The Effects of Social Networks on Group Moral Reasoning
in the Royal Netherlands Army

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SOCIAL NETWORKS AND MORAL REASONING

The Effects of Social Networks on Group Moral Reasoning in the Royal Netherlands Army

This article discusses the impact of social networks on moral reasoning. Recent models of ethical behaviour have focussed on the characteristics of individuals, issues and organisations. In line with Brass Butterfield and Skaggs (1998) this study argues that these perspectives fail to incorporate an important angle, namely the relationship between involved actors. Using social network analysis on operational military groups (N = 15), this study investigates the influence of relationship density and relationship power on moral reasoning. Also the study examines whether these relationship structures are influenced by group development. Findings show that the social network properties influence moral reasoning by creating a similarity within groups. No support was found for the influence of informal leaders or of group development. The implications of these findings are discussed for further research on moral reasoning, social networks and group leadership.

Dutch abstract - Dit artikel bespreekt de effecten van sociale netwerken op moreel redeneren. Recente modellen van ethisch gedrag richten zich vooral op de kenmerken van individuen, omgevingskenmerken en organisaties. Volgens Brass, Butterfield en Skaggs (1998) wordt hierbij een belangrijk perspectief tekort gedaan, namelijk de relaties tussen betrokken actoren. Aan de hand van een sociale netwerk analyse bij operationele militaire eenheden (n = 15) onderzoekt dit artikel wat de invloed van de netwerk dichtheid en van netwerk macht op moreel redeneren is. Ook wordt onderzocht of de effecten van sociale netwerken op moreel redeneren worden beïnvloed door de groepsontwikkeling. Bevindingen tonen aan dat eigenschappen van sociale netwerken in staat zijn moreel redeneren te beïnvloeden door het creëren van meer overeenkomst binnen groepen. Voor de invloed van de informele leiders of van de groeps ontwikkeling op het moreel redeneren van groepen is geen ondersteuning gevonden. Tot slot worden de implicaties van deze bevindingen besproken om te komen tot
SOCIAL NETWORKS AND MORAL REASONING

Introduction

During the last two decades ethical behavior in organizations has become a much debated topic among scholars. Several models have been proposed and tried to define the factors that predict (un)ethical behavior and decision making within the network domain (Jones, 1991; Rest & Barnett, 1986; Treviño, Weaver, & Reynolds, 2006). Most of these models suggest individual (e.g. locus of control and cognitive development), organizational (climate, codes of conduct and reward systems) and issue related (characteristics of moral issue) factors to determine ethical behavior in organizations. It is assumed that monitoring, managing and controlling these factors can help organizations to promote desired behavior from their employees.

Behavioral ethics can be defined as: “Individual behavior that is subject to or judged according to generally accepted moral norms of behavior” (Trevino et al., 2006, p. 952). Such research on behavioral ethics is primarily concerned with explaining individual behavior that occurs in the context of larger social prescriptions” (Treviño et al., 2006). Given the relevance of the social surrounding, Brass, Butterfield and Skaggs (1998) suggested that the social network in an organization could be an important factor to explain unethical behavior. They explicated their idea by analyzing the definition of an ethical situation. Rest & Barnett (1986 cited by Brass et al., 1998) defined an ethical situation as: “one where the consequence of an individual decision affects the interests, welfare, or expectations of others’. Because this definition takes ‘others’ into account, Brass et al. (1998) reason it is likely that relationships and social networks are involved in behavioural ethics. However, empirical research to support the addition of relationships as a factor predicting ethical behavior is scarce.
Behavioral ethics in organizations, organizational ethics, has been a popular item in many different surroundings. Particularly in military settings the world was shaken by a number of incidents in the last couple of years. Abuse cases in Iraqi prisons, death squads and sexual harassment cases were reasons for media and defense organizations to very actively follow ethical behavior in the organizations. This, mainly negative, attention made defense organizations increasingly interested in studying and promoting ethical behavior. In addition, the Military context is also characterized by its ‘dynamic complexity of situations’, or by the absolute certainty of uncertainty in which soldiers have to operate and where risks are high (Kramer, 2007). The recent scandals concerning ethics prove that these circumstances require a lot of defense forces. Insights in possible relations between social networks and ethical behavior may help future groups and group leaders to stimulate desired behavior.

The objective of this article is to promote further knowledge concerning ethical behavior in a military context by considering the influence of social networks. The integration of social networks as a factor predicting ethical behavior may increase knowledge for practical ethics strategies, as well as help to develop scientific models in predicting ethical behavior. This leads to the following research question:

‘Do group social networks play a role in creating ethical behavior and if so, in what way?’

The first section of this article provides an overview of the background of theory and research on social networks and ethical behavior. What exactly are social networks and how are they able to influence behavior? We will argue that, through social influence, social networks are capable of influencing moral cognition and thus ethical behavior. This expectation was tested using social network analysis on 93 soldiers coming from 15 operational groups.
Moral Reasoning and Social Networks

Organizational Ethics and Moral Reasoning

Organizational ethics is a research field which gained in popularity over the last decades. There are a number of reasons why organizational ethics have been ignored for a long time. For example, ethical behavior is often not very prominent, which makes observing and researching this subject very difficult. Second, social norms in groups often make it difficult for members to explicitly demonstrate and advocate unethical behavior (Schminke, 2001). This makes gathering data on organizational ethics complicated. However, these restrictions changed over the years when scholars turned up with more sophisticated theories, measures and constructs to apply in organizational ethics research. One of these changes in organizational ethics research was the direction towards moral cognition (Trevino, 1992). Moral cognition is simply ‘how people make moral judgments’ (Knobe, 2005) and became popular among scholars because it is easier to measure than organizational ethics. This is because moral cognition does not measure the ethical act itself, but the ethical framework that lies underneath: the ability for moral reasoning.

Today, most models of ethical decision making and organizational ethics rely on measurements of judgments or cognitions, prior to ethical actions. One of the most commonly used frameworks to explore ethical behavior in research, is the Cognitive Moral Development (CMD) approach or Moral Reasoning Approach (Kohlberg, 1969 cited by Trevino, 1992). To best explain CMD, it is important to understand moral decision making. According to Rest’s (1986 cited by Trevino, Weaver & Reynolds, 2006)) four stage component model of moral decision making, moral decision making can only be achieved if a person has developed moral sensitivity, moral judgement, moral motivation, and moral character. These components allow someone to be aware of a moral issue, make a moral judgment, establishes an intention to act morally, and, finally, engage in moral behaviour.
(1987) argued that although many elements may contribute to moral behaviour, the most important ones concern moral judgement. CMD focuses on moral judgement by asking respondents what is right and wrong and also asks them to provide their justifications. The outcome of these questions is used to characterize how people reason in moral dilemmas, the capability for moral reasoning. These moral dilemmas occur in ‘defining moments’ (Badaracco, 1997), in which people have to make difficult and sometimes ‘impossible’ choices between two or more values and/or obligations. According to Verweij, Hofhuis & Soeters (2007) such situations of moral ambiguity occur in the practice of many professionals (e.g., doctors, psychologists, lawyers, social workers, police), but they can also be found in the operational reality of military personnel. This implies the capability for moral reasoning is an important characteristic for military personnel. In addition, different studies have linked people’s judgements to their moral actions (Candee & Kohlberg, 1987) and showed that people with higher levels of moral reasoning work more consistently in situations involving a moral dilemma. In short, an individual’s reasoning about moral dilemmas is related to moral action.

