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## **Sentencing in the Netherlands. Taking risk-related offender characteristics into account**

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## Offender's personal circumstances and punishment

Toward a more refined model for the explanation of sentencing disparities<sup>1</sup>

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### ABSTRACT

Prior research suggests that offender sex, age, and race are often influential determinants of sentencing outcomes. According to focal concerns theory, they affect sentencing because – due to limited time and information – judges rely on stereotypical behavioral expectations when assessing offender blameworthiness and dangerousness. As such, extralegal offender characteristics may serve as proxies for more specific risk indicators. Whether more complete information on additional risk factors helps account for the effects of extralegal characteristics, however, remains an untested assumption. Therefore, this study analyzes the Dutch data on standardized pre-sentence reports to examine the influence of personal circumstances of the offender, such as employment, family, and drug use factors, on the likelihood and length of incarceration. The results suggest that personal circumstances exert inconsistent influence over sentencing outcomes and that they fail to significantly mitigate the direct effects of sex and age, but do mitigate the effects of national origin.

### 2.1 INTRODUCTION

The study of judicial sentencing outcomes is a vast criminological research enterprise. Prior research indicates that offender sex, age, and race are often significant sentencing determinants, though many studies stress that these effects are conditional or indirect (Doerner & Demuth, 2010; Spohn & Holleran, 2000; Spohn, Welch, & Gruhl, 1985; Steffensmeier & Demuth, 2006; Steffensmeier, Ulmer, & Kramer, 1998). Contemporary research suggests that racial disparities in sentencing reflect the fact that minority defendants tend to have

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<sup>1</sup> A slightly different version of this chapter has been published in *Justice Quarterly* (2014, DOI:10.1080/07418825.2014.902091).

lengthier prior criminal records, higher chances of pre-trial detention, detrimental employment status, and generally more disadvantageous social positions in society (Kleck, 1981; Reitler, Sullivan, & Frank, 2013; Spohn, 2013; Zatz, 1987). As such, judicial sentencing decisions are likely to reflect the consideration of these and related factors that are tied to assessments of threat or future risk of offending (Albonetti, 1991). Similar arguments apply to sex and age-enhanced sentencing severity for young, male defendants may reflect differential distributions of negative life circumstances that are tied to judicial assessments of dangerousness, culpability, and higher risks of recidivism. Demographic offender characteristics such as sex, age, and race, then, may affect judicial decision-making in part because they are associated with risk-related personal circumstances that are unequally distributed among the population of offenders and are typically absent from empirical models of the sentencing process.

The idea that offender characteristics affect judicial decision-making because they are proxy indicators of culpability and risk has been adopted widely in sentencing research; however, it remains an assumption that has gone largely untested in prior research (Bridges & Steen, 1998). Moreover, extant sentencing research has yet to incorporate insights from the substantial research literature on risk assessment and recidivism (Casey, Warren, & Elek, 2011). This is somewhat surprising given that many of the same factors theorized to affect criminal behavior are also tied to judicial assessments of blameworthiness and future risk of reoffending. Important progress on this issue can therefore be made by identifying salient predictors of recidivism and incorporating them into existing models of judicial sentencing outcomes. Key among these predictors are indicators of the local life circumstances of offenders, such as their socioeconomic conditions, family and peer relationships, drug and alcohol use, and psychological factors, among others (e.g. Farrington, 2007; Horney, Osgood, & Haen Marshall, 1995; McNulty & Bellair, 2003). Importantly, offender personal circumstances may also serve as key mediators in the relationship between demographic characteristics and sentencing.

Building on these insights, the current study attempts to shed new light on the origins of demographic differences in sentencing outcomes by investigating the unique contribution of more detailed information about personal circumstances of the offender (e.g. family situation, substance abuse, housing, friendship networks, etc.). As Wellford (2007) recently opined, one of the most important limitations of modern sentencing research is that it relies on estimates of extralegal disparity derived from 'poorly specified models' (p. 399) that fail to include important background characteristics of the offender. This study addresses that concern by examining whether or not observed disparities by sex, age, and national origin are partially or fully attributable to unaccounted-for differences in disadvantageous, risk-related personal circumstances relevant to judicial decision-making. It utilizes a unique level of detailed offender information from standardized pre-sentence reports written

by Dutch probation officers, which are provided to Dutch judges at sentencing. The sentencing system in the Netherlands provides a highly relevant context for such an investigation, because the Dutch legal framework offers relatively broad discretionary powers to the judge at sentencing. Moreover, examining sentencing decisions outside the typical US context also offers rare and valuable insights into the treatment of different social groups by the penal system in other legal contexts (Johnson, Van Wingerden, & Nieuwbeerta, 2010). As such, the current study addresses 'another key gap in the literature', which is that 'almost all of the research on sentencing is limited to the contemporary North American – particularly the US – context' (Ulmer, 2012, p. 31).

## 2.2 UNDERSTANDING SENTENCING IN THE NETHERLANDS: JUDGES' DISCRETIONARY POWERS

In contrast to the criminal justice system in the United States, there are no juries or lay-assessors in the Netherlands; professional judges decide both the guilt and punishment of the suspect. Less serious cases are adjudicated by a single magistrate, who pronounces a verdict immediately. More serious cases are heard by a panel of three judges, who, within two weeks of trial, are required to come to a consensus regarding both the guilt of the offender and the punishment. An important feature of the Dutch criminal justice system is the broad discretionary powers of the judge when determining the sentence. In the Netherlands, this is highly valued to ensure that the penalty imposed fits the severity of the crime, the risk and needs of the offender, and his or her unique personal circumstances. Judges' sentencing decisions are only constrained by the Dutch Penal Code, which sets a uniform minimum penalty (e.g. imprisonment should last at least one day) and crime-specific maximum penalties; for instance, four years for ordinary theft and twelve years for violent theft. The discretionary power of the judge is further broadened by the different sanction types the judge can choose from, which can be independently or jointly imposed. In addition to imprisonment, judges can impose community service and/or a fine. Furthermore, under certain circumstances, additional measures can be imposed, such as placement under a hospital order or the deprivation of the proceeds of crime. Finally, for suspended punishments, various special conditions can be specified, which have to be met by the offender during the operational period of the suspended sentence, such as alcohol treatment or aggression regulation therapy. The Dutch legal framework provides for a broad range of punishments that allows the personal circumstances of the offender to be taken into account at sentencing and provides a unique opportunity to investigate the role of extralegal offender characteristics in judicial decision-making.

## 2.3 THEORETICAL FRAMEWORK AND PRIOR RESEARCH

### 2.3.1 A new direction for focal concerns theory

The idea that offender characteristics affect sentencing outcomes because they are proxy indicators of the future risk of recidivism is a core element of contemporary theoretical perspectives on criminal sentencing. Rooted in organizational perspectives on bounded rationality and attribution theory, modern perspectives on sentencing argue that judicial decision-making is limited by time and information constraints. To be fully rational, a judge would need complete information about the offender and about future behavioral outcomes, but in practice this is never the case. Therefore, as Albonetti (1991) argued, in the absence of sufficient time or information, judges are likely to rely on patterned responses that invoke past experience, stereotypes, and social prejudices. She argues that 'from an uncertainty avoidance perspective, case information salient to reducing recidivism will affect judicial discretion' (Albonetti, 1991, p. 249).

Similarly, the focal concerns perspective posits that judicial decision-making is guided by three focal concerns: 1) the blameworthiness or culpability of the offender; 2) the dangerousness of the offender and the protection of the community; and 3) individual and organizational practical implications of sentencing decisions (Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998). The first two focal concerns reflect the two main principles of sentencing: retributivism and utilitarianism. Blameworthiness and culpability reflect the retributivist approach that the punishment should fit the crime (Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998). Dangerousness and community protection reflect the utilitarian sentencing goal of special prevention and incapacitation of the offender. In order to protect society by reducing the likelihood of reoffending, judges attempt to assess and predict the offender's dangerousness and risk of recidivism. The last focal concern bears upon the fact that judges consider practical constraints and consequences, such as the costs to be borne by the correctional system, disruption of ties to family members, or the court's standing in the public's eye, among others (Johnson et al., 2010; Steffensmeier & Demuth, 2000).

