



# Peers in Careers



Peer Relationships in the Transition  
from School to Work

Britta Rüschoff



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# **Peers in Careers**

Peer Relationships in the Transition from School to Work

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# Chapter 1

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## General Introduction



## 1.1 Introduction

Late adolescence and early adulthood is a developmental period that is characterized by transitions and changing social contexts (Arnett, 2000). Among these, the transition from school to work and the establishment of a successful career is one of the most important developmental tasks and accomplishments in this period of life (Erikson, 1959; Zarrett & Eccles, 2006). The mastery or failure of a successful integration into the labor market has been associated with substantial long-term consequences for individuals' socio-economic standing and emotional well-being in adulthood (Ashby & Schoon, 2010; Erikson, 1959; Haase, Heckhausen, & Köller, 2008; Pinguart, Juang, & Silbereisen, 2003; Savickas, 1999; Schoon & Parsons, 2002).

Theories of career development have emphasized the relational aspects of young people's careers and have pointed towards the importance of social relationships with significant others in shaping career-related goals and career-directed behaviors (Blustein, Schultheiss, & Flum, 2004; Felsman & Blustein, 1999; Jokisaari & Nurmi, 2005; Lent & Brown, 2013; Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999; Leung, 2008; Super, 1980). Whereas many researchers have acknowledged the importance of social relationships in career development, the role of peer relationships have only recently received greater attention in research on young people's career decisions. There is a growing stream of literature that points to the relevance of peer relationships in shaping career decisions and behaviors (Felsman & Blustein, 1999; Kiuru, Salmela-Aro, Nurmi, Zettergen, Andersson, & Bergman, 2012). Studies that have addressed the role of peers in young people's early career development at the transition from school to work have for instance shown that positive peer relationships can encourage career exploration and career commitment (Felsman & Blustein, 1999) and that best friends in adolescence resemble each other in their early career trajectories in young adulthood (Kiuru et al., 2012). Building on these recent developments, the current research will address how peer relationships affect young people's career decisions and their career-directed behavior at different stages of the transition from school to work. The central aim of the studies that comprise this book is therefore to shed light on the way in which relationships with peers affect this transition, answering the question: *How do peer relationships affect young people's decisions and behaviors at the transition from school to work?*

### 1.2. Research Questions

The first part of this book focuses on young people's career-related cognitions, particularly their work values, and their career-directed behaviors. Work values refer to individuals' conceptions of what rewards of their future jobs are desirable to them and serve as indicators of what motivates young people to work, how satisfied they are with their future jobs, and what kinds of work-related aspects are relevant to them when making career decisions (Dobson, Gardner, Metz, & Gore, 2014; Johnson, 2001; Porfeli & Mortimer, 2010; Sortheix, Dietrich, Chow, & Salmela-Aro, 2013). Young people's initial work values at the transition to work may hence guide their decisions for certain work context over others and thereby impact their early career trajectories. The first research question (RQ 1) investigates how personal and contextual factors of young people's peer relationships in the school context relate to young people's work values at the transition to work. Besides values that guide their decisions, young people also need to actively engage in career-directed activities to attain the employment that they value. Research has shown that social relationships can benefit adult job seekers through the provision of, for instance, information and practical resources (Coleman, 1988; Granovetter, 1995; Lin, 1999; Van Hove, Van Hooft, & Lievens, 2009). However, peers might have limited opportunities to provide such instrumental resources as they may have little prior experience in the labor market. Instead, peers may be an asset in young people's job-search by acting as positive role models rather than through the provision of instrumental resources. This may especially be the case if peers themselves hold positive beliefs about their own capabilities to master the transition to work. The behavioral component of young people's job search is addressed in the second research question (RQ 2), which investigates whether an efficacious peer network stimulates greater engagement in career-directed activities and increases young people's odds of mastering the transition.

RQ1: How do interpersonal goals and relationship experiences with peers affect individuals' work values at the transition to work? (Chapter 2)

RQ2: Does an efficacious peer network contribute to individuals' engagement in career-directed behavior and the outcomes thereof during and after the transition period? (Chapter 3)

The second part of this book focuses on the developmental implications of the onset of employment and particularly the consequences for individuals' engagement in adverse and norm-breaking behaviors during the school years. Previous research has suggested that the maturity gap, the perceived discrepancy between biological maturity and social maturity that many young people experience throughout adolescence, may heighten their engagement in deviant and norm-breaking behaviors as these behaviors convey an image of maturity among their peers when formal markers of maturity are not yet available to them (Moffitt, 1993). In line with this, research on peer status in adolescence has shown that engagement in risky or norm-breaking behaviors may fulfill a status-enhancing function as these behaviors are admired within the peer group (e.g., Dijkstra, Lindenberg, Verhulst, Ormel, & Veenstra, 2009). It is this engagement in norm-breaking behaviors that has led some researchers to address the concern that certain forms of behavior and peer status that provide young people with status-benefits in an adolescent social context may lead to negative repercussions in a long-term perspective (e.g., Cillessen & Rose, 2005; Mayeux, Sandstrom, & Cillessen, 2008; Rodkin, Farmer, Pearl, & Van Acker, 2000). However, the extent to which these adverse or norm-breaking behaviors form a potential risk in a long-term perspective depends on young people's continued engagement in them. Often the approaching onset of employment can be a turning point in young people's life trajectories and engagement in adverse behaviors (Carlsson, 2012; Sampson & Laub, 2005). The third research question (RQ 3) focuses on the question of how employment at different ages throughout adolescence relates to individuals' engagement in delinquent behavior. The fourth research question (RQ 4) attempts to shed light on the mechanisms that may lead to a change in individuals' adverse and norm-breaking behaviors and focuses on the question whether the upcoming onset of employment and the gradual closing of the maturity gap initiate changes in the extent to which adverse and norm-breaking behaviors are appraised by the peer context.

RQ3: How does the onset of employment relate to individuals' engagement in delinquent behavior in different age groups throughout adolescence? (Chapter 4)

RQ4: What are the types and behavioral associations of peer status at the threshold of the transition from school to work? (Chapter 5)

### **1.3. A Relational Stance on Career Development**

Most theories of career development either directly acknowledge the importance of interpersonal factors and social relationships or contain aspects that can be related to interpersonal factors to some extent. Holland's Theory of Career Choice (Holland, 1997; Leung, 2008) is based on the assumption that vocational interest are a representation of a person's personality and that people can be grouped into different types of vocational personalities according to their vocational interests. Holland (1997) further acknowledges that vocational interests are shaped through social interactions and relationships. Other theories such as the Life-Span Theory of Career Development (Super, 1980) and Social Cognitive Career Theory (Lent & Brown, 2013; Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999; Leung, 2008) have long recognized that career development is a an ongoing process throughout individuals lives that is affected by both personal and contextual factors. Social Cognitive Career Theory (SCCT) emphasizes the interaction between personal and environmental factors in the development of academic and vocational interests, educational and vocational choices, educational and vocational performance, and satisfaction or well-being. SCCT is closely related to Bandura's social cognitive theory and especially to the concepts of personal goals, outcome expectations, and self-efficacy (Bandura, 1977; Bandura, Barbaranelli, & Caprara, 2001; Leung, 2008).

Recently, SCCT has been extended to include the content of career choice (e.g., the choice for a certain profession) but also the process of career choice independent of the content of the choice (e.g., job search behaviors) in varying occupational fields (Lent & Brown, 2013). This extension emphasizes the importance of engaging in adaptive career behaviors, which are defined as 'behaviors that people employ to help direct their own career and educational development, both under ordinary circumstances and when beset by stressful conditions' (Lent & Brown, 2013, p.3). In line with the broader framework of the SCCT, engagement in adaptive career behaviors is expected to be influenced by job seekers' self-efficacy but also by personality factors and the availability of social support. Chapter 2 draws on SCCT when investigating the link between young people's peer relationships in the school context and their work values at the transition to work. Chapter 3 draws on SCCT when investigating the role of an efficacious peer network in the classroom in young people's engagement in career-directed behavior and both the immediate outcomes of this behavior and young

people's odds of successfully completing the transition within a three-year time frame.

### **1.3.1. Peer Relationships in Career Development**

Recent research on phase-adequate engagement at the transition from school to work (Dietrich, Parker, & Salmela-Aro, 2012) emphasizes the role of interpersonal relationships and supportive social ties with peers in young people's career development. Comparable to SCCT, the concept of phase-adequate engagement aims to link interpersonal relationships with parents, peers, and others to young people's career-related behaviors. It further acknowledges that career-related behaviors at the transition from school to work or tertiary education are jointly developed in interactions with significant others and embedded in an individual's social context (Dietrich et al., 2012). In the light of these recent developments in research on career development in late adolescence and young adulthood, it is worthwhile to pay greater attention to the aspects of peer relationships and the dynamics in the peer group that may shape individuals' career decisions and career-directed behaviors. This dissertation aims to contribute to this stream of literature by investigating the role of peer relationships in different steps that together comprise the transition to work.

The studies reported in this dissertation address the role of peers in a number of outcomes in different phases of the transition process from cognitions (Chapter 2) to behaviors (Chapter 3, Study 1) and the successful completion of the transition (Chapter 3, Study 2) along with the behavioral implications of the onset of employment throughout adolescence (Chapter 4) and in young adulthood (Chapter 5). To better understand the aspects of peer relationships that might play a part in young people's transition to work, section 1.4 provides an overview of the nature of peer relationships through adolescence.

### **1.4. Peer Relationships throughout Adolescence**

Late adolescence is a developmental period in which young people's primary developmental context shifts from parents to the peer group. Previous research has pointed out that positive social relationships with peers and being accepted by one's peers provide adolescents with a sense of relatedness in the peer group (e.g., Parker & Asher, 1987, 1993) and fulfill their need to belong (Baumeister & Leary, 1995). In late adolescence and young adulthood, relationships with parents and peers are the



most important sources to fulfill young people's need to belong, with peers being important socialization agents and providers of guidance and social support (e.g., Cheng & Chan, 2004; Furman & Buhrmester, 1992; Rubin, Bukowski, & Parker, 2006).

#### **1.4.1. Status in the Peer Group**

Throughout adolescence, a salient feature of the peer culture is individuals' social standing or status in the peer group (Dijkstra, Lindenberg, & Veenstra, 2008; Mayeux, Houser, & Dyches, 2011; Parker & Asher, 1987, 1993; Parkhurst & Hopmeyer, 1998). Other than early researchers on peer status who have defined an individual's standing in the peer group primarily at the hand of affective measures and the question of who is well-liked by their peers (e.g., Coie, Dodge, & Coppotelli, 1982; Newcomb & Bukowski, 1983), this definition of peer status has been extended to make a distinction between affective and reputational measures of status. A common distinction that is made is that between *peer acceptance* and *peer popularity* as two types of status or social standing in the peer group with distinct behavioral and developmental implications (e.g., Parkhurst & Hopmeyer, 1998).

*Peer acceptance* is an affective measure of peer status or relatedness in the peer group that reflects the extent to which individuals are well-liked by their peers. As such, peer acceptance has been linked to positive developmental and behavioral outcomes with well-accepted peers showing favorable academic performance and high levels of prosocial behavior (e.g., Lubbers, Van der Werf, Snijders, Creemers, & Kuyper, 2006; Ojanen, Grönroos, & Salmivalli, 2005; Parkhurst & Hopmeyer, 1998). Conversely, failure to achieve this relatedness in the peer group has been linked to negative and potentially harmful emotional and behavioral consequences. Rejected members of the peer group have been shown to exhibit elevated externalizing and internalizing problems, engage in disruptive behavior, and show an increased long-term risk for behavioral maladjustment and mental health problems in adulthood (e.g., DeRosier, Kupersmidt, & Patterson, 1994; Newcomb, Bukowski, & Pattee, 1993; Parker & Asher, 1987).

