice about the coach. This result corresponds to the notion that agreeable individuals want to avoid conflict or problems (Avery, 2003) and aligns with empirical work revealing a negative relation between agreeableness and antagonistic behaviors (e.g., Lee et al., 2005). Despite being consistently related to prosocial behavior (e.g., Habashi et al., 2016), agreeableness turned out to be unrelated to the frequency of players' expression of constructive and supportive voice, for both self- and other-reports. One potential explanation might reside within the fact that highly agreeable individuals strive towards social harmony, conformity and want to avoid conflict (Barrick & Mount, 1991) and correcting others or reversing critical noises from others might be considered as offending or opposing them. This finding might also illustrate that positive voice does not completely coincide with prosocial behavior.

While openness to experience was examined from an exploratory point of view, we found it to be predictive of the extent to which players are perceived to express destructive voice about the coach by their teammates. Aligning with this result, people scoring high on this trait value change, are untraditional and consider different perspectives and hence appear

to not blindly follow the prevailing policies or leaders, but take on a critical perspective (Costa & McCrae, 1992; Nikolaou et al., 2008). It should be noted that players scoring high on this trait were perceived as displaying more destructive voice about the coach but did not indicate higher frequencies of such voice themselves.

Players who are highly conscientious indicate and are being perceived as correcting others more frequently to improve the team's functioning. This relation is consistent with previous studies that revealed a positive association between conscientiousness and change-oriented voice or other types of proactivity and prosocial behavior (Kanacri et al., 2014; LePine & van Dyne, 1998). Conscientiousness was not related to the frequency to which players express supportive voice, while usually, individuals scoring high on this trait usually address interpersonal issues directly and straightforwardly in group settings (Moberg, 2001). However, by acting in such a direct way, highly conscientious individuals might actually prevent a negative atmosphere to occur, which would explain the nonsignificant relation with supportive voice as this pertains to reversing a negative atmosphere. Yet, this assumption should be empirically verified.

Players who are highly emotionally stable indicate that they express less defensive voice, based on self- and other-ratings. This finding is consistent with previous studies that found a positive relation between neuroticism and emotion-focused coping strategies such as escape-avoidance coping, and defensive coping behaviors (e.g., Penley & Tomaka, 2002, O'Brien & DeLongis, 1996). Accordingly, the present study suggests that emotionally stable players will be less likely to shift their attention towards external factors of a setback by expressing external attributions. Further, we did not find a significant relation between emotional stability and the amount of constructive or supportive voice. Our results might suggest that players who are highly emotionally stable tend to focus on their own errors while

voicing and will not avoid their responsibility, while not especially being preoccupied with others' behavior by correcting them or reversing negative tones in critical situations.

Contrary to our expectations, a negative relation between emotional stability and the amount of destructive voice did not emerge in the present study. A potential explanation might reside within the operationalization of destructive voice in sports settings as covertly talking badly about others behind their backs. That is, neuroticism (i.e., low emotional stability) has been related to the inability to control one's negative emotions, resulting in impulsive overt negative interpersonal behaviors (Costa & McCrae, 1992; Judge, Rodell, Klinger, Simon, & Crawford, 2013). Although McNulty (2008) revealed that neuroticism predicts indirect criticism toward intimate partners, this behavior was operationalized as using presumptive attributions or asking hostile questions directly targeted at the partners. We also found that highly emotionally stable players are also less likely to pass on defensive voice. Such players are crucial to prevent the diffusion of defensive voice and avoid expressing excuses after failure to become the norm.

In line with our expectations, players who scored high on the agentic facet of grandiose narcissism, were perceived as expressing more constructive and supportive voice, and reported to display more constructive voice themselves. This aligns with the association of this agentic facet with assertiveness and beliefs of leadership potential, and the positive relation that narcissism has with visible helping behaviors and perceived charmingness (albeit only on the short-term) (Ackerman et al., 2011; Back, Schmukle, & Egloff, 2010; Konrath et al., 2016). The visibility of the current setting (e.g., being observed by staff or fans) can stimulate narcissists towards positive voice, which is also the impression of their teammates.

In line with Ackerman et al. (2011), the agentic facet was unrelated to self-reported negative voice behaviors. Yet, players with higher scores on the agentic facet were perceived as displaying more defensive voice and destructive voice about team members. On the other

hand, the antagonistic E/E facet was not associated with negative voice behavior, not for self-reports or other-reports. These findings were inconsistent with previous work that did not find coherent relations between the agentic L/A facet and negative interpersonal behaviors (Ackerman et al., 2011). Ackerman et al. (2011) revealed that the E/E facet is the “socially toxic” element of narcissism, being linked to several maladaptive self-rated outcomes such as devaluing others and peer-rated negative interactional behaviors, which were unrelated to the L/A facet. However, several differences between the present study and the study of Ackerman et al. (2011) complicate the direct comparison of both studies. First, devaluing others was only measured using self-reports, while the revealed relations with negative voice regarded other-reports. Second, their negative interactional behaviors differed from destructive voice as they were openly directed to the interaction partners. Third, Ackerman et al. (2011) tested these relations in different settings, indicating the need for replications.

We also found that the antagonistic facet was negatively related to self-reported constructive voice and other-reported constructive and supportive voice. This finding could indicate that the maladaptive outcomes of this facet might not only include higher levels of negative interpersonal behaviors (Ackerman et al., 2011) but also lower levels of positive interpersonal behaviors when necessary. Accordingly, Back et al. (2013) revealed that antagonistic aspects of narcissism predicted less communal behaviors. However, they did not use the NPI as, although widely used to measure narcissism as a trait, the NPI contains some methodological (e.g., low internal consistency of the E/E facet) and substantial issues (e.g., Brown & Tamborski, 2011). In other words, the present study lacks the most appropriate measurement of an optimal distinction between agentic and antagonistic aspects of narcissism. Back et al. (2013) developed and validated the Narcissistic Admiration and Rivalry Questionnaire (NARQ) as a two-dimensional measurement of narcissism. As opposed to the NPI, the NARQ is based on a well-defined theoretical model that includes an

agentic pathway, including assertive self-enhancing social strategies, and an antagonistic pathway, including self-defensive social strategies that narcissists use to achieve and maintain grandiosity (Back et al., 2013). This model does not only describe both dimensions of narcissism, labelled admiration and rivalry, but also outlines their social outcomes and motivational and behavioral dynamics. In addition, the NARQ has good psychometric properties and outperforms the NPI-facets in predicting several social outcomes (Back et al., 2013). For these reasons, we suggest that in the future, researchers use the NARQ and its corresponding theoretical model to formulate and test hypotheses on the relation between interpersonal behavior and both facets of narcissism.