When assessing these three focal concerns, though, judges seldom have complete information about the case or the offender to make fully informed decisions. In order to deal with this uncertainty, judges develop a decision-making schema that assist with the determination of an offenders' blameworthiness, dangerousness, likelihood of recidivism, ability to do time, and other practical considerations (Steffensmeier & Demuth, 2000). This decision-making schema draws upon past experiences, normative courtroom mores, and societal stereotypes to formulate attributions of offender risk (Johnson et al., 2010). Importantly, the contents of these attributions are likely to be related to the predictors of reoffending; that is, the same factors known

to affect recidivism are likely to be taken into account by judges at sentencing. For instance, Sampson and Laub's (1993) age-graded theory of informal social control argues that strong ties to work, school, and family prevents people from offending or reoffending (see also e.g. Haynie, Weiss, & Piquero, 2008; Horney et al., 1995), and Warr (2006), and others suggest that association with delinquent peers constitutes an important criminogenic factor (see also Akers, 2009; Sutherland, 1947; Sampson & Laub, 1993). Additional research shows that the risk of reoffending is increased by other personal circumstances, such as homelessness (Lee, Tyler, & Wright, 2010), socioeconomic status (Farrington, 2007), family disruptions (Sampson, 1987), low educational attainment (Makarinos, Steiner, & Travis, 2010), and unemployment (Haynie et al., 2008; Van der Geest, Bijleveld, & Blokland, 2011). Indeed, judges may rely heavily on these types of conventional social bonds in their assessments of offender blameworthiness or risk, which may translate into important differences in sentencing. Other deviations from conventional lifestyles may also be important indicators of future risk that affect sentencing. For example, substance abuse has been identified as an important determinant of criminal behavior (e.g. Kretschmar & Flannery, 2007; McNulty & Bellair, 2003), as have psychological characteristics (Farrington, 2007; Gottfredson & Hirschi, 1990). Although focal concerns and other contemporary sentencing perspectives argue that judicial attributions of offender risk affect sentencing, empirical research seldom examines detailed information on offender personal circumstances associated with risk of reoffending. Importantly, detailed information on the local life circumstances of offenders may at least partially account for observed age, gender, and race disparities in punishment.

### 2.3.2 Demographic differences in sentencing and their origins

Stereotypical behavioral expectations can translate into patterns of punishment that reflect categorical differences in assessments of culpability and risk across gender, race, and age designations (Steffensmeier et al., 1998). Empirical studies of disparity vary in the quality of their research design, operationalization of variables, and the specific factors that are examined and controlled, making it somewhat difficult to summarize this expansive literature. Findings for gender, though, have proven to be relatively consistent (Daly & Bordt, 1995). When differences emerge, they overwhelmingly suggest that women tend to be punished more leniently than men (e.g. Curran, 1983; Daly & Bordt, 1995; Koons-Witt, 2002), even when interaction effects with other variables are taken into account (Curry, 2010; Doerner & Demuth, 2010; Freiburger, 2011; Spohn et al., 1985).

Research examining offender's race and ethnicity suggests they may also affect sentencing outcomes, with more severe punishment meted out to minority defendants (Mitchell, 2005). However, many studies point out that the

relationship between race and sentencing is subtle and at times inconsistent, with racial status indirectly or interactively affecting sentencing outcomes (Spohn, 2000). For example, a growing literature documents harsher punishments for young, minority, male defendants in criminal court (e.g. Spohn & Holleran, 2000; Steffensmeier et al., 1998). Although findings of prior research on the role of race or ethnicity remain mixed, Spohn (2000, p. 458) concluded in her review of sentencing disparity that 'the findings of these studies suggest that race and ethnicity do play an important role in contemporary sentencing decisions'.

Finally, though most studies include controls for the age of the offender, relatively few studies explicitly focus on age effects in sentencing. Existing work tends to suggest that youthful offenders are punished more harshly than older offenders (Doerner & Demuth, 2010; Spohn & Holleran, 2000; Steffensmeier, Kramer, & Ulmer, 1995; Steffensmeier et al., 1998). However, some evidence exists to suggest that this relationship is curvilinear, such that very young offenders are treated more leniently, offenders between 20 and 30 are punished more harshly, and as offenders get older than 30 sentence severity decreases (Steffensmeier et al., 1995).

Limited findings from Dutch sentencing research show similarities with research from the United States. Offense characteristics and prior convictions of the offender are major sentencing determinants (e.g. Jongman & Schilt, 1976; Kannegieter, 1994). Furthermore, women tend to be treated more leniently than men (Boone & Korf, 2010; Johnson et al., 2010) and foreign offenders tend to be punished more severely than Dutch offenders (Johnson et al., 2010; Van der Werff & Van der Zee-Nefkens, 1978).

Different theoretical explanations are available for why offender demographic characteristics are related to sentencing. Early research on race and punishment suggested sentencing disparities reflected discrimination on the part of judges (Zatz, 1987). Subsequent work challenged that interpretation, arguing that observed differences were due to the omission of legally relevant sentencing factors, such as criminal history scores, in sentencing models (Kleck, 1981). Although contemporary sentencing research now routinely includes quality measures of legally relevant factors, more detailed information on other relevant sentencing criteria, such as individual offender circumstances, are seldom examined in detail (Wellford, 2007). Thus, one relatively unexplored explanation for extant disparities in sentencing is that they may reflect unaccounted-for differences in offender local life circumstances.<sup>2</sup>

The direct effects of offender's personal circumstances on sentencing outcomes have been only rarely studied, and when they are they tend to be

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2 An alternative explanation is that different groups have similar risk-related circumstances, but that the judge values these risk factors differently for the distinct social groups. However, in a later section of this paper we demonstrate that this does not appear to be the case in our data.

limited to relatively few characteristics, such as coarse measures of educational, employment, or family status. In these cases, they are typically used as control variables and their results and theoretical implications are seldom fully considered. Therefore, many of the findings for these measures remain inconsistent and contradictory.

Offender's educational status, for instance, has yielded mixed results in prior sentencing research. Koons-Witt (2002) found that college education did not affect the likelihood of imprisonment, while Wooldredge (2010) and Freiburger (2011) found that offenders with at least high school education are less likely to be incarcerated than those without high school education. In federal court, Steffensmeier and Demuth (2000) found that defendants with more years of education had less chance to be incarcerated in drug cases, and their length of imprisonment was shorter for both drug and non-drug offenses. Moreover, for non-drug offenses, black and Latino defendants were less often incarcerated when their educational status was higher, but this was not the case for white defendants.

The employment status of the offender also has yielded decidedly mixed results in prior work. In some studies, the occupational status of the offender has no effect on sentencing outcomes (e.g. Curran, 1983; Myers, 1988), while other studies show that unemployed offenders are more likely to be incarcerated (Chiricos & Bales, 1991; Wooldredge, 2010). Some work also suggests that the effects of employment vary according to demographic offender characteristics (Freiburger, 2011; Spohn & Holleran, 2000), geographical context (Nobiling, Spohn, & DeLone, 1998), sentencing guideline models (Koons-Witt, 2002), and judges (Anderson & Spohn, 2010). Other measures of socioeconomic status have only rarely been investigated. For instance, Chiricos and Bales (1991) reported a negative relationship between their summary measure of SES and incarceration, and Wooldredge (2010) found that offenders relying on financial support from the government, family, or friends had a higher chance of being sentenced to prison.

Even less research examines family effects in sentencing. Some work find that marital status has no effect on incarceration (Freiburger, 2011; Koons-Witt, 2002) or sentence length (Myers, 1988), but other research show that offenders with dependents are treated more leniently (Daly, 1987). Koons-Witt (2002) found evidence for unique leniency meted out to women with dependent children, both before and after the passage of sentencing guidelines.

Other social circumstances of the offender are even more rarely studied, such as the housing circumstances of the offender. Rare exceptions are the studies of McNiel, Binder, and Robinson (2005), who found that homeless people were held in jail longer than others, and that of Wooldredge (2010), who found that the number of months at current residence is negatively related to the chance of imprisonment. Effects of drug and alcohol abuse or dependency on sentencing outcomes are also seldom studied. A rare exception is the work by Cauffman et al. (2007) who found that alcohol abuse and dependency

had no effects on the likelihood of secure placement for juvenile offenders, though drug abuse and drug dependency did increase the likelihood of placement. This study was also one of the only to examine the effects of psychological offender characteristics on sentencing outcomes. Results showed no significant effects of self-reported psychological disorders on the likelihood of secure confinement. Effects were also absent for responsibility, resistance to peers, future orientation, consideration of others, and temperance. However, McNeil et al. (2005) have shown that offenders with co-occurring severe mental disorders spent more time in jail than offenders without such disorders.

In the Netherlands, some of the rare Dutch sentencing studies suggest that unemployed offenders are more likely to be sentenced to imprisonment (Kannegieter, 1994). Moreover, results from one early study suggested that marital status, living accommodation, and alcohol use had no significant effect on Dutch sentencing outcomes (Jongman & Schilt, 1976), though this research is now quite dated.

Overall, few studies examine detailed correlates of offender's personal circumstances in sentencing research. Moreover, much of the available work is now several decades old (e.g. Chiricos & Bales, 1991; Jongman & Schilt, 1976). Results from this limited work is often inconclusive and seldom are the effects of offender personal circumstances considered in conjunction with their association with offender demographics such as sex, age, and origin. This is important given that there are persuasive reasons to expect that the personal circumstances of the offender may at least partially mediate the direct effects of offender sex, age, and ethnic origin on criminal punishment.