*Peer popularity* is a reputational measure of status which reflects the extent to which an individual is a salient and influential member of the peer group. Peer popularity serves as an indicator of social dominance, power and prestige in the peer

group (Mayeux et al., 2011; Parkhurst & Hopmeyer, 1998; Vaillancourt & Hymel, 2006). Peer popularity shows close links with disruptive and norm-breaking behaviors such as alcohol and substance use (Dijkstra et al., 2009; Lansford, Killea-Jones, Miller, & Costanzo, 2009; Mayeux et al., 2011; Sandstrom & Cillessen, 2006) and popular members of the peer group often show a combination of strategic engagement in prosocial but also aggressive behaviors to attain and maintain their status position (e.g., De Bruyn & Cillessen, 2006; Parkhurst & Hopmeyer, 1998). Due to the potentially negative repercussions of these behaviors, some researchers have raised the concern that peer popularity may bear a risk in a long-term developmental perspective if these behaviors persist into adulthood (e.g., Cillessen & Rose, 2005; Mayeux et al., 2008; Rodkin et al., 2000). Chapter 5 aims to shed more light on this issue by investigating the types of peer status that can be identified among young adults and particularly the investigation of the positive and negative behavioral associations of peer status in this age group.

## **1.5. The Data**

### **1.5.1. The School to Employment Project<sup>1</sup>**

The data that have been used in Chapters 2,3, and 5 stem from the School to Employment Project (StEP, see Figure 1.1. for the StEP logo), a four wave study on the transition from school to work or follow-up education that I initiated and coordinated during my PhD research. The aim of this study was to monitor the transition from school to work with a special focus on respondents' peer relationships. The research design of StEP makes it possible to link respondents' career decisions and career-directed behaviors at the transition from school to work to characteristics of their peer relationships in the classroom.

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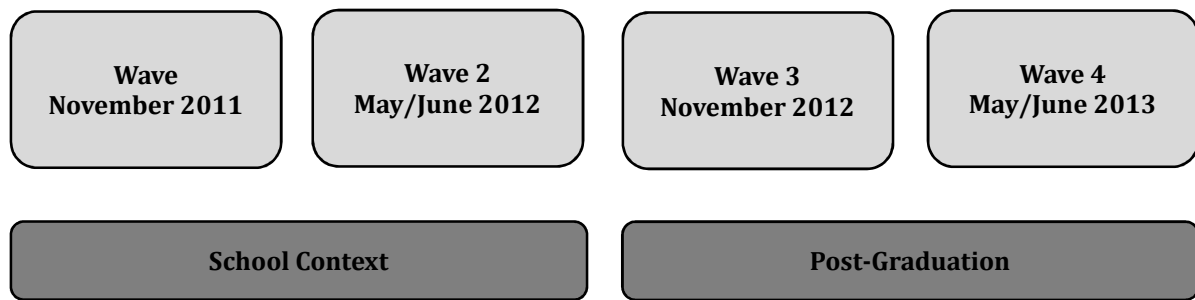
<sup>1</sup> I would like to thank Juliette Bos and Loes van Rijsewijk for their help with the data collection and Ralph Mennes for his help with the preparation of the data.



*Figure 1.1. StEP logo*

At the time of the first assessment, all respondents were in their final year of education and had spent the past 3 to 4 years (depending on their educational level) in a fixed classroom structure. This allowed me to investigate respondents' career-related preferences and career-directed behaviors at the transition to work while drawing on their stable peer networks in the classroom. All data have been collected in the North of the Netherlands at a large educational institute providing vocational education (for an overview of the educational system in the Netherlands see section 1.6. of this chapter).

The first two waves of this study have been collected in the school context in the school term of 2011/2012 during respondents' primary year in vocational education, once in the beginning of the school term (T1, November 2011) and again six months later at the end of the school term shortly before respondents' graduation (T2, May/June 2012). Respondents were approached during regular class hours. All students of a classroom who had agreed to participate in the study received a link to an online version of the questionnaire along with a personal identification code and were asked to complete a self-report survey and a sociometric survey assessing their peer relationships in the classroom. Waves 3 and 4 have been collected once shortly after respondents had graduated from vocational education (T3, November 2012) and once again six months later approximately one year after graduation (T4, May/June 2013). In both waves only those respondents have been approached who had taken part in at least one of the first two waves and who had provided their contact information. For a graphic overview of the StEP timeline see Figure 1.2.



*Figure 1.2. StEP Timeline*

### 1.5.2. Additional Data

Alongside the StEP data, the chapters that comprise this book draw on additional datasets. Next to the StEP data, Chapter 3 also draws on data stemming from the Finnish Educational Transitions (FinEdu) Studies, a longitudinal research project aimed at monitoring the transition from school to post-secondary education or work. Chapter 4 draws on data stemming from the Dutch TRacking Adolescents' Individual Lives Survey (TRAILS; De Winter, Oldehinkel, Veenstra, Brunnekreef, Verhulst, & Ormel, 2005; Oldehinkel et al., 2014), a prospective cohort study conducted in the North of the Netherlands following respondents from pre-adolescence into early adulthood. Data collection started in the years 2001/2002 on the birth cohorts of 1990/1991 when respondents were approximately eleven years old. The data used in Chapter 4 have been collected on the second through fourth wave of the study when respondents were 13 years old (T2), 16 years old (T3), and 19 years old (T4).

### 1.6. The Educational System in the Netherlands

The transition to work takes place in a specific cultural and educational context. To provide a better understanding of this context, it is necessary to understand the structure of the educational system in the Netherlands. From secondary education onwards, the Dutch educational system is broadly stratified into vocation-oriented tracks and academic tracks. Typically around the age 16 to 18 and depending on their previous secondary education, students transition to post-secondary schools for Vocational Education and Training (VET, Dutch MBO) which provides intermediate secondary vocational education, or to vocational colleges (HBO) which provide higher secondary vocational education, or to universities.

The students making part of the StEP data are enrolled in a school of vocational education and training and hence follow intermediate secondary vocational education. In the school-based intermediate vocational education trajectory (Dutch: beroepsopleidend, BOL) students attend regular classes as well as practical training classes in which they acquire vocation-specific knowledge and skills under the supervision of a teacher. Besides school-based education, students gain practical experience in the course of internships lasting several weeks to several months each. The school-based educational track consists of minimal 20% and maximal 60% of practical work in the course of internships. Intermediate secondary vocational education typically lasts one to four years and is obtainable for a variety of professions. It is further offered at four different skill levels (MBO-1 to MBO-4). Level 1 provides vocational education for simple practical work. Education at level 1 usually lasts one year and provides students with basic vocational skills in a certain profession. A completed education at level 1 does not qualify students for the labor market but allows them to enroll in a level 2 education. Education on levels 2-4 typically lasts two to four years. Upon completion of a level 2-4 education, students can decide to enter the labor market or follow an education at the next higher level. Students who graduate at level 4 can enroll in higher vocational education (Dutch HBO, comparable to a college education in the United States). Students making part of the StEP data stem from level 2-4 and hence only include students from those levels that result in a labor market qualification upon graduation.

### **1.7. Outline of this Book**

The following chapters provide an overview of the role of peers in the transition from school to work from different perspectives and at different stages of the transition process. This book consists of two parts. Part I comprises Chapters 2 and 3 and is concerned with the role of peer relationships in the development of individuals' preferences for certain work context over others, their career-directed behaviors, and their successful mastery of the transition. Part I therefore describes the role of peers in the decision and acquisition process of employment, seeking to answer the question of how peer relationships link to the types of work contexts that young people are looking for and whether peers can be an asset in the attainment of the desired employment. However, the transition from school to work is more than the mere acquisition of

employment. The transition period goes along with many social-, contextual-, and behavioral changes that may affect the successful mastery of the transition. Part II of this book comprises Chapters 4 and 5 and is concerned with these developmental implications of the onset of employment and particularly the behavioral consequences in terms of the changes in individuals' engagement in adverse and norm-breaking behaviors. An overview of the topics of the different chapters, the constructs and theories that have been applied in each chapter and the data that has been used can be found in Table 1.1.

Chapter 2 investigates the link between individual and contextual aspects of peer relationships in young people's social and status-related work values at the verge of the transition from school to work. This study addresses the question whether and how relationship aspects at the individual level (i.e., agentic and interpersonal goals in relationships with peers) and at the contextual level (i.e., peer popularity and peer acceptance in the peer group) relate to the relative value that young people attach to social and status-related rewards of their future work contexts.

Chapter 3 investigates the question whether peers can contribute to individuals' successful mastery of the transition from school to work by acting as positive role models, and whether peers' capacity to act as role models is contingent on their own efficacy beliefs. In a cross-cultural approach using data from the Netherlands (Study 1) and Finland (Study 2) chapter 3 investigates whether a larger peer network in the school context and greater overall efficacy beliefs across this network contribute to young people's engagement in career-directed behavior (i.e., the number of job applications they completed; Study 1), the outcomes of this behavior (i.e., the number of job offers they received; Study 1), and the their successful completion of the transition within a three year time frame (Study 2).

Chapter 4 investigates the developmental implications of employment for individuals' engagement in delinquent behavior. In early adolescence, engagement in delinquent behavior may bear little social or legal consequences and even fulfill a purpose in the attainment of a favorable status position among one's peers by conveying an image of maturity (Dijkstra et al., 2009; Moffitt, 1993). At older ages, the potential legal consequences of delinquent behavior increase whereas the perceived necessity to convey an image of maturity through the engagement in adverse behavior decreases. This chapter investigates how the onset of employment relates to

individuals' engagement in delinquent behavior at different ages throughout adolescence, and whether the association between employment and delinquency varies by demographic characteristics.

Chapter 5 investigates peers' appraisal of aggressive and norm-breaking behavior and particularly the extent to which these behaviors are rewarded with a higher status position in the peer group at the threshold of the transition to work. Whereas at younger ages adverse and norm-breaking behaviors may serve a status-enhancing purpose in the peer (Dijkstra et al., 2009; Moffitt, 1993), this may not be the case at older ages. Chapter 5 investigates the proposition that as individuals approach the transition from school to work and gradually get access to formal markers of adult social status, aggressive and norm-breaking behaviors are no longer rewarded with a higher status position in the peer group.

Chapter 6 discusses scientific and practical implications of the studies presented in this book and elaborates on possible extensions and improvements that may be addressed in future research on the role of peers in careers.

*Table 1.1.*  
*Overview of the empirical Chapters*

	<b>Chapter</b>	<b>Outcome Measures</b>	<b>Concepts and Theories</b>	<b>Data</b>	<b>Sample</b>	<b>Country</b>
Part I.	2	Social work values Status work values	Social cognitive career theory; Peer status; Interpersonal goals	StEP	N = 216	The Netherlands
	3	Job applications and job offers; Successful completion of the transition	Social cognitive career theory; Self-efficacy; Peer networks	StEP FinEdu	N = 109 N = 415	The Netherlands; Finland
Part II.	4	Delinquent behavior	Maturity gap; Desistance from delinquency; Demographic differences	TRAILS	N = 1881 - 2230	The Netherlands
	5	Peer status; Classroom behavior; Norm-breaking behavior	Maturity gap; Peer status	StEP	N = 603	The Netherlands





## **Part I**

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### **Work-Related Cognitions and Behaviors at the Transition to Work**



## **Chapter 2**

---

# **Work Values at the Transition from School to Work: Do Peers Matter?<sup>2</sup>**

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<sup>2</sup> This chapter is co-authored with Jan Kornelis Dijkstra, René Veenstra, and Siegwart Lindenberg. A slightly different version of this chapter has been revised and re-submitted at an international peer-reviewed journal.



## **2.1. Introduction**

The transition from school to working life and the formation of a vocational identity is among the most important developmental tasks in young adulthood with substantial implications for young people's future socio-economic status and psychological well-being (Erikson, 1959; Hirschi, 2010). For this reason, it is an important endeavor in career counseling and vocational psychology to understand how young people make their career decisions. The investigation of work values at the transition to work is a way to conceptualize the personal importance or desirability that individuals ascribe to different aspects of their future careers (e.g., Duffy & Sedlacek, 2007; Kalleberg & Marsden, 2013). Work values form an essential guideline in career-decisions and occupational choices (Brown, 2002; Dobson, Gardner, Metz, & Gore, 2014; Johnson, 2001; Judge & Bretz, 1992), and previous research has demonstrated that occupational ambitions in young adulthood are predictive of later occupational achievements, income, and prestige (Ashby & Schoon, 2010; Judge & Kammeyer-Mueller, 2012). Work values have been shown to be influenced by individuals' race, gender, social origins and their experiences in adolescence (Duffy & Sedlacek, 2007; Johnson, 2002; Novakovic & Fouad, 2012). However, despite recent research that has pointed towards the role of peers in shaping young people's career decisions and behaviors (Dietrich, Parker, & Salmela-Aro, 2012; Kiuru, Salmela-Aro, Nurmi, Zettergen, Andersson, & Bergman, 2012; Tynkkynen, Nurmi, & Salmela-Aro, 2010), substantially less is known about the role of individuals' immediate social context and especially about their relationships with peers in shaping their work values at the transition from school to work.