The agentic facet of narcissism also positively predicted players' betweenness centralities of defensive voice and destructive voice about team members. This finding indicates that such narcissists are more likely to pass on those voice behaviors as they (like neurotics) also spread negativity in a more subtle way. This subtlety points towards the manipulative and emotionally intelligent aspect of narcissism, which is also characteristic of the other dark-triad traits Machiavellianism and psychopathy (Paulhus & Williams, 2002; Schyns, 2015). To conclude, despite some unexpected findings, which might be due to the specificity of the outcome measure, setting and a suboptimal measure of agentic and antagonistic facets of narcissism, both the L/A and the E/E facet of the NPI have a predictive value of different types of voice behaviors for both self- as other-ratings.

Our findings further illustrated the additional value of including both self- and other-ratings of behavioral outcomes, also labelled as interaction partner-reported actor behavior (Breil et al., 2019), in studying the link between personality and social outcomes. Almost half of the significant relations between the Big Five traits and players' indegree centrality did not reach significance when considering players' self-ratings (also see Appendix C). With the exception of the relation between the traits extraversion, agentic, and antagonistic narcissism

on the one hand and supportive voice on the other hand, all divergent relations pertained to negative voice behaviors. These differences cannot be explained by a social desirability effect as the mean self-ratings of defensive ($t = -4.21, p < .001$), destructive voice about team members ($t = -7.20, p < .001$) and about the coach ($t = -4.99, p < .001$) were higher than their mean indegree centralities.

The level of self-other agreement on voice was generally in line with the level of self-other convergence in other studies focusing on interpersonal concepts such as status, talkativeness, prosocial behavior, dominance and leadership, with intercorrelations ranging from .29 to .60 (e.g., Anderson et al., 2001; Caprara, Steca, Vecchio, Tramontano, & Alessandri, 2008; Vazire, 2010). The self-other convergence for negative voice was rather low. Yet, similar patterns were found with respect to aggression (e.g., Kauten & Barry, 2014). In personality research, in which self-other agreements range from .40-.60 (Watson, Hubbard, & Wiese, 2000), an important determinant for the level of convergence is the observability of the trait. Extraversion is a highly observable trait, resulting in higher convergence in self- and other-ratings. However, neuroticism and aspects of agreeableness are less observable (John & Robbins, 1993; Vazire, 2010). The level of convergence between self- and other-ratings of the studied types of voice might provide preliminary insights in the observability of these voice behaviors. For example, we found a stronger relation between neuroticism and players' self-rating of defensive voice than the relation between neuroticism and players' indegree centralities of defensive voice. As neuroticism is a less observable trait, and also less rated by behavioral aspects than, for example, extraversion, this could indicate that defensive voice is a type of voice that is less observable. However, this is only a preliminary thought that needs further investigation by studies that are explicitly designed to focus on the observability of measured construct (e.g., John & Robbins, 1993).

Limitations and Future Research

Besides the suggestion to use a more appropriate measurement of the different aspects of narcissism, several limitations and avenues for future research need to be outlined. First, several hypotheses were not supported. Yet, this study also aimed to provide an exploratory addition to the literature and further replications in other samples are necessary in order to verify these findings and formulate sound practical implications. Noteworthy in this context is that we only included the broad Big Five traits. These traits consist of several facets (Costa & McCrae, 1992), whose inclusion has been shown to increase the predictive power for organizational behavior (Judge, Klinger, Simon, & Yang, 2008). For example, dutifulness and assertiveness, which are facets of conscientiousness and, respectively, extraversion, might be more predictive for constructive and supportive voice as compared to other facets such as self-discipline and excitement-seeking. Also, Hilbig et al. (2003) found that only specific facets of agreeableness – modesty and straightforwardness – predicted cooperation. Future studies should thus incorporate the measures of these facets in order to offer a fine-grained analysis of the relation between personality and voice.

Second, future work should also examine the relation between additional traits and specific types of voice behavior. For example, narcissism is considered as one of the three dark triad traits (Paulhus & Williams, 2002). This triad also include machiavellianism and psychopathy, which might add to the limited predictive value of the Big Five and narcissism for players betweenness centralities of negative voice. That is, both these dark triad traits refer to being manipulative and have been argued to play an important role in creating a toxic work environment (Schyns, 2015).

Third, the present study only examined the direct relation between personality traits and voice behavior. However, previous work in a sports context has already revealed that environmental aspects such as coaching style and the motivational climate predict voice behaviors (Cope et al., 2010; Van Puyenbroeck, Stouten, & Vande Broeck, 2017). For

example, Van Puyenbroeck et al. (2017) revealed a positive relation between an ego climate and proactive behavior, which included change-oriented, constructive voice as a subconstruct. Yet, trait activation theory states that traits will be expressed in relevant situations (Tett & Gutermann, 2000). Because narcissists strive for admiration and recognition, they could benefit from an ego-oriented climate in terms of performance as such climate focusses on intra-team competition (Roberts et al., 2017). In such a setting, the agentic subdimension of narcissism might stimulate narcissistic players to more frequently engage in constructive voice behavior as it can be initiated out of self-promotive motives (Morrison, 2014). Future studies should therefore consider the interaction between personality and the environment in predicting voice. Also, the interaction between personality traits such as narcissism and players' successes and failures might be valuable to explore. For example, failures are be inconsistent with narcissists striving for a grandiose self-image, which might result in different interpersonal outcomes (e.g., criticizing others, shifting blame, correcting others to improve) depending on the facet of narcissism. In order to measure (failed) performances, researchers should consider several aspects such as performance-expectations, the importance of games and unfortunate events such as injuries (e.g., Marcos, Sanchez-Miguel, Sanchez-Oliva, Alonso, & Garcia-Calvo, 2012).

Fourth, as opposed to the operationalization of voice by Maynes & Podsakoff (2014), some researchers have pleaded to specify whether voice has to be verbal or not (e.g., Detert & Burris, 2007). It could be valuable to introduce such specificity to the framework of Maynes and Podsakoff (2014). For example, it might be valuable to examine to which extent negative voice behavior among players occurs through social media (facebook, whats app). Such findings would have implications for the extent to which voice behaviors can be managed by coaches or staff.

