The classic trichotomy of needs theory of McClelland (1961) put forward that there are three intrinsic motives that drive each individual: the Need for Achievement, the Need for Power, and the Need for Affiliation (McClelland, 1961). These needs have been used in both motivational psychology (Deci & Ryan, 2000) and work and organizational psychology (e.g., Harrell & Stahl, 1984; Latham & Budworth, 2006; Ramlall, 2004) to explain why people act the way they do. At work, people are motivated for different reasons to accomplish their responsibilities (DeNisi & Pritchard, 2006). People with a high Need for Power for instance will be driven in their work by wanting to influence others, whereas people with a high Need for Achievement will enjoy the accomplishment of a difficult and challenging task. People scoring high on the Need for Affiliation essentially need to be in close and friendly relationships with others (McClelland, 1961; Ramlall, 2004).

Baard, Deci and Ryan (2004) argued that the intrinsic need satisfaction within organizations form a motivational basis for organizational success. They were able to demonstrate that satisfying the intrinsic needs of employees by means of a supportive work climate, predicted their well-being, vitality, and their performance evaluations. People with a high Need for Affiliation, for instance, who have a desire for maintaining good relationships and being part of a group, will flourish in a work climate in which social interaction is encouraged and with a manager who is able to create team spirit. When, however, employees become frustrated in their needs, this could lead to poorer satisfaction, work performance and perhaps increased withdrawal and related health costs for organizations (Harell & Stahl, 1984).

The present study takes the perspective that understanding employees’ needs at work is a prerequisite to be able to subsequently stimulate and facilitate the desired work outcomes. In line with this perspective, the focus of our study is an investigation of the degree to which there is an interpersonal agreement within employees’ social work environment upon one’s Need for Achievement, Need for Power and Need for Affiliation. At the core of our study is the notion that a higher agreement between one’s self-rated needs and other’s ratings of one’s needs implies a better understanding of one’s needs, which
should ultimately have a positive effect on important work-related outcomes. However, if, as suggested by Fletcher (1997, p. 186), self-perceptions would differ from the perceptions by others “... then it is difficult to see how one can manage work relationships successfully, contribute well as a team member and adapt one’s behavior to circumstances and individuals”. Given that motivation is an important determinant of work behavior (DeNisi & Pritchard, 2006), people will need feedback for self-insight to be able to change their behavior sooner or later (DeNisi, 2011).

Within an organization consisting of self-governing teams, our study examined whether people's perceptions about their own Need for Achievement, Need for Power and Need for Affiliation in the work context, agree with how they are perceived by their team members (self-insight) and how they perceive those others (social comparison).

The Need for Achievement, the Need for Power, and the Need for Affiliation

Building on the pioneering research of the Harvard Psychological Clinic (1930, Explorations in Personality), Murray (1938) first discussed the importance of the Need for Achievement, the Need for Power, and the Need for Affiliation in the context of an integrated motivational model. McClelland (1961) then published The Achieving Society in which he proposed that these three needs form the basis of human motivation in the work environment. His ideas, also known as the Need Theory and the Learned Needs Theory, provide an explanation for how the three needs (Need for Achievement, Power, and Affiliation) may affect the actions of people in a work context.

According to McClelland, Atkinson, Clark, and Lowell (1953), people with a high Need for Achievement get satisfaction from individually mastering challenging tasks. Because they are concerned with personal achievement, people with a high Need for Achievement place high value on receiving regular individual feedback (Brunstein & Hoyer, 2002), and on meeting their obligations and accomplishing tasks (Engeser & Langens, 2010; McClelland, 1961). Individuals with a high Need for Power prefer to influence others, to control others or be in a position of power (Winter, 1998). Highly power-motivated individuals obtain satisfaction from exerting social, physical or emotional impact on others or on the world at large, but experience aversion against social defeats and impact from others (Winter, 1998). A high Need for Affiliation characterizes people who love to create and maintain social relationships, enjoy being part of a group and have the desire to feel loved and accepted (Sokolowski & Heckhausen, 2008). Those with a high Need for Affiliation are more likely to get lonely than those with a low Need for Affiliation, suggesting that their Need for Affiliation may be related to their sense of self and their desire for external stimulation (McClelland, 1961).