### 2.3.3 Theoretical expectations

Drawing on these insights, our theoretical expectations are threefold. We expect to find the same effects for offender characteristics in our study as in prior research from the United States when we examine the 'standard' sentencing model that includes variables for offense, prior record, and basic case processing and offender demographic characteristics. Specifically, we expect the following:

#### *Hypothesis 1:*

*Male, young, and foreign offenders will be punished more severely than female, older, and Dutch offenders.*

Second, we expect that detailed information on the personal circumstances of the offender, which is usually omitted in sentencing research, will affect judicial decision-making in such a way that information indicating increased

risk will contribute to more severe sentencing outcomes. Our second expectation is therefore:

*Hypothesis 2:*

*Offenders whose personal circumstances indicate increased perceptions of risk and danger – signaled by problems with housing, education, employment, finances, relationships with family and friends, misuse of drugs or alcohol, emotional well-being and thinking patterns – will be punished more severely than other offenders.*

Our final hypothesis concerns the change in effects of offender characteristics when personal circumstances are added to the statistical model. As suggested above, it is expected that the direct effects of offender sex, age, and national origin will be mediated by detailed information on offenders' risk and dangerousness. Because male, young and foreign offenders are likely to be associated with more socially disadvantaged personal circumstances, inclusion of these additional sentencing factors should reduce the main effects of offender demographics on sentencing.

*Hypothesis 3:*

*The effects of demographic offender characteristics will be decreased by the inclusion of offenders' personal circumstances in the statistical model.*

## 2.4 DATA AND METHOD

### 2.4.1 Dataset

This study is based on the combination of two data-sets: the registry of the Public Prosecutor's Office (OM data) and the database of the Probation Service on offender characteristics. The registry of the Public Prosecutor's Office contains information on the prosecution and conviction of all offenders. The database of the Probation Service contains information on the personal circumstances of the offender recorded in pre-sentence reports. Since 2004, the Dutch Probation Service has been using Recidivism Assessment Scales (RISC) to assess the suspect's risk of recidivism and to frame the pre-sentence report. Such a report is requested by the Prosecutor. There are no clear rules about which cases require a pre-sentence report, but, in general, a report is requested when the offender is kept in pre-trial detention, or when he is expected to be punished to a custodial sentence or to a punishment in which the Probation Agency is involved, such as Community Service or suspended sentences with special conditions. Because of practical reasons, no RISC is completed when the court session is scheduled to be held within 10 weeks and no RISC is requested when the offender already had his risk assessed within the last year. Finally, pre-sentence reports are not requested for traffic offenses and other

minor offenses. Relatively minor offenses are therefore underrepresented in these data.

When assessing the risk of reoffending by means of the RISC, the Probation Officer has information on the offense from the police case file, as well as on the criminal history of the offender. In addition, one or more interviews with the offender are held, and often the Probation Officer talks to the offender's family and/or employer as well. The Probation Officer assessing the RISC maps out the delinquent's personal circumstances, categorized into 12 sections (the Scales): 1) Offending history; 2) Present offense and pattern of offenses; 3) Residential accommodation; 4) Education, work, and training; 5) Financial management and income; 6) Relationships with partner, family, and relatives; 7) Relationships with friends and acquaintances; 8) Drug misuse; 9) Alcohol misuse; 10) Emotional well-being; 11) Cognition and behavior; and 12) Attitudes. Each scale contains several items to assess to what extent each domain is a point of risk for future recidivism. Each of these items is scored by the Probation Officer on a three-point scale (0, 1, or 2 points).

The pre-sentence report for the judge is based on this risk assessment. It does not contain the detailed scores on the separate items and scales of the RISC, but the criminogenic issues captured by the different domains are described in detail in the report; so, judges have all of the relevant information on the offender's social circumstances at their disposal. For this research, the data from the RISC database for the years 2005–2007 are matched to the registry of the Public Prosecutor's Office. This generates a data-set of 21,113 suspects whose risks were assessed for the pre-sentence report. This merged data-set has a unique level of detail on offender characteristics and personal circumstances.

#### 2.4.2 Dependent variables

Because personal circumstances of the offender may differentially affect the decision to incarcerate and the decision concerning sentence length, the effects of offender's personal circumstances are examined for both types of sentencing decisions. First, the decision to impose an unsuspended imprisonment sentence is examined.<sup>3</sup> Then, the decision regarding length of imprisonment is analyzed. Incarceration is coded dichotomously, with 1 indicating a prison sentence and 0 indicating non-prison alternatives, so that offenders receiving an unsuspended prison sentence (n=9,854) are compared to suspects receiving less serious

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3 An unsuspended imprisonment sentence means that the offender certainly will spend time in prison, whereas a suspended imprisonment sentence only results in prison if the offender breaches the conditions of his release.

punishments (n=11,259).<sup>4</sup> Sentence length captures the unsuspended imprisonment term and is coded as a continuous measure in days and can range from as little as one day up to 30 years.<sup>5</sup> Because the imposed sentence lengths are not normally distributed, they are logarithmically transformed to correct for positive skewness, which normalizes the distribution of the dependent variable.

#### 2.4.3 Independent variables

The severity of the offense is captured by several measures. First, the *seriousness of the major offense* is derived from the maximum length of imprisonment possible in the Penal Code. If a suspect is convicted for multiple offenses, the offense with the highest maximum punishment is used. Factors diminishing the maximum punishment, for example in the case of an attempt or an accessory to the crime, are taken into account, as well as factors increasing the maximum punishment, such as certain crimes committed by public servants or with a terroristic aim. To account for the *type of the major offense* 15 dummy variables are included: assault (reference category), intimidation, violent theft, vices, homicide, other violent crimes, forgery, theft, aggravated theft, other property crimes, destruction of property, violation of public order, drugs, traffic, and other crimes. Finally, a separate variable capturing the *number of offenses* is also included in the model, which is capped at three to prevent the influence of outliers

Case processing characteristics are also taken into account. The first is the *length of preventive custody* (in months), ranging from 0 to 29 months. Next, the *court district* processing the case is included in the models using a series of 19 dummy variables, with Utrecht as the reference category. These fixed effects remove any between-court variation in punitive dispositions.

In addition the *criminal history* of the offender is included in the models. Prior research shows that offender's criminal record is one of the most important determinants of sentencing, with prior convictions increasing both the likelihood of being incarcerated and the length of the imprisonment (Welch, Gruhl, & Spohn, 1984). In the current study, the criminal history is derived from the information in the RISC-database and consists of both the number of prior convictions as a juvenile and as an adult. For both types of prior convictions four dummy variables are computed: 1) no prior convictions; 2) 1–2 prior convictions; 3) 3 or more prior convictions; and 4) prior convictions unknown. Offenders with no prior convictions are used as the reference group.

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4 These 11,259 offenders were sentenced to a suspended imprisonment sentence only (n=6,028), to a community service (n=3,892), to a fine (n=1,070), were declared guilty while no punishment is imposed (n=230), or were sentenced to another type of punishment (n=39).

5 Three life sentences were recoded to equal an imprisonment term of 30 years.

Several offender characteristics are also examined. The first is the offender's *sex* (0=male, 1=female). The second is *age* at the time of the offense. To allow for a non-linear relationship (Steffensmeier et al., 1995) dummies were created for five different age categories (18-20, 21-30, 31-40, 41-50, and 51 and over), with the age group 21-30 used as the reference category. The third offender characteristic is *national origin*, which is based on the offender's country of birth. In contrast to research from the United States, we focus on nationality rather than race. The first reason is that it is forbidden for any Dutch governmental authority to register citizens' race or ethnicity, and so these data are not recorded anywhere. Second, the Netherlands is relatively homogenous with regard to race and ethnicity, but it is characterized by diversity of national origin. Thus, the country of birth better reflects cultural sensitivities in Dutch society regarding minority status, particularly with certain groups such as Moroccans and Turks who are overrepresented in Dutch crime statistics (Johnson et al., 2010). And third, national origin has been shown to be a salient predictor of criminal recidivism in prior work conducted in the Netherlands (Wartna, Tollenaar, & Bogaerts, 2009). To capture national origin, offenders are grouped by their country of birth into the following categories: the Netherlands (reference category); another Western country; a non-Western country; and unknown country of birth.

In this study, *offender's personal circumstances* are captured with measures collected in the Probation Office's RISC assessment. For each item the probation officer scores 0, 1, or 2 points, with 0 indicating no risk and 2 indicating a high risk of reoffending. Because of the large number of detailed items, we constructed ten scales that capture the different unique dimensions of offender personal circumstances and community risk. Each scale reflects the mean score of the offender on the different items of a RISC scale.<sup>6</sup>

*Accommodation* of the offender is the first scale, which consists of four items: homelessness in the past; no permanent accommodation; no suitable or durable accommodation; and a living environment that contributes to the criminal behavior (Cronbach's alpha .81). Because information on this scale is often incomplete (for 13% of the offenders the housing circumstances are unknown), these cases were scored 0 and a dummy variable was included to indicate whether the housing conditions of the offender are unknown. The dummy estimates the extent to which offenders with unknown accommodations are sentenced differently compared to offenders with no risk scores on accommodation.