Fifth, by using players' indegree centralities and self-ratings we focused on voice from different perspectives. However, the Big Five traits and narcissism were only measured using self-assessments. Future research should apply a triangulation method and use both self-reported and teammate-reported personality data. This procedure enables researchers to investigate identity effects (i.e., how an individual sees himself with regard to their personality) and reputation effects (i.e., how individual's personality is seen by others) on self- and other-reported voice behavior (McAbee & Connelly, 2016).

Conclusion

The present study showed that personality clearly has a role to play in predicting voice behavior in sport teams. Moreover, we illustrated that some personality traits are consistent in how athletes see their own voice behavior and how others perceive this (e.g., conscientiousness). However, results also bring to surface that other traits (e.g., extraversion) show a more discrepant picture, indicating that particular personalities assess their voice behavior differently than their teammates. Interestingly, traits such as extraversion, emotional stability and narcissism have been found to be predictive when it comes to passing on voice. Hence, extraverted, neurotic and narcissistic players are able to transport voice over players. Although further empirical work is necessary to confirm these findings, the personalities in teams hence are shown to not only determine which type of voice is expressed but also whether it is passed on to other players. This passing on may create escalated forms of voice and, in case of negative voice may ultimately disrupt the team's functioning.

References

- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the narcissistic personality inventory really measure? *Assessment*, 18(1), 67–87.
- Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology*, 81(1), 116–132.
- Astivia, O. L. O., Gadermann, A., & Guhn, M. (2019). The relationship between statistical power and predictor distribution in multilevel logistic regression: a simulation-based approach. *BMC Medical Research Methodology*, 19(1), 97.
- Avery, D. R. (2003). Personality as a predictor of the value of voice. *The Journal of Psychology*, 137(5), 435–446.
- Back, M. D., & Egloff, B. (2009). Discussion on ‘Personality psychology as a truly behavioural science’ by R. Michael Furr. *European Journal of Personality*, 23(5), 403–435.
- Back, M. D., Küfner, A. C. P., Dufner, M., Gerlach, T. M., Rauthmann, J. F., & Denissen, J. J. A. (2013). Narcissistic admiration and rivalry: Disentangling the bright and dark sides of narcissism. *Journal of Personality and Social Psychology*, 105(6), 1013–1037.
- Back, M. D., Schmukle, S. C., & Egloff, B. (2010). Why are narcissists so charming at first sight? Decoding the narcissism–popularity link at zero acquaintance. *Journal of Personality and Social Psychology*, 98(1), 132–145.
- Back, M. D., & Vazire, S. (2015). The social consequences of personality: Six suggestions for future research. *European Journal of Personality*, 29(2), 296–307.
- Balkundi, P., & Kilduff, M. (2006). The ties that lead: A social network approach to

- 855 leadership. *The Leadership Quarterly*, 17(4), 419-439.
- 856 Barelds, D. P., & Dijkstra, P. (2010). Narcissistic personality inventory: structure of the
857 adapted dutch version. *Scandinavian Journal of Psychology*, 51(2), 132-138.
- 858 Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job
859 performance: A meta-analysis. *Personnel Psychology*, 44(1), 1-26.
- 860 Barry, C. T., Lui, J. H. L., & Anderson, A. C. (2016). Adolescent narcissism, aggression, and
861 prosocial behavior: The relevance of socially desirable responding. *Journal of*
862 *Personality Assessment*, 99(1), 46–55.
- 863 Barry, C. T., & Malkin, M. L. (2010). The relation between adolescent narcissism and
864 internalizing problems depends on the conceptualization of narcissism. *Journal of*
865 *Research in Personality*, 44(6), 684–690.
- 866 Batson, C. D., & Powell, A. (2003). Altruism and prosocial behavior. In T. Millon & M. Lerner
867 (Eds.), *Handbook of psychology. Personality and social psychology (Vol. 5)*. Hoboken:
868 Wiley.
- 869 Borgatti, S.P., Everett M.G., & Johnson J.C. (2013). Centrality. In J. Seaman (Ed.),
870 *Analyzing social networks* (pp. 189-208). London: SAGE publications Ltd.
- 871 Bradlee, P. M., & Emmons, R. A. (1992). Locating narcissism within the interpersonal
872 circumplex and the five-factor model. *Personality and Individual Differences*, 13(7),
873 821–830.
- 874 Breil, S. M., Geukes, K., Wilson, R. E., Nestler, S., Vazire, S., & Back, M. D. (2019). Zooming
875 into Real-Life Extraversion – how Personality and Situation Shape Sociability in Social
876 Interactions. *Collabra: Psychology*, 5(1), 7.
- 877 Brown, R. P., & Tamborski, M. (2011). Of tails and their dogs: A critical view of the
878 measurement of trait narcissism in social-personality research. In W. K. Campbell & J.
879 D. Miller (Eds.), *The handbook of narcissism and narcissistic personality disorder:*

- 880 *Theoretical approaches, empirical findings, and treatments* (pp. 141-145). Hoboken, NJ:
881 Wiley.
- 882 Burris, E. R., Detert, J. R., & Romney, A. C. (2013). Speaking up vs. being heard: The
883 disagreement around and outcomes of employee voice. *Organization Science*, 24(1),
884 22-38.
- 885 Cale, E. M. (2006). A quantitative review of the relations between the “Big 3” higher order
886 personality dimensions and antisocial behavior. *Journal of Research in Personality*,
887 40(3), 250–284.
- 888 Camps, J., Stouten, J., & Euwema, M. (2016). The relation between supervisors’ big five
889 personality traits and employees’ experiences of abusive supervision. *Frontiers in*
890 *Psychology*, 7, 112.
- 891 Caprara, G. V., Alessandri, G., & Eisenberg, N. (2012). Prosociality: The contribution of traits,
892 values, and self-efficacy beliefs. *Journal of Personality and Social Psychology*, 102(6),
893 1289–1303.
- 894 Caprara, G. V., Steca, P., Vecchio, G., Tramontano, C., & Alessandri, G. (2008, July).
895 *Prosocial agency: Values and self-efficacy beliefs as determinants of prosocial behavior*.
896 Paper presented at the International Congress of Psychology, Berlin, Germany.
- 897 Carver, C. S., and Connor-Smith, J. (2010). Personality and coping. *Annual review of*
898 *psychology*, 61, 679-704.
- 899 Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and
900 standardized assessment instruments in psychology. *Psychological Assessment*, 6(4),
901 284-290.
- 902 Cope, C. J., Eys, M. A., Schinke, R. J., & Bosselut, G. (2010). Coaches’ perspectives
903 of a negative informal role: The ‘Cancer’ within sport teams. *Journal of Applied Sport*
904 *Psychology*, 22(4), 420-436.