Several studies have supported the importance of the Need for Achievement, the Need for Power, and the Need for Affiliation in the work environment. Harrel and Stahl (1984) reported correlations between the three needs and several job outcomes, with the Need for Affiliation relating negatively and the Need for Power relating positively to the job satisfaction of managers. These authors found the Need for Achievement to be positively related to the amount of time people spend on their work and work-related activities, and their performance ratings. Baard et al. (2004) described positive relationships between the satisfaction of employees' basic psychological needs of competence, autonomy, and relatedness (which needs are loosely comparable to the needs of Achievement, Power and Affiliation) and their well-being as well as the performance evaluation they reported to have received from the organization. Among 745 employees from different work settings in Belgium, Van den Broeck, Vansteenkiste, De Witte and Lens (2008) found that the degree to which these psychological needs could be satisfied, was able to fully account for the relationship between one's job resources and one's exhaustion at work, and to partially account for the relationships between these employees' job demands and their exhaustion, and between their job resources and vigor at work. As yet another example, Greguras and Diefendorff (2009) in a longitudinal study among full-time employees in Singapore confirmed that the psychological need satisfaction was able to predict employees' supervisor-rated job performance and their affective commitment to the organization. Such findings seem consistent with Deci and Ryan's (2000) work in which they posit that satisfaction of one's psychological needs leads to optimal performance.

Consequently, from findings such as the above, we deduce that being able to accurately comprehend and account for an employee's needs can influence employees' work performance and job satisfaction. At the same time, it also seems likely that not understanding an employee's needs will increasingly lead to problems at work and eventually perhaps to higher employee turnover.

Self-other agreement

The present study's premise is that a higher agreement between one's self-rated needs and other's ratings of one's needs should eventually have a positive influence important work-related outcomes. Earlier research into self-other agreement on related constructs such as personality and values has taken diverging stances in the topic of self-other agreement. Some state that self-ratings are subject to response biases such as social desirability, implying that other raters are better and more objective judges of individual's characteristics (e.g., Oh, Wang, & Mount, 2011). Other researchers state that individuals are experts about themselves, and therefore anyone else will be less able to provide accurate ratings about that person than the person him or herself (e.g., Klein & Lofts, 2014). Several researchers have taken intermediate positions in this discussion, proposing that self-other agreement will be higher, when, among other things, the visibility of the construct is higher and the desirability of the construct is lower (e.g., John & Robins, 1993), when 'good' raters are used (e.g., raters with a higher dispositional intelligence,
who are better able to relate behavior to underlying dispositions; De Kock, Lievens, & Born, 2015), and for ratees who are better ratable (e.g., low self-monitors; Funder, 1995) or have more self-insight than others (Hixon & Swann, 1993). John and Robins (1993) provided empirical support for the idea that a higher observability and a lower evaluativeness (favorability versus unfavorability) of a construct will lead to a higher self-other agreement. Extraversion, for instance, has a relatively high observability and a relatively low evaluativeness, leading to more self-other agreement than for instance conscientiousness, which has a somewhat lower observability and a higher evaluativeness. In a similar vein, Vazire (2010) was able to support the idea that observability and evaluativeness of a construct would also determine whether the self or the other would be the best judge of this construct. Vazire for example reported that for constructs low in observability and evaluativeness, such as neuroticism-related traits, the self was the best judge. The extent to which such findings are relevant for work settings needs to be understood from the fact that employees remain dependent upon others at work. Such others may form sources of information about their performance and provide feedback, but also may be significant in decisions about their careers. Overall, it therefore will continue to be important for organizations to strive for self-other agreement, whether the self as perhaps at times being the better judge needs to clarify his or her own needs to others or whether the others as perhaps at times being the better judges will have to enlighten the rated employee. For organizations it may also be important to use other-ratings to complement self-assessed information in predicting important work outcomes. More generally, and in line with the work done by Kristof-Brown (2000), we believe it is essential to develop knowledge about one’s own and others’ needs at work to be able to improve the fit between employee and the organization, which fit subsequently will imply fewer turnovers.

Studies into self-other agreement have predominantly focused on agreement in terms of personality, although other self-attributes such as physical attractiveness and social skills (e.g., Hixon & Swann, 1993), and values varying from conservatism to hedonism and self-realization (e.g., Dobewall, Aavik, Konstabel, Schwartz, & Realo, 2014) have also been studied. Findings from such studies regarding self-other agreement have shown that people can assess some of these characteristics of others and therefore can be used to validate self-reported constructs. To the best of our knowledge, however, research into the extent of self-other agreement on the Need for Achievement, the Need for Power, and the Need for Affiliation has not yet been conducted. Consequently, the current study aims to contribute to the available knowledge regarding employee behavioral motivations by using the Social Relations Model to assess the extent of self-other agreement on the three needs in a work context.

Social Relations Model
The Social Relations Model (SRM) developed out of the person perception literature by Kenny and La Voie (1984), and can be seen as an application of Cronbach, Gleser, and Nanda’s (1972) generalizability theory. The SRM uses a round-robin design to assess the extent of self-other agreement, but also the factors that influence such correlations. In a round-robin design each member of a group rates and is rated by each other member of the group. One of the key assets of the SRM is that it distinguishes between target variance (the target effect) – the extent to which the targets (those being rated) vary in their tendency to elicit similar ratings from all raters – and perceiver variance (the perceiver effect), which is the extent to which perceivers (raters) vary among each other in their individual tendencies to rate targets similarly.