According to Kohlberg individuals develop moral reasoning through three levels: ‘pre-conventional’, ‘conventional’ and ‘post-conventional’ (Kohlberg, 1969 cited by Trevino et al., 2006)). This study attempts to find the relationship between the level of moral reasoning and social network in groups. For this purpose it is important to understand what differences between levels of moral reasoning are recognized. At the first level of moral reasoning, the pre-conventional level, individuals see rules as forced upon them. Reactions to ethical dilemmas are characterized by egoististic motives such as personal consequences, needs and favors. At this level a proper response to an ethical dilemma is that which offers reward or steers clear of punishment. At the second level of moral reasoning, the conventional level, individuals respond to ethical choices in accordance with expectations of their direct
surroundings (peers, family and ‘the public’). Defining what is right or wrong is a result of expectations of their social environment and of what benefits their environment. Examples of these expectations and helpful behaviors are laws, rules, and obligations of society and all things needed to maintain social order. The third level of moral reasoning, the post-conventional, is characterized by individuals interpreting right and wrong based on their comprehension of values. An example of a consideration made at this level is following a rule, not because it exists, but because serves a social purpose. Individuals at this level also consider changing laws and rules because of social purposes. At the highest level of moral reasoning considerations emerge from self chosen ethical principles that are logical, comprehensive and consistent. At this level individual principles are framed by the visions of their ideal societies.

**Social networks**

To explain how social networks can influence moral cognition and behavior it is important to form a picture of what a social network in this study constitutes of. For this study we adopt the network definition of Borgatti and Foster (2003; p.993) whose basic supposition of a network is ‘a set of actors connected by a set of ties’. The actors in this study are individuals in military groups, connected by advice giving and friendship ties. Both ties are valued (measured on a scale, in amount of advice giving and strength of friendship) and represent two common types of tie content studied in organizations, instrumental (advice) ties and expressive (friendship) ties. Instrumental ties are thought to be vital to effective task performance (Ibarra, 1993). Expressive ties reflect friendships and are seen as important conduits of social support and values (Ibarra, 1993). Although theoretically distinct, several studies have shown a strong overlap between instrumental and expressive ties (Borgatti & Foster, 2003; Balkundi and Harrison, 2006). Gibbons (2004) also showed that both types of ties play an important role in changing professional values. Because both ties potentially
contribute in the change of values, we created a single relation out of the two relations which represents the quality of both ties following the ‘combination approach’ (Hanneman & Riddle, 2005). The implications of this approach are discussed in the discussion of this paper.

As mentioned in the introduction, the primary reason to incorporate the social network in moral research can be found in the definitions of an ethical situation and of behavioural ethics, which both take environments and relations into account. However, there are several rationales that plead for further investigation of the relationship between moral reasoning and social networks. In the following section several arguments, that support the integration of social networks in moral research, are briefly reviewed.

The first argument to examine social network comes from Marshall Schminke (2001) who wrote about the structure of the organisation and ethical viewpoints. Ethical viewpoints are a measure of CMD. Schminke argues that different organizational structures do not have an equal effect on organizational performance and therefore the structure of an organisation might also have a similar influence on moral reasoning. The study indeed confirms CMD is influenced by the structure of the organization. The fact that results were the strongest in smaller organizations suggests that social influence on a group level could play a significant role in the CMD of individuals.

Another argument for the influence of social networks on moral reasoning can be derived from the moral approbation theory (Jones & Ryan, 1997). Moral approbation is the desire for moral approval from an individual by others (Jones & Ryan, 1997). This means that a potential source of motivation in order to behave morally comes through socialization. In socialization an actor considers other similar individuals before a moral decision is made. When values concerning desired behaviour are communicated by important individuals, the influence on group behaviour can be significant (Ferris & Judge, 1991). These individuals act
as sources or references for ways of thinking, feeling, perceiving and evaluating (Cassell, Johnson & Smith cited by Bue & Buckley, 2004). The desire for approbation will lead a person to consider people near them in a group, because their opinion is important to sustain his/her reputation. This result was first found by Zey-Ferrell, Weaver, and Ferrell (1979 cited by Trevino 1986), in a survey of marketing practitioners. They found that perceptions of what peers did had the greatest influence on self-reported unethical behavior. This influence was greater than the influence of one's own beliefs or the beliefs of top management. In a later study of two random samples of advertisers (ad agency account executives and corporate clients), Zey-Ferrell and Ferrell (1982 cited by Trevino 1986) found that intra-organizational referent others, influenced the ethical/unethical behavior of both samples. The studies both argue that if an organization would like to influence the moral behavior, and thus moral reasoning, they should focus on referent others. Social network analysis has proven itself as an excellent method to obtain this goal (Valente & Pumpuang, 2007).

The above mentioned arguments provide support for the basic idea that social networks have the potential to be a factor in predicting moral judgement. Furthermore, there is also a more practical reason for the use of social network analysis. According to Beauchamp and Childress (1994) defining what is ethical in a group, is done both top down and bottom up, depending on the situation. Norms are best provided bottom up while principles should be communicated top down. Investigating an entire group can give a good perspective on how norms and values are distributed through groups.

**Relationships and ethical behaviour.**

As mentioned before, little is known about the relation between social networks and moral reasoning. However, there is a lot of information about social networks and its different variables. For instance the chance of task completion in complex situation is higher in teams
were many social relations exist (Hansen, 1999). Opposite to cohesive teams, there are teams with no or little interaction. According to Hansen these teams have trouble distributing vital job related ideas and tacit knowledge, which makes task completion more difficult. The number of network ties in relation to the total number of possible ties, is referred to as "density" in network research (Scott, 1988). Important for this study is the fact that individuals that have more interaction are more likely to have a higher level of agreement concerning attitudes and culture (Krackhardt & Kilduff, 1990). Furthermore, stronger ties have also shown to have a higher chance of agreement. For instance, small groups are more stable and exert more pressure to conform to group norms (Krackhardt, 1999). Altogether, a higher density and stronger ties should therefore lead to higher agreement in moral reasoning. These effects are best described in the well known suppositions (1) similarity breeds attraction and (2) interaction breeds similarity (Blau, 1977 cited by Brass et al., 1998). Following the arguments provided it seems likely that dense social networks make group members more similar in their moral reasoning. The first hypothesis is therefore stated as follows:

\textit{H1a: Group density is positively related to similarity in moral reasoning.}

