PERSONAL NETWORKS OF PRISONERS PRIOR TO INCARCERATION: A COMPARISON WITH THE GENERAL DUTCH POPULATION

ABSTRACT
This study examines prisoners’ core discussion network prior to their incarceration. The core discussion network consists of the immediate social circle of relatively strong ties. The aims of the study are twofold: (1) to describe prisoners’ core discussion network prior to their incarceration in terms of network structure, relationship quality and embedded socioeconomic resources; (2) to compare prisoners’ core discussion network with the core discussion network of the general Dutch population. Data are analyzed from the Prison Project (n=1909) and the Survey of the Social Networks of the Dutch (n=394). Compared with the general Dutch population, prior to incarceration, prisoners generally have a core discussion network that is similar to or even better with respect to network structure and relationship quality. However, prisoners’ core discussion network members seem to lack socioeconomic resources.


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2.1 INTRODUCTION

From the social network literature it is known that an individual's personal network is important for improving life circumstances (see, among others, Berkman and Syme, 1979; De Graaf and Flap, 1988; Podolny and Baron, 1997; DiMaggio and Louch, 1998). Several studies have shown that network members are important for getting a job (De Graaf and Flap, 1988), finding a house (DiMaggio and Louch, 1998) and staying healthy (House, Landis and Umberson, 1988). The part of the network that seems particularly important in improving life circumstances is the so-called ‘core discussion network’. The core discussion network refers to the people with whom a person discusses important personal matters. These network members can be seen as the confidants ‘who make up the immediate social circle’ of people (McPherson, Smith-Lovin and Brashears, 2006, p.356). Research has shown that the core discussion network consists of both family and non-family members and is characterized by relatively strong and close relationships (Fischer, 1982; Marsden, 1987; McPherson et al., 2006). It has been argued that these confidants function as a ‘safety net’ and play an important role in affecting people’s norms and behavior (Marsden, 1987).

To date, research on personal networks has mainly focused on relationships held by the general population. However, in the field of criminology the importance for offenders of their personal network has been emphasized as well (see also Warr, 2002). Criminologists have argued that several characteristics of the personal network are related to criminal behavior. This relationship can go two ways. On the one hand, it has been argued that the personal network may encourage criminal behavior, for instance, by means of a social learning process (e.g. Haynie, 2001; Piquero, Gover, MacDonald and Piquero, 2005). People with an overrepresentation of criminal norms and behavior patterns in their network are more likely to learn criminal attitudes and skills from their network members (Sutherland, 1947; Burgess and Akers, 1966). On the other hand, it has been suggested that the personal network may discourage criminal behavior, and may protect people from delinquency (see, among others, Vitaro, Brendgen and Tremblay, 2000). People with stronger (conventional) bonds would refrain from criminal behavior because they are afraid of losing these bonds and because they experience more social control (Hirschi, 1969).

Currently, however, most studies on delinquents’ personal networks have examined delinquents’ peer networks during teenage years or adolescence (e.g. Agnew, 1991; Matsueda and Anderson, 1998; Haynie, 2001; Weerman, 2011). Research on adult offenders and the nature and functioning of their personal network is limited. Moreover, research on delinquents’ relationships outside the peer network is limited, whereas other relationships such as relationships with family members, neighbors or acquaintances may be important as well.

To bridge this gap in knowledge, the present study examines the core discussion network of adult offenders. More specifically, we will examine the core discussion network of prisoners in the six months prior to incarceration and compare their network to the core
discussion network of the general Dutch population. This paper addresses two principal research questions: (1) what does the core discussion network of prisoners look like prior to their incarceration; (2) to what extent does the core discussion network of prisoners differ prior to incarceration from the core discussion network of the general Dutch population?

To answer these research questions we use data from two large-scale studies: 1) the Prison Project (Prison1) and 2) the Survey of the Social Networks of the Dutch (SSND2) (Völker, Flap and Mollenhorst, 2007). Prison1 contains retrospective data about the social networks of 1909 Dutch prisoners who entered pretrial detention between October 2010 and April 2011. SSND2 contains social network data of 998 people who are representative for the Dutch population in 2007/2008. In both data sets, the name generator/interpreter method was used to gather information about respondents’ core discussion network (see also McCallister and Fischer, 1978; Van der Gaag, 2005). This method results in detailed information about each network member, because all network members are identified first, after which several questions are asked about each of these members and about their relationship with these members.