The SRM is seen as valuable by researchers (e.g., Greguras, Robie & Born, 2001) to better understand self-other (dis)agreement than more typical 360-models, in which multiple perceivers rate a given target while the given target does not in turn rate those perceivers. Overall, there are two key reasons for this preference; firstly, the SRM is a tool to conceptualize processes of inter personal perception (Back & Kenny, 2010), which implies that it distinguishes between target and perceiver effects influencing the ratings of persons, and secondly it comprises a robust statistical method of data analysis (Bonito & Kenny, 2010). An extensive discussion of the Social Relations Model is beyond the scope of this article, for which we refer to Kenny and La Voie (1984), Kenny and West (2010), and Marcus and Leatherwood (1998). Yet, to clarify our hypotheses the following aspects of the Social Relations Model need to be discussed.

Consensus. To analyze self-other agreement it is important that there is consensus among others about the rating of a particular person (Marcus & Leatherwood, 1998). Consensus, or other-other agreement, is the extent to which the raters for instance consistently rate the same team members as having a stronger Need for Affiliation than other team members have. In line with generalizability theory terminology, consensus implies a main effect (variance component) due to ratees which also is referred to as the target effect (cf. Kenny, 1994; Kenny, Albright, Malloy, & Kashy, 1994).

Self-other agreement. Self-other agreement is defined as the correlation between self-ratings and the target effect (e.g., are ratees who see themselves as having a weak Need for Affiliation also seen by their team members as having a weak Need for Affiliation?).

Assumed similarity. Perceivers’ ratings (i.e., other-ratings) of the target can be influenced by so-called projection, which refers to the innate bias of seeing others as one sees oneself (e.g., are ratees who see themselves as having a strong Need for Affiliation also inclined to see their team members as having a strong Need for Affiliation?). This correlation virtually always is positive (assumed similarity), although it also has been suggested that it can be negative, which is labeled as contrast projection. Contrast projection indicates that the perceiver rates others as opposite to oneself.

In sum, first according to personal-organizational fit theory, individual value profiles need to be compared...
to organizational value profiles to determine fit and to predict changes in values, norms, and behaviors (e.g., Kristof, 1996; Kristof-brown, 2000; Schneider, 1987). As values are thought to be based on people’s needs (e.g., McClelland, 1985), needs may be shared similarly to the ways values are shared within organizations. Second, the SRM allows us to assess the self-other agreement on the Need for Achievement, the Need for Power, and the Need for Affiliation, while it also assesses the extent of consensus and assumed similarity. In the following, several hypotheses will be developed related to the extent of consensus, self-other agreement and assumed similarity on employees’ needs. As consensus is a prerequisite for self-other agreement, it will be discussed first.

Hypotheses
Several considerable conceptual and empirical associations among motives, values, and personality traits provide the possibility to draw upon findings on personality traits and values to develop expectations about self-other agreement levels on the three needs. Engeser and Langes (2010) posited that the need to excel will motivate both highly conscientious people and people with a strong explicit achievement motive, therefore implying that the motive to Achieve would be most closely related to Conscientiousness. Their results indeed indicated that the Need for Achievement was strongly related to Conscientiousness (r = .55). Furthermore, they were able to confirm the expectation that the Need for Power would be a combination of Extraversion (r = .55) and (negatively) Agreeableness (r = –.43), and that the Need for Affiliation would clearly be related to Extraversion (r = .65).

Moreover, the value theory of Schwartz (1992) shows some strong conceptual associations with the three needs. The achievement and power values, which are theoretically strongly related to the Need for Achievement and the Need for Power, respectively, both belong to the higher-order value of Self-Enhancement. The values of Security and Conformity, belonging to the higher-order value Conservation, conceptually relate most to the Need for Affiliation. Security among other things focuses on harmony, and stability of relationships, whereas Conformity includes a restraint of actions, likely to harm others. Dobewall et al. (2014) were able to empirically show substantive other-other and self-other agreement for the Self-Enhancement and the Conservation values.

Next to drawing upon the above findings from the domains of personality and values, for some of the hypotheses studies investigating other self-attributes such as affectivity (Watson, Hubbard, & Wiese, 2000) and happiness (Dobewall, Realo, Allik, Esko, & Metspalu, 2013), could be used to be able to develop expectations about the effect sizes of consensus, self-other agreement, and assumed similarity.

Consensus
Dobewall et al. (2014) found consensus between raters on all Big-Five personality traits (r = .31 to r = .52), and similar results for values (e.g., security and conformity values; r = .35 to r = .47). These results imply moderate-to-strong effect sizes of consensus (Cohen, 1988; effect sizes of .30 ≤ r). We therefore expected similar degrees of consensus in our sample of employees for the three needs:

Hypothesis 1: Consensus (other-other agreement) for the Need for Achievement, the Need for Power and the Need for Affiliation will be moderately to strongly positive.