In this study, we propose that peer relationships can function as interpersonal antecedents of work values on the verge of the transition from school to work. Taking into account the distinct and combined effects of personal factors of peer relationships (i.e., individuals' interpersonal goals in their relationships with peers) and the peer group as a contextual factor (i.e., individuals' social standing in the peer group), we investigate the link between peer relationships and individuals' relative preference for social and status work values in a sample of Dutch young adults in the transition to working life.

## **2.2. Interpersonal Correlates of Work Values**

Work values describe individuals' evaluative beliefs about the desirability of certain aspects of work and refer to the value attached to different types of rewards that can be

obtained through work (Duffy & Sedlacek, 2007; Kalleberg & Marsden, 2013). As such, they form a guideline in young people's career decisions during the transition to work and can provide researchers with insights into the rationale behind young people's occupational choices. Though different typologies exist, a common approach to define work values is the distinction between extrinsic values, which refer to rewards that are attained through work but are external to the experience of work itself, and intrinsic values, which refer to rewards that are inherent in the work itself (Chow, Krahn, & Galambos, 2014; Duffy & Sedlacek, 2007; Johnson, 2001; Lindenberg, 2001; Marini, Fan, Finley, & Beutel, 1996). More differentiated classification systems recognize *social work values* as a distinctive type of intrinsic values that pertain to the acquisition of relational rewards of work such as the opportunity to work with people or to make friends at work. This needs to be differentiated from *status work values*, or people's desire to acquire extrinsic rewards of work such as status and prestige (Johnson, 2002; Marini et al., 1996).

People's desire to attain social and status rewards in interpersonal contexts is not bound to working life. Research on peer relationships in adolescence has for instance identified the need for status and affection as two major motivations in social relationships (Baumeister & Leary, 1995; Lindenberg, 2001; Wojciszke et al., 2009). These motivations are likewise reflected in the distinction between communal and agentic goal orientations in social contexts (Abele & Wojciszke, 2007; Trapnell & Paulhus, 2012) as well as the distinction between affective (acceptance) and reputational (popularity) measures of status or social standing in the peer group (e.g., Dijkstra et al., 2009; Parkhurst & Hopmeyer, 1998), which will be discussed in greater depth in the following sections. To acknowledge this difference between young people's need for status and their need for affection as two pervasive motives in different social contexts, we specifically focus on *social work values* or intrinsic values that pertain to the interpersonal rewards of work, and *status work values* or extrinsic values that pertain to the instrumental rewards of work such as status, prestige and monetary incentives. Social and status work values are not assumed to be mutually exclusive but rather a reflection of individuals' relative preference for social or status-related rewards of work.

### **2.3. Peers in Career Development**

Theories of career development have increasingly emphasized that alongside personal and macro-economic factors, career pathways are also shaped by individuals' immediate social

environment. Social Cognitive Career Theory (SCCT) states that the content and processes of career development (i.e., the choices for certain occupations and the routes that lead to the realization of these choices) are embedded in social contexts (Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999). This implies that individuals' conceptions of what careers are desirable and attainable for them are formed by their interactions and relationships with significant others.

In late adolescence and young adulthood, the peer group represents an important developmental and socialization context in young people's lives which offers guidance, support, and advice (e.g., Rubin, Bukowski & Parker, 2006). Comparable to SCCT, the recent concept of phase-adequate engagement connects young people's social relationships with significant others such as their peers with their career-related decisions and behaviors. It explicitly acknowledges that during the transition from school to work, young people's career-related decisions and goals are developed jointly in one's immediate social context and in social interactions with their peers (Dietrich et al., 2012). Research on school transitions has further shown that friends and peers serve as important sources of social support during educational or career decisions (Tynkkynen et al., 2010) and that young people who perceive their peers to be more supportive experience this transition to be less difficult (Waters, Lester, & Cross, 2014). Together, these studies point out that peers take on an important role in shaping educational and career-related decisions and behaviors and suggest that social relationships with peers in the school context might also forecast the value that they attach to different aspects of work as they face the transition from school to work. We therefore propose that experiences in the peer group play a considerable role in shaping young people's work values at the transition from school to work. Especially when young adults are facing the transition to a context in which they have little or no prior experience, they are likely to draw on their experiences in previous social contexts to determine the relative desirability and attainability of rewards in future social contexts. To test this proposition, we investigate the extent to which individuals' interpersonal goals in their relationships with peers and their social standing in the peer context relate to their work values on the verge of the transition from school to work.



### **2.4. Interpersonal Goals in Peer Relationships**

Research on the role of goals during life-course transitions has emphasized the importance of goals in motivating actions and selecting developmental contexts (Nurmi, Salmela-Aro, & Koivisto, 2002). A common distinction is that between agentic and communal goals as two overlapping but conceptually different interpersonal goals in relationships with others. The distinction between agency and communion as two general dimensions of human goals can be applied to a variety of social contexts, including work and careers (Abele & Wojciszke, 2007; Trapnell & Paulhus, 2012). For instance, Abele (2003) showed that agency but not communion predicted objective and subjective career success. Generally speaking, individuals with a primarily agentic goal orientation are focused on the acquisition of power and dominance over others but also independence from others. Individuals with a primarily communal goal orientation are focused on social affiliation and the fulfillment of social needs (Abele & Wojciszke, 2007; Trapnell & Paulhus, 2012; Wojciszke, Abele, & Baryla, 2009).

Throughout adolescence, the peer group is one of the primary social contexts in which interpersonal goals are pursued (Dijkstra, Kretschmer, Lindenberg, & Veenstra, 2014). We propose that the strength of individuals' agentic or communal goal orientations in their relationships with peers serves as an indicator for the relative value that they attach to different kinds of rewards in their future work contexts. We specifically propose that (H1) communal goals in the peer group predict social work values and (H2) agentic goals predict status work values.

### **2.5. Social Standing in the Peer Group**

Interpersonal goals are personal characteristics and although they may be affected by an individual's environment, they remain inherent to the individual. However, according to SCCT, career decisions are not only determined by personal characteristics but are subject to individuals' greater social environment and their interactions and relationships with others. Throughout adolescence, individuals' social standing in the peer group is a prominent characteristic of the peer culture and a strong predictor of emotional and behavioral adjustment (Dijkstra, Cillessen, Lindenberg, & Veenstra, 2009; Mayeux, Houser, & Dyches, 2011; Parker & Asher, 1987; Parkhurst & Hopmeyer, 1998). A common distinction in research on adolescent peer relationships is the difference between affective measures of social relatedness and reputational measures of status in the peer

group as two distinct but to some extent overlapping dimensions of individuals' standing in the peer group (e.g., Dijkstra et al., 2009; Parkhurst & Hopmeyer, 1998).

The need to form and maintain strong, stable and positive interpersonal relationships is believed to be a fundamental and powerful human motivation (Baumeister & Leary, 1995). Previous research has shown that being accepted by one's peers provides adolescents with this sense of belongingness in the peer group (e.g., Parker and Asher 1993). *Peer acceptance* as an affective measure of social relatedness and fulfillment of one's need to belong in the peer group has been linked to adaptive outcomes in social and academic domains, with accepted and well-liked peers being regarded as friendly and prosocial by their peers (e.g., Parkhurst & Hopmeyer, 1998), and showing better academic achievements (e.g., Lubbers, Van der Werf, Snijders, Creemers, & Kuyper, 2006). Other than peer acceptance, *peer popularity* is a reputational measure of status, salience and influence in the peer group (Mayeux et al., 2011; Parkhurst & Hopmeyer, 1998) which is often achieved by the strategic engagement in prosocial but also aggressive, manipulative, and disruptive behaviors (Dijkstra et al., 2009; Mayeux et al., 2011). Although peer popularity bears the potential risk for negative long-term consequences due to its association with disruptive behavior (e.g., Rodkin, Farmer, Pearl, & Van Acker, 2000), its immediate correlates also include positive characteristics such as greater levels of self-esteem (de Bruyn & van den Boom, 2005).

We propose that individuals' social standing in the peer group and the associated relationship experiences affect their perceptions of the relative desirability and attainability of certain rewards in future social contexts. Well-accepted members of the peer group will regard the formation of positive social relationships in the workplace as a more desirable and attainable reward of work than their less-well accepted peers. Likewise, popular members of the peer group with a social history of high status and influence in the peer group will regard rewards related to status attainment, prestige, and monetary rewards in the work context as more desirable and more attainable as compared to their less popular peers. In detail, we propose that (H3) well-accepted members of the peer group show relatively greater social work values as compared to their less well accepted peers and that (H4) popular members of the peer group show relatively greater status work values as compared to their less popular peers.

## **2.6. Goal Fulfillment in the Peer Context**

Although interpersonal goals are inherent to the individual, they are not independent from the context in which these goals are pursued. Recent research suggested that an agentic goal orientation among adolescents is related to peer popularity, and that a communal goal orientation is related to affective measures of social relatedness in the peer group (Caravita & Cillessen, 2012). Experimental research has further shown that the salience of agentic goals varies with the induction of success or failure, whereas communal goals vary by individuals' previous social (e.g., friendship) experiences (Abele, Rupperecht, & Wojciszke, 2008). To account for the possibility that the presumed link between individuals' interpersonal goals and their work values varies with the previous realization of these goals in the peer context (i.e., individuals' social standing in the peer group), we will explore the interaction between individuals' interpersonal goals and their social standing in the peer group in the prediction of their social and status work values.

## **2.7. The present Study**

The present study employs a sample of Dutch young adults on the threshold of the transition from school-based vocational education to working life to test the hypotheses that individual differences in social and status work values are predicted by respondents' interpersonal goals in peer relationships (H1, 2) and their social standing in the peer group (H3, 4). Moreover, the possibility of an interaction effect between respondents' goals and their social standing in the peer group will be addressed. Respondents' future plans, their socio-economic background, and their gender will be controlled for in all analyses. To account for previous research showing that both interpersonal goals and work values vary by gender (Abele, 2003; Duffy & Sedlacek, 2007; Johnson, 2001; Marini et al., 1996), the interactions between gender and interpersonal goals will be explored.

## **2.8. Method**

### **2.8.1. Data and Procedure**

The data used in the present research stem from a study conducted in the Netherlands aimed at monitoring the transition from vocational education to working life or further education. Data collection has taken place during respondents' final year in education in in the first quarter of the school term of 2011/2012 (T1) and approximately six months later shortly before the end of the school term (T2). Questionnaires have been administered

during regular class hours and consisted of a self-report questionnaire and a sociometric survey assessing peer nominations in the classroom. Measurements have been performed in line with the ethical guidelines for such surveys in the Netherlands. All names and other identifying information have been substituted by code numbers in the resulting dataset including the names that have been provided in the sociometric survey. Neither respondents nor schools have been given access to any of the raw data retrieved through the self-report or sociometric survey or the coding of respondents' names. Prior to administering the questionnaires, respondents were informed of the procedure of the study and were assured of the confidentiality of their answers. Participants were free to refrain from participation at any moment of the study. Because all respondents were age 16 or above no parental consent was necessary for the surveys that were administered. No monetary incentives or course credits have been offered for participation.

### **2.8.2. Educational Context**

In the Netherlands, vocational training is provided as a school-based form of education (Dutch MBO-BOL) that is obtainable for a variety of professions and at different skill levels. Students commonly enroll in this education at the age of 16 and follow training for two to four years during which they attend regular classes as well as practical training classes in which they acquire vocation-specific knowledge and skills under the supervision of a teacher. Students further gain practical experience in the course of several internships lasting from several weeks to several months throughout the course of their education. Following school-based vocational education is a common educational pathway in the Netherlands. In the years 2011-2013 in with the present study was conducted, approximately 500.000 Dutch students have been enrolled in this type of education. This represents roughly 13.5% of all Dutch students, including all levels from primary education to university.