The present study contributes to the literature on prisoners’ personal networks in a number of ways. First of all, to our knowledge, this is the first study to examine the core discussion network of prisoners and of delinquents in general. In light of the importance of core discussion network members in providing help and influencing behavior, the core discussion network may play a crucial role in affecting prisoners’ life circumstances before, during and after imprisonment, as well as (ex) prisoners’ (criminal) behavior. Secondly, criminological research that makes use of the name generator/interpreter method in order to collect detailed network data is scarce. Thirdly, we will elaborate on theoretical insights both from the fields of criminology and sociology and we will formulate hypotheses regarding differences between the core discussion network of prisoners prior to incarceration and the core discussion network of the general population. To date, there has not been any research comparing prisoners’ networks with that of the general population. Research on network differences may give us insight into the factors that stimulate criminal behavior. Fourthly, we will use multilevel analysis techniques to study prisoners’ core discussion network. The use of multilevel models to examine hierarchically structured network data is increasingly common in the general social network literature, but is still rarely used in criminological research on delinquents’ personal networks.

### 2.2 THEORY AND HYPOTHETESES

In this section we will elaborate theoretical perspectives from both the field of criminology and the general social network literature in order to gain insight into and to explain network differences between prisoners prior to incarceration and the general Dutch population. One of these theories we draw upon is the Social Capital Theory. This theory
has caught the attention of an increasing number of researchers over the past decades (e.g. Bourdieu, 1980; Coleman, 1990; Portes, 1998; Flap; 1999). Although there is still discussion about the exact definition of social capital, researchers agree on the fact that social capital refers to resources embedded in the personal network that can be used to attain individual goals (Flap and Völker, 2013). The degree to which relationships create social capital is assumed to depend on several conditions. For instance, it has been argued that social capital increases when network members are more willing to help, have more possibilities to provide help and have more resources themselves (Flap and Völker, 2013). People with more social capital are considered to be more able to attain their individual goals. Note that there is also a collective dimension to social capital, which applies to larger entities such as neighborhoods, schools or even countries. We will focus here on micro level social capital in the network of individuals.

Elements of social capital often described in the literature are network structure and relationship quality (Flap and Völker, 2013). Several researchers have argued that network characteristics such as network size, network density – i.e. the degree to which network members know each other – and the quality of the relationships are related to the information provided in the network as well as network members’ possibilities and willingness to help (e.g. Granovetter, 1973; Coleman, 1990; Burt, 1992). In the field of criminology, there is an ongoing debate regarding the question whether or not delinquents have social skills to start and maintain strong relationships with other people. The two conflicting perspectives underlying this discussion are the Social Ability Perspective and the Social Inability Perspective (Hansell and Wiatrowski, 1981). Both perspectives come to different conclusions about the network structure and the relationship quality of delinquents.

First of all, the Social Inability Perspective argues that delinquents lack the social ability to invest in relationships with others. This perspective is based on Hirschi’s Social Control Theory (1969). Hirschi assumes that all people are ‘naturally capable of committing criminal acts’, but that bonds to society make people refrain from delinquency (1969, p.31). In contrast to non-delinquents, delinquents are assumed to lack strong and emotional bonds to others and, due to this lack of bonds, they do not feel internally inhibited to break the law. Once people are delinquent, they are assumed to maintain only superficial relationships with other delinquents, as they have nobody else to associate with. Due to delinquents’ lack of social skills they experience problems maintaining strong relationships, and have less need for affection and bonds with other people (Hansell and Wiatrowski, 1981).

By contrast, the Social Ability Perspective argues that delinquents have social bonds which are similar to those of non-delinquents. This perspective draws upon assumptions of the Subcultural Approach, such as the Differential Association Theory (Sutherland, 1947) and the Social Learning Theory (Burgess and Akers, 1966). From this perspective, it is
argued that delinquents have normal social skills and have a need for affection just like anyone else. As a result, their network is assumed to be comparable to non-delinquents in terms of structure and relationship quality. According to this theory the main difference between delinquents and non-delinquents is a difference in the norms and behavior patterns of the network members (Sutherland, 1947). It is assumed that delinquents have more network members who have delinquent norms and are involved in criminal behavior than non-delinquents. Within this criminal context, delinquent behavior is learned through social interaction. However, similar to non-delinquents, social learning in delinquents' network is assumed to occur through strong bonds of mutual trust.