Self-other agreement
We expected that self-other agreement on the Need for Achievement, the Need for Power, and the Need for Affiliation would be comparable in strength to the self-other agreement on the Big Five personality traits (Kenny, 1994, p. 189; r = .39 [conscientiousness], r = .70 [extraversion], and r = .42 [agreeableness]), on values (Dobewall et al., 2014; ranging from r = .31 to r = .54), and on affectivity. Watson et al. (2000) report that most affective traits (e.g., hostility, self-assurance) “tend to show moderate to strong levels of self-other agreement” (p. 552). Similar findings were presented for happiness by Dobewall et al. (2013; r = .55). These findings imply that for the three needs, which also are self-attributes like the above constructs, moderate to strong self-other agreement may be expected (effect sizes of .30 ≤ r).

We thus predict the following hypothesis for our sample of employees:

Hypothesis 2: The self-other agreement for the Need for Achievement, the Need for Power and the Need for Affiliation will be moderately to strongly positive.

Assumed similarity
Earlier research has revealed the presence of assumed similarity (projection), implying that people see others as being similar to themselves. Assumed similarity suggests that people may use themselves as a benchmark to make sense of others, coloring their assessments of others (Funder, 1995; Lee, Ashton, Pozaebon, Visser, Borudage & Ogunfowora, 2009; Murray, Holmes, Bellavia, Griffin & Dolderman, 2002). People may spontaneously think about themselves when they judge others. As empirical studies on assumed similarity until now unfortunately as far as known have only focused on personality, the following findings we report refer to such studies. Kenny (1994, p. 184) found levels of assumed similarity for Conscientiousness on average equaling r = .37, for Extraversion r = .27, and for Agreeableness even as high as r = .65. The high level of projection for Agreeableness may be the consequence of Agreeableness being a reciprocal trait: being kind to others may imply others will also reciprocate in a kind manner. Because of the relationships between these personality traits and the Needs for Achievement, Power and Affiliation respectively (Engeser & Langens, 2010; Zhao & Seibert, 2006)) we similarly predict moderately to strongly positive (.30 ≤ r) levels of assumed similarity for the three needs among our sample of employees:
Hypothesis 3: The assumed similarity for the Need for Achievement, the Need for Power and the Need for Affiliation will be moderately to strongly positive.

Method

Participants and Procedure

For this study, 168 employees working at a large non-profit organization in the Netherlands participated in the study in exchange for extensive feedback. The employees (91 males and 77 females) worked in one of 42 teams, each of which consisted of four members. Consequently, 42 teams of four members each summed up to 168 participants. The mean age of the participants was 40.3 years (SD = 7.9) and all participants were of Dutch nationality. They had been working in their team for 11 months on average. The entire organization was made up of self-governing teams working in its call center, the financial department, the HR department, etc.

The participants had indicated to the organization that they wished to follow a work-related course to develop themselves further. The course was provided by a University of Applied Sciences and taught topics varying from knowledge about the functioning of organizations to organizational behavior and work-relevant communication skills. The employees who followed the course worked in teams which could be found across the whole organization and for that reason the study sample can be seen as reflecting the existing structure of the organization. As an integrated part of the course, each of the participants asked their three team-members to evaluate them on their needs, and they also self-rated their needs. Thus, data from all participants following the course (a 100% response rate) could be used for the study.

Data were collected in September 2014. During one of the course lectures, the participants completed the Multi Motive Grid (MMG; Sokolowski, Schmalt, Langens & Puca, 2000), which aims to measure individuals’ needs (see Measures section for more information on the MMG). They completed one self-report version measuring their own levels of Need for Achievement, Need for Power, and Need for Affiliation. They also completed three other-ratings of the MMG, namely for each of their team members. These team members were their direct colleagues. In this way, all team members provided perceiver-ratings for their peers. They therefore were restricted in who to rate, as those whom they rated were their team members. On average it took the participants half an hour, including receiving information about the research, to complete the MMG for all four target-individuals (the self and the three other team members). All team members were asked to fill in the four questionnaires (one self-report, three other-observations) and to do so at that moment in time. (The sample size of N = 168 implied a statistical power of .93, given $\alpha = .05$ and an effect size $r$ of at least .20).

Ethical approval was obtained from the researchers’ department’s ethics committee prior to commencing the study. Participants were first briefed on what the study involved and were made aware of any incentives and that they could stop participating at any time. Upon completion, they received a de-briefing sheet disclosing exactly what study they took part in with contact details of the researcher for any further questions. Participants provided their informed consent on the form which the University of Applied Sciences uses for all students who take part in the university’s courses.