\textbf{Leader centrality hypothesis.}

Formal group leaders, in comparison to other group members, often have a role in groups in which they can rely on different, more powerful instruments and sources of social influence (Brass & Burkhardt, 1992). Because of their position and special role, formal leaders can gather more information and are therefore often positively correlated to centrality and power in social networks (Brass & Burkhardt, 1992). Powerful persons in groups have the opportunity to serve as role models because of the high visibility and because of the amount
of interaction partners. Leaders thus greatly benefit from attaining a central or powerful node position in a network. Such a position helps the leader to obtain the necessary information in order to successfully influence their team’s social network (Balkundi & Kilduff, 2005; Krackhardt, 1996). From the various measures of centrality and power, the Bonachichs power approach (Hanneman & Riddle, 2005) is particularly relevant to the discussion of social network influence and similarity in moral reasoning. In this study power refers to the centrality of a person and also to the dependency other group members have with this person (Hanneman & Riddle, 2005). Krackhardt (1996) describes a powerful position as the ‘structurally advantageous position in the network, were one is gatekeeper and regulator of resource flow, dispensing what is needed to other team members as need it’. Consequently, a powerful leader should have a great influence on attitudes and behavior. In this study this means the leader serves a great role in the convergence of moral reasoning between group members. The next hypothesis of this study is therefore:

H2: The extent of formal leader power in the social network is positively related to similarity in moral reasoning.

Informal leader hypothesis

Today’s work groups in military organizations are required to work more autonomously and are given a lot of decision-making responsibility (Newsome, 2007). In these groups, (emergent) informal leaders influence how group members work together and influence their performance (Neubert, 1999). These informal leaders can emerge and wield influence even when the team has a formally designated leader. Informal leaders also have an advantage compared to formal leaders when it comes to influencing a group. A formally
assigned leader has a hierarchically different position from the other group members. The downside to this position is that it can be threatening and create antipathy. This occurs when a position appears superior, but also indirectly when it implies that others might look down on us (Monin, 2007). Additionally, Burt (1997) found people comparing themselves to other people who were their equivalent in a network setting. Therefore informal leaders are more likely to be considered in social comparisons, as opposed to formal leaders. Accordingly our next hypotheses are:

H3: The extent of informal leader power in the social network is positively related to similarity in moral reasoning

Group development stage as a moderating variable

As stated in the introduction of this study, models of behavioral ethics recognize the influence of organizational factors on moral reasoning and behavioral intentions. Trevino (1986) concluded in her study that because people often search their direct surroundings for guidance in moral dilemmas, organizations and situational factors can moderate the relationship between individual cognition and behavior. A complete overview of the influence of the social network on moral reasoning should therefore include situational factors. This study promotes knowledge on social network and situational factors by examining one, group development.

Group development stage. Groups can be seen as systems that develop over time. Understanding these developments, like when a certain behavior is likely to occur, can help build and manage team performance. One of the most commonly used frameworks for describing group development is Tuckman’s (1965) forming, storming, norming and performing model. This model explains team development in maturity and capability, but also in the number of relations and leadership style. Also Asch (1952; cited by Weick & Roberts,
describes that the development of the group is confounded by the development of group mind. Group mind is, like in an individual, a form of mental activity that guides action (Wegner, 1987). So as a group matures and moves from forming through the storming, norming, and performing phases (Tuckman, 1965), both relations, as well as group mind develop together. Consequently, if a mature group has little trouble with moral dilemmas and an immature group has many, it is interesting to see the role of group mind in this.

Translating this to social network research an increase in relations should lead to more familiarity among the group members. Research has shown that when members of a group are initially unfamiliar or are still defining roles, resources provided through social networks should be vital for effective task completion (Guzzo & Dickson, 1996 cited by Balkundi and Harrisson, 2006). However, as group members spend more time together their roles also become clearer (Harrisson, Mohammed, McGrath, Florey & Vanderstoep, 2003). This familiarity among group members can act as a substitute for interaction. Group members in developed groups are familiar with one another but have also developed a shared understanding of their task-requirements (Weick & Roberts, 1993). Therefore, it is expected that at a certain level of group development resources from the social network are not as important as they were. In short, the reliance on the social structure is reduced as a group progresses in their development. In relation to moral decision making this means that in a further developed group it is easier to make a decision without considering the groups opinion. In figure 1 this relation is illustrated. The next hypothesis is therefore:

\textit{H4: The higher the group development stage, the weaker the relationship between group social networks and similarity in moral reasoning.}
This hypothesis is visualized in figure 1.

**Figure 1: Visualization of hypothesis 4**

![Visualization of hypothesis 4](image)

**Method**

**Sample and Procedure**

Participants (N = 93) were members of 15 operational units in the Dutch Army\(^1\). These units were chosen because of Beauchamp and Childress (1994) reasoning that organisational norms and values are given meaning on operational levels, so are created in a bottom up direction. Also the uncertain environment of their working field provides these groups tasks are associated with moral dilemmas and problem solving on regular bases (Richardson, Verweij & Winslow, 2004). The average age of the participants was 23.99 years old (SD = 6.30). A total of 75 participants were male, 16 were female and 2 failed to answer. For the most part the participants finished a MAVO / VMBO education (37.6%) or a MBO (41.9%). 11 participants had a highschool diploma other than mavo and 3 participants had a bachelor degree. All groups were fixed groups working together and ranged in size from 4 to 13

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\(^1\) We collected social network data on friendship ties and advice giving ties within 16 groups; one was eliminated because only 5 out of 12 questionnaires were usable.
members. The minimum group response rate was 83%. Groups were approached after the highest ranking officer in their Brigade offered permission. Participants were presented with an informed consent form which explained that their participation anonymous, voluntary and that at any point they could refuse participation. The participants were also explained that the study served educational purposes.

The group members were given time during their work day to complete the questionnaire. The questionnaires were administered by the lead researcher. During the data collection there was always one or more researchers present to answer questions.

**Measures**

**Dependent measure.**

*Similarity in Moral Reasoning (SMR).* The dependent variable in the study was Hornsveld, Vermeulen & Veldhuizen’s (2009) ‘Sociomorele Reflectie Meetinstrument’. Results of the ‘Sociomorele Reflectie Meetinstrument’ have been validated and have proven to be valid, reliable and gender neutral (Hornsveld et al., 2009).

The ‘Sociomorele Reflectie Meetinstrument’ consists of 20 items that address moral values such as: integrity, respect, trustworthiness. For example one items reads: ‘Why is it important for parents to teach their children to respect one another?’ The participants had to determine how important the item was for them on a likert scale and provide a reasoning why this was the case. Responses to the example item and the other 20 were scored following the detailed protocol by Hornsveld et al. (2009) resulting in a total score per individual between 0 and 120. The scores can be further classified correspondent to Kohlbergs stages of moral development; 0 representing very poor pre-conventional reasoning and 120 perfect post-conventional reasoning. Two researchers served as judges who categorized the answers of the participants. The judges were trained for the use of the protocol and did not know the identity
of the respondent. Using the protocol each statement of a participant was placed in 4 possible categories, representing the first 4 stadia of Kohlberg. Category 1 was characterized by the terms unilateral and fysicalistic, category 2 by instrumental and exchange, category 3 by pro-social and causal and category 4 by systematic and standard. These raw scores were used to establish the inter-rater reliability Cohen’s kappa which was calculated across two independent raters for 13 of the 93 persons. Inter-rater reliability was satisfactory with Cohens Kappa ranging from $\kappa = 0.73$ to $\kappa = 0.89$. Because the interrater rating was sufficient, the remaining statements were divided and each statement was coded by one of the two researchers. Following Hornsveld, Vermeulen & Veldhuizen (2009) each raw score was valued, category 1 scored 0 points, category 2 scored 2 points, category 3 scored 4 points and category 4 scored 6 points. Totaling all points lead to the individual scores of all the participants. Similarity was then determined by calculating the standard deviation of each individual group. A smaller range score meant a group was more similar in moral reasoning.