Assumptions of both the Social Inability Perspective and the Social Ability Perspective have been tested in criminological research on peer networks and juvenile delinquency. So far, results of these studies are not consistent (Marcus, 1996). For instance, Giordano, Cernkovich and Pugh (1986) investigated friendship ties of 942 American juveniles and concluded that friendship ties between delinquents and non-delinquents did not differ with respect to contact frequency, duration and trust. However, delinquents shared their privacy more often with their friends, and they experienced more friction with their friends than non-delinquents did. Furthermore, Brownfield and Thompson (1991) found more support for the Social Inability Perspective. Their study among 847 American juveniles found no differences between delinquents and non-delinquents in sharing thoughts and feelings with their peers. However, they did find that delinquents have less trust in and less respect for their friends. Although the theories are mainly tested in research on friendship ties (Hansell and Wiatrowski, 1981), the arguments of the Social Control Theory and the Subcultural Approach can also apply to ties with other individuals, such as family members, neighbors and colleagues. Therefore, in line with the Social Ability and Social Inability Perspectives, we also expect differences and similarities in the core discussion network between prisoners prior to incarceration and the general population. Hypotheses that are derived from these perspectives are outlined below.

Given the assumption of the Social Inability Perspective that delinquents lack the social skills to maintain strong ties with others, it can be expected that prisoners have fewer confidants in their core discussion network prior to incarceration than the general population. Following the theory’s line of argument, they would refrain from delinquent behavior if they had these strong and emotional bonds. Our first hypothesis is, therefore: prior to incarceration, prisoners have a smaller core discussion network than the general population has (H1a).

The Social Inability Perspective assumes that delinquents are socially unable to function in dense networks and to maintain strong relationships (Hansell and Wiatrowski, 1981). Therefore, two other hypotheses are: compared to the general population, prisoners are embedded in a less dense core discussion network prior to incarceration (H1b), and prior to incarceration, prisoners have relationships that are less strong (H1c). On the other hand, the
Social Ability Perspective assumes that delinquents have similar social skills and similar meaningful bonds to those of non-delinquents. If no differences are found in network size, network density and relationship quality between prisoners prior to incarceration and the general population, it supports the idea of the Social Ability Perspective.

Moreover, Lin’s theory on inequality in social capital provides a third source of theoretical insight for this study (2000a; 2000b). His theory provides clues about the extent to which prisoners and the general population differ in terms of embedded socioeconomic resources in the core network. Lin assumes that every society – to a certain degree – experiences social inequality. According to Lin, this inequality is the result of an unequal distribution of ‘meaningful rewards’, such as health, income, nutrition and education (Lin, 2000b, p. 284). Because of this unequal distribution, some social groups have a weaker socioeconomic position in society than other groups. Given the social inequality, two processes would cause one’s social position in society to be associated with the embedded socioeconomic resources. First, according to the homophily principle, people tend to associate with others belonging to the same socioeconomic group. People prefer to develop and maintain relationships with others who are similar to themselves (see also Lazarsfeld and Merton, 1954). As a result, people with a low socioeconomic position in society tend to associate with low-positioned others, whereas people with a high socioeconomic position tend to associate with high-positioned persons. This process creates an inequality in embedded socioeconomic resources.

A second process explaining why people with a similar socioeconomic background tend to cluster together consists of the structural constraints that hinder people to meet others in different socioeconomic positions (Blau, 1977; 1994). In their daily lives people socialize in several contexts. Important contexts, in which a lot of time is spent, such as the workplace and one’s place of residence, are often highly homogeneous with respect to socioeconomic status. Consequently, people are more likely to associate with people with a similar socioeconomic position because the opportunities to meet persons in different positions are limited.

Lin finds evidence for his theory in studies on network differences between men and women, and on network differences between ethnic groups. However, his theory can also result in expectations regarding differences in embedded socioeconomic resources between prisoners and the general population. Prisoners generally have a lower socioeconomic position in society; not only after their imprisonment, but also prior to their incarceration (see also Western, 2002; Vishé, LaVigne and Travis, 2004). Prisoners are relatively often unemployed, have a lower level of education, and often experience financial problems (Western, 2002). Following Lin’s line of argument, it can be expected that, prior to their incarceration, prisoners are embedded in a social network with limited socioeconomic resources.
In addition, it can be expected that even when compared to other lower socioeconomic groups, prisoners experience more difficulties in establishing ties with people in more advantaged positions. The Social Capital Theory argues that people tend to consider the resources of another person before they invest in a relationship with that person. People with more resources (e.g. socioeconomic resources) will be more attractive network members because their resources are expected to be more helpful in the future. According to the Social Capital Theory, a relationship can only exist when both parties involved in the relationship are attractive to one another (Völker, Pinkster and Flap, 2008). Delinquents are often associated with unattractive characteristics, like being selfish and less empathic, and being less reliable than non-delinquents are (Gottfredson and Hirschi, 1990). As a consequence, prisoners may experience more problems in establishing social ties with members of more advantaged groups.