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6 A small number of cases (5% of the total) were excluded because offenders lacked information for a majority of items. For the remaining cases included in the scales, only 1-3% had any missing scores on items of a scale, with the notable exception being for the drug misuse scale, which had missing items in 12% of cases. Most of these involved missing information for the item regarding the *motivation to kick the habit of drugs use*, so in these cases the remaining four items of the scale were used

*Education and employment* is captured with the following seven items: no education or not graduated; no enjoyment of school and played truant; learning difficulties; problematic employment history; unemployed or unable to work; a lack of working skills; and a poor attitude towards education and employment (Cronbach's alpha .89). A separate scale captures risks involving *financial management and income*. It consists of the following four items: depends on others for income; financial problems; debts; and financial problems because of an addiction (Cronbach's alpha .70).

Criminogenic relationships are captured with two different scales. The *relationships with partner, family, and relatives* scale consists of five items: problematic youth; no close relationships in the past; problematic family ties; a family member with a criminal record; and domestic violence (Cronbach's alpha .68).<sup>7</sup>

The *relationships with friends* scale consists of four items: delinquent friends; manipulated and used by friends; manipulates and uses friends; and thrill seeker<sup>8</sup> (Cronbach's alpha .76).

Drug and alcohol abuse are captured with two additional measures. *Drug misuse* is comprised of six items: usage of hard drugs or problematic use of soft drugs; use of drugs more than once a week; day revolves around drugs; crime is related to drug usage; drug usage causes danger to delinquent or others; and lack of motivation to kick the habit of drugs usage (Cronbach's alpha .88). Similarly, *alcohol misuse* consists of five items: alcohol abuse in the past; current alcohol abuse; crime is related to alcohol usage; alcohol abuse causes danger to delinquent or others; and lack of motivation to kick the habit of alcohol abuse (Cronbach's alpha .89).

Separate scales are included for emotional and cognitive risk factors. Specifically, *emotional well-being* is comprised of five items: coping problems; psychological problems; damaged self-image; self-destructive behavior; and special circumstances (e.g. psychiatric treatment) (Cronbach's alpha .79). *Thinking and behavior* is a scale consisting of the following eight items: lack of social skills; impulsive; dominant; lack of self-control; lack of awareness of problems; lack of skills to handle problems; lack of goals for the future; and not open to new ideas (Cronbach's alpha .87). Finally, the last area of the RISC is the offender's *attitude*. The five items of this scale are: pro-criminal attitudes; lack of willingness to cooperate at parole or at supervision; thinks he is not bound by the law; lack of insight and recognition of criminal behavior; and lack of willingness to change (Cronbach's alpha .85).

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7 One item (having family members with a criminal record) was omitted because it was not highly related to the other items. Removing this item increased the scale reliability from .63 to .68.

8 *Thrill seeker* is a feature of the domain *Relationships with friends*, because RISC assumes that sensation seekers frequently change friends; they do not pursue long-lasting relationships.

#### 2.4.4 Methods

To model the decision to incarcerate, logistic regression is used for the 21,113 offenders eligible for an imprisonment sentence. The sentence length decision is modeled using OLS regression and includes only those offenders who are sentenced to an imprisonment sentence ( $n=9,854$ ). Since we use the logged sentence length, the effect of the unstandardized regression coefficient can be interpreted as the percent change in sentence length resulting from each additional unit change in the independent variable (see Curry, 2010). To account for potential sample selection effects in the sentence length model, estimates were examined with and without Heckman's correction for selection bias (Bushway, Johnson, & Slocum, 2007; Heckman, 1979). However, inclusion of the correction term resulted in high levels of collinearity in the sentence length model, as evidenced by a condition index number of 33, which exceeded recommended thresholds (Bushway et al., 2007). We therefore report estimates from the uncorrected model, though we note important differences in subsequent footnotes where relevant.

To gain insight into the effects of the personal circumstances of the offender in sentencing, three analytical steps are taken. First, multivariate regression analyses are performed to investigate the role of offender demographics without additional information on offender's personal circumstances. Results from this model (Model 1) include typical offense, case processing, and demographic characteristics and can be viewed of as the 'standard' model, common in most prior sentencing research. Second, offenders' personal circumstances are added to the model. This model (Model 2) includes the same variables as Model 1, but also includes measures of offenders' personal circumstances. Model 2 provides for an assessment of the importance of the role of different domains of offender personal circumstances in sentencing. Third, we examine the extent to which detailed offender personal circumstances help to account for any observed disparities in sentencing associated with offender demographic characteristics. This is accomplished by assessing whether the effects of demographic characteristics (i.e. gender, age, and national origin) are diminished when more specific risk-related personal circumstances of the offender are included. To accomplish this, the unstandardized coefficients from logistic regression cannot simply be compared from Model 1 to Model 2, because unobserved heterogeneity is likely to vary across the two models (Mood, 2010). To account for this,  $y$ -standardizations are employed in which the coefficients from the unstandardized estimates are divided by the sum of the standard deviation of the predicted logits and the assumed standard deviation of the error term (which is always 1.81) (Mood, 2010). These standardized effects are then compared across Models 1 and 2 to investigate whether or not personal circumstances of the offender mediate the relationship between demographic offender characteristics and sentencing outcomes.

## 2.5 RESULTS

### 2.5.1 Descriptive analyses

Table 2.1 provides descriptive statistics for the 21,113 offenders in the data-set. About 47% of them were sentenced to an unsuspended imprisonment sentence. The average sentence length of the 9,854 offenders sentenced to prison was 333 days (11 months), but the distribution for sentence length is positively skewed – for half of them the length of the imprisonment sentence is 5 months or less.

Assault is the most severe offense type for 27% of offenders. Other crimes are less prominent in this sample; for instance, approximately 19% of offenders are sentenced for a property crime (forgery, theft, aggravated theft, or other property crime), 5% are homicide offenders, and 9% are sentenced for a drug-related crime. On average, they are convicted for 1.7 offenses and have spent 1.9 months in pre-trial detention. Regarding criminal history, 15% has one or two prior convictions as a minor and 9% has three or more. As an adult, 23% has one or two prior convictions and 38% has three or more.

With regard to the demographic offender characteristics, 10% of the offenders are female. The average age is 33 years ( $SD=12$ ) and the modal age category is offenders aged 21-30 years. About 73% of the offenders are born in the Netherlands, with 7% born in another Western country, and 18% born in non-Western countries.

Table 2.1 also includes the descriptive statistics for the personal circumstances of the offender. *Thinking and behavior* is the life domain for which most problems are observed by probation officers, (.83 on a scale from 0 to 2), followed by *relationships with family, partners, and relatives* (.73). By contrast, the least problems are experienced with *accommodation* (.26).<sup>9</sup> Drug misuse also has a relatively low average score (.38). For the other personal circumstances, the average risk scores vary between .43 and .66.

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9 The mean score for accommodation is reduced because cases with unknown accommodations were included as 0. However, when the mean is only calculated for the offenders whose scores on the accommodation scale are known, the mean score for accommodation is still the lowest of all scales (.29).

Table 2.1. Descriptive statistics ( $N=21,113$ )

|   | Min. | Max. | Mean | SD   |
|---|------|------|------|------|
| <i>Dependent variables</i>                |      |      |      |      |
| Imprisonment (unsuspended)                | 0    | 1    | .47  | .50  |
| Length of imprisonment (ln) ( $n=9,854$ ) | 0    | 9.29 | 5.07 | 1.29 |
| <i>Independent variables</i>              |      |      |      |      |
| <i>Offense characteristics</i>            |      |      |      |      |
| Maximum penalty                           | 0    | 30   | 5.84 | 3.92 |
| Maximum penalty unknown                   | 0    | 1    | .01  | .10  |
| Offense type of most serious offense      |      |      |      |      |
| Intimidation                              | 0    | 1    | .07  | .25  |
| Assault                                   | 0    | 1    | .27  | .44  |
| Violent theft                             | 0    | 1    | .08  | .26  |
| Vices                                     | 0    | 1    | .06  | .24  |
| Homicide                                  | 0    | 1    | .05  | .22  |
| Other violent crimes                      | 0    | 1    | .01  | .10  |
| Forgery                                   | 0    | 1    | .02  | .13  |
| Theft                                     | 0    | 1    | .04  | .19  |
| Aggravated theft                          | 0    | 1    | .10  | .30  |
| Other property crimes                     | 0    | 1    | .03  | .18  |
| Destruction of property                   | 0    | 1    | .02  | .12  |
| Violation of public order                 | 0    | 1    | .07  | .26  |
| Drugs                                     | 0    | 1    | .09  | .29  |
| Traffic                                   | 0    | 1    | .03  | .17  |
| Other crimes                              | 0    | 1    | .08  | .27  |
| Number of offenses                        | 0    | 3    | 1.72 | .84  |
| <i>Case processing characteristics</i>    |      |      |      |      |
| Length of preventive custody (in months)  | 0    | 27   | 1.86 | 2.65 |
| Number of prior convictions as a minor    |      |      |      |      |
| 0   | 0    | 1    | .57  | .50  |
| 1-2                                       | 0    | 1    | .15  | .36  |
| 3 or more                                 | 0    | 1    | .09  | .29  |
| Unknown                                   | 0    | 1    | .18  | .39  |
| Number of prior convictions as an adult   |      |      |      |      |
| 0   | 0    | 1    | .39  | .49  |
| 1-2                                       | 0    | 1    | .23  | .42  |
| 3 or more                                 | 0    | 1    | .38  | .48  |
| Unknown                                   | 0    | 1    | .00  | .05  |
| <i>Offender characteristics</i>           |      |      |      |      |
| Sex                                       |      |      |      |      |
| Male                                      | 0    | 1    | .90  | .30  |
| Female                                    | 0    | 1    | .10  | .30  |
| Age                                       |      |      |      |      |
| Age 18-20                                 | 0    | 1    | .16  | .37  |
| Age 21-30                                 | 0    | 1    | .30  | .46  |
| Age 31-40                                 | 0    | 1    | .27  | .44  |
| Age 41-50                                 | 0    | 1    | .19  | .39  |
| Age > 50                                  | 0    | 1    | .09  | .29  |