**Independent measures**

*Social network measures.* The study used the roster method to collect data on friendship and advice networks. Respondents were given lists of their peer group members and were asked to value each relation with their peer group members. Friendship relations were measures asking: ‘How do you value your relation with “example”?’ Values were labelled from 1 = ‘very good relation to 6 = ’absolutely no relation’. Advice relations were measured asking: ‘how often do you go to “example” for advice on your work. Values ranged from 1 = ‘Several times a day’ to 6 = ’never’. The data from each of the groups was arranged in separate matrixes and captured all the advice and friendship relations among the members of the groups. This data was further explored using UCINET V, which produced the data used for our analyses. How this data was developed, is described in the following sections.
Density. For all of the groups the overall density between the group members was computed. This was done for both the friendship- as well as the advice network by using UCINET. The measure calculates the proportion of ties as a function of the total numbers of possible ties, this can vary from a minimum of 0 to a maximum of 6.

Group Leader Power (GLP) and Informal Leader Power (ILP). To identify the central en thus important persons in the teams (Ferris & Judge, 1991) the power of the individuals was calculated. To achieve this, a complete matrix of the team was constructed from nominations of who are friends and who are advice givers. According to Valente and Pumpuang (2010) analysing a complete network is the most valid and reliable method to identify leaders.

Deciding who was most central was done using the Bonacich's power approach in UCINET 6 (Borgatti, Everett, & Freeman, 2002). Bonacich's power is a modification of the degree centrality approach and has been widely accepted as superior to the degree centrality measure (Hanneman & Riddle, 2005). Bonacich's power is an algorithm in which both one's centrality and power are included. To do this Bonacich begins by giving each actor an estimated centrality equal to their own degree, plus a weighted function of the degrees of the actors to whom they were connected. This weighted function or "attenuation factor" indicates the effect of one's neighbor's connections on an actor's power. Where the attenuation factor is positive (between zero and one), being connected to neighbors with more connections makes one powerful. Negative values of the attenuation factor (between zero and negative one) compute power based on this idea. Because we rely on the accessibility of information for changing values in this study, we follow the idea of power and dependency in this study. Therefore we measured power with a negative attenuation factor of -.5. An individual therefore does not need the highest number of connections to be powerful, he or she just needs the right ones (See Hanneman & Riddle (2005) for a more thorough explanation of Bonacich's Power). GLP
was determined by selecting scores of the formally assigned leaders of each group. ILP was determined by selecting the highest scoring individual not in a position different from the rest of the group.

**Moderator**

**Group Development (GD).** To measure group development we used Clark’s (2004) Teamwork Survey. The questionnaire contained 4 scales which corresponded with the stages of Tuckman Model of Small Group Development (1965): Forming, Storming, Norming and Performing. Each scale contained eight items. Example items are: ’Our team feels like we are in this together and share responsibility’ (performing) and ‘We try to have procedures and protocols to make sure that everything runs smooth and orderly’ (forming). Each item was scored from 1 (*never true for this group*) to 5 (*always true for this group*). Therefore, the minimum score on each scale was 8 and the maximum score was 40. The scale on which a group scored the highest was deemed the level they performed at. The internal consistency of each scale was investigated using Cronbach’s Alpha, scored were \( \alpha = 43 \), \( \alpha = .62 \), \( \alpha = 73 \) and \( \alpha = .86 \). Because none of the group scored highest in the forming stage \( \alpha = 43 \) and because the internal consistency was inadequate, this group was dropped from further investigation. The other 3 variables were treated as a continuous variable with one as lowest and three as highest form of group development. This was because Tuckman (1965) developed his model as a sequence team’s move through.

**Level of analysis**

Network variables were measured at the group level. Since the unit of analysis was the group, individual perceptions were aggregated by calculating the average group member score and expressing them as the group value. Since all the respondents were asked their opinion about group development, the data was tested for statistical dependence by computing the inter-rater
reliability. To justify the average group value, it was important to demonstrate high agreement among group members. Agreement was assessed using the average measure reliability which represents the mean of all ratings. That is, average measure reliability gives the reliability of the mean of the ratings of all raters. Values that were found were all above .8 apart from two exceptions ($ICC = .15$ and .50). Although these two group ratings are considered low they were not excluded because of our small sample size.

**Analysis**

To test our hypotheses several regression analyses were conducted. The first series of analyses we performed were the most adequate: Simple analysis. Because of the aggregations to the group level the sample size was unavoidably heavily reduced ($N = 15$) therefore simple regression analyses were performed. Hair, Anderson, Tatham and Black (2006) provide support for this choice by explaining the appropriateness of sample size and multiple regression. According to them researching small samples ($n < 30$) is only appropriate for analysis by simple regression. The hypotheses where interaction effect where involved, have been executed with only the necessary variables.

The second series of analysis conducted were multiple regression analysis in a three step process. Control variables are added first, then main effects are tested and finally interaction effects are tested. These test were performed to achieve a more thorough understanding of the relation between the independent and dependent variable.

In all the steps the control variables are added. Age, gender and group size were used as control variables. Age and gender are added as control variables because literature sees relationships between age, gender and ethical performance (e.g. Ibarra, 1993). Furthermore group size was added as a control variable. Members of smaller groups deal with smaller number of individuals. Thus, in smaller groups, a short period involvement can be sufficient
for a participant to learn a great deal about the other players’ tendencies and practices (Schminke, 2001). This subsequently could lead to more similarity in moral reasoning.

Secondly the main effect was tested with the independent variable and outcome variable. Thirdly the product of the independent variable and the moderator was added to the regression. The moderation effects were tested with the interaction scores of the centralized values of the variables.

Results

Descriptive statistics

Table 1 shows the mean, standard deviation and inter-correlation of the variables. The correlations are based on the mean scores of the variables. The expected correlations between the variables in this research are largely supported. For instance network density shows a significant negative correlation with similarity in moral reasoning ($r = -0.36, p < 0.1$), indicating that higher values of density lead to more similarity in moral reasoning (0 representing perfect alignment). Leader network power also had a significant negative correlation with similarity ($r = -0.52, p < .01$). There was no relationship between informal leader power and similarity in moral reasoning ($r = -0.07, \text{ ns}$). Finally it was interesting to see group development had a negative correlation with similarity ($r = -0.20$), this meant that higher levels of group development lead to more similarity.