Based on the Social Capital Theory, our final hypothesis is as follows: compared to the general population, prisoners have less access to socioeconomic resources through their network members prior to incarceration (H2).

2.3 DATA AND METHODS

In order to test our hypotheses and to answer our research questions, we use data from the Prison Project and the Survey of the Social Networks of the Dutch (Völker and Flap, 2002; Völker et al., 2007).

2.3.1 Prison Project

The Prison Project is a longitudinal panel study that started in 2010 and surveys male prisoners aged between 18 and 65 who are born in the Netherlands and were held for at least three weeks in pretrial detention. This project examines the consequences of imprisonment on reoffending and on (ex) prisoners’ life circumstances, such as employment, health, housing and social relationships.

The present study will use the first measurement of the Prison Project (in short: Prison), which contains data of 1,909 prisoners who entered one of the Dutch remand centers between October 2010 and April 2011. About three weeks after their arrival, a trained interviewer visited the prisoners in their cell or in a consulting room, informed them about the project, and asked them if they were willing to participate in the study. After informed consent had been given, a prisoner was asked to fill in a self-administered questionnaire, and an appointment was made for a face-to-face interview. The interviews were held in a consulting room to guarantee privacy and to avoid interference by others, and lasted on average one hour and a half.

Between October 2010 and April 2011, a total number of 2945 prisoners meeting the selection criteria entered the remand centers in the Netherlands and 2775 prisoners could
be approached for the study. Of the latter group, 1909 prisoners were interviewed (69 per cent). Using registered data, it was found that the 1909 respondents are similar to those who did not want to participate in terms of age, marital status and offense of which they are accused. However, prior to incarceration, respondents were more likely to have a paid job than non-participants (46 per cent versus 38 per cent).

2.3.2 The Survey of the Social Networks of the Dutch
Data about the general Dutch population come from the Survey of the Social Networks of the Dutch (SSND). This survey has been held twice among a representative sample of the Dutch population; in 1999/2000 and in 2007/2008 (Völker and Flap, 2002; Völker et al., 2007). Because the SSND has a panel design, respondents participating in the first measurement were asked to participate again in the second measurement. Data collection was carried out in a similar way during both measuring periods. First, potential respondents were informed about the purposes of the survey via a letter and received a telephone call to ask whether they wanted to participate. Whenever a person could not be reached by telephone, he/she was visited at home. If potential respondents were willing to participate, an appointment was made for an interview at the respondent’s home. The interview took about two hours.

For the present study, data of the second measurement (in short: SSND2) will be used. For the study in 2007/2008, a total number of 998 respondents were interviewed. Of these, 604 respondents also participated in the first measurement and 394 respondents were interviewed for the first time. The additional sample of 394 respondents was drawn to overcome selection attrition (for more information on SSND, see: Völker and Flap, 2002; Völker et al., 2007). Comparing the sample of 998 respondents with national statistics obtained from Statistics Netherlands, it was found that males, elderly, married people and people with a paid job are somewhat overrepresented. Hence, we weighted the SSND data by age, which resulted in a sample that is comparable to the general Dutch population in terms of age, marital status and employment status. Moreover, we applied the same selection criteria of Prison Project to SSND (i.e. men, aged between 18 and 65 years and born in the Netherlands). This resulted in a final data set on the general Dutch population, consisting of 394 respondents.

2.3.3 Name generator/interpreter method
Both Prison1 and SSND2 used the name generator/interpreter method to collect data on the core discussion network (McCallister and Fischer, 1978). This method enables researchers to collect detailed information about respondents’ social relationships. First, names of the network members are identified through one or more name generator questions. To identify the core discussion network members, we asked the following name generator question, which is commonly used in social network literature: ‘Everybody needs
someone to talk about important matters from time to time. With whom did you discuss important personal matters during the last six months? May I have the first name and the first letter of the family name of those persons?’ In Prison 1 the question referred to the people with whom important personal matters had been discussed ‘six months prior to your arrest’. Respondents were allowed to mention five new network members with whom they had discussed important matters:

If respondents did not want to mention the real names of their network members, they could also give a nickname or initials. After the members in the core discussion network were identified, several interpreter questions were asked for each network member. These questions referred to background characteristics of the network member (e.g. gender, age and job status) and the relationship with that person (e.g. duration and contact frequency).

2.3.4 Measurements
This study investigates several aspects of the network structure, relationship quality and embedded socioeconomic resources. Most aspects have been measured with questions from the interpreter part of the questionnaire. Unless otherwise specified, questions in Prison 1 are identical to those asked in SSND 2.