(Continued)

Table 2.1. - Continued

|  | Min. | Max. | Mean | SD  |
|--|------|------|------|-----|
| <i>Offender characteristics - continued</i>      |      |      |      |     |
| Origin   |      |      |      |     |
| The Netherlands                                  | 0    | 1    | .73  | .45 |
| Other Western country                            | 0    | 1    | .07  | .26 |
| Non-Western country                              | 0    | 1    | .18  | .38 |
| Origin unknown                                   | 0    | 1    | .02  | .15 |
| <i>Offender social circumstances</i>             |      |      |      |     |
| Accommodation                                    | 0    | 2    | .26  | .46 |
| Accommodation unknown                            | 0    | 1    | .13  | .34 |
| Education and employment                         | 0    | 2    | .66  | .57 |
| Financial management and income                  | 0    | 2    | .51  | .55 |
| Relationships with partner, family and relatives | 0    | 2    | .73  | .58 |
| Relationships with friends                       | 0    | 2    | .48  | .50 |
| Drug misuse                                      | 0    | 2    | .38  | .55 |
| Alcohol misuse                                   | 0    | 2    | .43  | .59 |
| Emotional well-being                             | 0    | 2    | .63  | .54 |
| Thinking and behavior                            | 0    | 2    | .83  | .49 |
| Attitude   | 0    | 2    | .65  | .53 |

*NOTE:* Case processing characteristics also included the 19 district courts, yet in the interest of space they are not presented. Complete results are available from the authors.

In order to examine whether offender personal circumstances are related to the demographic characteristics of offenders, mean values on the various risk-related domains (such as accommodation and relations with others) were compared using *t*-tests and ANOVAs. Results of these tests are shown in Table 2.2 and demonstrate that risk-related personal circumstances are indeed differentially distributed across social groups. The personal circumstances of men tend to be more criminogenic than for women, except for education/employment, family relationships, and emotional well-being.

Offenders aged 21-30 have the highest mean scores, except for family relationships, alcohol misuse, and emotional well-being, which are more problematic for older offenders. Moreover, offenders younger than 21 have the highest risk scores for relationships with friends. Finally, compared to offenders born in the Netherlands, foreign offenders have higher mean scores on all domains, except for alcohol misuse and emotional well-being. Taken as a whole, these comparisons suggest that offenders who are male, aged 21-30, and born outside the Netherlands tend to experience more problematic personal circumstances that may be tied to judicial assessments of danger and increased risks of recidivism.

Table 2.2. Comparison of mean scores on risk-related social circumstances for offender sex, age and national origin using *t*-tests and ANOVAs

|                        | <i>n</i> | Accommodation | Education and employment<br>Financial management and<br>income | Relationships with partner,<br>family and relatives | Relationships with friends | Drug misuse | Alcohol misuse | Emotional well-being | Thinking and behavior | Attitude |     |
|------------------------|----------|---------------|--|---|----------------------------|-------------|----------------|----------------------|-----------------------|----------|-----|
| Sex                    |          |               |  |   |                            |             |                |                      |                       |          |     |
| Male                   | 19,041   | .26           | .65  | .52   | .72                        | .49         | .39            | .45                  | .61                   | .84      | .66 |
| Female                 | 2,072    | .21           | .73  | .49   | .87                        | .42         | .23            | .25                  | .83                   | .71      | .49 |
| Sig. ( <i>t</i> -test) |          | ***           | ***  |   | ***                        | ***         | ***            | ***                  | ***                   | ***      | *** |
| Age                    |          |               |  |   |                            |             |                |                      |                       |          |     |
| 18-20                  | 3,347    | .22           | .70  | .42   | .60                        | .69         | .37            | .30                  | .53                   | .83      | .64 |
| 21-30                  | 6,280    | .28           | .72  | .59   | .74                        | .56         | .46            | .41                  | .63                   | .85      | .65 |
| 31-40                  | 5,655    | .28           | .66  | .57   | .80                        | .43         | .43            | .48                  | .67                   | .84      | .65 |
| 41-50                  | 3,931    | .26           | .61  | .47   | .79                        | .35         | .29            | .51                  | .67                   | .81      | .65 |
| 51+                    | 1,900    | .17           | .52  | .32   | .64                        | .26         | .11            | .44                  | .62                   | .73      | .61 |
| Sig. (ANOVA)           |          | ***           | ***  | ***   | ***                        | ***         | ***            | ***                  | ***                   | ***      | **  |
| Origin                 |          |               |  |   |                            |             |                |                      |                       |          |     |
| Netherlands            | 15,326   | .24           | .63  | .49   | .73                        | .48         | .37            | .46                  | .66                   | .82      | .62 |
| Western                | 1,523    | .32           | .78  | .61   | .79                        | .53         | .44            | .40                  | .53                   | .87      | .72 |
| Non-Western            | 3,758    | .29           | .75  | .60   | .74                        | .46         | .38            | .35                  | .56                   | .85      | .72 |
| Unknown                | 506      | .25           | .64  | .48   | .73                        | .39         | .30            | .28                  | .56                   | .77      | .60 |
| Sig. (ANOVA)           |          | ***           | ***  | ***   | ***                        | ***         | ***            | ***                  | ***                   | ***      | *** |

NOTE: All social circumstances have scores ranging from 0 to 2. Complete results of the tests are available upon request by the authors.

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$ .

### 2.5.2 Offender characteristics

Table 2.3 reports the findings for Model 1, which contains offense, case processing, and offender demographic characteristics that have been examined in many prior sentencing studies. As with prior work, offense and case processing characteristics exert strong effects on sentencing outcomes, though we focus our discussion primarily on the role of offender characteristics. The findings show that the odds of a prison sentence are lower for female offenders (about two-thirds) and that sentence lengths are about 25% shorter compared to male offenders. Similarly, odds for offenders younger than 21 to be sentenced to prison are not significantly different from the reference group (aged 21-30), but the length of their prison terms is on average 12% shorter than that of the reference group. Other age comparisons were not statistically significant.

Table 2.3. Model 1 - Logistic and OLS regressions for the in/out and sentence length (ln) decisions

|  | Prison<br>(N=21,113) |      |        | Sentence length<br>(n=9,854) |      |
|--|----------------------|------|--------|------------------------------|------|
|  | B                    | S.E. | Exp(B) | B                            | S.E. |
| Constant                                 | -3.40***             | .17  | .03    | 2.84***                      | .05  |
| <i>Offense characteristics</i>           |                      |      |        |                              |      |
| Maximum penalty                          | .09***               | .01  | 1.09   | .07***                       | .00  |
| Offense type of most serious offense     |                      |      |        |                              |      |
| Intimidation                             | .32**                | .11  | 1.38   | .09*                         | .05  |
| Violent theft                            | .35                  | .18  | 1.42   | .62***                       | .04  |
| Vices                                    | .45***               | .14  | 1.57   | .57***                       | .04  |
| Homicide                                 | -.01                 | .21  | .99    | .57***                       | .04  |
| Other violent crimes                     | .17                  | .41  | 1.18   | .65***                       | .07  |
| Forgery                                  | .11                  | .21  | 1.12   | .78***                       | .08  |
| Theft                                    | .77***               | .13  | 2.15   | -.01                         | .05  |
| Aggravated theft                         | .32**                | .11  | 1.38   | .27***                       | .03  |
| Other property crimes                    | .62***               | .14  | 1.86   | .42***                       | .05  |
| Destruction of property                  | -.35                 | .28  | .70    | -.15                         | .13  |
| Violation of public order                | -.10                 | .13  | .90    | .17***                       | .04  |
| Drugs                                    | .38**                | .13  | 1.46   | .58***                       | .03  |
| Traffic                                  | -.01                 | .20  | .99    | 1.29***                      | .12  |
| Other crimes                             | .08                  | .12  | 1.09   | .36***                       | .04  |
| Number of offenses                       | .19***               | .04  | 1.21   | .16***                       | .01  |
| <i>Case processing characteristics</i>   |                      |      |        |                              |      |
| Length of preventive custody (in months) | 2.57***              | .05  | 13.10  | .25***                       | .00  |
| Number of prior convictions as a minor   |                      |      |        |                              |      |
| 1-2                                      | .12                  | .09  | 1.12   | .05                          | .02  |
| 3 or more                                | .51***               | .11  | 1.67   | .06*                         | .03  |
| Unknown                                  | -.12                 | .08  | .89    | .05*                         | .02  |
| Number of prior convictions as an adult  |                      |      |        |                              |      |
| 1-2                                      | .05                  | .08  | 1.05   | .04                          | .02  |
| 3 or more                                | .46***               | .07  | 1.58   | .06**                        | .02  |
| Unknown                                  | .10                  | .65  | 1.11   | .03                          | .15  |
| <i>Offender characteristics</i>          |                      |      |        |                              |      |
| Sex                                      |                      |      |        |                              |      |
| Female                                   | -.41***              | .10  | .66    | -.25***                      | .03  |
| Age                                      |                      |      |        |                              |      |
| Age 18-20                                | -.13                 | .09  | .88    | -.12***                      | .03  |
| Age 31-40                                | -.02                 | .08  | .98    | .01                          | .02  |
| Age 41-50                                | -.15                 | .09  | .86    | .04                          | .03  |
| Age > 50                                 | -.02                 | .11  | .98    | .03                          | .04  |
| Origin                                   |                      |      |        |                              |      |
| Other Western country                    | .27*                 | .12  | 1.31   | .10***                       | .03  |
| Non-Western country                      | .17*                 | .08  | 1.18   | .04                          | .02  |
| Origin unknown                           | .10                  | .19  | 1.11   | .03                          | .05  |
| (Nagelkerke) R <sup>2</sup>              | .83                  |      |        | .59                          |      |