- 905 Costa Jr, P. T. (1996). Work and personality: Use of the NEO-PI-R in
906 industrial/organisational psychology. *Applied Psychology*, 45(3), 225-241.
- 907 Costa Jr, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and*
908 *Individual Differences*, 13(6), 653-665.
- 909 Côté, S., & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal
910 behavior and affect: Prediction from neuroticism, extraversion, and agreeableness.
911 *Journal of Personality and Social Psychology*, 75(4), 1032–1046.
- 912 Crant, J. M., Kim, T. Y., & Wang, J. (2011). Dispositional antecedents of demonstration and
913 usefulness of voice behavior. *Journal of Business and Psychology*, 26(3), 285-297.
- 914 Crowe, M. L., Lynam, D. R., Campbell, W. K., & Miller, J. D. (2019). Exploring the structure
915 of narcissism: Toward an integrated solution. *Journal of personality*, 87, 1151-1169.
- 916 De Backer, M., Reynders, B., Boen, F., Van Puyenbroeck, S., & Broek, G. V. (2018). Do
917 coaching style and game circumstances predict athletes' perceived justice of their
918 coach? A longitudinal study in elite handball and volleyball teams. *PloS One*, 13(10),
919 e0205559.
- 920 Delrue, J., Vansteenkiste, M., Mouratidis, A., Gevaert, K., Vande Broek, G., & Haerens, L.
921 (2017). A game-to-game investigation of the relation between need-supportive and
922 need-thwarting coaching and moral behavior in soccer. *Psychology of Sport and*
923 *Exercise*, 31, 1-10.
- 924 Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door
925 really open? *Academy of Management Journal*, 50(4), 869-884.
- 926 Detert, J. R., Burris, E. R., Harrison, D. A., & Martin, S. R. (2013). Voice flows to
927 and around leaders: Understanding when units are helped or hurt by employee voice.
928 *Administrative Science Quarterly*, 58(4), 624-668.
- 929 DeYoung, C. G., Weisberg, Y. J., Quilty, L. C., & Peterson, J. B. (2013). Unifying the aspects

- 930 of the big five, the interpersonal circumplex, and trait affiliation. *Journal of Personality*,
931 81(5), 465–475.
- 932 Doherty, R. W. (1997). The emotional contagion scale: A measure of individual differences.
933 *Journal of Nonverbal Behavior*, 21(2), 131-154.
- 934 Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models
935 using lme4. *Journal of Statistical Software*, 67(1), 1-48.
- 936 Everett, M. G., & Borgatti, S. P. (1999). The centrality of groups and classes. *The Journal of*
937 *Mathematical Sociology*, 23(3), 181-201.
- 938 Felps, W., Mitchell, T. R., & Byington, E. (2006). How, when, and why bad apples
939 spoil the barrel: Negative group members and dysfunctional groups. *Research in*
940 *organizational behavior*, 27, 175-222.
- 941 Freeman, L. C. (1979). Centrality in social networks: Conceptual clarification. *Social*
942 *Networks*, 1(3), 215-239.
- 943 Fransen, K., Boen, F., Haslam, S. A., Steffens, N. K., & Vande Broek, G. (2019). *Standing out*
944 *from the crowd: Identifying the traits and behaviors that characterize high-quality*
945 *athlete leaders on and off the field*. Manuscript accepted for publication pending minor
946 revisions.
- 947 Golmaryami, F. N., & Barry, C. T. (2009). The associations of self-reported and peer-
948 reported relational aggression with narcissism and self-esteem among adolescents in a
949 residential setting. *Journal of Clinical Child & Adolescent Psychology*, 39(1), 128–133
- 950 Gorden, W. I. (1988). Range of employee voice. *Employee Responsibilities and Rights*
951 *Journal*, 1(4), 283-299.
- 952 Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-
953 Five personality domains. *Journal of Research in Personality*, 37(6), 504-528.
- 954 Graziano, W. G., & Tobin, R. M. (2013). The cognitive and motivational foundations

- 955 underlying agreeableness. In M. D. Robinson, E. Watkins, & E. Harmon-Jones (Eds.),
956 *Handbook of cognition and emotion* (pp. 347-366). New York, NY: Guilford Press
- 957 Gurtman, M. B. (2009). Exploring personality with the interpersonal circumplex. *Social and*
958 *Personality Psychology Compass*, 3(4), 601-619.
- 959 Habashi, M. M., Graziano, W. G., & Hoover, A. E. (2016). Searching for the prosocial
960 personality. *Personality and Social Psychology Bulletin*, 42(9), 1177–1192.
961 <https://doi.org/10.1177/0146167216652859>
- 962 Harris, K., & Vazire, S. (2016). On friendship development and the Big Five personality
963 traits. *Social and Personality Psychology Compass*, 10(11), 647–667.
- 964 Heck, R. H., & Thomas, S. L. (2015). *An introduction to multilevel modeling techniques:*
965 *MLM and SEM approaches using Mplus*. New York, NY: Routledge.
- 966 Heisel, A. D., La France, B. H., & Beatty, M. J. (2003). Self-reported extraversion,
967 neuroticism, and psychoticism as predictors of peer rated verbal aggressiveness and
968 affinity-seeking competence. *Communication Monographs*, 70(1), 1–15.
- 969 Hilbig, B. E., Glöckner, A., & Zettler, I. (2014). Personality and prosocial behavior: Linking
970 basic traits and social value orientations. *Journal of Personality and Social*
971 *Psychology*, 107(3), 529–539.
- 972 Hirschman, A. O. (1970). *Exit, Voice, and Loyalty: Responses to Decline in Firms,*
973 *Organizations, and States*. Cambridge, MA: Harvard University Press
- 974 Hofmans, J., Kuppens, P., & Allik, J. (2008). Is short in length short in content? An
975 examination of the domain representation of the Ten Item Personality Inventory scales
976 in Dutch language. *Personality and Individual Differences*, 45(8), 750-755.
- 977 Hox, J. J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NH: Lawrence
978 Erlbaum Associates.
- 979 Hox, J. J., & Maas, C. J. (2001). The accuracy of multilevel structural equation modeling with