Measures

Needs. The Need for Achievement, the Need for Power, and the Need for Affiliation were measured with the Multi Motive Grid (MMG; Sokolowski et al., 2000), which is a 12 items measure intended for the assessment of individuals’ needs. The MMG contains three scales, one for each need, with each need measured by four items. To be applicable for the Dutch sample, the first author translated the instruction and items of the Multi Motive Grid from English to Dutch. To control for any translation effects, an independent bilingual researcher translated the Dutch version back into English to identify any mistakes made. Participants rated the 12 items on a five-point Likert response scale from 1 (very much disagree) to 5 (very much agree). Example items are “Feeling confident when you fill out the below items”. This type of instruction provides a work-related frame-of-reference to the participants when they fill out the items (cf. Hunthausen, Truxillo, Bauer, & Hammer, 2003).

The scales demonstrated acceptable reliabilities in the study by Sokolowski et al. (2000). Our sample showed the following alpha coefficients for self-ratings: for the Need for Achievement $\alpha = .88$, for the Need for Power $\alpha = .81$, and for the Need for Affiliation $\alpha = .76$. The intercorrelations between the scales in our sample were similar to each other; the Need for Achievement $\times$ the Need for Power, $r = .31$, the Need for Achievement $\times$ the Need for Affiliation, $r = .35$, and the Need for Power $\times$ the Need for Affiliation, $r = .29$. Our sample showed alpha coefficients for perceiver-ratings as follows: for the Need for Achievement $\alpha = .85$, for the Need for Power $\alpha = .80$, and for the Need for Affiliation $\alpha = .75$. The intercorrelations between the scales were comparable to each other and to the intercorrelations among the self-rated need scales: the Need for Achievement $\times$ the Need for Power, $r = .30$, the Need for Achievement $\times$ the Need for Affiliation, $r = .33$, and the Need for Power $\times$ the Need for Affiliation, $r = .28$.

Analyses

All analyses were conducted by means of Kenny’s FORTRAN program SOREMO version V.2 (1998, 2007). This program was designed to analyze data based upon social relations through the round-robin design methodology. The formulas that this program uses may be found in Kenny (1994, Appendix B). The analysis we performed consisted of two steps. First, the participants’ ratings of the other members of their groups were decomposed into target variance, perceiver variance and relationship/error variance. (The latter component is a confounding of the variance specific
to the relationship between one particular rater and one particular rate and error variance, and does not play a role in our hypotheses). This decomposition was necessary to examine the degree of consensus (i.e., other-other agreement) in per-ceptions of achievement, power and affiliation. Consensus (the target effect/target variance component) in SRM is defined as the amount, or percentage, of target variance compared to the full variance in ratings. It is expressed by $s^2$, referring to the percentage of explained variance by systematic differences between targets (i.e., a main effect due to ratees) in their needs: a significant $s^2$ for the Need for Affiliation, for instance, implies that raters systematically see differences between team members in their Need for Affiliation, with some team members having a higher Need for Affiliation, and other team members having a lower Need for Affiliation. Note that consensus is not indexed by means of a correlation but that a variance approach is used to measure it, resulting in a proportion of variance.

The proportion of variance attributable to targets can be viewed as a squared correlation (cf. Kenny, 1994, pp. 53–56). Consensus was estimated for each need, together with the reliabilities of the target effect for each need (cf. Bonito & Kenny, 2010; Greguras et al., 2001, for reliability estimation). The variance partitioning also provided the components necessary for the second step, namely correlating target and perceiver effects with the employees’ self-ratings for the estimation of self-other agreement and assumed similarity respectively. To estimate self-other agreement, a correlation was calculated between the actual self-ratings and the averaged other-ratings of the target on the three Needs. The estimation of assumed similarity involved determining the correlation between self-rating and the perceiver effect for each need.

**Results**

**Descriptive statistics**

**Self-ratings.** As can be seen from Table 1, on average, participants rated their own levels all needs above the scale midpoint of three. The average self-ratings on the Need for Achievement ($M = 3.61, SD = .41$) were significantly higher than the average self-ratings on the Need for Power ($M = 3.44, SD = .56; t = 2.56, p < .05$), but significantly lower than the self-ratings on the Need for Affiliation ($M = 3.84, SD = .36; t = 3.09, p < .05$). Consequently, participants scored highest on the Need for Affiliation and lowest on the Need for Power.

**Table 1**: Results for the three needs, including means, standard deviations for self-ratings and perceiver-ratings, and consensus, self-other agreement and assumed similarity ($N = 168$ employees in 42 teams).