Interesting is the influence of the control variables. Sex is marginally significant ($r = 0.38, p < 0.10$) indicating that groups with more women are less similar. In addition, group size ($r = 0.47, p < 0.05$) and age ($r = 0.52, p < 0.05$) show even stronger correlations with similarity in moral reasoning, demonstrating that larger groups and higher mean ages are related to less similarity in moral reasoning.
Table 1: Standard Deviations and Correlations at Group Level

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<th>Mean</th>
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</thead>
<tbody>
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<td>Sex</td>
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<td>.15</td>
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<tr>
<td>2.</td>
<td>Age</td>
<td>23.81</td>
<td>3.44</td>
<td>.22</td>
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<tr>
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<td>Group size</td>
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<td>1.77</td>
<td>.65</td>
<td>.02</td>
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<tr>
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<td>Group Development</td>
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<td>0.74</td>
<td>.70</td>
<td>-.23</td>
<td>-.45</td>
<td>**</td>
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<td>Density</td>
<td>3.67</td>
<td>.45</td>
<td>-.54</td>
<td>-.19</td>
<td>-.46</td>
<td>.78</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>GLP</td>
<td>2.33</td>
<td>1.71</td>
<td>.33</td>
<td>-.08</td>
<td>-.25</td>
<td>-.05</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>ILP</td>
<td>3.03</td>
<td>1.11</td>
<td>.32</td>
<td>-.18</td>
<td>.27</td>
<td>-.45</td>
<td>-.68</td>
<td>***</td>
<td>.24</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>SMR</td>
<td>10.82</td>
<td>3.34</td>
<td>.38</td>
<td>.52</td>
<td>.47</td>
<td>-.28</td>
<td>-.36</td>
<td>-.52</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Score Moral Reasoning</td>
<td>71.20</td>
<td>5.99</td>
<td>.21</td>
<td>.13</td>
<td>-.40</td>
<td>.04</td>
<td>.20</td>
<td>-.02</td>
<td>-.22</td>
<td>.06</td>
</tr>
<tr>
<td>10.</td>
<td>Consequentialism</td>
<td>5.65</td>
<td>.29</td>
<td>-.44</td>
<td>-.05</td>
<td>-.38</td>
<td>.61</td>
<td>.48</td>
<td>-.18</td>
<td>-.07</td>
<td>-.18</td>
</tr>
<tr>
<td>11.</td>
<td>Formalism</td>
<td>5.91</td>
<td>.25</td>
<td>-.43</td>
<td>.36</td>
<td>-.25</td>
<td>.51</td>
<td>.45</td>
<td>-.18</td>
<td>-.40</td>
<td>.18</td>
</tr>
</tbody>
</table>

N=15. *p < .1, **p < .05, ***p < .01. '1' = male, 2 = female

Hypothesis testing

In this section the different hypotheses are tested based on the process described in the methodology section. All variables met requirements for linearity and multi-collinearity meaning that all variables have a normal distribution. The results of the simple regression analysis are reported in table 2.

Table 2: Simple Regression results for hypotheses

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
<th>Beta</th>
<th>T-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependant:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMR</td>
<td>Density</td>
<td>.13</td>
<td>-.36</td>
<td>-1.39</td>
</tr>
<tr>
<td></td>
<td>LP</td>
<td>.27</td>
<td>-.52</td>
<td>-2.20</td>
</tr>
<tr>
<td></td>
<td>ILP</td>
<td>.01</td>
<td>.07</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>GD* Density</td>
<td>.14</td>
<td>-.11</td>
<td>-3.7</td>
</tr>
<tr>
<td></td>
<td>GD * LP</td>
<td>.38</td>
<td>-.20</td>
<td>-.56</td>
</tr>
</tbody>
</table>

N = 15, Sig is one-tailed
The regression analyses of table 2 show that group density significantly affected similarity in moral reasoning, conforming the first hypothesis ($\beta = -0.360, p < 0.1$). However, the results are weak and should therefore be interpreted with care. Hypothesis 2, suggesting that leader power has a positive influence on similarity in moral reasoning, is also supported ($\beta = -0.520, p < 0.05$). No results for the relation between informal leader power and group similarity are found, therefore hypothesis 3 is not supported. Results also did not show an effect of group development on the relation between the network characteristics and similarity in moral reasoning. Hypothesis 4 is therefore not supported.

Following multiple regression analysis were performed to test how well the variables are able to predict similarity in moral reasoning. The results of the test are reported in table 3.

<table>
<thead>
<tr>
<th>A. Density</th>
<th></th>
<th></th>
<th></th>
<th>B. Leader Power</th>
<th></th>
<th></th>
<th></th>
<th>C. Informal Leader Power</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>1</td>
<td>1.2</td>
<td></td>
<td>Variable</td>
<td>2</td>
<td>2.2</td>
<td></td>
<td>Variable</td>
<td>3</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.55*</td>
<td>.53*</td>
<td></td>
<td>Age</td>
<td>.53*</td>
<td>.54*</td>
<td></td>
<td>Age</td>
<td>.58*</td>
<td>.59*</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.04</td>
<td>-.06</td>
<td></td>
<td>Gender</td>
<td>-.38*</td>
<td>-.28</td>
<td></td>
<td>Gender</td>
<td>-.07</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>.51*</td>
<td>.54*</td>
<td></td>
<td>Team size</td>
<td>.51*</td>
<td>.55*</td>
<td></td>
<td>Team size</td>
<td>.55*</td>
<td>.51*</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>-.19</td>
<td>-.16</td>
<td></td>
<td>LP</td>
<td>-.48*</td>
<td>-.57*</td>
<td></td>
<td>ILP</td>
<td>.08</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>GD</td>
<td>.19</td>
<td>.15</td>
<td></td>
<td>GD</td>
<td>-.21</td>
<td>-.32</td>
<td></td>
<td>GD</td>
<td>.08</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Density*GD</td>
<td>-.076</td>
<td></td>
<td></td>
<td>LP*GD</td>
<td>-.31</td>
<td></td>
<td></td>
<td>ILP*GD</td>
<td>-.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.52</td>
<td>.53</td>
<td></td>
<td>$R^2$</td>
<td>.69</td>
<td>.72</td>
<td></td>
<td>$R^2$</td>
<td>.52</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.01</td>
<td></td>
<td></td>
<td>$\Delta R^2$</td>
<td>.03</td>
<td></td>
<td></td>
<td>$\Delta R^2$</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: SMR $N = 15$; Shown are standardized $\beta$'s. **$p < 0.05$ *$p < 0.1$, Sig is two-tailed

The results of the multiple regression analysis in table 3 show that there is no significant relation between density and similarity in moral reasoning. Therefore hypothesis 1 has to be rejected. Furthermore the regression analysis show a significant effect of leader power ($\beta = -0.42, p < 0.05$), on similarity in moral reasoning. These findings therefore confirm hypothesis 2. There is no indication that informal leader power influences similarity in moral reasoning.
As a result hypothesis 3 was rejected. Finally there was also no effect found of group development moderating the relation between network characteristics and similarity in moral reasoning so hypothesis 4 is invalidated. The control variables gender and team size are of significant influence \((p < 0.05)\), as was anticipated.