As of 2010, students at vocational schools do not receive grades anymore. Instead, their performance is assessed based on their competences. The profile of competences that a student needs to attain in a specific vocational education and in a specific educational track is a combination vocation-specific professional skills and knowledge as well as aspects of a good professional attitude such as good communication skills and teamwork that is jointly developed by educational experts and practitioners. Upon completion of their training, students can either enter the labor market directly within their profession or

enroll in additional or follow-up vocational education at the same or a higher level of education. Students who complete their vocational education at the highest obtainable level are eligible to enroll at a University of Applied Sciences.

### **2.8.3. Sample Description**

The study sample consists  $N = 216$  respondents ( $M_{\text{age}}$  T1 = 19.83,  $SD = 3.09$ ,  $M_{\text{age}}$  T2 = 20.35,  $SD = 3.09$ , 48.4% female) and includes all respondents who have provided information on their work values at T2 and for whom information on their interpersonal goals and valid peer nominations were available at T1. The majority of the respondents indicated to have a Dutch ethnic background when asked for their country of origin (94%). The remaining respondents indicated that they had been born on the Dutch Antilles (1.4%), Turkey (0.9%), Suriname (0.5%), or elsewhere (3.2%). Respondents who indicated to have been born in a country other than the Netherlands had on average spent 13.52 years in the Netherlands at the time of measurement ( $SD = 6.06$ , range: 1.3 – 24.0 years). Respondents in the study sample did not significantly differ from the overall sample at T1 (T1,  $N = 472$ ,  $M_{\text{age}} = 19.87$ ,  $SD = 2.31$ , 52.4% female) in their interpersonal goals or peer popularity but had slightly lower ratings of peer acceptance ( $M = .31$ ,  $SD = .23$  for respondents in the subsample,  $M = .37$ ,  $SD = .26$  for respondents not in the study sample;  $t(412) = 2.32$ ,  $p < .05$ ). Respondents in the study sample did not significantly differ from the overall sample at T2 ( $N = 430$ ,  $M_{\text{age}} = 20.08$ ,  $SD = 2.19$ , 56.6% female) in their social or status work values but were more likely to be male ( $t(418) = -3.70$ ,  $p < .01$ ; 1 = male) and marginally less likely to have work-related future plans ( $t(421) = 1.83$ ,  $p < .10$ ; 0 = non-work, 1 = work).

### **2.8.4. Measures**

#### **2.8.4.1. Work Values**

Work values were assessed by asking respondents how important certain job attributes were to them in their future jobs. Based on research by Marini et al. (1996), social work values were assessed by two items tapping into the extent to which respondents attach value to intrinsic rewards that pertain to the social aspects of work ('Having friends at work', 'Getting along well with colleagues'). Status work values were assessed by four items tapping into the extent to which respondents attach value to extrinsic work rewards that pertain to the acquisition of power, prestige, and income ('Having a leadership

position', 'Making a lot of money', 'Having a job that people look up to', 'Determining what is happening in my team'). Answers were recorded on a 5-point scale from 1 = *very unimportant* to 5 = *very important*. Analyses of internal consistency showed a Cronbach's alpha of .80 for status work values. The two items measuring social work values were correlated at  $r(217) = .31, p < .01$ . Mean scores were calculated for social and status work values.

#### **2.8.4.2. Interpersonal Goals**

Interpersonal goals were assessed with the Interpersonal Goals Inventory (IGI-C; Ojanen, Grönroos, & Salmivalli, 2005). To avoid conceptual overlap with work values, the questions assessing interpersonal goals were explicitly formulated to tap into interpersonal goals in relationships with peers. Respondents were asked to indicate on three items measuring agentic goals and four items measuring communal goals how important it was to them that when among their peers they were, for example, "respected by others" (agentic) or "connected to others" (communal). Answers were recorded on a 5-point scale from 1 = *very unimportant* to 5 = *very important*. Analyses of internal consistency showed a Cronbach's alpha of .50 for agentic goals and .71 for communal goals. Mean scores have been calculated for agentic and communal goals.

#### **2.8.4.3. Social Standing in the Peer Group**

Peer acceptance and popularity have been assessed using peer nominations within classrooms at T1. Classroom sizes ranged from 6 to 34 students ( $M = 21.04, SD = 7.85$ ) with an average response rate of 81.1% in the study sample. Respondents were asked to nominate an unlimited number of classmates whom they perceived to be popular ("Who is popular?"; peer popularity) and whom they liked ("Who do you like?"; peer acceptance). Respondents could not nominate themselves. The number of nominations a class member *received* on each question was divided by the number of participating classmates (i.e., the maximum number of possible nominations), yielding proportion scores ranging from 0 to 1. A score of 0 indicates that a respondent received no nominations on this question; a score of 1 indicates that a respondent received nominations from every participating class member on this question. Peer acceptance was indicated by respondents' proportion score of being well-liked by their classmates. Peer popularity was indicated by respondents' proportion score of being perceived as popular by their classmates.

#### **2.8.4.4. Socio-Economic Background**

To assess respondents' socio-economic background, their family affluence has been assessed using the Family Affluence Scale (FAS; Boyce, Torsheim, Currie, & Zambon, 2006; Currie, Molcho, Boyce, Holstein, Torsheim, & Richter, 2008). The FAS has been developed as a tool for the assessment of socio-economic status in adolescence to overcome complications arising through adolescents' difficulties in accurately reporting their parents' educational levels, occupations, or incomes. The FAS asks respondents to report on their family's wealth at the hand of a number of consumption indices they are likely to know. Respondents replied to three questions asking them to indicate whether their family owns a car (1= *yes*, 0= *no*), whether they have their own room at their family's home or did have their own room when they were still living at home (1 = *yes*, 0 = *no*), and how many computers their family has at home (0 = *none*, 1 = *1 computer*, 2 = *2 computers*, 3 = *3 computers*). A fourth question asking respondents how often they have been on holiday with their family in the past 12 months has been omitted in the present study as it was not considered appropriate for the current age group. A point system ranging from 0 to 5 has been applied to the three questions assigning one point for each additional asset (i.e., a score of zero if the family had no car, no computers and the respondent did not have an own room at home; a score of 5 if the family had a car, three computers and the respondent did have an own room at home). Scores have been used as a continuous measure of family affluence.

#### **2.8.4.5. Future Plans**

Respondents' future plans at T2 have been controlled for to distinguish between respondents who expressed the intention to enter the labor market directly (28.2%, coded as 1 = *work*; irrespective of whether they intended to find part-time or full-time employment or wanted to combine their work with any sort of additional training) and respondents who indicated that they did not want to enter the labor market directly after graduation (71.8%, coded as 0 = *non-work*, irrespective of whether they wanted to complement their training with an additional or follow-up education, were having different plans such as a gap year, or were yet undecided). For respondents who did not provide information on future plans at T2, information on T1 has been included instead.

## **2.9. Results**

### **2.9.1. Descriptive Statistics**

Descriptive statistics and correlations between the main study variables are displayed in Table 2.1. Results show that social and status work values are moderately correlated, consistent with our notion that social and status work values are not mutually exclusive but represent relative preferences of certain types of rewards. The same notion holds for the positive correlation between individuals' interpersonal goals, which represent relative tendencies of one goal-orientation over the other. Peer acceptance and peer popularity are positively correlated. Social and status work values are correlated with both communal and agentic interpersonal goals in the peer group, though correlations are higher for the expected associations between social values and communal goals and between status values and agentic goals. Status work values are not correlated with peer popularity. Social work values are marginally positively correlated with peer acceptance.



Table 2.1.

Descriptive Statistics and Correlations of the main Study Variables ( $N = 216$ )

	<i>Mean (SD)</i>	<b>Range</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7.</b>	<b>8.</b>
1. Social Work Values	3.98 (.62)	2.00-5.00	1							
2. Status Work Values	3.23 (.66)	1.33-5.00	.21**							
3. Liked	0.31 (.23)	0.00-0.80	.12 <sup>†</sup>	.01						
4. Popular	0.11 (.16)	0.00-0.75	.02	.04	.62**					
5. Communal Goals	3.83 (.60)	1.00-5.00	.31**	.15*	-.02	-.05				
6. Agentive Goals	3.42 (.58)	1.00-5.00	.22**	.29**	-.08	-.12 <sup>†</sup>	.54**			
7. Gender (1=male)	0.52 (.50)	0.00-1.00	-.01	.19**	-.10	.06	-.11	-.04		
8. Future Plans (1=work)	0.28 (.45)	0.00-1.00	.03	.04	.17*	-.12 <sup>†</sup>	.08	.05	.03	
9. Socio-Economic Background	2.68 (.67)	1.00-4.00	.05	.13 <sup>†</sup>	.07	.08	.01	-.03	.15*	-.01

Note. \* $p < .05$ . \*\*  $p < .01$ . <sup>†</sup>  $p < .10$ . Socio-Economic Background  $N = 214$ .

### 2.9.2. Strategy of Analysis

Multivariate multilevel regression analysis was conducted (Rasbash, Steele, Browne, & Goldstein, 2012; Snijders & Bosker, 2012) to account for the nested structure of the data with individuals nested in classrooms. To account for the correlation between social and status work values, a multivariate approach was chosen to allow for the simultaneous analysis of both outcome variables. Analyses have been conducted using MLwiN 2.23 (Rasbash, Charlton, Browne, Healy, & Cameron, 2009). The analyses allow us to separate the variance in the two outcome variables, social- and status work values, into variance at the individual level and variance at the group (classroom) level.

Separate models were conducted to examine the variance in social and status work values in a model containing the control variables only (Model 0), in a model containing the control variables and interpersonal goals (Model 1), in a model containing the control variables, peer acceptance and peer popularity (Model 2), in a combined model containing control variables, interpersonal goals, peer acceptance, and peer popularity (Model 3), and in a model containing all main effects together with the interactions between respondents' interpersonal goals and their standing in the peer group (Model 4).

### 2.9.3. Individual- and Group Level Effects

An initial examination of the empty model provides us with insights into the degree of resemblance between respondents belonging to the same group (classroom), expressed by the intraclass correlation coefficient (ICC), and allows us to draw conclusions on whether the conduction of a multilevel approach is justified. Whereas no significant variance in social work values can be observed at the group-level, the examination of the empty model shows a marginally significant between-group variance in status work values ( $b = 0.05$ ,  $SE = 0.03$ ,  $p < .10$ ). Further examination of between-group variances in the remaining models shows no significant effects. The variance within groups, at the individual level, was significant for both social- and status work values in all models.

Results suggest that although the observed differences in work values appear to primarily result from individual differences rather than differences between the groups of which these individuals make part, group-level effects on the observed differences in status work values cannot be entirely ruled out. We therefore proceed to conduct a

multilevel analysis to take these group-level effects into account.<sup>3</sup>

#### **2.9.4. Social- and Status Work Values**

Initial examination of the control variables with no further predictors in the model (Model 0) showed no significant effects of respondents' gender, future plans, or socio-economic background. Model 1 examines the effect of respondents' interpersonal goals on their social- and status work values, uncontrolled for respondents' peer acceptance and peer popularity. Results show that communal interpersonal goals in relationships with peers predict social work values ( $b = 0.27$ ,  $SE = 0.08$ ,  $p < .01$ ; consistent with Hypothesis 1), and that agentic interpersonal goals in relationships with peers predict status work values ( $b = 0.31$ ,  $SE = 0.08$ ,  $p < .01$ ; consistent Hypothesis 2). Model 2 examines the effects of respondents' peer acceptance and peer popularity on their social- and status work values, uncontrolled for their interpersonal goals in the peer group. Results show that peer acceptance predicts social work values ( $b = 0.49$ ,  $SE = 0.25$ ,  $p < .05$ ; consistent with Hypothesis 3) but that peer popularity does not predict status work values (rejecting Hypothesis 4). Model 3 is displayed in Table 2.2 and shows that these effects remain unchanged if respondents' interpersonal goals in the peer group, their peer acceptance, and their peer popularity are examined together in a combined model.

#### **2.9.5. Interaction Effects**

None of the interaction effects between interpersonal goals and respondents' social standing in the peer group researched significance (Model 4). The additional examination of the interaction between respondents' gender and their agentic and communal interpersonal goals showed no significant results. Interaction effects have not been included in Table 2.2.

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<sup>3</sup> Discarding the multilevel structure did not change the results concerning the hypotheses under study.

Table 2.2.