<table>
<thead>
<tr>
<th>Need for Achievement</th>
<th>Self-ratings</th>
<th>Perceiver-ratings</th>
<th>Consensus(^b)</th>
<th>Self-other agreement</th>
<th>Assumed similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M = 3.61, SD = .41$</td>
<td>$M = 3.79, SD = .65$</td>
<td>$s^2 = .08^* (59)$</td>
<td>$r = .49^*$</td>
<td>$r = .62^*$</td>
</tr>
<tr>
<td>Need for Power</td>
<td>$M = 3.44, SD = .56$</td>
<td>$M = 3.35, SD = .34$</td>
<td>$s^2 = .06^* (67)$</td>
<td>$r = 1.30^{**}$</td>
<td>$r = .03$</td>
</tr>
<tr>
<td>Need for Affiliation</td>
<td>$M = 3.84, SD = .36$</td>
<td>$M = 3.69, SD = .45$</td>
<td>$s^2 = .07^* (60)$</td>
<td>$r = .08$</td>
<td>$r = .00$</td>
</tr>
</tbody>
</table>

Note: *$p < .05$, **$p < .01$; *Significant difference between self-ratings and perceiver ratings (on a five-point Likert scale from 1 to 5) on the Need for Achievement ($p = 0.05$); \(^b\) Consensus is measured as a proportion of variance, which can be viewed as a squared correlation (Kenny, 1994, p. 56); \(^c\) The design of the SRM allows for correlations larger than 1.0, which should be interpreted as $r = 1.0$ (Kenny, 2007). Reliability estimates for the variance estimates which represent consensus are in brackets. These values are values which are typically found in SRM studies (personal correspondence with David Kenny, 23 December 2014).
**Perceivers-ratings.** On the Need for Achievement, the participants on average rated others (i.e., the targets) slightly higher ($M = 3.79, SD = .65$) than they rated themselves (self-ratings; $M = 3.61, SD = .41; t = 2.13, p < .05$). On average, they rated others similarly ($M = 3.35, SD = .34$) on the Need for Power as they rated themselves ($M = 3.44, SD = .56; t = .63, ns$). Their ratings, on average, of others on the Need for Affiliation were also non-significantly different ($M = 3.69, SD = .45$) from their self-ratings ($M = 3.84, SD = .36; t = 1.12, ns$).

**Hypothesis testing**

Hypothesis 1 stated that the consensus (other-other agreement) on the levels of the Need for Achievement, Power and Affiliation would be positive and moderate to strong. This implied in terms of the amount of target variance (notated as $s^2$) that we expected this value to be at least equal to (the equivalent of $(r = .30)^2$) $s^2 = .09$. The results supported our first hypothesis in the sense that significant consensus occurred for all needs ($p < .05$). On the Need for Achievement, the level of consensus was $s^2 = .08$, on the Need for Power $s^2 = .06$, and on the Need for Affiliation $s^2 = .07$. These values implied a moderate level of consensus, approaching the .09 value used as a benchmark for a moderate result (Cohen, 1988).

Hypothesis 2 stated that the self-other agreement on the levels of the Need for Achievement, Power and Affiliation would be positive and moderate to strong ($.30 \leq r$). The extent of self-other agreement was estimated by the correlation between self-ratings and perceivers-ratings (the target effect) on the three needs. The results supported our second hypothesis, but not for the Need for Affiliation. For the Need for Achievement, the results indicated a significant and high self-other agreement: $r = .49, p < .05$. For the Need for Power, the extent of self-other agreement was also significant and high: $r = 1.30, p < .05$. (The SRM design allows for correlations larger than 1; according to Kenny (2007) these correlations should be interpreted as $r = 1$). The self-other agreement on the Need for Affiliation, however, was not significant: $r = .08, ns$, indicating that the self-rated Need for Affiliation of the participants did not relate to the other-rated Need for Affiliation.

Hypothesis 3 specified that the assumed similarity on the levels of need for Achievement, Need for Power and Need for Affiliation would be positive and moderate to strong ($.30 \leq r$). The results supported our third hypothesis for the Need for Achievement but not for both other needs. Results indicated a significant and high assumed similarity for the Need for Achievement: $r = .62, p < .05$, meaning that employees saw their team members similar to themselves in terms of the Need for Achievement. In contrast, the Need for Power and the Need for Affiliation did not result in significant assumed similarity, with $r = .03, ns$, and $r = .00, ns$, respectively.

**Discussion**

Among 42 teams in a large non-profit organization, with each team consisting of four employees, the present study examined the extent to which consensus, self-other agreement, and assumed similarity existed for the Need for Achievement, Power, and Affiliation in the work environment. The study was conducted by means of Kenny and La Voie’s (1984) Social Relations Model (SRM). There was a significant and moderate consensus (i.e., other-other agreement) among perceivers on their ratings of the target’s levels of all three needs. High self-other agreement was found for the Need for Achievement and the Need for Power but the Need for Affiliation, unexpectedly, did not result in significant self-other agreement. This implies that employees do not perceive their own Need for Affiliation as others do. High assumed similarity occurred for the Need for Achievement only, but assumed similarity did not occur for the other needs. These results suggest that the way employees see their own Need for Achievement is very similar to how they see their colleagues’ Needs for Achievement, but this is not the case for both other needs.