**Discussion**

The primary goal of this research is to relate social networks to similarity in moral reasoning. Conducting a social network analysis of military groups, this paper investigates whether social networks can serve as antecedents of similarity in moral reasoning. At the same time, the influence of (in)formal leaders and group development on this effect was investigated. In this discussion we will further examine the study’s findings and present theoretical implications. Also the strengths and shortcomings of the paper will be discussed, together with the practical implications and recommendations for future research.

**Conclusions**

As predicted a group’s density in their expressive and instrumental network affected similarity in moral reasoning. This finding is consistent with previous research by Hansen (1999) and Brass et al. (1998) and suggests that high density in a network helps moral reasoning of a group to converge. The idea that, ‘similarity breeds attraction and interaction breeds similarity’ (Blau, 1977 cited by Brass et al., 1998), therefore seems to apply for moral cognition.

Furthermore, support was found for the second hypothesis. Groups with leaders who have a powerful position in the group’s social network tend to be more similar in moral reasoning. It is likely that the contact ratio a leader has with his subordinates, provides him with greater opportunities to influence group cognition. How this position could help create desirable
group cognitions remains a topic for future research. However leader power has proven to be an important predictor in similarity in moral reasoning.

Both the network structures in the first and second hypothesis provide teams with a greater chance of value alignment and socials consensus. These outcomes may prove an advantage in complex situations such as moral dilemmas, as they have the potential to promote leader influence. Worth noting is that apart from our analysis we found a strong correlation between group leader moral reasoning score and group average moral reasoning score ($r = .45, p < .1$). This is an indication that leaders have the potential to not only make groups more similar, but also influence the mean level of moral reasoning of a group. Both these findings provide support for the view that social networks have an important effect on moral reasoning.

Apart from the formal leader this study also tested the influence of the informal leader in groups. The informal leader is the individual with the greatest network power but without any formal position. Different from our prediction, which was that the influence of the informal leader was greater than that of the formal leader, no support for this idea was found. Further exploration of this result lead to two feasible explanations. The first is drawn from Mehra, Smith, Dixon & Robertson (2006) who studied distributed leadership in teams. They found that there are two types of teams with distributed leadership, the so called distributed-coordinated and the distributed-fragmented. In the first type both leaders are well connected and serve the same cause, the second describes a situation where both leaders have more superficial contact and sometimes do not strive for the same goals. In the second situation it is hard to determine which leader influences which process. Often informal leaders in such cases are influential. However when uncertainty and task routinization are less high, the influence of a leader may still prove to be greater. The second explanation is that a third variable possibly hinders the relation. For instance perceptions of hierarchy could moderate the relation. In such a situation the informal leader can still be powerful but at decisive moments
there is a sense of a controlled environment to support and follow the leader. This is in line with Smircich and Morgan’s (1982) theory about leadership as managing meaning. Smircich and Morgan essentially described a group that depends on the leader to put information in context and interpret its implications for the group. A leader therefore has the capability to obstruct the influence of informal leader opinions. This study however could not find support for the influence of, informal leaders, in social networks. Merely assessing the existence of informal leaders could not show any relation between the informal leader and similarity in moral reasoning.

Also no indication was found for a moderating effect of group development stage. It was expected that when a group becomes more familiar with one another, routine and shared cognitions could fill in the place of the social network. According to Balkundi and Harrison (2006) there is significant interplay of networks, group processes and outcomes. An explanation why this study did not replicate these results could be the lack of variation in group development. According to the teamwork survey by Clark (000) a group is almost certainly in a development stage when it scores over 32 for that stage in his survey and almost certainly not in a development stage when it scores under 16. Our scores however ranged from 17,17 to 31. Clark explains this indicates a group’s performance level is unstable and thus a group operates on different levels. Because all groups shared this characteristic it is likely the groups were to similar to determine the influence of the moderator group development. Still, in the present study no reason was found to believe group development affects the relation between social networks and similarity in moral reasoning.

**Theoretical implications**

All together the results of this study form an important addition to knowledge on social networks and moral reasoning. Although a lot of research has been done on both social
networks as well as group behaviour, this study fills two important gaps in current knowledge. First, social network studies have mainly focussed on performance outcomes for teams or groups (e.g. Balkundi and Harrison, 2005) but the influence of networks on moral or ethical outcomes had not been researched using social network data. The second is the lack of knowledge on group based morality. Current knowledge about morality has focussed on individual level variables, while higher levels of analysis remain sparse (Trevino et al., 2006). This study has been able to show that network characteristics, like density and leader power, can serve as antecedent of similarity in moral reasoning. Given the already extensive knowledge on behavioural ethics, this study recommends the integration of the social network, or relationships in existing models. Results of this study are promising and provide support for this integration.

**Limitations**

The small number of respondents is not without consequences. Many of the desired analyses were missing power due to the small sample. This made interpretations of the result increasingly difficult. The first problem was that it is not possible determine the influence of the social network variables in comparison to control variables. This would have made more detailed statements about the relative importance of the social network in predicting moral reasoning possible. A second drawback had to do with the occasionally moderate significance levels (sig > 0.1). Because of this high level, caution has to be taken when drawing conclusions. Although correlations where satisfying, the small number of groups made it hard to find significant results. Results therefore, have to be seen as promising and interesting for follow up studies.

Another limitation, because of given circumstances and availability of the respondents, was the lack of longitudinal data. French & Raven (1959 cited by Balkundi & Harrisson,
argued that the attitudes of less powerful network members will shift toward the attitudes of more powerful people in a network. So theoretically at a point in time attitudes will have converged and a group should approach a shared believe of what is ethically appropriate or desired. To test whether this convergence actually takes place, a second measure will have to be performed. Another negative aspect of simple regression is that it cannot determine whether social networks are a antecedent or a consequence of group outcomes. Scholars have reasoned that success or similarity breeds positive emotion, which consequently creates denser network structures (Mullen & Copper cited by Balkundi and Harrison, 2006). However, others such as Balkundi and Harrison (2006) found, conducting a meta-analysis between networks and performance, networks to be a far stronger predictor of performance than the other way around. Apart from these findings there is also reason to believe both processes occur simultaneously. Additional research has to show on what end of the spectrum moral judgment can be found, antecedent or consequence. Despite this knowledge, this study did not incorporate time as a variable in the study. Instead, group development was taken into account. It was expected that this would show some indication of the effect of time as it is an indication of familiarity. Therefore statements can be made about influence of group development on moral cognition but reports on the shifting of moral cognition are inappropriate, in spite of theoretical relevance.