*Multivariate Multilevel Regression Analysis predicting Social and Status Work Values (N = 216)*

	Social Work Values		Status Work Values	
	Estimate	SE	Estimate	SE
Intercept	2.28**	0.34	1.65**	0.35
<i>Control Variables</i>				
Gender (1=male)	0.06	0.09	0.16	0.10
Future Plans (1=work)	0.03	0.09	0.08	0.09
Socio-Economic Background	0.05	0.06	0.10	0.06
<i>Interpersonal Goals</i>				
Communal Goals	0.26**	0.08	0.01	0.08
Agentic Goals	0.12	0.08	0.32**	0.09
<i>Standing in the Peer Group</i>				
Peer Acceptance	0.49*	0.24	0.13	0.26
Peer Popularity	-0.19	0.35	0.21	0.38
<i>Between Groups</i>				
Variance	0.01	0.02	0.03	0.02
Covariance	-0.01	0.01		
<i>Within groups</i>				
Variance	0.33**	0.03	0.34**	0.04
Covariance	0.06*	0.02		
Deviance (df = 8)	759.05**			

*Note.* \* $p < .05$ . \*\*  $p < .01$ . Change in deviance compared to model containing control variables only (deviance = 808.07)

## 2.10. Discussion

This study set out to examine the role of the peer group as a developmental context in which work values are shaped. We proposed that individuals' interpersonal goals in relationships with peers and their social standing in the peer group serve as interpersonal antecedents of individual differences in social and status work values at the transition from school to work. Our results are consistent with the expectation that the interpersonal goals that young people pursue in the peer context are associated with individual differences in social and status work values. Respondents who pursued primarily agentic goals in their relationships with peers showed higher status work values but not higher social work values. Respondents who pursued primarily communal goals in their relationships with peers showed higher social work values but not higher

status work values. Our results show that interpersonal goals in relationships with peers serve as an indicator for the relative value that individuals attach to different kinds of rewards that can be obtained through their future jobs and, through this route, may affect their future career decisions.

The results further show that the peer context affects individuals' social work values over and above their personal goals. Individuals who were well-accepted by their peers reported higher social work values but not higher status work values. This finding underlines the proposition that belongingness in the peer group matters beyond the immediate peer context through its association with preferences for future social contexts. Occupying a popular position in the peer group was not associated with either social or status work values. Our results lend no support for the notion that popular members of the peer group perceive status-related rewards of work as more desirable as compared to their less popular peers. The lack of an effect for peer popularity may be grounded in the age group and developmental period in which our study has been conducted. The vast majority of studies on peer popularity focus on children and adolescents (Dijkstra et al., 2009; Mayeux et al., 2011; Parker & Asher, 1987; Parkhurst & Hopmeyer, 1998). So far, few empirical studies have addressed the relevance of a popular position in the peer context in older age groups. Future studies may direct greater attention to the immediate and long-term associations of peer popularity in young adulthood.

### **2.10.1. Strengths and Limitations**

Our results shed light on the role of peers in young adult's work values at the transition from school to work and contribute to a rising stream of literature acknowledging the importance of peer relationships in career decisions and early career development (Dietrich et al., 2012; Nurmi et al., 2002). The present study applied a multi-source approach consisting of self-reported goals and sociometric data of respondents' standing in the peer group. This approach enabled us to extend the focus of the study to the wider peer group and allowed us to examine the distinctive effects of factors on the individual level (i.e., interpersonal goals) and on the contextual level (i.e., standing in the peer group) separately and combined. By drawing on sociometric data to assess individuals' standing in the peer group we overcome the potential bias that would have resulted from a self-reported measure of respondents' peer relationships.

There are, however, some limitations to this study. First, for the assessment of interpersonal goals we used the IGI-C (Ojanen et al., 2005) which was initially developed for younger participants. Because the questions were specifically designed to measure interpersonal goals in the peer context we chose this version. However, the subscale measuring agentic goals showed relatively low internal consistency. It is possible that the questions tapping into communal goals work well in younger and older samples alike whereas questions tapping into agentic goals change with age and are less suitable to young adults than they are to adolescents. Because the three items measuring agentic interpersonal goals covered different aspects of agentic goals which were all deemed relevant content-wise (being respected by others; making a confident impression on others; being regarded as smart by others) and deletion of an item might have compromised the validity of the subscale, no alterations to the scale were made.

Second, due to the correlational nature of the data that are used, no causality can be implied and we cannot entirely rule out that one underlying factor affects both young people's relationships in the school context and their work values at the transition to work. It is possible that a general underlying orientation towards either social or status rewards of one's social relationships causes them to pursue either communal or agentic goals in their peer relationships, drives them towards the pursuit of either acceptance or popularity in the peer group and later one affects their work values when making decision on their future work contexts.

Finally, our study addresses young adult's initial work values at the verge of the transition to work. Our findings therefore pertain to the transition period and cannot be generalized to the development of work values throughout young adult's early career. The focus of the present study lies on the role of peer relationships *during* the transition but does not capture the extent to which these initial work values are prone to change *after* the transition to work once individuals gather experience in the labor market.

### **2.10.2. Implications and Future Directions**

Though theories on career development emphasize the importance of social relationship with significant others in career development, up to now, research has strongly focused on the role of parents and insights on the role of peers in career decisions and early career development are yet relatively limited. Understanding how young people's interpersonal goals and their social standing in the peer group affect their subsequent

work values increases our understanding of the dynamics that take place in late adolescent and young adult peer groups. The findings of the present study emphasize the importance of peer relationships in understanding young people's work values and demonstrate that the peer context deserves closer attention in future studies on career decisions at the transition from school to work. Our results lend further support to the notion forwarded by Social Cognitive Career Theory (Lent et al., 1994; Lent et al., 1999) that social relationships and contextual factors matter in occupational preferences and career decisions, and shows that this notion also holds for relationships with peers. Future research may extend the scope of this study to assess how individual and contextual factors of the peer group affect the development of work values and career-related behaviors beyond the immediate transition period.

## Chapter 3

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# **Efficacious Peers as Positive Role Models in the Transition from School to Work<sup>4</sup>**

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<sup>4</sup> This chapter is co-authored with Katariina Salmela-Aro, Siegwart Lindenberg, Jan Kornelis Dijkstra, and René Veenstra. A slightly different version of this chapter has been submitted for publication.





### 3.1. Introduction

The transition from school to work is an important developmental accomplishment in late adolescence and young adulthood with implications for individuals' future socio-economic standing and well-being in adulthood (Ashby & Schoon, 2010; Erikson, 1959; Haase, Heckhausen, & Köller, 2008; Piquart, Juang, & Silbereisen, 2003; Savickas, 1999; Zarrett & Eccles, 2006). During this developmental period, the peer group becomes an important source of guidance and support (Cheng & Chan, 2004; Furman & Buhrmester, 1992). Previous research has shown that young job seekers in the transition to working life often refer to their peers as social contacts that aid them during this transition (Jokisaari & Nurmi, 2005, Tynkkynen, Nurmi, & Salmela-Aro, 2010), and that they rely on their social networks with peers to obtain their first jobs (Marmaros & Sacerdote, 2002). Whereas these studies show that young job seekers frequently draw on their peers as relevant social contacts during the transition to work, it is unclear whether and how peer networks can contribute to the mastery of this transition.

The aim of the current study is to investigate the role of peer networks in career-directed behavior and the outcomes thereof during the transition from school to work. Previous research on adult job seekers has shown that social relationships can be an asset in job search behavior through the provision of, for instance, information and practical resources (Coleman, 1988; Granovetter, 1995; Lin, 1999; Van Hove, Van Hooft, & Lievens, 2009). Young adults at the transition to work are about to enter a context in which they and their peers have little prior experience. For this reason, peers are unlikely to be providers of practical or instrumental support concerning this transition. Based on Social Cognitive Career Theory (SCCT; Lent & Brown, 2013; Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999; Leung, 2008) and Bandura's (1971) Social Learning Theory, we argue that peers can be positive role models that stimulate the engagement in career-directed activities at the transition from school to work. To investigate this proposition, we draw on two samples of young adults in the Netherlands (Study 1) and Finland (Study 2). We investigate the link between the size of the friendship network in the classroom and friends' self-reported efficacy beliefs on respondents' engagement in job search activities and the outcomes thereof (i.e., number of job applications completed and number of job offers received; Study 1) and respondents' odds of having successfully completed the transition three years later (Study 2).

### **3.2. Peers at the Transition to Work**

Social Cognitive Career Theory (SCCT; Lent & Brown, 2013; Lent et al., 1994; Lent et al., 1999; Leung, 2008), which is grounded in Bandura's (1977) general Social Cognitive Theory (SCT), states that social contexts affect the development of career-related beliefs and influence career-related behaviors (Lent & Brown, 2013; Zikic & Saks, 2009). Research on school transitions has shown that adolescents who experience greater peer support perceive the transition to be less difficult (Waters, Lester, & Cross, 2014), and that career goals and behaviors are jointly developed in interactions with significant others such as one's peers (Dietrich, Parker, & Salmela-Aro, 2012; Kiuru, Salmela-Aro, Nurmi, Zettergen, Andersson, & Bergman, 2012). It has further been shown that networks with friends and peers are important sources of support in the light of educational or career decisions (Tynkkynen et al., 2010). These studies suggest that peers can take a facilitating role in young people's successful mastery of the transition from school to work. However, not all peers may facilitate the transition equally well and peers' capacity to act as positive role models is likely to be contingent on their personal characteristics. The present study investigates the extent to which peers' capacity to act as positive role models at the transition to work depends on their own efficacy beliefs to perform well in the tasks that comprise this transition.

### **3.3. Peers' Capacity to Act as Positive Role Models**

Social Learning Theory (SLT; Bandura, 1971) states that learning takes place in social contexts by observing others who show certain behaviors that lead to desired outcomes. These others can then serve as role models for future behavior. Role models are considered critical to career development (e.g., Gibson, 2004) and have been shown to influence individuals' career salience and their educational and occupational aspirations and choices (Hackett, Esposito, & O'Halloran, 1989). According to SCCT, individuals are most likely to state and pursue career goals once they experience personal competency with respect to the attainment of employment and the pursuit of their future careers, the concept of *job search self-efficacy* (e.g., Saks & Ashforth, 1999; Rogers & Creed, 2011; Zikic & Saks, 2009). Efficacy beliefs have been shown to influence the kinds of occupations that individuals consider suitable and favorable for themselves even in younger samples and children (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). Studies have further shown that job search self-efficacy is associated with active

engagement in job search behavior and more positive outcomes of these behaviors in terms of, for instance, the number of received job offers (Kanfer, Wanberg, & Kantrowitz, 2001). In line with this, the belief that one possesses the abilities to attain certain career goals has been associated with a more successful transition from school to work (Dietrich, Jokisaari, & Nurmi, 2012), and more efficacious adolescents have shown lower risks of unemployment and higher job satisfaction in young adulthood (Pinquart et al., 2003).

We argue that individuals are more likely to engage in career-directed behavior once they observe others who are similar to them being confident about the pursuit of their careers. More specifically, we argue that an efficacious peer network can be a source of encouragement and provide young people in the transition to work with positive role models that stimulate greater engagement in career-directed activities. For instance, being embedded in a network of peers with low job-search self-efficacy may raise doubts about job seekers' own capabilities to obtain employment and discourage rather than encourage their engagement job search activities. Conversely, being embedded in a network of efficacious peers who believe in their own capabilities to perform well in job search activities and potentially observing their successful progress towards the attainment of employment is likely to stimulate job seekers' own engagement in job search behavior.

We therefore expect that being embedded in a network of efficacious peers exposes individuals to a nurturing environment that enhances their own engagement in job search activities. In detail, we expect them to show increased engagement in career-directed behavior (Hypothesis 1) and more favorable career-related outcomes (Hypothesis 2).

### **3.4. Overview over the Present Research**

We draw on two independent samples to test our hypotheses in a cross-national approach. Study 1 uses a sample of Dutch young adults enrolled in a school of vocational education to investigate the link between friends' self-reported efficacy beliefs on respondents' engagement in job search activities (number of applications completed) and their job search outcomes (number of job offers received). Study 2 uses a sample of Finnish young adults during and after the transition from school to work to replicate and expand the findings of Study 1. Study 2 investigates the link between the

overall efficacy beliefs across respondents' peer network and respondents' successful completion of the transition three years later. Because previous research on adult job seekers has demonstrated that a social network of job-search relevant social ties is a beneficial asset in job search (Coleman, 1988; Granovetter, 1995; Lin, 1999; Van Hoye et al., 2009), respondents' access to instrumental social ties that can support them in the transition has been controlled for in both studies. Both studies further control for the size of the peer network, respondents' gender, and their socio-economic background.