NOTE: Model includes dummy variables for unknown maximum penalty and for court districts (not presented). Complete results are available from the authors.

\* p < .05 \*\* p < .01 \*\*\* p < .001.

The national origin of the offender is also significantly related to sentencing outcomes. For *the decision to incarcerate*, offenders born abroad face higher odds of imprisonment than offenders born in the Netherlands. These odds are about 31% higher for offenders born in another Western country, and about 18% higher for offenders born in a non-Western country. With regard to *sentence length*, offenders born in another Western country also received prison terms that were 10% longer than Dutch offenders. The effect for offenders born in non-Western countries on sentence length approached but did not reach standard levels of statistical significance ( $p=.051$ ). These findings correspond with substantial previous research conducted in diverse contexts within the United States (Crow, 2008; Spohn, 2000; Zatz, 1987). Thus, the effects of offender characteristics in sentencing appear to operate fairly consistently across international boundaries, at least with respect to the Netherlands and the United States.

### 2.5.3 Offender's personal circumstances

The next step in the analyses entails the inclusion of offenders' personal circumstances. We expect that offenders whose personal circumstances indicate an increased risk of reoffending will be punished more severely than other offenders. Table 2.4 reports the findings from these multivariate models. Results for offense and trial characteristics mirror those of Model 1, although for sentence length *prior youth convictions* no longer reach levels of significance, while *one or two prior convictions as an adult* now reaches levels of significance.

Before describing the findings for the demographic offender characteristics in Model 2, we first focus on the personal circumstances of the offender. Offenders whose accommodation circumstances indicate an increased risk of reoffending are more likely to be incarcerated than other offenders. Each additional one-point increase in the accommodation score results in 62% greater odds of incarceration. Offenders whose accommodation status is unknown also have a greater likelihood of incarceration than offenders who scored zero risk points on *accommodation*.

Having troublesome relationships with friends and having a criminogenic attitude also increase the chance of being sentenced to prison. For every additional one-point increase in the *relationships with friends*-scale the odds of incarceration increase by 21%. For *attitude*, the odds increase by 25%.

Emotional well-being is the only risk domain to be negatively related to imprisonment. The odds of incarceration are reduced by a factor .83 for every additional one-point increase in the emotional well-being scale. This negative relation is not surprising given that this category includes psychological problems and special circumstances that may be viewed as mitigating factors at sentencing. Other personal circumstances of the offender, such as education

and employment, drug misuse, or alcohol misuse, are not significantly related to the likelihood of incarceration.

Table 2.4. Model 2 - Logistic and OLS regressions for the in/out and sentence length (ln) decisions including offender personal circumstances

|  | Prison<br>(N=21,113) |      |        | Sentence length<br>(n=9,854) |      |
|--|----------------------|------|--------|------------------------------|------|
|  | B                    | S.E. | Exp(B) | B                            | S.E. |
| Constant                                 | -3.52***             | .18  | .03    | 2.93***                      | .05  |
| <i>Offense characteristics</i>           |                      |      |        |                              |      |
| Maximum penalty                          | .09***               | .01  | 1.10   | .07***                       | .00  |
| Offense type of most serious offense     |                      |      |        |                              |      |
| Intimidation                             | .26*                 | .12  | 1.29   | .08                          | .05  |
| Violent theft                            | .26                  | .18  | 1.30   | .51***                       | .04  |
| Vices                                    | .48***               | .14  | 1.61   | .53***                       | .04  |
| Homicide                                 | .03                  | .21  | 1.03   | .55***                       | .04  |
| Other violent crimes                     | .04                  | .42  | 1.04   | .60***                       | .07  |
| Forgery                                  | .11                  | .22  | 1.12   | .63***                       | .08  |
| Theft                                    | .62***               | .14  | 1.85   | -.11*                        | .05  |
| Aggravated theft                         | .19                  | .12  | 1.21   | .13***                       | .03  |
| Other property crimes                    | .54***               | .15  | 1.72   | .25***                       | .05  |
| Destruction of property                  | -.42                 | .28  | .66    | -.17                         | .12  |
| Violation of public order                | -.09                 | .13  | .92    | .12**                        | .04  |
| Drugs                                    | .28*                 | .14  | 1.32   | .44***                       | .04  |
| Traffic                                  | .11                  | .21  | 1.12   | 1.29***                      | .12  |
| Other crimes                             | .09                  | .12  | 1.10   | .29***                       | .04  |
| Number of offenses                       | .16***               | .04  | 1.18   | .16***                       | .01  |
| <i>Case processing characteristics</i>   |                      |      |        |                              |      |
| Length of preventive custody (in months) | 2.51***              | .05  | 12.25  | .24***                       | .00  |
| Number of prior convictions as a minor   |                      |      |        |                              |      |
| 1-2                                      | .02                  | .09  | 1.02   | .03                          | .02  |
| 3 or more                                | .34**                | .11  | 1.41   | .01                          | .03  |
| Unknown                                  | -.17*                | .08  | .85    | -.02                         | .02  |
| Number of prior convictions as an adult  |                      |      |        |                              |      |
| 1-2                                      | .01                  | .08  | 1.01   | .06*                         | .02  |
| 3 or more                                | .23**                | .08  | 1.26   | .06**                        | .02  |
| Unknown                                  | .05                  | .65  | 1.06   | .06                          | .14  |
| <i>Offender characteristics</i>          |                      |      |        |                              |      |
| Sex                                      |                      |      |        |                              |      |
| Female                                   | -.34**               | .11  | .71    | -.21***                      | .03  |
| Age                                      |                      |      |        |                              |      |
| Age 18-20                                | -.15                 | .10  | .86    | -.13***                      | .03  |
| Age 31-40                                | .00                  | .08  | 1.00   | .04                          | .02  |
| Age 41-50                                | -.14                 | .09  | .87    | .08**                        | .03  |
| Age > 50                                 | .00                  | .11  | 1.00   | .05                          | .04  |
| Origin                                   |                      |      |        |                              |      |
| Other Western country                    | .19                  | .12  | 1.21   | .07*                         | .03  |
| Non-Western country                      | .11                  | .08  | 1.11   | .02                          | .02  |
| Origin unknown                           | .09                  | .19  | 1.09   | .02                          | .05  |
| (Nagelkerke) R <sup>2</sup>              |                      |      |        |                              |      |

(Continued)

Table 2.4. – Continued

|  | Prison<br>(N=21,113) |      |        | Sentence length<br>(n=9,854) |      |
|--|----------------------|------|--------|------------------------------|------|
|  | B                    | S.E. | Exp(B) | B                            | S.E. |
| <i>Offender social circumstances</i>             |                      |      |        |                              |      |
| Accommodation                                    | .48***               | .08  | 1.62   | .02                          | .02  |
| Accommodation unknown                            | .37*                 | .18  | 1.45   | .24***                       | .02  |
| Education and employment                         | .07                  | .07  | 1.07   | .01                          | .02  |
| Financial management and income                  | .10                  | .07  | 1.10   | .11***                       | .02  |
| Relationships with partner, family and relatives | -.05                 | .06  | .96    | -.05**                       | .02  |
| Relationships with friends                       | .19*                 | .08  | 1.21   | .15***                       | .02  |
| Drug misuse                                      | .06                  | .07  | 1.06   | -.07***                      | .02  |
| Alcohol misuse                                   | .02                  | .06  | 1.02   | -.07***                      | .02  |
| Emotional well-being                             | -.19**               | .07  | .83    | -.06**                       | .02  |
| Thinking and behavior                            | .10                  | .10  | 1.11   | -.08**                       | .03  |
| Attitude   | .22**                | .08  | 1.25   | .02                          | .02  |
| (Nagelkerke) R <sup>2</sup>                      | .83                  |      |        | .60                          |      |

NOTE: Model includes dummy variables for unknown maximum penalty and for court districts (not presented). Complete results are available from the authors.