In order to investigate the structure of the core discussion network, we have examined network size and network density. Network size is measured by summing all network members with whom the respondent discusses important personal matters. To measure network density all respondents with two or more network members were asked how well their network members know each other and how well the members get along. The question in Prison 1 is slightly different to the one used in SSND 2. In Prison 1, respondents were asked to indicate whether the network members know each other well and get along well (answer categories: ‘yes’ or ‘no’). In SSND 2, respondents indicated on a five-point scale how well the network members know each other; a score of five means that network members know each other well and get along well. To compare the answers to this question, we calculated network density by dividing the number of network members knowing each other well and getting along well by all possible relationships in the core discussion network. As a result, network density could range from 0 (members do not know each other) to 1 (all members know each other well and get along well). As this variable appears

1 In SSND, respondents were allowed to mention network members who had already been identified during previous questions and, in addition, they could give a maximum of five new names for each name generator question. In PRISON, respondents were only allowed to identify a maximum of five names for each name generator question, irrespective of whether these names had already been mentioned during previous questions. This small difference in how the name generator question is answered caused 16 of the 354 selected respondents in the SSND sample to name more than five network members. An additional analysis, in which we only used data of the five network members first mentioned, did not change the results.
to be strongly U-shaped, we dichotomized network density into the variable ‘dense network’ (0 being ‘0-0.75’ and 1 being ‘0.76-1’).

Three variables were used to measure relationship quality. First, contact frequency was measured by asking respondents how often they usually have contact with their network members. Respondents could select an answer from six answer categories, ranging from 1 ‘every day’ to 6 ‘less than once or a few times a year’. Because most respondents indicated that they have daily or weekly contact with their network members, we dichotomized the variable (0 ‘less than weekly contact’; 1 ‘daily or weekly contact’). Secondly, the level of trust in network members was measured. The reported level of trust in network members could range from 1 (‘no trust’) to 5 (‘trust very much’). Because most respondents indicated that they have a high level of trust in their network members, we dichotomized this variable (1 = ‘(high) trust’). Thirdly, the duration of the relationships was measured as an indicator of relationship quality. The duration of the relationship was measured as the number of years the respondent has known his network members.

In the present study, embedded socioeconomic resources are measured as network members’ educational level and employment status. To measure educational level we constructed a dichotomous variable indicating whether or not a network member completed a higher educational level (1) or a lower level of education (0). For both the prison population and the general population, a higher level of education refers to network members who completed intermediate vocational education or higher. To measure employment status, respondents were asked whether or not their network members had a paid job at the time of the interview (1 = yes; 0 = no).

2.3.5 Presentation of the data
Before comparing the network structure, relationship quality and embedded socioeconomic resources, we will first examine the degree to which prisoners and the general Dutch population and their network members differ in some relevant background characteristics. Table 2.1 presents several background characteristics for both populations. On average prisoners are about 13 years younger than the men in the general population are. About 40 per cent of the prisoners had parents who were born abroad versus 6 per cent in the general population. Compared with the general population, prisoners were more likely to have a lower educational level, and less likely to have a paid job. Prisoners are less often married when compared to the general population (8.2 per cent versus 51.4 per cent). Looking at the background characteristics of the network members, we observed that the core discussion network of both prisoners prior to incarceration and the general population consists mainly of family members and females. However, compared to the general population, there are relatively more men and family members in prisoners’ core discussion network. Furthermore, prisoners’ network members are on average younger than the network members of the general population.
It is clear that the prison population differs from the general population in a number of background characteristics. Because these characteristics are related to dimensions of the core discussion network as well (e.g. Marsden, 1987; McPherson et al., 2006), we take these characteristics – as presented in Table 2.1 – into account when we compare the network characteristics of the prison population with those of the general population.

### Table 2.1. Background characteristics of the respondents and composition of the network, separated for prisoners and the general Dutch population

<table>
<thead>
<tr>
<th>Respondent characteristics</th>
<th>Prisoner</th>
<th>General Dutch[b]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>mean</td>
</tr>
<tr>
<td>Age (in years)</td>
<td>30.33</td>
<td>10.70</td>
</tr>
<tr>
<td>Both parents born in the Netherlands</td>
<td>60.8</td>
<td>1827</td>
</tr>
<tr>
<td>Married</td>
<td>8.2</td>
<td>1631</td>
</tr>
<tr>
<td>Level of education (1-4)</td>
<td>1.88</td>
<td>0.96</td>
</tr>
<tr>
<td>Paid job</td>
<td>38.7</td>
<td>1904</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network composition[c]</th>
<th>Prisoner</th>
<th>General Dutch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>mean</td>
</tr>
<tr>
<td>Role</td>
<td>1442</td>
<td>313</td>
</tr>
<tr>
<td>Family member</td>
<td>64.9</td>
<td>53.7</td>
</tr>
<tr>
<td>Friend</td>
<td>25.5</td>
<td>35.3</td>
</tr>
<tr>
<td>Other role</td>
<td>9.6</td>
<td>11.0</td>
</tr>
<tr>
<td>Age</td>
<td>37.30</td>
<td>12.87</td>
</tr>
<tr>
<td>Male</td>
<td>43.5</td>
<td>14.22</td>
</tr>
</tbody>
</table>