As expected, the findings that were significant showed moderate to strong effect sizes (see Table 1), confirming other research in the area of self-related attributes such as studies into values, personality, happiness and affectivity (e.g., Dobewall, Realo, Allik, Esko, & Metspalu, 2013; Dobewall et al., 2014; Kenny, 1994; Watson, Hubbard, & Wiese, 2000). The strength of consensus, however, was slightly lower than was expected, and the self-other agreement for the Need for Power and assumed similarity for the Need for Achievement even were somewhat higher than was expected. We will now discuss the findings for each need separately.

**Need for Achievement**

Among the three needs, McClelland (1985) regarded the Need for Achievement as the most fundamental need in the work environment. As was predicted, the Need for Achievement showed consensus among co-workers, clear self-other agreement among employees, and also substantial assumed similarity. This means that one’s colleagues agree among each other, and with employees themselves on their Need to Achieve, and also project their own achievement drive on their colleagues.

In occupational settings, the sensitivity of colleagues to pick up signs of one’s internal motive to achieve is perhaps not so surprising. The centrality and observability of achieving one’s tasks at work in the mostly interdependent tasks and jobs within teams, will probably lead to substantial agreement of perceptions of employees’ achievement motives by their team members when compared to other employees’ perceptions and one’s self-perceptions. Assumed similarity refers to a process where one’s ratings of the target are influenced by a tendency to perceive others as one perceives oneself. Given the relevance and naturalness in work contexts of the need of employees to strive for achievement, it seems likely that colleagues will project their own achievement needs on their peers, assuming that their team members are also motivated to realize their tasks. However, an alternative explanation to assumed similarity cannot be ruled out, namely that peers’ own Need for Achievement levels within each team are actually similar to the level of the rated team...
members (cf. Watson et al., 2000). In other words, the possibility remains that coworkers rated their peers similar to themselves on their Need for Achievement because they actually have similar levels of this need in each team.

**Need for Power**

Consensus for the Need for Power was significant, with one’s co-workers moderately agreeing among each other on their colleagues’ drive to exert power over others. It further is interesting to see that the level of self-other agreement was quite high for this need, even though this need might not be the most essential need for all employees in a work environment (Harrell & Stahl, 1984). The high degree of self-other agreement likely reflects the fact that it is rather observable whether one’s team member at work has an inclination towards wanting to influence others, as this will probably directly have an impact upon the colleagues in the team themselves. This explanation would be in line with research showing that an enhanced observability of a construct implies a higher self-other agreement (e.g., John & Robins, 1993).

The absence of any assumed similarity for this need reflects the fact that one’s co-workers evidently are able to distinguish between their own power drive and that of their colleagues. Stated differently, seeing their team members’ Need for Power is not related to the way they see their own Need for Power. A simple explanation for this finding is that the Need for Power does not imply reciprocity, in the sense that one’s own Need for Power is not seen to be caused by the Need for Power of one’s colleagues.

**Need for Affiliation**

Consensus was significant for the Need for Affiliation and, as for both other needs, it had a moderate effect size. Yet, in contrast to both other needs, self-other agreement was absent for the Need for Affiliation. This need seems to be mentioned less often in employee motivation theories as being important for employees’ job performance and how to motivate them (cf. Ramíllal, 2004) than the Needs for Achievement and Power. It might be that behaviors related to the Need for Affiliation are therefore not as prominent and visible in the everyday working environment as compared to behaviors related to both other needs are. Due to perhaps a lesser relevance and prominence at work, a reduced self-other agreement may result. An alternative explanation for the non-existent self-other agreement may be derived from the so-called Eight Diamonds of major situational characteristics proposed by Rauthmann et al. (2014). From this framework, it may be deduced that individuals behave differently in private and professional contexts. The work environment may generate a climate in which individuals cannot express themselves as they truly are, and they may therefore suppress their actual Need for Affiliation, thus leading to low self-other agreement.

Finally, also assumed similarity was absent for the Need for Affiliation. This finding may similarly relate to the possibly lesser role played by this need in the occupational context, than in other domains of life such as at home and with friends. While individuals who feel a strong Need for Affiliation enjoy and seek out social interaction and networks with others, they may tend to show this drive less obviously in the professional environment, therefore implying that co-workers will probably also not actively project their own need on their colleagues.

In our sample several mean score differences were found between the needs, which we at present do not wish to interpret more generally than that these differences apparently characterizes this sample of employees.

**Limitations and future research**

The present study had several limitations. The first limitation relates to characteristics of our sample. Although our sample was sufficiently large in terms of the number of teams and the team size for sufficient statistical power (Kenny, 1994), the employees who participated in our study worked at one site of a large non-profit organization. Our findings therefore need to be tested for their stability in other samples and in other types of organizations, such as organizations in the profit sector and organizations with employees who are less acquainted with each other, for instance because of the use of telework. Using telework and not working on the same location might imply less self-other agreement on one’s basic needs simply because of colleagues being less familiar with each other.