\* p < .05 \*\* p < .01 \*\*\* p < .001.

With regard to the length of incarceration, most of the offender's personal circumstances show significant relations, but not always in the expected direction. Offenders having financial problems receive longer prison terms than others. Every additional point on the scale increases the sentence length by 11%. For offenders whose relationships with friends are viewed as more risky, every point increase results in 15% longer prison terms. Conversely, offenders who have troublesome relationships with their partner or family receive *shorter* prison terms, as do offenders having drugs or alcohol problems, or problems with respect to emotional well-being, and thinking and behavior. For these personal circumstances, sentence length is reduced by 5-8% for each additional point on the scales. Accommodation, education and employment, and attitude are not significantly related to the length of the imprisonment sentence.

These results indicate that certain personal circumstances of the offenders significantly affect criminal sentencing outcomes, though not all are significant and at times their influence is inconsistent across outcomes.

#### 2.5.4 Change in effects of offender characteristics when personal circumstances are included

Finally, we hypothesized that the effects of offender characteristics on sentencing outcomes will diminish once offender personal circumstances are added to the model. In Table 2.5, the *y*-standardized effects of the offender character-

istics of Model 1, which contains the offense, trial, and offender characteristics, are listed next to the  $\gamma$ -standardized effects of Model 2, which also includes the personal circumstances of the offender. The magnitude of the effects of the offender characteristics for incarceration and sentence length differ from Model 1 to Model 2, but only slightly. The effects of offender sex and origin appear to be slightly weakened when personal circumstances are added to the statistical model. Moreover, the effects of both Western and non-Western origin on the decision to incarcerate are reduced to statistical insignificance. However, the effects of offender age are slightly increased, and for the sentence length decision the effect of offenders aged 41-50 becomes statistically significant in the full model.

Overall, Table 2.5 supports the expectation that the inclusion of offender personal circumstances weakens the effects of offender demographic characteristics in sentencing (reducing the effects of offender origin on the likelihood of imprisonment to statistical insignificance), with the notable exception of offender age. Yet, observed changes are of relatively small magnitude and sentencing disparity remains, particularly for female and young offenders. This suggests that the effects of demographic offender characteristics are not simply the product of commonly omitted factors that capture the personal circumstances of the offender, though, as we discuss below, our measures of relevant personal circumstances is not exhaustive.

Table 2.5. Standardized effects of offender demographic characteristics comparing Model 1 and Model 2

|                                 | Prison<br>( <i>N</i> =21,113) |         | Sentence length<br>( <i>n</i> =9,854) |         |
|---------------------------------|-------------------------------|---------|---------------------------------------|---------|
|                                 | Model 1                       | Model 2 | Model 1                               | Model 2 |
|                                 | B                             | B       | B                                     | B       |
| <i>Offender characteristics</i> |                               |         |                                       |         |
| Sex                             |                               |         |                                       |         |
| Female (Male = ref.)            | -.05***                       | -.04**  | -.25***                               | -.21*** |
| Age (Age 21-30 = ref.)          |                               |         |                                       |         |
| Age 12-20                       | -.01                          | -.02    | -.12***                               | -.13*** |
| Age 31-40                       | .00                           | .00     | .01                                   | .04     |
| Age 41-50                       | -.02                          | -.02    | .04                                   | .08**   |
| Age > 50                        | .00                           | .00     | .03                                   | .05     |
| Origin (The Netherlands = ref.) |                               |         |                                       |         |
| Western                         | .03*                          | .02     | .10***                                | .07*    |
| Non-Western                     | .02*                          | .01     | .04                                   | .02     |
| Origin unknown                  | .01                           | .01     | .03                                   | .02     |

NOTE: This table only shows the results for the offender characteristics. Estimates for the other variables included in the model are equal to those in Table 2.3 (for Model 1) and Table 2.4 (for Model 2).

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$ .

## 2.6 DISCUSSION

The purpose of this paper was to explore the role of local life circumstances of the offender at sentencing and to test whether inclusion of these risk-related personal circumstances significantly mitigates the direct effects of offender sex, age, and origin on judges' sentencing decisions. In line with our first hypothesis, we found that patterns of sentencing disparity in the Dutch context closely resembled findings from US studies (e.g. Steffensmeier et al., 1998). Female offenders were less likely to be imprisoned and when they were it was for shorter terms of confinement. This is consistent with research that suggests female offenders may be treated chivalrously or may have special sentencing concerns associated with family responsibilities or physical, emotional, and health concerns, which may reflect important practical constraints under focal concerns theory (Steffensmeier, Kramer, & Streifel, 1993). Youthful offenders also received shorter prison terms compared to older offenders, though significant differences did not emerge among older age categories. This too is consistent with work that suggests youthful status is associated with reduced culpability at sentencing (Bernard, 1992; Johnson & Kurlychek, 2012). Finally, national origin also affected punishment, with offenders born in another Western country being both more likely to be imprisoned and when imprisoned experiencing longer sentence lengths relative to Dutch offenders. Foreign offenders from non-Western nations were significantly more likely to be incarcerated, but they did not receive longer sentencing lengths compared to native offenders.<sup>10</sup>

Our second hypothesis was that local life circumstances associated with increased risk of recidivism would also be associated with harsher punishments at sentencing. The results indicated that several offender circumstances were significantly related to sentencing, though sometimes in inconsistent or unexpected ways. For the incarceration decision, negative housing and accommodation circumstances, such as previous bouts of homelessness, significantly increased the probability of imprisonment. Offenders without reliable accommodations are likely to be viewed as greater risks for recidivism as well as a potential source of neighborhood disorder that may be linked to community fear, reduced social cohesion, and increased crime more generally (Markowitz,

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10 To investigate whether the regression coefficients differ significantly between male and female, Dutch and foreign, and young and old offenders, split models were analyzed and z-scores (based on Paternoster, Brame, Mazerolle, & Piquero's (1998) equation) were calculated to assess whether the effects of the personal circumstances differ by gender, age, or origin (results available upon request by the authors). Our findings show that only very few regression coefficients of the risk-related personal circumstances significantly differ between groups, both with regard to the decision to incarcerate and the decision on the sentence length. This offers little evidence for the alternative explanation of sentencing disparity that suggests judges may differentially value or weigh the personal circumstances of offenders based on their individual demographic characteristics.

2006). Criminogenic friendship ties were also significantly and positively related to the probability of incarceration. An expansive literature documents the association between delinquent peers and offending (Akers, 2009; Sampson & Laub, 1993; Sutherland, 1947), and some research suggests that criminal desistence is largely the product of an interruption in delinquent peer networks during the life-course (Warr, 2006). To the extent that judges are aware of these relationships, it is not surprising that evidence of criminogenic peer networks is associated with incarceration.

Negative offender attitudes, such as failure to cooperate and a lack of recognition of one's criminal culpability, are also positively associated with the judicial use of incarceration. Remorse is often viewed as a prerequisite for reform, so offenders who fail to recognize the harm done by their actions and those who lack empathy or are unwilling to cooperate with officials are more likely to be imprisoned – they represent greater risks of recidivism and less potential for rehabilitative reform. Among the local life circumstances examined, only the emotional well-being of the offender was negatively related to incarceration. Although unexpected, this is not surprising when one considers that this construct includes psychological problems and other special circumstances that may be viewed as mitigating factors in punishment. On the one hand, psychological problems may be viewed as a risk factor for recidivism, but on the other hand it may instead serve as a harbinger of reduced culpability. In the Netherlands, interventions as a part of special conditions with a suspended sentence are available for these types of offenders, so the negative effect for imprisonment here likely reflects the use of these alternatives for offenders with emotional well-being concerns.

The effects of local life personal circumstances on sentence length decisions differ in a number of ways from the incarceration model but still largely comport with theoretical expectations. Both negative peer influences and financial problems significantly increased sentence lengths. The logic of peer influences on sentence lengths is the same as for incarceration, whereas financial problems likely represent increased risk of offending associated with instrumental involvement in underground criminal economies or with social factors such as a lack of social or cultural capital and/or job skills. For instance, Haynie et al. (2008) show that economic and employment well-being are associated with involvement in criminal and violent offending in young adulthood. Judges may therefore use indicators of economic well-being as signals of the likelihood of recidivism in order to inform their sentence length decisions.

A number of personal offender circumstances also demonstrated negative effects on sentence lengths, which was unexpected but makes considerable sense when considered in the context of the Dutch justice system. Drug and alcohol problems were associated with shorter terms of imprisonment, as were cognitive and emotional problems. In the Dutch system, offenders with substance abuse and mental health problems often receive sentences that involve

various treatment alternatives in lieu of long prison sentences. These may include partially suspended sentences with conditions such as drug and alcohol treatment, cognitive behavioral therapy, or placement in a health care institution.<sup>11</sup> Hence, it is not surprising that they are associated with shorter terms of imprisonment. Future research is needed that further investigates the different treatment modalities that are used for these types of offenders.