[a] The level of education is measured on a four-point scale: (1) primary education to lower vocational education, (2) (lower) general secondary education to pre university education, (3) intermediate vocational education to higher vocational training and (4) university degree or higher.

[b] Statistics are calculated with weighted SSND data. These data are weighted by age.

[c] Network composition can only be calculated for the respondents with a network. In total, 1522 prisoners and 337 people in the general Dutch population had a core discussion network (see also Table 2.2). Background information about the network members is available for 1485 of the 1522 prisoners in the Prison Project. Of 37 respondents, there is no information available about the network members because interviewers wrongly administered the network questions (n=33) or respondents did not answer the questions about their network members (n=4). Note that all 1522 prisoners in the Prison Project and all their 3447 network members are included in multivariate analyses in this chapter by including (extra) dummy-variables for the ‘missing’ categories for each network-member-variable.
The aim of the analysis is to compare the network structure, relationship quality and embedded socioeconomic resources between prisoners prior to incarceration and the general Dutch population. First, we will present some descriptive statistics for the network characteristics of prisoners and men in the general population. Secondly, we will perform regression analyses to test whether differences observed between prisoners and the general population are statistically significant, and remain significant after controlling for background characteristics. Note that we do not use the weighted SSND data when controlling for background characteristics. Because age of the respondent is added in the regression models as one of the independent variables, it is preferred to use the unweighted data (Winship and Radbill, 1994).

Because we are dealing with hierarchically structured data, in which network members are nested within respondents, we will also perform multilevel analyses. The use of a multilevel analysis has been recommended and demonstrated in prior research on personal networks (e.g. Van Duijn, Van Busschbach and Snijders, 1999). A multilevel analysis is recommended with hierarchically structured data because it takes into account any interdependency between observations, and it overcomes the problem that standard errors are underestimated and spurious significant effects are found (Snijders and Bosker, 1999).

In both the regression analyses and the multilevel regression analyses, we will control for all background characteristics of the respondents shown in Table 2.1; i.e. for respondents’ age, marital status, ethnicity, level of education and job status. In the multilevel regression analyses we will also control for all background characteristics of the network members; i.e. the role, gender and age of the network members.

2.4 FINDINGS

In Tables 2.2 and 2.3, characteristics of the prisoners’ core discussion network prior to incarceration are presented and compared with the general Dutch population. Table 2.2 shows network size and network density in order to examine prisoners’ network structure. Table 2.3 presents aspects of relationship quality (i.e. contact frequency, trust and duration) and embedded socioeconomic resources (i.e. network members’ level of education and employment status).

From the descriptive statistics in Table 2.2, we can conclude that prisoners’ core discussion network is slightly smaller than the core discussion network of the general Dutch population. Whereas men in the general population discuss their important matters on average with 2 confidants, prisoners discuss these matters with 1.86 confidants. About 18 per cent of the prisoners indicated that they did not have any confidants in their network before their incarceration, whereas this percentage is 11.6 in the general population. Note that 47 prisoners did not answer the name generator question about the core discussion network.
After excluding those without a core discussion network, the network size of men in the general population remained slightly bigger than the network size of prisoners prior to incarceration (2.32 versus 2.27 network members, respectively). However, after controlling for the respondents’ background characteristics, this difference in network size is no longer statistically significant (it seems that respondents’ educational level accounts for the difference in network size; this is not presented in Table 2.2). With regard to network density, prisoners seem to be embedded in a more tightly knit core discussion network than men in the general population are. Whereas 32.5 per cent of the general population indicated that they have a dense network, the percentage of prisoners having a dense network size remained almost the same as for the general population (2.27 versus 2.32 network members, respectively). However, the percentage of prisoners’ having a dense network is higher than the percentage of the general population (32.5 per cent versus 22 per cent, respectively).
network before detention was 73.2. This difference remained significant after taking respondents’ background characteristics into account (odds ratio=6.38).