### **3.5. Study 1**

#### **3.5.1. Method**

##### **3.5.1.1. Sample and Procedure**

The data used in Study 1 stem from a study conducted in the Netherlands aimed at young adults' transition from vocational school to working life or further education. In the Netherlands, vocational training is provided as a school-based form of education that students commonly enroll in at the age of 16. All respondents in the present sample attended a form of school-based vocational education (Dutch MBO-BOL) which consists of regular subjects as well as vocation-specific subjects that provide guided training under the supervision of a teacher. Students commonly attend these schools for two to four years during which they attend regular class hours in a fixed classroom structure and gain practical experience in a number of internships. As of 2010, vocational schools follow the principle of competence-based education, which implies that students do not receive grades but are evaluated based on their attained competences (vocation-specific professional skills and more general competences such as good communication and teamwork).

Data collection has taken place during respondents' final year in education in the first quarter of the school term 2011/2012 (T1) and approximately six months later shortly before the end of the school year (T2). Questionnaires have been administered at school during regular class hours and consisted of a self-report questionnaire and a sociometric survey using peer nominations to assess friendship networks in the classroom. Prior to administering the questionnaires, respondents were informed of the aims of the study and were assured of the confidentiality of their answers. Respondents were free to refrain from participation at any moment of the study and no monetary incentives or course credits have been offered for participation.

The overall sample consisted of  $N = 472$  respondents at T1 ( $M_{\text{age}} = 20.02$ ,  $SD = 2.67$ ; 51.2 % female) and  $N = 424$  respondents at T2 ( $M_{\text{age}} = 20.26$ ,  $SD = 2.86$ ; 56.8 % female). For current study purposes, a selection of respondents has been drawn from the overall sample based on their fulfillment of the study criteria. The study sample includes those respondents who had provided information on their number of job applications and job offers at T2 and who had at least one friend (based on a reciprocated friendship nomination) at T1 ( $N = 109$ ;  $M_{\text{age}} = 19.60$ ,  $SD = 3.09$  at T1;  $M_{\text{age}} = 20.11$ ,  $SD = 3.09$  at T2; 58.7% female). Respondents in the study sample did not significantly differ from the overall sample on most of the study variables. Marginal differences were observed at T1 with the study sample containing slightly more females ( $t(465) = 1.80$ ,  $p = .07$ ) and being marginally younger than the overall sample ( $t(468) = 1.89$ ,  $p = .06$ ). Respondents in the study sample further stem from more advantaged socio-economic backgrounds than respondents not in the study sample ( $t(410) = -2.12$ ,  $p = .04$ ).

### 3.5.1.2. Measures

#### 3.5.1.2.1. Job Applications and Offers

Respondents' engagement in job search activities was measured at T2 by asking them to report the *number of job applications* they had completed. No limitations were imposed on the number of applications that respondents could report. Respondents' *number of job offers* was measured at T2 by asking them to indicate the number of job offers they had received. Again, no limitations were imposed on the number of job offers that they could report.

#### 3.5.1.2.2. Friendship Network

Respondents' friendship networks have been assessed using peer nominations within classrooms drawn from the sociometric survey assessed at T1. Respondents received a list with the names of their classmates and were asked to nominate those classmates who are their 'friends in the classroom'. Respondents could nominate as many classmates as they wanted except for themselves. To validate that a respondent who identified a classmate as a friend had an actual friendship relationship with this person, only nominations in which two persons mutually nominated each other as a friend have been taken into account. The average classroom response rate for the sociometric survey in the study sample was 80.4%. The resulting measure of respondents' *friendship network*

size in the classroom is indicated by this respondents' total number of reciprocal friendship nominations.

#### **3.5.1.2.3. Friends' Job Search Self-Efficacy**

Friends' job search self-efficacy was assessed using a 10-item scale based on a measure that has been applied in previous research (e.g., Ellis & Taylor, 1983; Saks & Ashforth, 1999). For current study purposes, the original 10-point scale has been adapted to a 5-point scale and all negative items of the original scale have been rephrased to a positive item in the Dutch translation. Respondents were asked to indicate to what extent each of 10 statements such as 'I am confident of my ability to make a good impression in job interviews' or 'I know exactly how to find the kind of job I'm looking for' applied to them (1= *Totally not applies to me*, 5= *Totally applies to me*). The scale showed good internal consistency with Cronbach's  $\alpha=.86$ . Mean scores across all ten items have been formed to yield scores of individual job-search self-efficacy. *Friends' job-search self-efficacy* was calculated as the mean score of job-search self-efficacy across the entirety of individual respondents' friendship networks. It therefore represents the overall level of job-search self-efficacy in the friendship network in which each individual respondent is embedded in the classroom.

#### **3.5.1.2.4. Instrumental Social Ties**

All analyses controlled for respondents' number of instrumental social ties who can provide them with practical and instrumental help. The number of instrumental social ties in the job search process was assessed through respondents' ego networks of people who can help them find employment ('Do you know people who can help you find a job?'). Those respondents who indicated to know at least one person were then asked to report on the total number of persons they knew who could help them find employment. No limitations were imposed on the maximum number of people that could be named. Respondents' number of instrumental social ties is indicated by the total number of people they named.

#### **3.5.1.2.5. Socio-Economic Background**

To assess respondents' socio-economic background, their family affluence has been assessed using the Family Affluence Scale (FAS; Boyce, Torsheim, Currie, & Zambon,

2006; Currie, Molcho, Boyce, Holstein, Torsheim, & Richter, 2008). The FAS has been developed to overcome problems arising through adolescents' difficulties in accurately reporting their parents' educational levels or income by asking respondents to report on their family's wealth at the hand of a number of consumption indices that they are likely to know about. Respondents were asked to indicate whether their family owns a car (1 = *yes*, 0 = *no*), whether they have their own room at their family's home or did have their own room when they were still living at home (1 = *yes*, 0 = *no*), and how many computers their family has at home (0 = *none*, 1 = *1 computer*, 2 = *2 computers*, 3 = *3 computers*). A fourth question asking respondents to indicate how often they have been on holiday with their family in the past 12 months has been omitted in the present study as it was not considered appropriate for the current age group. A point system ranging from 0 to 5 has been applied to the three questions assigning one point for each additional asset (i.e., a score of zero if the family had no car, no computers and the respondent did not have an own room at home; a score of 5 if the family had a car, three computers and the respondent did have an own room at home). Scores have been used as a continuous measure of family affluence.

#### **3.5.1.2.6. Gender**

Respondents' gender was coded as 0 = female and 1 = male.

#### **3.5.1.3. Strategy of Analysis**

The two dependent variables under study, respondents' number of applications and the number of job offers they received, are measured in count data. To account for the distribution of the dependent variables, Poisson regression models were calculated (e.g., Cox, West, & Aiken, 2009). Regression coefficients in Poisson regression can be interpreted as multiplicative rather than additive changes. A change in the predictor variable results in a multiplicative change in the predicted count of the outcome variable. To make results more easily interpretable, the poisson regression equation is exponentiated on both sides. The exponentiated coefficient of the intercept represents the baseline count, that is, the count of the outcome variable if the score on the predictor variable(s) is zero. The exponentiated coefficient in a predictor variable represents the predicted multiplicative effect of a one-unit increase in the predictor on the base-line count of the outcome variable in the model in which the predictor is included.



Analyses were conducted using Mplus 6.11 statistical software (Muthén & Muthén, 2010). Path analysis using maximum likelihood estimation with robust standard errors was used to estimate the direct effects of respondents' friendship network at T1 on the number of applications and the number of job offers at T2, as well the indirect effect of the friendship network on the number of job offers they received, mediated by their number of applications. We further tested the interaction between friendship network size and friends' job search self-efficacy to examine whether the presumed effect of an efficacious peer network is contingent on the size of the network. All analyses were controlled for respondents' gender, their family socio-economic background, and their number of instrumental job search social ties. Missing data were addressed using the full information maximum likelihood method (Muthén & Muthén, 2010). Monte Carlo integration was used to address missing data on the mediator variable.

Table 3.1.

Descriptive Statistics and Correlations of the Main Study Variables in Study 1 ( $N = 109$ )

	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6
1. Job Applications	2.70	2.67	0-15						
2. Job Offers	1.60	1.38	0-7	.30**					
3. Friendship Network Size	2.74	1.75	1-8	-.11	-.05				
4. Friends' Job Search Self-Efficacy	3.30	0.42	2.10-4.60	.24*	-.01	-.12			
5. Instrumental Social Ties	0.90	0.91	0-6	.11	.04	.02	-.13		
6. Socio-Economic Background	2.72	0.64	1-4	.06	-.04	.02	.11	-.03	
7. Gender (1=male)			0-1	.06	.08	-.16	.18 <sup>†</sup>	-.07	.07

Note. \* $p < .05$ . \*\* $p < .01$ . <sup>†</sup> $p < .10$ .

### 3.5.2. Results and Discussion

Descriptive statistics and correlations of the main study variables are displayed in Table 3.1. On average, respondents had completed 2.70 ( $SD = 1.67$ ) applications and had received 1.60 ( $SD = 1.38$ ) job offers. Respondents' number of reciprocal friendships in the classroom ranged from 1-8 with an average of 2.74 ( $SD = 1.75$ ). Respondents' number of job applications was positively correlated with the overall job-search self-efficacy in their friendship network as well as with their number of job offers.

#### 3.5.2.1. Path Analysis<sup>5</sup>

The results of the path analysis are displayed in Table 3.2. A graphic presentation of the path model is displayed in Figure 3.1. Respondents' access to instrumental social ties, their gender, and their socio-economic background did not significantly predict their number of job applications or job offers. Likewise, the size of respondents' friendship network at T1 was not significantly associated with the number of applications they had completed or the number of job offers they had received at T2. In line with the expectation that friends' capacity to act as positive role models lies in the overall job search self-efficacy across the friendship network, results show that respondents who were embedded in an efficacious friendship network at T1 had completed a greater number of applications at T2 (consistent with Hypothesis 1). With every one-unit increase in their friends' job search self-efficacy (on a 5-point scale), respondents' baseline number of applications is multiplied by the factor 1.67 ( $B = 0.51$ ,  $\text{Exp}(B) = 1.67$ ,  $p < .01$ ) or, stated differently, increases by 67%. The interaction between friendship network size and overall job search self-efficacy in the friendship network was not significant and has been removed from the model.

The number of job offers respondents had received was not directly predicted by respondents' friendship network in the classroom. The number of applications respondents had completed significantly predicted the number of job offers they had received. With every additional application respondents had completed, their number of job offers changed with the multiplicative factor 1.09 ( $B = 0.09$ ,  $\text{Exp}(B) = 1.09$ ,  $p < .01$ ). Results support the expectations that an efficacious friendship network in the classroom

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<sup>5</sup> Controlling for respondents' own job search self-efficacy at T1 did not change the results pertaining to the hypotheses under study. The effect of respondents' own self-efficacy was not significant whereas the (direct and indirect) effects of an efficacious friendship network in the classroom remained significant.

is related to respondents' engagement in job search activities, and show that this effect holds irrespective of the size of the friendship network and above respondents' access to instrumental social ties.

Table 3.2.