Another limitation is the simultaneous operation of friendship and advice networks. Advice and friendship networks have the potential to strengthen each other in achieving social influence. However this is not necessarily the case. Advice networks encourage task-oriented and norm supporting interaction that creates agreement and stability within organizations (Gibbons, 2004). However they lack intimacy, commitment and trust which are present in friendships. Especially in uncertain circumstances friendship ties can offer more comfortable environments to discuss uncertainty or moral dilemmas. Friendships therefore also have the
potential to diverge attitudes, because they tend to be stronger than advice relations (Shah, 2000). Both relations potentially strengthen shared cognition. However exceptions have to be anticipated especially in uncertain situations like moral dilemmas. Separate analysis for both the friendship and the advice network were performed after the initial analyses but failed to offer any or discrete results. Possibly there are interaction effects we are not yet aware of. For example Rank & Tuschke (2010) have been able to detect interaction effect in the form of a negative moderating effect of friendship ties on the relationship between perceived influence and cooperation. Given our results further research on the joint effect of instrumental and expressive perceptions will be needed.

It is also important to note that no statements about the type of similarity in the groups can be made. More group similarity could stand for more similarity on both lower stages as well as higher stages of moral development. An argument why this has to be taken this into account comes from the ‘risky shift’ phenomenon (Stoner, 1968). The risky shift explains how group decision making processes are characterized by a tendency to take more chances and set more ambitious goals than the individual group members would do on their own. Towards lower moral values this shift could have detrimental consequences.

**Future directions**

Investigating the interaction between networks and similarity in moral reasoning offers new insights in the way network ties or relations influence moral judgment. Although it has been suggested instrumental and friendship ties are interrelated (Ho & Levesque, 2005; Rank & Tuschke 2010), the joint effect of both ties that was used in this study, is not the only tie that is relevant. For example Rank & Tuschke (2010) found a negative moderating effect between friendship and advice. They found that if an advice tie existed next to a friendship tie, the importance of the advice was less relevant. This completely opposes other theoretical
sounds. For instance Westphal (1999 cited by Rank & Tuschke) found friendship and advice seeking only strengthened one another. Future research should therefore make a clear distinction between instrumental and expressive ties. However, settlement in this theoretical dispute cannot be found by exploring merely tie content. The issue at stake (Jones, 1991) will always play a significant role. Future research should take this into account and attempt to investigate the relation between ties and issues.

It would be interesting to investigate the potential negative characteristics of social network on moral reasoning. One example of this is the risk of having too much density. Studies into group cohesion, often related to density, show that both positive as well as negative results can occur. Karau and Hart (1998) showed that strong cohesion can lead to solidarity among peers but has a negative influence on organisational solidarity. It can therefore be argued that the existence of a \( \cap \)-shaped relation between density and organizational ethics is likely to exist. In these cases similarity within groups forms a risk for organizations. Another interesting application of social network data would be the influence of value diversity on group morality. Value diversity for instance, may be more harmful to members that are more central than to peripheral members. Likewise, level of moral reasoning of the most central or powerful person will be more critical than that of peripheral members. Studing periferical members instead of powerful or central members could therefore provide an interesting view on group morality.

**Concluding remarks**

This study has revealed interesting relations between social network characteristics and moral reasoning. The findings provide support for Brass, Butterfield and Skaggs’s (1998) argument that research on ethical behavior is not complete without taking relations into account. A logical next step would be to connect the social network with other sources of
influence on moral reasoning such as: accountability, trust and codes of conduct. This way a more complete understanding of moral reasoning could emerge. Creating similarity in moral reasoning will benefit organizations. At the time of an ethical decision it will remind a decision maker of what his surrounding expects of him. The first step in this is to create awareness among leaders, of the potential influence of social network on group moral reasoning. Potentially valuable positions in organizations may not lead to better moral understanding if there is no skill or willingness to use relations. Usage of social networks should be stimulated and researched, in order to face the challenges moral dilemmas present.
References


George, J. M., & James, L. R. (1993). Personality, affect, and behavior in groups revisited: Comment on aggregation, levels of analysis, and a recent application of within and between analysis.


Appendix I

Questionnaire (in Dutch)

Introduction

Beste Collega,

Het onderzoek waaraan je direct zal deelnemen bevat vragen over gedrag in groepen. Aan de hand van een vragenlijst wordt onderzoek gedaan naar factoren die van invloed zijn op gedrag in groepen, dit zal 20 tot 30 minuten in beslag nemen.

Het onderzoek wordt volledig anoniem verwerkt, je kunt dus op geen enkele manier op je inhoudelijke deelname aan het onderzoek worden aangesproken. Dit betekent dat de antwoorden die je geeft bij de onderzoeker blijven en niet gecommuniceerd zullen worden met je commandant of anderen binnen de lijn. Wees duidelijk en eerlijk in het geven van antwoorden, er zijn geen goede of foute antwoorden.

Na afloop van je deelname ontvang je een verdere uitleg over de onderzoeksdoelen. Met al je vragen kun je te allen tijde bij de onderzoeker terecht. Alvast vriendelijk bedankt voor je medewerking.

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Prof. dr. E. Giebels, hoogleraar aan de Universiteit Twente
**Similarity in moral reasoning**

In het volgende deel van de vragenlijst vind je een lijst met uitspraken. Geef voor elke uitspraak van de lijst aan hoe (on)belangrijk je die vindt en geef vervolgens een toelichting in je eigen woorden in welke mate je het ermee oneens/eens bent.

Om aan te geven hoe (on)belangrijk je een uitspraak vindt kun je de volgende antwoordmogelijkheden gebruiken:

- erg onbelangrijk
- onbelangrijk
- neutraal
- belangrijk
- erg belangrijk

Bijvoorbeeld:

Hoe belangrijk is het dat mensen stoppen voor een stoplicht dat op rood staat?

Als je dit belangrijk vindt, vink je ‘belangrijk’ aan en schrijf je op waarom je dat belangrijk vindt, bijvoorbeeld:

‘omdat anders het verkeer op elkaar botst’.

Zo werk je de hele lijst af. Werk zo rustig mogelijk door. Er zijn geen goede of foute antwoorden; het gaat erom hoe je er zelf over denkt.

Wij zijn vooral geïnteresseerd in de uitleg die je geeft over hoe jij tot jouw antwoord komt.

1. Hoe belangrijk is het dat je beloften aan je vrienden nakomt?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

........................................................................................................................................

2. Wat vind je van het nakomen van beloften aan mensen in het algemeen? Hoe belangrijk is het dat mensen beloften nakomen aan iemand die ze nauwelijks kennen?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

........................................................................................................................................
3. Wat vind je van het nakomen van een belofte aan kinderen? Hoe belangrijk is het dat ouders beloften aan hun kinderen nakomen?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

……………………………………………………………………………………………………………………………

4. Hoe belangrijk is het dat mensen in het algemeen eerlijk zijn?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

……………………………………………………………………………………………………………………………

5. Hoe belangrijk is dat kinderen hun ouder(s) soms helpen?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

……………………………………………………………………………………………………………………………

6. Hoe belangrijk is het dat iemand blijft leven, zelfs als die persoon dat zelf niet wil?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

……………………………………………………………………………………………………………………………

7. Hoe belangrijk is het dat mensen niet stelen?

Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk

Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

……………………………………………………………………………………………………………………………
8. Hoe belangrijk is het dat men de wet gehoorzaamt?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

9. Hoe belangrijk is het dat rechters mensen die de wet overtreden een straf opleggen?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

10. Hoe belangrijk vind je het dat anderen je met respect behandelen?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