Our third and final hypothesis was that the inclusion of local life offender circumstances in the traditional sentencing model would largely account for observed disparities in demographic characteristics such as sex, age, and national origin. The current findings offer only partial support for this interpretation. Gender differences in punishment were reduced by the inclusion of personal offender circumstances, but they remained statistically significant. Even after accounting for the detailed local life circumstances, female offenders were significantly less likely to be incarcerated and they received shorter prison terms. This may reflect chivalry or paternalism on the part of court actors, or it is also possible that additional, unaccounted-for characteristics could further mediate this relationship. For instance, some prior work suggests that family responsibilities and unique health care concerns may be tied to the punishment of female offenders (Daly, 1994; Steffensmeier et al., 1993). What does appear to be clear, however, is that the common risk assessment considerations examined here do not explain away the gender gap in punishment.

Age effects for sentence length were also unexpected, becoming slightly stronger with the inclusion of personal circumstances in the model. This suggests that special solicitude tends to be extended to the youngest offenders in the Netherlands – a finding which is consistent with a substantial research literature on the punishment of juvenile offenders in the US context (Bernard, 1992). Clearly, differences in risk factors associated with the local life circumstances of youthful offenders do not explain away this effect – in fact they appear to enhance it slightly.

Some evidence for the mitigating effects of personal circumstances did emerge, however, for national origin. When local life circumstances were included in the model, the effect of both other Western and non-Western origin on the likelihood of incarceration were reduced to statistical non-significance. The effect of other Western origin on sentence length was also substantially reduced in the full model, although offenders born in another Western country still receive significantly longer prison terms than offenders born in the Netherlands. This suggests that observed disparities in the treatment of foreign offenders may be due to differences in their specific local life circumstances.

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11 Additional analyses with the mandatory treatment of the mentally ill (TBS) as the dependent variable show that problems with emotional well-being and with thinking and behavior indeed increase the likelihood of being sentenced to TBS, while drug misuse increases the likelihood of being placed in an institution for habitual offenders (ISD) (results are available from the authors).

These effects were relatively small to begin with, though, so it will be important for future research to replicate this finding in other contexts and also with different racial and ethnic groups in the US and other international contexts.

## 2.7 CONCLUSION

A robust research tradition has emerged that focuses on demographic correlates of offending, such as offender sex, age, and race (Hindelang, 1981), and a similar though separate research tradition focuses on the demographic correlates of punishment (Spohn, 2000). Whereas research in the first tradition has devoted considerable effort to explaining demographic differences in offending, though, research in the latter tradition has been primarily concerned with identifying disparities in punishment rather than explaining them (Wellford, 2007). Many of the same factors theorized to affect criminal behavior are also tied to judicial assessments of future risk of reoffending. In particular, prior research suggests that local life circumstances that affect criminal offending include socioeconomic conditions, family and peer relationships, drug and alcohol use and abuse, and psychological factors, among others (e.g. Haynie et al., 2008; Horney et al., 1995; McNulty & Bellair, 2003; Sampson, 1987).

Somewhat surprisingly, though, no research on criminal sentencing includes detailed measures of these types of personal offender circumstances when investigating sentencing disparity. Because demographic offender characteristics are likely to be associated with differences in local life circumstances that are associated with judicial assessments of risk, failure to include them in sentencing models may lead to faulty conclusions about the underlying sources of observed disparities in criminal punishment. Moreover, informing sentencing research with extant findings from offending and recidivism studies provides sentencing scholars with valuable future directions for elaborating existing theoretical perspectives and for improving statistical model specifications in future empirical work on criminal punishment.

The current research provides a test of this proposition, examining the mediating effects of detailed personal offender circumstances on demographic disparities in sentencing in a large sample of Dutch offenders. Our findings comport with the substantial research in the US context that finds significant disparities in punishment associated with the gender, age, and ethnic background of the offender. Traditionally, these effects have been interpreted as evidence that judges rely on stereotypical attributions associated with demographic offender characteristics in sentencing (Albonetti, 1991; Steffensmeier et al., 1998). An alternative explanation, though, is that demographic characteristics may be differentially associated with risk factors that are tied to the local life circumstances of different offender groups. The current research provides some evidence for both interpretations. The effects of gender and national

origin were mitigated by the inclusion of detailed offender circumstances; however, gender differences remained even after controlling for local life circumstances and age differences were not significantly mediated at all. This suggests that while the personal circumstances of offenders are important for determining sentencing decisions, they do not fully account for the effects of offender demographic factors. Thus, it appears as though judges are still influenced by stereotypical attributions tied to offender characteristics, even when very detailed information regarding risk of recidivism is available at sentencing.

One potential reason for this may be because even when judges have relatively complete information on offender risk, they may still lack the requisite time or organizational resources for fully rational decision-making. Organizational attribution perspectives argue that stereotypical assessments become necessary in the presence of time and information constraints (March, 1957). Even when judges do not suffer from *information* constraints, though, they may be affected by *time* constraints. In such cases, available information on the blameworthiness or dangerousness of the offender may be supplemented with existing stereotypes and offender preconceptions. If true, this introduces interesting policy implications that suggest detailed information on offender risk is not sufficient for fair and effective sentencing. Unfortunately, no information is available on judicial time constraints in the current study, but this should be the explicit focus of future research.

The current findings thus raise important theoretical questions regarding the underlying assumptions of psychological attribution and focal concerns perspectives. Our results suggest that even when judges have relatively complete information, stereotypical attributions persist. This draws into question core assumptions of courtroom decision-making models built on stereotypical attributions rooted in *information* constraints, though they may still be consistent with arguments rooted in *time* constraints. These results also raise important questions regarding theoretical specificity in future work. For instance, one key distinction in theoretical work on punishment is between judicial assessments of blameworthiness and assessments of danger or the likelihood of future offending. However, in practice, personal offender circumstances can often affect both – for example, stealing by a poor man may be viewed as less blameworthy than stealing by a rich man, though being poor may be considered a risk factor for recidivism. The lack of theoretical specificity identifying clear and unique indicators of judicial decision-making concerns makes it extremely difficult to tease out these differences. Future research is needed that continues to expand upon existing theoretical paradigms and begins to delve further into the underlying processes that lead to observed disparity in criminal sentencing. Scholars need to begin shifting from the traditional focus on whether or not disparity exists to explaining why and when it exists in different contexts and what the specific underlying social and psychological mechanisms are that underlie it.

Despite its contributions, the current work also has its limitations. In line with prior research, we focus on the use of unsuspended prison sentences. However, sentencing decisions are often more complex than this: they routinely involve additional punishment options, which are often utilized in conjunction with one another. To fully understand the effects of offender's risk-related personal circumstances on judicial decision-making, future research should expand to investigate additional sentencing options, such as community punishments, treatment orders, and different combinations of sentences, in order to better unpack the complex relationship between offender personal circumstances, judicial assessments of risk, and demographic disparities in criminal sentencing.

Another potential limitation is that even though we examined alternative model specifications controlling for selection bias in sentence length, other sources of selection effects are likely present in this study. One important source of selection stems from the sampling frame, which consists of cases where the offender's risk of recidivism is assessed by the RISC tool: minor offenses are likely to be underrepresented in our sample, which may affect the generalizability of our results. It will therefore be important for future research to replicate and extend this study by incorporating detailed risk assessment information into alternative analyses of sentencing disparity in additional, diverse sentencing contexts. It will also be important for the findings regarding national origin to be replicated in other research contexts where racial and ethnic identity plays an integral role in sentencing disparities. Details of additional sentencing factors could also be incorporated into future work. In particular, the current data lack information on victim characteristics which may be consequential (Johnson et al., 2010), and extant research would also benefit from investigation of differences in personal circumstances associated with specific demographic groups, such as young minority males (e.g. Doerner & Demuth, 2010).

Although the current study has a unique level of detailed offender information, a final limitation of this study still concerns omitted variables, such as information on victims, judges, and other court actors, and latter case outcomes such as appellate court decisions. Ideally, these types of information should be incorporated into more dynamic models of criminal sentencing that more fully account for the individual decision-makers and the local court contexts in which sentencing decisions are embedded. Despite these limitations, though, this study expands the scope of contemporary sentencing research to the understudied role of the local life circumstances of the offender, and to their ability to mitigate commonly observed disparities associated with demographic characteristics of offenders at sentencing. It offers new insights into the underlying assumptions of contemporary theoretical perspectives that rely on attribution processes tied to limited time and information, and it contributes to a growing research literature examining criminal punishment processes and outcomes in international contexts (Ulmer, 2012). Finally, it begins to address

the key question raised more than a decade by Wonders (1996, p. 617), regarding 'When does the particular social characteristic matter – under what circumstances, for whom, and in interaction with what other factors?'

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