- 980 pseudobalanced groups and small samples. *Structural Equation Modeling*, 8(2), 157-
981 174.
- 982 Hox, J. J., Stoel, R. D., & van den Wittenboer, G. L. H. (2003). Analyzing longitudinal data
983 using multilevel regression and latent growth curve analysis. *Metodologia de las*
984 *Ciencias del Comportamiento*, 5, 1-21.
- 985 Hough, L. (2003). Emerging trends and needs in personality research and practice. Beyond
986 main effects. In M. R. Barrick and A. M. Ryan (Eds.). *Personality and Work*, 289-325,
987 San Francisco, CA: Jossey-Bass.
- 988 Jackson, B., Dimmock, J. A., Gucciardi, D. F., & Grove, J. R. (2010). Relationship
989 commitment in athletic dyads: Actor and partner effects for Big Five self- and other-
990 ratings. *Journal of Research in Personality*, 44(5), 641–648.
- 991 Jackson, B., Dimmock, J. A., Gucciardi, D. F., & Grove, J. R. (2011). Personality traits and
992 relationship perceptions in coach–athlete dyads: Do opposites really attract?
993 *Psychology of Sport and Exercise*, 12(3), 222–230.
- 994 John, O. P., & Robins, R. W. (1993). Determinants of interjudge agreement on personality
995 traits: The Big Five domains, observability, evaluativeness, and the unique perspective
996 of the self. *Journal of Personality*, 61(4), 521-551.
- 997 Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem,
998 generalized self-efficacy, locus of control, and emotional stability—with job
999 satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*,
1000 86(1), 80-92.
- 1001 Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., and Crawford, E. R. (2013).
1002 Hierarchical representations of the five-factor model of personality in predicting job
1003 performance: Integrating three organizing frameworks with two theoretical
1004 perspectives. *Journal of Applied Psychology*, 98, 875-925.

- 1005 Judge, T. A., Klinger, R., Simon, L. S., and Yang, I. W. F. (2008). The contributions of
1006 personality to organizational behavior and psychology: Findings, criticisms, and future
1007 research directions. *Social and Personality Psychology Compass*, 2, 1982–2000.
- 1008 Kanacri, B. P. L., Pastorelli, C., Eisenberg, N., Zuffianò, A., Castellani, V., & Caprara, G. V.
1009 (2014). Trajectories of prosocial behavior from adolescence to early adulthood:
1010 Associations with personality change. *Journal of Adolescence*, 37(5), 701-713.
- 1011 Kassing, J. W., & Anderson, R. L. (2014). Contradicting coach or grumbling to
1012 teammates: Exploring dissent expression in the coach-athlete relationship.
1013 *Communication & Sport*, 2(2), 172-185.
- 1014 Kauten, R., & Barry, C. T. (2014). Do you think I'm as kind as I do? The relation of adolescent
1015 narcissism with self- and peer-perceptions of prosocial and aggressive behavior.
1016 *Personality and Individual Differences*, 61–62, 69–73.
- 1017 Kavussanu, M., & Boardley, I. D. (2009). The prosocial and antisocial behavior in sport scale.
1018 *Journal of Sport and Exercise Psychology*, 31(1), 97–117.
- 1019 Konrath, S., Ho, M.-H., & Zarins, S. (2016). The strategic helper: Narcissism and prosocial
1020 motives and behaviors. *Current Psychology*, 35(2), 182–194.
- 1021 Lee, K., Ashton, M. C., & Shin, K.-H. (2005). Personality correlates of workplace anti-social
1022 behavior. *Applied Psychology*, 54(1), 81–98.
- 1023 LePine, J. A., & Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms
1024 of contextual performance: Evidence of differential relationships with big five
1025 personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86(2),
1026 326-336.
- 1027 Leung, S. K., & Bond, M. H. (2001). Interpersonal communication and personality: Self and
1028 other perspectives. *Asian Journal of Social Psychology*, 4(1), 69-86.

- 1029 Liu, D., Liao, H., and Loi, R. (2012). The dark side of leadership: A three-level investigation
1030 of the cascading effect of abusive supervision on employee creativity. *Academy of*
1031 *Management Journal*, 55, 1187-1212.
- 1032 Maas, C. J., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology*,
1033 1(3), 86-92.
- 1034 Marcos, F. M. L., Sánchez-Miguel, P. A., Sánchez-Oliva, D., Alonso, D. A., & García-Calvo,
1035 T. (2012). Evolution of perceived cohesion and efficacy over the season and their
1036 relation to success expectations in soccer teams. *Journal of Human Kinetics*, 34(1), 129-
1037 138.
- 1038 Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and
1039 taxonomy of team processes. *Academy of Management Review*, 26(3), 356-376.
- 1040 Martin, R., Watson, D., & Wan, C. K. (2000). A three-factor model of trait anger:
1041 Dimensions of affect, behavior, and cognition. *Journal of Personality*, 68(5), 869–897.
- 1042 Maynes, T. D., & Podsakoff, P. M. (2014). Speaking more broadly: An examination
1043 of the nature, antecedents, and consequences of an expanded set of employee voice
1044 behaviors. *Journal of Applied Psychology*, 99(1), 87-112.
- 1045 McAbee, S. T., & Connelly, B. S. (2016). A multi-rater framework for studying personality:
1046 The trait-reputation-identity model. *Psychological Review*, 123(5), 569-591.
- 1047 McCrae, R. R., & Costa, P. T. (1989). The structure of interpersonal traits: Wiggins's
1048 circumplex and the five-factor model. *Journal of Personality and Social Psychology*,
1049 56(4), 586-595.
- 1050 McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its
1051 applications. *Journal of personality*, 60(2), 175-215.

- 1052 McCrae, R. R., & Sutin, A. R. (2009). Openness to experience. In M. R. Leary and R. H. Hoyle
1053 (Eds.). *Handbook of Individual Differences in Social Behavior*, 257-273, New York:
1054 Guilford.
- 1055 McClean, E. J., Martin, S. R., Emich, K. J., & Woodruff, C. T. (2018). The social
1056 consequences of voice: An examination of voice type and gender on status and
1057 subsequent leader emergence. *Academy of Management Journal*, 61(5), 1869-1891.
- 1058 McNulty, J. K. (2008). Neuroticism and interpersonal negativity: The independent
1059 contributions of perceptions and behaviors. *Personality and Social Psychology*
1060 *Bulletin*, 34(11), 1439–1450
- 1061 Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal
1062 positivity bias in attributions? A meta-analytic review of individual, developmental,
1063 and cultural differences in the self-serving attributional bias. *Psychological Bulletin*,
1064 130(5), 711-747.
- 1065 Miller, J. D., & Lynam, D. (2001). Structural models of personality and their relation to
1066 antisocial behavior: a meta-analytic review. *Criminology*, 39(4), 765–798.
- 1067 Miller, J. D., Lynam, D. R., McCain, J. L., Few, L. R., Crego, C., Widiger, T. A., & Campbell,
1068 W. K. (2016). Thinking structurally about narcissism: An examination of the Five-
1069 Factor Narcissism Inventory and its components. *Journal of Personality Disorders*,
1070 30(1), 1–18
- 1071 Miller, J. D., Price, J., Gentile, B., Lynam, D. R., & Campbell, W. K. (2012). Grandiose and
1072 vulnerable narcissism from the perspective of the interpersonal circumplex. *Personality*
1073 *and Individual Differences*, 53(4), 507–512.
- 1074 Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee
1075 silence: Issues that employees don't communicate upward and why. *Journal of*
1076 *Management Studies*, 40(6), 1453-1476.