11. Stel dat twee kinderen een ander kind pesten. Hoe belangrijk is het ervoor te zorgen dat die kinderen leren respect voor elkaar te hebben?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

12. Hoe belangrijk vind je het dat anderen niet over je roddelen?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

13. Hoe belangrijk is het dat mensen hun mening op een directe manier geven?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je
14. Stel dat iemand met een handicap de straat niet over durft te steken. Hoe belangrijk is het die persoon met oversteken te helpen?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

15. Hoe belangrijk is het mensen met een lichamelijke handicap te helpen als dat nodig is?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

16. Stel dat je vriend zijn vriendin in het bijzijn van anderen uitscheldt voor ‘kutwijf’. Hoe belangrijk is het dat die anderen hem daarop aanspreken?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

17. Stel dat twee mannen een andere man mishandelen terwijl omstanders toekijken. Hoe belangrijk is het dat de omstanders die twee mannen aanspreken op hun gedrag?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

18. Stel: je merkt dat een vriend van je in harddrugs dealt. Hoe belangrijk is het dat dealen verboden is?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?
hebt aangekruist)?

19. Stel: twee lesbische vrouwen zoenen elkaar op straat. Hoe belangrijk is het dat lesbische vrouwen niet gediscrimineerd worden?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

20. Stel dat een kind dagelijks geconfronteerd wordt met ruziemakende ouders. Hoe belangrijk is het dat ouders rekening met hun kinderen houden door hen niet bij die ruzies te betrekken?
Kruis aan: erg onbelangrijk onbelangrijk neutraal belangrijk erg belangrijk
Waarom is het erg onbelangrijk / onbelangrijk / neutraal / belangrijk / erg belangrijk (wat je hebt aangekruist)?

**Social networks**

Onder staat een lijst met alle personen die deel uitmaken van de groep waar je ook deel van uitmaakt en de leiding van het peloton. Probeer per persoon antwoord te geven op de volgende vraag. (Je eigen naam komt ook in de lijst voor, deze mag je negeren)

“Hoe vaak benader je deze persoon voor kennis of informatie over werkgerelateerde onderwerpen?”

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<th>Bijna nooit</th>
<th>Maandelijks</th>
<th>Wekelijks</th>
<th>Dagelijks</th>
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</table>
Wie beschouw je als persoonlijke vriend van deze personen? En hoe zou je deze band betitelen?

Zeer nauw - Redelijk nauw – Normaal – Vriendschappelijk – Oppervlakkig - Nauwelijks bestaand - Absoluut niet bestaand

Persoon fictief
Persoon fictief
Persoon fictief
Persoon fictief
Persoon fictief
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Persoon fictief

Group Development

De volgende lijst bevat stellingen over teamwork. Geef een indicatie hoe vaak je groep deze gedragingen vertoont.

Nooit Soms Regelmatig Vaak Altijd

We streven ernaar om door middel van procedures en protocollen de activiteiten in ons team soepel en gedisciplineerd te laten plaatsvinden.

We gaan snel aan de slag met activiteiten en blijven niet te lang hangen in de planningsfase.

Binnen onze groep heerst het gevoel dat we het samen moeten doen en dat we gezamenlijk de verantwoordelijkheid dragen voor zowel succes als mislukkingen.

We hebben goed doordachte procedures om tot onze doelen te komen en om te plannen hoe we die doelen bereiken.

Groepsleden zijn niet snel geneigd anderen om hulp te vragen als ze dat eigenlijk wel nodig hebben.

We nemen de doelen van ons team letterlijk en gaan uit van onderlinge eenheid van opvatting.

De voor u eerste leidinggevende in de lijn streeft rust en orde in de groep na en draagt bij aan de werkzaamheden.
We hebben geen vaste procedures, ze ontstaan gedurende de werkzaamheden.

In onze groep ontstaan snel nieuwe ideeën, maar we maken er zelden gebruik van omdat we onderling niet goed naar elkaar luisteren en omdat we ideeën vaak verwerpen nog voordat we ze goed en wel begrijpen.

De groepsleden vertrouwen elkaar niet volledig en houden elkaar goed in de gaten bij de uitvoering van werkzaamheden.

We werken graag samen; we hebben plezier in het werk en zijn productief.

We accepteren elkaar als groepsleden.

De voor u eerste leidinggevende in de lijn is democratisch en gericht op samenwerking.

Als groep streven we naar een duidelijk gedefinieerd doel.

De groepsleden hebben hun eigen ideeën over het proces en persoonlijke agenda's zijn van groot belang.

In onze groep worden kwaliteiten en ontwikkelpunten van de groepsleden volledig geaccepteerd.

We wijzen specifieke rollen toe aan groepsleden (bv. ondersteuning, planner, notulist etc.).

We proberen de harmonie in de groep te bewaren door conflicten te vermijden.

De taken blijken erg anders te zijn dan we verwachtten en lijken erg moeilijk te volbrengen.

Er wordt veel gediscussieerd over ideeën en concepten, waardoor voor sommige leden hun geduld behoorlijk op de proef wordt gesteld.

We zijn goed in staat om problemen in de groep op te lossen.

We discussiëren veel, ook al zijn we het eens over de belangrijke zaken.

De groep wordt regelmatig uitgedaagd meer te doen dan wat er van ze verwacht wordt.

We uiten onderling kritiek op een constructieve manier.

De betrokkenheid bij de groep is groot onder de groepsleden.

De groep presteert onder de maat als het gaat om het behalen van groepsdoelen.

De groepsdoelen die gesteld worden zijn onrealistisch.

Ondanks dat de groepsdoelen niet helemaal duidelijk zijn, hebben we zin om aan de slag te gaan en zijn we trots deel uit te maken van de groep.

Binnen de groep delen we regelmatig persoonlijke problemen met elkaar.

Er is veel weerstand tegen de taken en manieren om de kwaliteit te verbeteren.

We bereiken veel als groep.
Ethical viewpoints

In welke mate zijn de volgende karaktereigenschappen van belang voor je? Geef op een schaal van één (zeer belangrijk) tot zeven (zeer onbelangrijk) aan hoe belangrijk de volgende karaktereigenschappen voor je zijn.

Geef per karaktereigenschap aan hoe belangrijk deze voor u is.


Innovatief
Principieel
Welwillend
Geloofwaardig
Inventief
Betrouwbare
Effectief
Eerlijk
Invloedrijk
Plichtmatig
Onafhankelijk
Toegewijd
Resultaatgericht
Oprecht
Productief
Integer
Meelevend
Financieel bewust
Gezagsgetrouw
Winnaar

Demographics

1. Geslacht
2. Leeftijd
3. Wapen of dienstvak (bijvoorbeeld infanterie)
4. Rang
5. Hoogst genoten (afgeronde) opleiding
6. Partner?
7. Aantal jaren in dienst
8. (Laatste) Uitzendingen (indien mogelijk: jaartal vermelden)
9. Wat je verder nog kwijt wil...

Bedankt voor het invullen! Je bijdrage aan het onderzoek wordt zeer op prijs gesteld!