Table 2.3 presents the data on relationship quality. On average, prisoners have more contact with their network members than the general population has. It seems that 82 per cent of the men in the general population have weekly or daily contact with their network members. By contrast, 93.1 per cent of the prisoners had weekly or daily contact with their network members prior to incarceration. After controlling for the background characteristics, the odds ratio remained statistically significant (OR = 2.69; p-value < 0.001). This means that, compared with men in the general population, prisoners are about three times more likely to have daily or weekly contact with their network members. When we look at the level of trust, fewer prisoners have a high level of trust in their core discussion network members than men in the general population have. However, it is apparent that this difference is only relative because in both populations, the majority has a high level of trust (91.7 per cent among prisoners versus 97.7 per cent among men in the general population). This difference in trust remained significant after controlling for background characteristics (OR = 0.40; p < 0.01). With respect to the duration of the relationships with the core discussion network members, prisoners seem to have known their network members less long. The prison population has known its confidants on average for 16.86 years, whereas men in the general population have known their confidants for 19.47 years. This difference disappears after controlling for background characteristics of the respondents and their network members. More specifically, respondents’ age seems to account for the difference in relationship duration between prisoners and the general population. Therefore, prisoners and comparable men in the general population (with similar background characteristics) have known their network members for a similar period of time.

Finally, Table 2.3 shows the embedded socioeconomic resources in the core discussion network of prisoners prior to incarceration. Prisoners have less socioeconomic resources in their core discussion network than the general population has. Whereas 44.6 per cent of the network members of prisoners are highly educated, this percentage is 65.8 among network members of men in the general population. This difference remained significant after controlling for all background characteristics (odds ratio=0.50; p < 0.001). With respect to the employment status of the network members, a similar result was found. Compared with network members of men in the general population, fewer network members of the prisoners had a paid job (77.5 per cent versus 65.8 per cent, respectively). Again, if we take the respondents’ and their network members’ background characteristics into account, this difference in employment status remains significant. Clearly, an average prisoner has less access to socioeconomic resources in his network than a comparable man in the general population has.
In sum, our results for network size contradict Hypothesis 1a. Compared to men in the general Dutch population, prior to their incarceration, prisoners discuss their important personal matters with the same number of people. Moreover, our results for network density counter Hypothesis 1b. Contrary to expectations, prisoners seem to have a more tightly knit core discussion network before detention than the general Dutch population has. Furthermore, our results for relationship quality partly support Hypothesis 1c. Although prisoners have more contact with their network members prior to incarceration and have known their network members for the same amount of time, they have less trust in their network members. Finally, our results for embedded socioeconomic resources support Hypothesis 2: prior to incarceration, prisoners seem to have less socioeconomic resources in the core discussion network than the general Dutch population has.
2.5 CONCLUSION AND DISCUSSION

The present study examined prisoners’ core discussion network in the six months prior to their incarceration. The core discussion network consists of people’s immediate social circle and refers to significant others with whom people discuss important personal matters (Fischer, 1982; McPherson et al., 2006). Because well-known criminological theories on delinquents’ personal networks have mainly been tested for juveniles, the knowledge on social networks of adult offenders is limited. The present study fills this gap, and compares the core discussion network of adult prisoners with the core discussion network of men in the general population. The present study examined three aspects of these men’s core discussion network: 1) the structure of the core discussion network; 2) the quality of the relationships; and 3) the embedded socioeconomic resources in the network prior to incarceration.

Our findings suggest that, compared with men in the general population, prior to incarceration, prisoners have a core discussion network that is similar or – in some respects – even more favorable in terms of structure and relationship quality. In general, prisoners have as many people with whom they discuss important personal matters as the general population has. Additionally, prisoners discuss these matters within a more closely knit network, they see or speak their core discussion network members more often, and they have known their core discussion network members as long as men in the general population have known their network members. Although network members of both the prison population and the general population are highly trusted, prisoners seem to trust their network members slightly less.

With respect to the available socioeconomic resources in the core discussion network, prisoners seem to fall a bit behind before detention. Compared with the general population, prisoners’ network members more often had a lower educational level and more often were unemployed or had an unpaid job. These differences remained after taking the prisoners’ own socioeconomic status into account.

In light of the theoretical discussion regarding delinquents’ social skills, our results are more in line with the Social Ability Perspective than they are with the Social Inability Perspective. Contrary to Hirschi’s arguments, prisoners seem to have strong and emotional bonds with significant others and they seem to be able to maintain these ties. Moreover, we found support for Lin’s assumptions about the unequal distribution of social capital among groups. Based upon this theory, prisoners would have less embedded socioeconomic resources in their core discussion networks even when compared with other lower socioeconomic groups. One reason for this assumption is that delinquents are often associated with unattractive personal characteristics (e.g. they are assumed to be unreliable, less empathic) and, therefore, are less attractive to persons with more advantaged positions. Although we could not test such explanatory mechanisms, our
results convincingly show that prisoners' core discussion networks are poor in socioeconomic resources.