- 1077 Moberg, P. J. (2001). Linking conflict strategy to the five-factor model: Theoretical and
1078 empirical foundations. *International Journal of Conflict Management*, 12(1), 47-68.
- 1079 Morf, C. C., & Rhodewalt, F. (2001). Unraveling the paradoxes of narcissism: A dynamic
1080 self-regulatory processing model. *Psychological Inquiry*, 12(4), 177-196.
- 1081 Morrison, E. W. (2011). Employee voice behavior: Integration and directions for
1082 future research. *Academy of Management Annals*, 5(1), 373-412.
- 1083 Morrison, E. W. (2014). Employee voice and silence. *Annual Review of*
1084 *Organizational Psychology and Organizational Behavior*, 1(1), 173-197.
- 1085 Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and
1086 development in a pluralistic world. *Academy of Management review*, 25(4), 706-725.
- 1087 Nikolaou, I., Vakola, M., & Bourantas, D. (2008). Who speaks up at work? Dispositional
1088 influences on employees' voice behavior. *Personnel Review*, 37(6), 666-679.
- 1089 Ntoumanis, N., Taylor, I. M., & Thøgersen-Ntoumani, C. (2012). A longitudinal examination
1090 of coach and peer motivational climates in youth sport: Implications for moral attitudes,
1091 well-being, and behavioral investment. *Developmental Psychology*, 48(1), 213-223.
- 1092 O'Brien, T. B., & DeLongis, A. (1996). The interactional context of problem-, emotion-, and
1093 relationship-focused coping: the role of the big five personality factors. *Journal of*
1094 *Personality*, 64(4), 775-813.
- 1095 O'Neill, T. A., Lewis, R. J., & Carswell, J. J. (2011). Employee personality, justice perceptions,
1096 and the prediction of workplace deviance. *Personality and Individual Differences*,
1097 51(5), 595-600.
- 1098 Ozer, D. J., & Benet-Martínez, V. (2006). Personality and the prediction of consequential
1099 outcomes. *Annual Review of Psychology*, 57(1), 401-421.
- 1100 Paulhus, D. L. and Williams, K. M. (2002). The dark triad of personality: Narcissism,
1101 Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36, 556-563.

- 1102 Penley, J. A., & Tomaka, J. (2002). Associations among the Big Five, emotional responses,
1103 and coping with acute stress. *Personality and Individual Differences*, 32(7), 1215-1228.
- 1104 Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior:
1105 Multilevel perspectives. *Annual Review of Psychology*, 56, 365-392.
- 1106 Penney, L. M., & Spector, P. E. (2002). Narcissism and counterproductive work behavior: Do
1107 bigger egos mean bigger problems?. *International Journal of selection and Assessment*,
1108 10(1-2), 126-134.
- 1109 Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality
1110 Inventory and further evidence of its construct validity. *Journal of Personality and*
1111 *Social Psychology*, 54(5), 890-902.
- 1112 Rauthmann, J. F. (2012). The dark triad and interpersonal perception: similarities and
1113 differences in the social consequences of narcissism, machiavellianism, and
1114 psychopathy. *Social Psychological and Personality Science*, 3(4), 487–496.
- 1115 R Core Team (2019). R: A language and environment for statistical computing. R Foundation
1116 for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.
- 1117 Rhodewalt, F., & Morf, C. C. (1995). Self and interpersonal correlates of the Narcissistic
1118 Personality Inventory: A review and new findings. *Journal of Research in Personality*,
1119 29(1), 1-23.
- 1120 Roberts, R., Woodman, T., & Sedikides, C. (2017). Pass me the ball: Narcissism in
1121 performance settings. *International Review of Sport and Exercise Psychology*, 11(1),
1122 190-213.
- 1123 Ross, S. R., Canada, K. E., & Rausch, M. K. (2002). Self-handicapping and the five factor
1124 model of personality: Mediation between neuroticism and conscientiousness.
1125 *Personality and Individual Differences*, 32(7), 1173–1184.
- 1126 Rutten, E. A., Stams, G. J. J. M., Biesta, G. J. J., Schuengel, C., Dirks, E., & Hoeksma, J. B.

- 1127 (2007). The contribution of organized youth sport to antisocial and prosocial behavior
1128 in adolescent athletes. *Journal of Youth and Adolescence*, 36(3), 255–264.
- 1129 Schyns, B. (2015). Dark personality in the workplace: Introduction to the special issue. *Applied*
1130 *Psychology: An International Review*, 64, 1–14.
- 1131 Smith, T. W., Traupman, E. K., Uchino, B. N., & Berg, C. A. (2010). Interpersonal circumplex
1132 descriptions of psychosocial risk factors for physical illness: application to hostility,
1133 neuroticism, and marital adjustment. *Journal of Personality*, 78(3), 1011–1036.
- 1134 Stewart, G. L., Fulmer, I. S., and Barrick, M. R. (2005). An exploration of member roles as a
1135 multilevel linking mechanism for individual traits and team outcomes. *Personnel*
1136 *Psychology*, 58, 343-365.
- 1137 Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism
1138 and self-concept clarity as predictors of negative emotions and aggression following ego-
1139 threat. *Journal of Personality*, 70(4), 509-532.
- 1140 Swann, W. B., & Rentfrow, P. J. (2001). Blirtatiousness: Cognitive, behavioral, and
1141 physiological consequences of rapid responding. *Journal of Personality and Social*
1142 *Psychology*, 81(6), 1160–1175
- 1143 Tett, R. P., & Gutermann, H. A. (2000). Situation trait relevance, trait expression, and cross-
1144 situational consistency: testing a principle of trait activation. *Journal of Research in*
1145 *Personality*, 34, 397-423.
- 1146 Van Dyne, L., Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence and
1147 employee voice as multidimensional constructs. *Journal of Management Studies*, 40(6),
1148 1359–1392.
- 1149 Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of
1150 construct and predictive validity. *Academy of Management journal*, 41(1), 108-119.
- 1151 Van Puyenbroeck, S., Stouten, J., & Vande Broek, G. (2017). Coaching is teamwork! The