*Path Analysis predicting Number of Applications and Job Offers*

Variable	<i>B</i>	<i>SE</i>	<b>Exp(<i>B</i>)</b>
<i>Number of Applications</i>			
Intercept	-.99	.74	0.37
Control			
Gender (1=male)	.02	.18	
Socio-Economic Background	.08	.13	
Instrumental Social Ties	.16	.10	
Peer Network			
Friendship Network Size	-.04	.06	
Friends' Self-Efficacy	.51**	.18	1.67
<i>Number of Job Offers</i>			
Intercept	.84	.72	2.31
Control			
Gender (1=male)	.18	.17	
Socio-Economic Background	-.07	.14	
Instrumental Social Ties	.01	.07	
Number of Applications	.09**	.03	1.09
Peer Network			
Friendship Network Size	.01	.04	
Friends' Self-Efficacy	-.16	.18	
<i>Indirect Effects</i>			
FSE → Applications → Job Offers	.05*	.02	1.05

*Notes.* Exponentiated coefficient of the intercept represents base-line count. Path model estimated by full information likelihood estimation with Monte Carlo integration; estimated coefficients are unstandardized coefficients; all continuous variables are mean-centered; FSE = Friends' (Job Search) Self Efficacy; \*  $p < 0.05$ , \*\*

### 3.5.2.2. Indirect Effects

The initial results show that greater overall job search self-efficacy in the friendship network predicts a higher number of applications, which in turn predict a higher number of job offers. Analysis of the indirect effect of an efficacious friendship network on respondents' number of job offers through a greater number of applications provides us with information on whether the applications that resulted from a more efficacious friendship network were also the applications that resulted in a greater number of job offers. This indirect effect was positive and significant ( $B = .05$ ,  $\text{Exp}(B) = 1.05$ ,  $p = .04$ ), showing that the greater number of applications that is initiated by a more efficacious friendship network ultimately results in an increase in job offers by 5%. Our results show that being embedded in an efficacious friendship network significantly contributes to young job seekers' transition to work by increasing the number of job offers they receive (consistent with Hypothesis 2), through stimulation of greater engagement in job search activities. Study 1 has shown that an efficacious friendship network contributes to the engagement in job search activities and the attainment of job offers. However, respondents in Study 1 are still in the midst of the transition. Study 2 focuses on a longer time frame and investigates whether and how peer networks affect the successful completion of the transition.

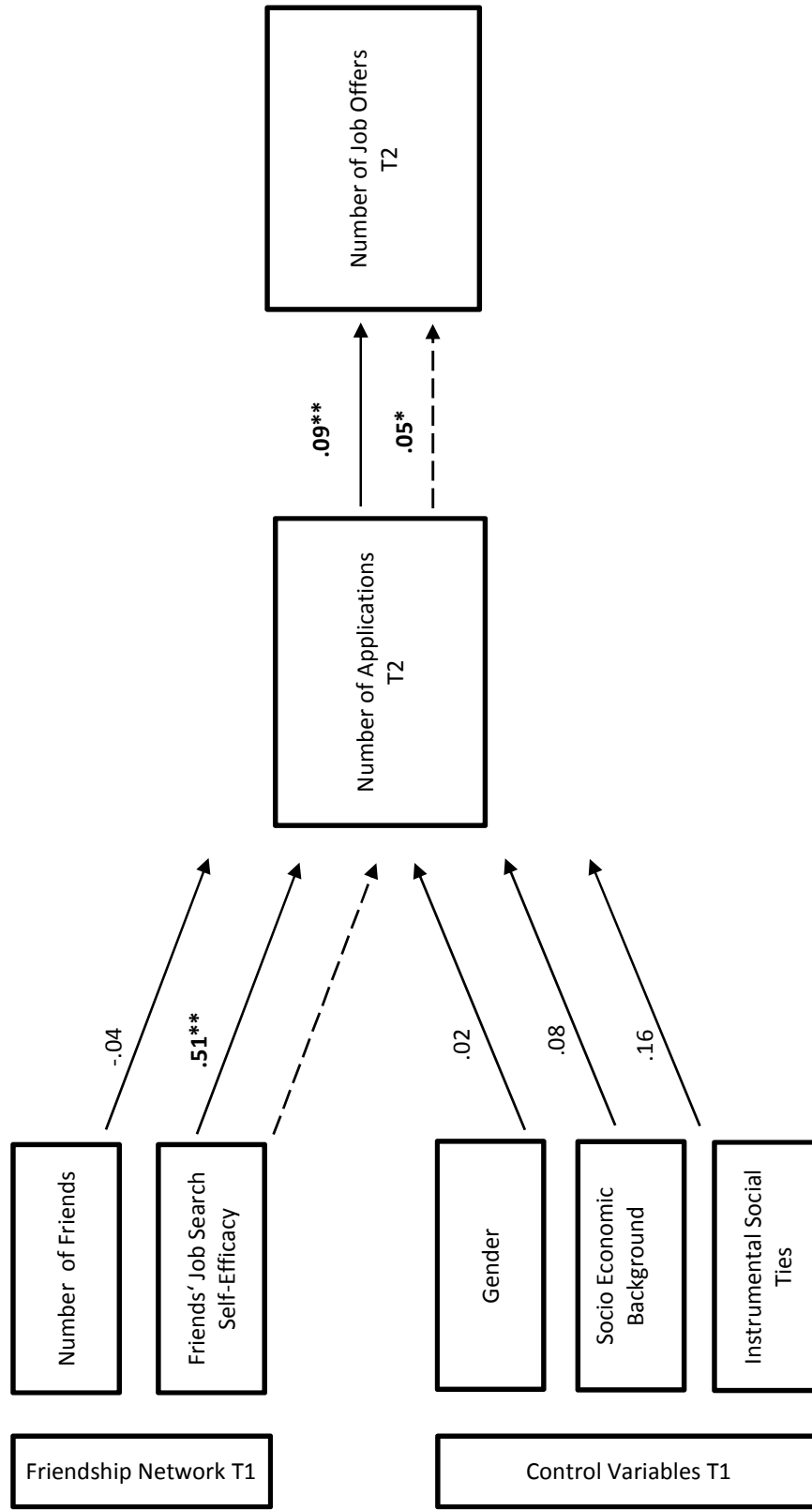


Figure 3.1. Path Model predicting number of applications and number of job offers (Study 1).

Note. \*  $p < 0.05$ , \*\*  $p < 0.01$ . Indirect effect of Friends' job search self-efficacy on respondents' number of job offers indicated by the dotted line.

### **3.6. Study 2**

Study 2 uses a sample of Finnish young adults to replicate the findings of Study 1 in a cross-national sample and to extend these findings by covering a more extensive time frame. The Dutch and Finnish educational systems bear many similarities so that young people in both countries face the transition from school to work around the same age and with comparable educational and vocational options. Study 1 focused on young job seekers' job search during the transition period and consequently does not provide us with any information about the outcomes of this transition. Study 2 tackles this limitation by focusing on the role of peer networks in the successful completion of the transition.

#### **3.6.1. Method**

##### **3.6.1.1. Sample and Procedure**

Data stem from the Finnish Educational Transitions (FinEdu) Studies, a longitudinal research project conducted in Central Finland and aimed at monitoring respondents' educational and vocational transitions and choices throughout adolescence and young adulthood. Respondents' peer networks have been assessed in the school context at the age of 17 when respondents were in their second year of secondary education ( $N = 818$ , 48.4% female, data collected in 2005). Paper- and pencil questionnaires have been administered in the school context. Telephone interviews have been conducted on those study respondents who did not return a completed questionnaire after two reminders. Respondents' success at the transition from school to work (respectively a follow-up education for those not seeking employment) has been assessed three years later ( $N = 599$ , 54.8% female, data collected in 2008), approximately two years after they had graduated. Questionnaires have been sent to respondents by post with the option to also respond to an online version. Analyses have been performed on a study sample of respondents for whom information on all relevant study variables was available at both time points ( $N = 415$ , 51.3% female).

##### **3.6.1.2. Measures**

###### **3.6.1.2.1. Successful Transition**

Based on respondents' information on their educational or occupational status in 2008, a dichotomous variable indicating respondents' successful mastery of the transition has been constructed (0 = transition ongoing, 1 = transition successfully completed).

Respondents' transition has been defined as ongoing if respondents indicated that they had (1) not yet completed an educational degree, (2) completed a degree but had not moved on to further education or working life and have no concrete prospects of doing so, or (3) moved on to further education or working life but are not satisfied with their choice and are still applying elsewhere. Respondents' transition has been defined as successfully completed if respondents had completed their degree and had moved on to (1) further education without currently applying elsewhere, (2) working life with a job related to one's completed degree and no further study plans, or if they (3) had concrete prospects to do one of the above in the near future (i.e., having a job or study to return to after completing military service).

#### **3.6.1.2.2. Peer Network**

Respondents' peer relationships have been assessed using a sociometric survey asking them to nominate up to three classmates with whom they 'liked to spend their time with the most'. Respondents who were not studying at the time of measurement received an adaptation of this question, asking them to nominate peers who 'were at your old school in the same class level as you'. Self-nominations were not allowed. Respondents' *peer network size* is the total number of nominated peers.

#### **3.6.1.2.3. Peers' Self-Efficacy**

Using the revised version of Little's (1983, 2007) Personal Project Analysis method (e.g., Salmela-Aro & Nurmi, 1997) all respondents of the study were asked to write down one career-related goal and name at least one goal pertaining to their future vocational or educational plans. Self-efficacy was measured by asking all respondents to respond to the question 'How able do you think you are to fulfill your goal?' on a 7-point scale from 1 = *very little* to 7 = *very much*. Drawing on previously retrieved information on respondents' peer networks, the overall efficacy beliefs across each respondent's peer network was assessed. For all respondents, the self-report efficacy scores of the peers they nominated in the sociometric survey were retrieved. *Peers' self-efficacy* has been assessed as the average score of self-reported efficacy across each respondent's peer network.



#### **3.6.1.2.4. Instrumental Social Ties**

Comparable to Study 1, we controlled for respondents' access to instrumental social ties. Following up on their response to the revised version of Little's (1983, 2007) Personal Project Analysis method (Salmela-Aro & Nurmi, 1997), respondents were asked to name up to three people who had supported them or with whom they had discussed their career goals. Respondents' *number of instrumental social ties* was calculated as the number of people they named in response to this question.

#### **3.6.1.2.5. Socio-Economic Background**

Respondents' socio-economic background has been measured at the hand of their parents' occupation. Using a standard occupational classification system for the Finnish labor market (Statistics Finland, 1989) and in line with previous research on the FinEdu data (Ranta, Punamäki, Tolvanen, & Salmela-Aro, 2012) respondents' parents have been ascribed to one of the five socioeconomic categories (1) *not employed* (students, retired, or unemployed, i.e., low income households), (2) *self-employed*, (3) *blue-collar occupations* (e.g., mechanics, construction workers), (4) *lower white-collar occupations* (e.g., secretaries, nurses), and (5) *higher white-collar occupations* (e.g., teachers and positions at managerial level). In accordance with the definition of a household reference person (HRP; Department for Communities and Local Government, 2011; Statistics Finland, 2011) the parent with the highest-ranking occupation has been used as a point of reference.

#### **3.6.1.2.6. Gender**

Respondents' gender was coded as 0 = female and 1 = male and has been controlled for in all analyses.

#### **3.6.1.3. Strategy of Analysis**

A hierarchical binomial logistic regression analysis was conducted to predict whether respondents' had successfully completed the transition at age 20 from their peer's efficacy beliefs at age 17, as well as their peer network size and the interaction between peer network size and peers' self-efficacy, again controlling for respondents' gender, their socio-economic background, and their number of instrumental social ties.

### 3.6.2. Results and Discussion

Descriptive statistics and correlations can be found in Table 3.3. Results show that 39% of the respondents had successfully completed the transition whereas in 61% of the sample the transition was ongoing at the time of measurement. On average, respondents had named 2.75 ( $SD = 0.55$ ) peers whom they liked to spend time with, with peers' average efficacy beliefs being 5.80 on a 7-point scale ( $SD = 0.91$ ). Respondents' successful completion of the transition was positively correlated with peers' self-efficacy, but not with their peer network size.

Table 3.3.

*Descriptive Statistics and Correlations of the Main Study Variables in Study 2 (N = 415)*

	<i>M</i>	<i>SD</i>	Range	1	2	3	5	6
1. Successful transition (1=completed)	0.39	0.49	0-1	1				
2. Peer Network Size	2.75	0.55	0-3	.02				
3. Peers' Self Efficacy	5.81	0.91	1-7	.10*	.03			
4. Instrumental Social Ties	2.49	0.88	1-3	.07	.12*	-.01		
5. Socio-Econ. Background	4.20	0.81	1-5	.15**	.05	-.01	.07	
6. Gender (1=male)				-.13**	-.01	.06	-.14**	-.03

Note. \* $p < .05$ . \*\*  $p < .01$ . <sup>†</sup> $p < .10$ .

#### 3.6.2.1. Successful Transition<sup>6</sup>

Results of the binomial logistic regression analysis are displayed in Table 3.4 and show that the odds of having successfully completed the transition within a three year time frame were higher for females ( $B = 0.52$ ;  $\text{Exp}(B) = 0.59$ ,  $p = .02$ , 1 = male) and respondents from higher socio-economic backgrounds ( $B = 0.40$ ,  $\text{Exp}(B) = 1.49$ ,  $p < .01$ ). Respondents' number of instrumental social ties did not significantly predict the outcome variable.