Beyond these results, the observed differences in core discussion networks between prisoners prior to incarceration and men in the general population may provide clues about factors that may contribute to people becoming delinquent. From the social network literature, we know that people who have more embedded socioeconomic resources are better able to attain individual goals (Flap and Völker, 2013). Similar to those who have more human capital (e.g. income and education), people with more social resources are assumed to be more successful in, for instance, getting a job, obtaining material goods or achieving prestige and status (e.g. De Graaf and Flap, 1988; Portes, 1998). The present study shows that the core discussion networks of prisoners lack socioeconomic resources. This lack of resources may contribute to problems in fulfilling their wishes and achieving their goals in the period before their incarceration. As argued in the Strain Theory, an imbalance between people's goals in life and the means they have to achieve these goals causes strain and frustration (Merton, 1938, 1964; Agnew, 1992). If people do not adjust their goals, the experienced strain could encourage people to look for other, non-legitimate means to compensate for the lack of legitimate resources. In this way, they are still able to fulfill their wishes and to realize their goals (Merton, 1964). Therefore, the lack of social resources might explain – at least partly – why people become delinquent and, in some cases, end up in prison. Unfortunately, the present study was unable to actually test whether or not the lack of socioeconomic resources in the core discussion network was indeed an explanatory mechanism for getting involved in criminal behavior. Future research that examines the degree to which a lack of embedded socioeconomic resources in the personal network explains delinquency is therefore to be encouraged.

In addition to the lack of socioeconomic resources in the core discussion network, one might speculate that prisoners, in contrast to the general population, have more criminal social resources through which they learn delinquent behavior prior to their incarceration. Especially in a highly dense core discussion network, as was the case for prisoners, people are more likely to adjust to the dominant norms and values in this network (Portes, 1998; Flap and Völker, 2013). An overrepresentation of delinquent definitions in the network prior to incarceration in combination with a high network density may increase the risk of becoming involved in criminal behavior. Unfortunately, in the present study no information on network members' delinquent behavior was available for the general population. Hence, we were unable to compare prisoners' criminal capital with that of men in the general population. In future research it would be interesting to further investigate the question whether or not prisoners have more criminal network members prior to their incarceration and whether this criminal capital, in turn, explains their criminal behavior.
Some methodological limitations of our study should be addressed. First, our conclusions are based on data from a population of inmates held in pretrial detention. The fact that they were held in custody indicates that we are dealing with a group of persons who are suspected of involvement in more serious offences, otherwise they would not have been placed in custody. As such, we cannot generalize our results to other people involved in minor offences or to delinquents who are not taken into custody. Another issue that needs to be addressed is the different context in which data were collected for the prison population and the general population. Whereas respondents in SSND were asked about their core discussion network at the time of the interview, prisoners were asked to retrospectively recall their core discussion network prior to their incarceration. Although most prisoners were imprisoned for only a few weeks, it is still possible that recall bias has affected the prisoners’ answers (e.g. Henry, Moffitt, Caspi, Langley and Silva, 1994). In addition, the situation in which the prisoners were interviewed was considerably different to the situation in which respondents of the SSND were interviewed. In contrast to the in-home interviews conducted by SSND, prisoners were interviewed in a closed, institutionalized setting in a period that is often accompanied with uncertainty and stress, especially during the first weeks. Although it is unclear whether or not a stressful situation causes bias in the name generator data, it may have affected prisoners’ answers.

These limitations notwithstanding, the present study has some important strengths as well and contributes to current knowledge on prisoners’ social networks. To our knowledge, it is the first study that describes the personal networks of prisoners prior to their detention and compares this with the personal networks in the general population. Additionally, in the present study, we could use data from two large-scale data sets, which contained unique and detailed information about the core discussion network.

To improve current knowledge regarding prisoners’ personal networks, future research should examine social relationships that are maintained outside the core discussion network as well. From the literature it is known that people with whom strong relationships are maintained – mainly presented in the core discussion network – are more willing to help, provide a broader scope of services and are important in affecting norms and behavior (McPherson et al., 2006). However, weaker ties are also important in providing new information, and often function as a source of inspiration for (criminal) behavior (Granovetter, 1973; Burt, 1992). Therefore, investigating prisoners’ weaker ties would address important but currently unanswered questions regarding the role of these ties in prisoners’ networks.