- 1152 role of need-supportive coaching and the motivational climate in stimulating
1153 proactivity in volleyball teams. *Scandinavian Journal of Medicine & Science in Sports*,
1154 28(1), 319-328.
- 1155 Van Puyenbroeck, S., Stouten, J., & Vande Broek, G. (2019) Can losing teams cope with
1156 destructive voice behaviour? The role of game results and athletes' perceived
1157 motivational climate. *Journal of Sports Sciences*, 37(7), 819-826.
- 1158 Vazire, S. (2010). Who knows what about a person? The self–other knowledge asymmetry
1159 (SOKA) model. *Journal of Personality and Social Psychology*, 98(2), 281–300.
- 1160 Vazou, S., Ntoumanis, N., & Duda, J. L. (2005). Peer motivational climate in youth sport: A
1161 qualitative inquiry. *Psychology of Sport and Exercise*, 6(5), 497-516.
- 1162 Watson, D., Hubbard, B., & Wiese, D. (2000). Self-other agreement in personality and
1163 affectivity: The role of acquaintanceship, trait visibility, and assumed similarity.
1164 *Journal of Personality and Social Psychology*, 78, 546–558.
- 1165 Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal
1166 domain. *Journal of Personality and Social psychology*, 37(3), 395-412.
- 1167
1168 .

Table 1

Overview of the Expected Relations and the corresponding results between Different Voice Types and the Big Five and Narcissism

	Constructive voice	Supportive voice	Defensive voice	Destructive voice about team members	Destructive voice about the coach
Extraversion	+ ^{1,2}	+ ^{1,3}	NP.	NP. ¹	NP. ¹
Agreeableness	+	+	NP.	- ^{4,5}	- ^{4,5}
Openness	NP.	NP.	NP.	NP.	NP. ¹
Conscientiousness	+ ^{1,2}	+	NP.	NP.	NP.
Emotional stability	NP.	NP.	-* ^{4,5,6}	-*	-*
Narcissism					
Agentic (L/A)	+ ^{1,2}	+ ¹	NP. ^{1,3}	NP. ^{1,3}	NP.
Antagonistic (E/E)	NP. ^{4,5}	NP. ⁴	+*	+*	+*

Note: NP. indicates that no specific hypothesis was postulated. * The same relations are hypothesized regarding players' voice frequency and the extent to which they pass on voice. The other hypothesized relations regard players' voice frequency.

1 = positive relation was found regarding players' indegree centralities

2 = positive relation was found regarding players' self-ratings

3 = positive relation was found regarding players' betweenness centralities

4 = negative relation was found regarding players' indegree centralities

5 = negative relation was found regarding players' self-ratings

6 = negative relation was found regarding players' betweenness centralities

Table 2

Means, Standard Deviations and Intercorrelations of Players' Personality Traits and their Voice Indegree Centralities

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Extraversion	4.91	1.59	-											
2. Agreeableness	5.22	1.04	-.19***	-										
3. Openness	4.87	1.18	.30***	-.02	-									
4. Conscientiousness	4.80	1.22	.07	-.04	.17***	-								
5. Emotional stability	4.58	1.35	-.01	.18***	.00	-.02	-							
6. Narcissism (L/A)	2.74	0.67	.46***	-.27***	.25***	.14***	.13***	-						
7. Narcissism (E/E)	2.94	0.64	.18***	-.04	.08*	.11**	.04	.56***	-					
8. Constructive voice	2.62	1.02	.27***	-.20***	.08*	.22***	.05	.34***	.02	.84/.20				
9. Supportive voice	2.17	0.71	.34***	-.18***	.09*	.06	.06	.26***	.06	.65***	.70/.38			
10. Defensive voice	2.03	0.73	.22***	-.14***	.14***	.07	-.08*	.14***	.00	.28***	.52***	.72/.21		
11. Destructive voice about team members	1.99	0.69	.32***	-.27***	.20***	.10**	-.04	.21***	.07	.47***	.66***	.72***	.70/.25	
12. Destructive voice about the coach	1.85	0.67	.27***	-.26***	.20***	.07*	-.08*	.09*	.03	.36***	.62***	.67***	.88***	.70/.37

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Diagonals depict the proportion of between vs. within-player variance/between vs. within-team variance.

Table 3

Means, Standard Deviations and Intercorrelations of Players' Personality Traits and their Voice Self-ratings

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Extraversion	4.91	1.59	-											
2. Agreeableness	5.22	1.04	-.19***	-										
3. Openness	4.87	1.18	.30***	-.02	-									
4. Conscientiousness	4.80	1.22	.07	-.04	.17***	-								
5. Emotional stability	4.58	1.35	-.01	.18***	.00	-.02	-							
6. Narcissism (L/A)	2.74	0.67	.46***	-.27***	.25***	.14***	.13***	-						
7. Narcissism (E/E)	2.94	0.64	.18***	-.04	.08*	.11**	.04	.56***	-					
8. Constructive voice	3.47	1.43	.27***	-.14**	.12**	.19***	.05	.32***	.10*	.49/.06				
9. Supportive voice	2.51	1.36	.21***	-.03	.14**	.03	.05	.10*	.06	.38***	.52/.11			
10. Defensive voice	2.27	1.24	.07	-.07	.02	.04	-.16***	.10*	.09*	.32***	.32***	.54/.05		
11. Destructive voice about team members	2.38	1.19	.15***	-.20***	.07	.09*	-.07	.11*	.12*	.30***	.39***	.45***	.48/.05	
12. Destructive voice about the coach	2.12	1.19	.18***	-.21***	.07	.05	-.05	.10*	.12**	.24***	.38***	.35***	.62***	.53/.10

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Diagonals depict the proportion of between vs. within-player variance/between vs. within-team variance.