Second, our study only focused on three basic psychological needs. Therefore, future studies may attempt to investigate whether results similar to our findings on these needs, will also be found for other concepts which are central to the work environment, such as employees’ work performance, their work values and other motivational characteristics (e.g., monetary reward sensitivity and security), and their well-being at work (Ostroff, Atwater & Feinberg, 2004). In large firms, there is a focus on key performance indicators as part of their annual performance appraisal system, and workers’ skillsets will at times be regarded as a major feature of their employability and job performance. Investigating the degree of consensus, self-other agreement and assumed similarity seems relevant in such contexts, as these may also affect the acceptability of performance appraisals and subsequent compensation-based salary.

Third, several moderators may have an impact upon ratings, which we did not investigate (cf. Kenny & West, 2010). Examples possibly are the status-relationship between employees who rate each other, how long they have known each other, team size, cultural heterogeneity versus homogeneity of teams, and typical aspects of office-politics that can lead to rivalries. Future studies need to also be aware of potential effects of factors such as response tendencies. When raters for instance are new to a team it could be feasible that they tend to lean towards giving more positive, socially desirable ratings to their team members (cf. LeBreton & Senter, 2008; McAbee & Connelly, 2016).
Fourth, as described earlier, the effects of actual similarity and assumed similarity should be disentangled, as it seems plausible that actual similarity within teams at work will to a degree influence the ratings given by other team members on employees' Need for Achievement, next to assumed similarity (cf. Watson et al., 2000). Furthermore, similar to other person perception research the estimation of self-other agreement is a correlation, which has several limitations as described by Kenny and West (2010). One of these is that the correlation measure ignores any potential correlation between the target and perceiver effects.

Fifth, we were not able to examine any relevant outcomes (e.g., job performance) in our study. This needs to be the next step in future research.

Finally, future studies examining the topic of agreement, consensus and assumed similarity as related to the three needs could perhaps benefit from using a social desirability scale as part of the rating procedure. Inserting a social desirability scale may help getting a clearer picture of any conscious or unconscious bias in self- and perceiver-ratings.

### Practical implications

The findings of the present study have generated several practical implications. Firstly, self-reflection of employees will benefit from receiving the opinion of someone else and comparing how this opinion matches the opinion of the employee him or herself (Amudsen & Martinsen, 2014; Ramlall, 2004). Although the self-other agreement was strong for the Needs of Achievement and Power, there was no self-other agreement for the Need for Affiliation, even though co-workers significantly agreed among each other (consensus) concerning this need of their colleagues. This may imply that employees need to communicate their need level of Affiliation better to connect to their colleagues more clearly.

Second, the high level of self-other agreement for the Needs for Achievement and Power suggests that ratings of co-workers or others at work can be used to confirm self-reports on employees’ own needs. Ratings by co-workers as part of employees’ portfolio could for instance be useful to help facilitating an improved fit at work in which their needs can be better satisfied. It also suggests that organizations may efficiently use self-report measures of the Needs for Achievement and Power as truthful representations of these needs of their employees, given the strong relationship with other-ratings of these needs.

Third, our findings show that it apparently is easy to observe to what extent a colleague has a drive to achieve (Need for Achievement), and has a need to influence others (Need for Power), but that it is not so easy to observe someone’s Need for Affiliation. In line with the literature on employees' needs satisfaction (e.g., Deci & Ryan, 2000), organizations will attempt to meet the needs of their employees to retain talent and improve productivity. Yearly reports by major national institutions such as Deutsche Bank likewise stress the persistent challenge of meeting employee expectations. In particular, our results suggest that contemporary organizations should learn to better observe their employees’ Need for Affiliation. When organizations for instance are moving into open plan office spaces, those with a low Need for Affiliation may feel annoyed by the near presence of others in high spatial density areas (cf. Hongisto, Haapakangas, Varjo, Helenius, & Koskela, 2016). Similarly, when an organization propagates telecommuting and wishes employees to work detached from the office, it is important to recognize whether employees with a high Need for Affiliation may feel their relationships with coworkers to get harmed (cf. Gajendran & Harrison, 2007).

### Conclusion

The present study examined the extent of consensus, self-other agreement, and assumed similarity for the Need for Achievement, Power, and Affiliation among employees. Most of our findings reflected earlier findings in the domain of self-attributes of values, affectivity and personality. Consensus was found on all needs. High self-other agreement was found on the Needs for Achievement and Power. The Need for Affiliation, in contrast, did not show self-other agreement. Finally, assumed similarity occurred for the Need for Achievement but not for the Needs for Power and Affiliation. Particularly the absence of self-other agreement on the Need for Affiliation is striking and needs more responsiveness of contemporary organizations which are involved in alternative work arrangements such as flexibility in where the work is conducted.

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### Competing Interests

The authors have no competing interests to declare.

### References


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