Table 4

Means, Standard Deviations and Intercorrelations of Players' Personality Traits and their Voice Betweenness Centralities

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Extraversion	4.91	1.59	-											
2. Agreeableness	5.22	1.04	-.19***	-										
3. Openness	4.87	1.18	.30***	-.02	-									
4. Conscientiousness	4.80	1.22	.07	-.04	.17***	-								
5. Emotional stability	4.58	1.35	-.01	.18***	.00	-.02	-							
6. Narcissism (L/A)	2.74	0.67	.46***	-.27***	.25***	.14***	.13***	-						
7. Narcissism (E/E)	2.94	0.64	.18***	-.04	.08*	.11**	.04	.56***	-					
8. Constructive voice	0.02	0.03	.03	-.03	-.04	.02	-.03	.13**	.05	.28/.06				
9. Supportive voice	0.02	0.03	.17***	-.02	.04	.07	-.02	.15***	.04	.34***	.24/.02			
10. Defensive voice	0.02	0.03	.02	.01	-.01	.02	-.11**	.14**	.04	.36***	.32***	.39/.03		
11. Destructive voice about team members	0.02	0.03	.09*	-.08	.07	.09*	-.01	.17***	.11*	.30***	.35***	.38***	.32/.01	
12. Destructive voice about the coach	0.02	0.03	.09*	-.12**	.03	.04	-.07	.14***	.09*	.26***	.39***	.35***	.64***	.29/.02

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Diagonals depict the proportion of between vs. within-player variance/between vs. within-team variance.

Table 5

Parameter Estimates (SE) of the Multilevel Regression Model Predicting Players' Square-Root Transformed Voice Indegree Centralities

	Constructive voice	Supportive voice	Defensive voice	Destructive voice about team members	Destructive voice about the coach
Fixed effects					
Intercept	1.62*** (0.04)	1.49*** (0.05)	1.43*** (0.04)	1.42*** (0.04)	1.37*** (0.04)
Game loss	0.03* (0.01)	0.02 (0.01)	0.04** (0.01)	0.02 (0.01)	0.02 (0.01)
Extraversion	0.03* (0.01)	0.03*** (0.01)	0.00 (0.01)	0.02* (0.01)	0.02** (0.01)
Agreeableness	-0.01 (0.02)	-0.00 (0.01)	-0.00 (0.01)	-0.03** (0.01)	-0.03** (0.01)
Openness	-0.02 (0.02)	-0.01 (0.01)	0.01 (0.01)	0.02 (0.01)	0.02** (0.01)
Conscientiousness	0.04* (0.01)	-0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.00 (0.01)
Emotional stability	0.02 (0.01)	0.00 (0.01)	-0.03* (0.01)	-0.01 (0.01)	-0.01 (0.01)
Narcissism (L/A)	0.17*** (0.04)	0.08*** (0.02)	0.07** (0.03)	0.06* (0.03)	0.01 (0.02)
Narcissism (E/E)	-0.12*** (0.03)	-0.04* (0.02)	-0.02 (0.03)	0.00 (0.02)	0.01 (0.02)
Random effects					
Residual	0.01	0.01	0.01	0.01	0.01
Intercept player-level	0.04	0.01	0.02	0.02	0.01
Intercept team-level	0.02	0.03	0.02	0.01	0.02
Effect size					
pseudo- R_0^2	.32	.46	.18	.37	.40

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Table 6

Parameter Estimates (SE) of the Multilevel Regression Model Predicting Players' Voice Self-ratings

	Constructive voice	Supportive voice	Defensive voice	Destructive voice about team members	Destructive voice about the coach
Fixed effects					
Intercept	3.44*** (0.13)	2.53*** (0.16)	2.11*** (0.15)	2.41*** (0.11)	2.09*** (0.11)
Game loss	0.02 (0.14)	-0.03 (0.13)	0.38** (0.12)	0.02 (0.11)	0.10 (0.11)
Extraversion	0.13* (0.06)	0.08 (0.06)	0.00 (0.06)	0.06 (0.05)	0.09 (0.06)
Agreeableness	-0.04 (0.09)	-0.01 (0.08)	0.09 (0.08)	-0.15* (0.08)	-0.20* (0.08)
Openness	-0.01 (0.08)	0.10 (0.08)	-0.02 (0.08)	-0.01 (0.07)	0.01 (0.07)
Conscientiousness	0.16* (0.07)	0.04 (0.07)	0.05 (0.07)	0.09 (0.06)	0.02 (0.07)
Emotional stability	0.00 (0.07)	0.02 (0.06)	-0.26*** (0.06)	-0.06 (0.06)	-0.04 (0.06)
Narcissism (L/A)	0.64*** (0.18)	-0.02 (0.17)	0.24 (0.17)	0.07 (0.16)	0.13 (0.17)
Narcissism (E/E)	-0.34* (0.17)	0.06 (0.15)	0.09 (0.15)	0.16 (0.15)	0.21 (0.15)
Random effects					
Residual	1.03	0.77	0.65	0.67	0.60
Intercept player-level	0.61	0.65	0.64	0.52	0.60
Intercept team-level	0.07	0.22	0.16	0.06	0.06
Effect size					
pseudo- R_0^2	.36	.19	.19	.20	.16

*Note: * $p < .05$; ** $p < .01$; *** $p < .001$*

Table 7

Parameter Estimates (SE) of the Multilevel Regression Model Predicting Players' Square-Root Transformed Voice Betweenness Centralities

	Constructive voice	Supportive voice	Defensive voice	Destructive voice about team members	Destructive voice about the coach
Fixed effects					
Intercept	0.12*** (0.007)	0.095*** (0.006)	0.098*** (0.009)	0.11*** (0.008)	0.091*** (0.011)
Game loss	-0.001 (0.008)	0.010 (0.008)	0.008 (0.009)	0.008 (0.008)	0.014 (0.009)
Extraversion	0.001 (0.004)	0.012*** (0.004)	-0.003 (0.004)	0.002 (0.004)	-0.000 (0.004)
Agreeableness	-0.002 (0.005)	0.004 (0.005)	0.011 (0.006)	0.001 (0.006)	-0.008 (0.006)
Openness	-0.001 (0.005)	-0.000 (0.005)	-0.006 (0.005)	-0.002 (0.005)	0.001 (0.006)
Conscientiousness	0.002 (0.004)	-0.001 (0.004)	-0.000 (0.005)	0.003 (0.005)	-0.002 (0.005)
Emotional stability	-0.003 (0.004)	-0.003 (0.004)	-0.010* (0.004)	-0.004 (0.004)	-0.010 (0.005)
Narcissism (L/A)	0.017 (0.010)	0.020 (0.010)	0.048*** (0.011)	0.030* (0.012)	0.023 (0.013)
Narcissism (E/E)	-0.002 (0.009)	-0.010 (0.009)	-0.008 (0.010)	-0.000 (0.011)	0.007 (0.011)
Random effects					
Residual	0.004	0.005	0.004	0.004	0.004
Intercept player-level	0.002	0.002	0.003	0.004	0.004
Intercept team-level	0.000	NI.	0.000	0.000	0.001
Effect size					
pseudo- R_0^2	.05	0.22	0.03	0.04	0.12

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.