As in Study 1, analysis of the variables pertaining to respondents' peer network showed

<sup>6</sup> Similar to Study 1, controlling for respondents' own self-efficacy did not change the results pertaining to the hypotheses under study. The effect of respondents' own self-efficacy did not reach significance whereas the effect of an efficacious peer network remained significant.

no significant effect of peer network size. In line with the expectation, results show that the odds of having successfully completed the transition at age 20 are higher for respondents who were embedded in a more efficacious peer network at age 17 ( $B = 0.31$ ,  $\text{Exp}(B) = 1.36$ ,  $p = .02$ ). With every one-unit increase in peers' efficacy (on a scale from 1-7), respondents' odds of having successfully completed the transition three years later change by the multiplicative factor 1.36 or, stated differently, increase by 36% (consistent with Hypothesis 2). Again, the interaction between peer network size and peers' self-efficacy was not significant and was removed from the model.

Together with Study 1, our results support the notion that peers can act as positive role models and facilitate the transitional progress at the end of secondary education. Our results show in two independent samples from two different countries that the efficacy beliefs of one's peers, irrespective of the size of the peer network, predict greater engagement in career-related activities (i.e., the number of job applications completed) and more favorable outcomes during (i.e., the number of job offers received) and after the transition (i.e., the odds of having successfully completed the transition).

Table 3.4.

Binary logistic regression results predicting the completion of the transition  
(1 = completed) over a three year time frame (Study 2; N = 415)

	<i>B</i>	<i>SE</i>	<i>Exp(B)</i>	<i>CI</i>	
				Lower	Upper
Control					
Gender (1=male)	-.52*	.22	0.59	0.39	0.91
Socio-Economic Background	.40**	.14	1.49	1.13	1.98
Instrumental Social Ties	.10	.13			
Peer Network					
Peer Network Size	.07	.20			
Peers' Efficacy	.31*	.13	1.36	1.05	1.77

Note. \*  $p < .05$ , \*\*  $p < .01$ . CI = 95% Confidence Interval for  $\text{Exp}(B)$ .

### 3.7. General Discussion

The present study investigated the role of peers as positive role models at the transition from school to work in two independent samples. Inspired by previous research which showed that young people at the transition to work often nominate their peers as social ties who can help them in the transition (Jokisaari & Nurmi, 2005, Tynkkynen et al., 2010), we investigated whether peer networks contribute to the transition from school to work at the end of secondary education, and what personal characteristics of peers make them potential positive role models that aid young people's initiative and in this transition. We hypothesized and found that being embedded in an efficacious peer network predicted greater engagement in career-directed behavior and better career-related outcomes.

In Study 1, we showed at the hand of a sample of Dutch young adults in the transition from vocational education to work that being embedded in a friendship network of peers with high job search self-efficacy predicted greater engagement in job search activities (i.e., number of job applications completed; consistent with Hypothesis 1) and more favorable outcomes of these activities (i.e., number of job offers received; consistent with Hypothesis 2) over a six months' time frame. In Study 2, we set out to replicate and extend these findings in a Finnish context and showed that greater overall efficacy in the peer network of the school context positively predicted respondents'

successful completion of the transition from secondary school to work (or follow up education) over a three year time frame (again consistent with Hypothesis 2).

The size of the peer network did not facilitate the transition from school to work on any of the outcomes assessed in the present studies. Interaction effects further showed that the interaction between respondents' peer network size and the overall efficacy beliefs in their peer network did not predict any of the outcomes assessed. Consequently, the favorable effects of an efficacious peer network hold equally for people with larger and smaller peer groups. Controlling for respondents' access to instrumental career-related social ties showed no significant effects on any of the outcome variables. This lack of an effect might seem surprising as research on adult job seekers as repeatedly documented the benefits of career-relevant social ties in job search processes (Granovetter, 1995; Van Hove et al., 2009). It is possible that respondents have access to instrumental social ties but do not identify and use them as such (Lin, 1999, 2008). However, more likely, novice job seekers who enter the labor market for the first time have not yet built a network of career-relevant ties. For this reason, it is support for taking initiative that characterizes the effect of the peer network.

### **3.7.1. Strengths and Limitations**

The consistency of the finding that an efficacious peer network contributes to the successful mastery of the transition from school to work in both the Netherlands and Finland greatly contributes to the generalizability of our findings. The difference in the targeted outcomes of the two studies allows us to extend our initial results on the effects of an efficacious peer network during the immediate transition period to transitional outcomes over a three-year time frame. Moreover, whereas the Dutch sample is restricted to respondents who have engaged in job search activities and who are actively looking for employment upon their graduation, analyses on the Finnish sample focus on the successful completion of the transition and therefore not solely encompass respondents who have transitioned into employment but also those who have successfully transitioned into further (vocational or non-vocational) education. These results show that our finding that efficacious peers positively contribute to young people's transitional progress and outcomes is not restricted to labor market outcomes.

We further applied an extended approach of measurement to our analyses by assessing the role of peer networks over and above respondents' number of instrumental

social ties. By controlling for respondents' access to social contacts that can facilitate the transition through the provision of practical and instrumental resources we take into account previous research on adult job seekers that has stressed the importance of career-relevant social ties in job search processes (e.g., Granovetter, 1995; Van Hoye et al., 2009).

The key question in the present research was whether an efficacious peer network contributes to young people's engagement in job search behavior and their successful completion of the post-secondary education transition. To assess peer networks, both studies draw on sociometric measures using peer nominations to portray the peer network and to assess each respondent's peers' self-reported efficacy scores through the obtained network information. Instead of asking respondents how efficacious they think their peers are, we used the information obtained through the sociometric survey to assess peers' self-reported efficacy scores and linked these scores to the target respondent. The use of peers' self-reported efficacy beliefs is a major strength of the present research as it avoids the bias that would have occurred if we had asked respondents to rate their peers' efficacy beliefs. Moreover, investigating peers' efficacy beliefs rather than their behavior allows us to take into account the complete peer network in the classroom irrespective of peers' personal future plans. By focusing on peers' cognitions we are able to also include those peers who are efficacious about their competence to perform well at the transition but who are not actively looking for a job because they have decided to pursue further education, have already attained a job, or have different future plans.

A potential limitation lies in the differences between the measurements that have been employed in the two studies. First, whereas in the Dutch sample respondents were free to nominate as many classmates as they liked, responses in the Finnish sample were restricted to a maximum of three possible nominations. Both limited and unlimited nomination procedures have been applied in previous research and are in line with common methods for the assessment of peer relationships (e.g., Coie, Dodge, & Coppotelli, 1982; Newcomb & Bukowski, 1983; Parkhurst & Hopmeyer, 1998), and we believe that this difference in measurement is of minor concern for the present study. Respondents in the Dutch sample who faced no restriction in the maximum number of possible nominations reported on average less than three reciprocal friends in the classroom, showing that a maximum number of three possible nominations fit the

common number of friendship relationships in these samples. A comparison between respondents' peer network size in both samples shows an average number of 2.74 (reciprocal) nominations in the Dutch sample and an average number of 2.75 nominations in the Finnish sample, which underlines this notion.

Second, whereas in the sociometric survey administered to the Dutch sample respondents were asked to nominate their friends in the classroom, respondents in the Finnish sample received a slightly different question ('Who do you like to spend time with the most'). Both direct measures (e.g., 'Who are your friends') and indirect measures (e.g., 'Who do you like') have been applied in previous research on peer relationships (Coie et al., 1982; Newcomb & Bukowski, 1983; Parkhurst & Hopmeyer, 1998) and there is reasonable ground to believe that both questions tap into the same concept of friendship. It can be assumed that respondents in the Finnish sample who were facing a restriction in the maximum number of possible nominations will nominate the three persons that are most important to them as persons whom they most like to spend time with and hence nominate their three closest friends in the classroom.

### **3.7.2. Implications and Future Directions**

Taken together, our findings show that young people who are embedded in a network of efficacious peers can draw benefits from this network in their transitional progress and outcomes at the end of secondary education. Our results also show that it is not the size of the peer network but their peers' efficacy beliefs that matter. This shows that young people who have fewer friends in the classroom and hence a relatively small peer network can nevertheless derive benefits from an efficacious peer network. The benefits of peers in the transitional progress are therefore not exclusive to those young people who are well-connected within their classrooms but also apply to those who are less-well connected. The finding that overall self-efficacy in the peer group initiates greater engagement in job search activities on the individual level may further encourage practitioners who are working with young job seekers to stimulate their interactions with efficacious peers and to extend current individual-level intervention approaches to the peer group level. All in all, our findings contribute to unraveling the mechanisms by which peers can contribute to the mastery of the transition from school to work and give leeway to future research on additional characteristics that may turn a peer network into a supportive environment in this transition.







## **Part II**

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# **Behavioral Implications of the Onset of Employment**



## Chapter 4

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# **The Development of Delinquency in Adolescence: Employment, Gender, SES, and Ethnicity<sup>7</sup>**

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<sup>7</sup> A slightly different version of this chapter is published as: Ruschoff, B., Kretschmer, T., Dijkstra, J. K., & Veenstra, R. (2014). The development of delinquency in adolescence: Employment, gender, SES, and ethnicity. In F. Weerman & C. C. J. H. Bijleveld (eds.), *Criminal behaviour from school to the workplace: Untangling the complex relations between employment, education, and crime* (pp. 23-43). London: Routledge.



#### 4.1. Introduction

Adolescent delinquent behavior and involvement in crime is a wide known problem to society. Delinquent behavior comprises of several kinds of activities such as theft, vandalism, joyriding, and truancy but also violent forms including fighting and weapon carrying. Engagement in these behaviors is not only a burden to society but can also pose restrictions to adolescents' developmental pathways in life. Empirical research has shown that involvement in delinquency does not stay constant over the life course but varies in different stages of life. Age crime curves show that antisocial behavior and delinquency increases in early to mid-adolescence and then declines throughout mid adolescence and emerging adulthood (Moffitt, 1993; Sampson & Laub, 2005). This general pattern can be observed across different samples and has been reported in contemporary as well as past studies. Looking at adolescence in the context of the life course, different developmental pathways of delinquency can be identified. Although two groups with little developmental variation are observable (i.e., stable low delinquent and stable high delinquent), a non-negligible group of young people "takes up" delinquency for the duration of adolescence. In detail, these individuals show delinquency only in adolescence and desist as they transition into adulthood (e.g., Aguilar, Sroufe, Egeland, & Carlson, 2000; Broidy et al., 2003; Nagin, Farrington, & Moffitt, 1995; Odgers et al., 2008). Research on adolescent delinquent behavior has focused on reasons for this increase in engagement in delinquent or antisocial behavior in early and mid-adolescence (e.g., Moffitt, 1993; van Lier, Wanner, & Vitaro, 2007). However, much less is known about the reasons for desistance from delinquency in late adolescence and emerging adulthood.

How can we explain the changes in delinquent behavior and the decline or desistance in most adolescents as they get older whereas others retain this behavior throughout their life course? Our approach is to look at the role of transitions in adolescents' life course. Transitions describe a change in state which may or may not be a turning point. Turning points refer to events that can initiate a change in life trajectories, for instance, elevate adolescents' involvement in delinquency or pull them away from it (e.g., Carlsson, 2012). For many adolescents, one of the most important transitions is the onset of employment (Uggen, 2000). Adolescents' transition into employment may initiate a change in behavior and can cause a decline in delinquent behavior in late adolescence. Recent research by Van der Geest, Bijleveld and Blokland

(2011) as well as by Van den Berg, Bijleveld, Hendriks, and Mooi-Reçi (2012) supports this assumption by showing that entering the labor market and remaining employed decreased delinquent behavior in young sex offenders. However, the mere transition into employment itself may not be sufficient. The effect of employment on delinquency might differ by various factors such as adolescents' age at the onset of employment. We therefore seek to investigate the association between employment and delinquent behavior throughout adolescence and to examine which demographic characteristics facilitate or impede the effect of employment on delinquent behavior. Demographic characteristics may be related to developmental patterns of delinquent behavior independently and in interplay with employment patterns. To account for such interplay, our study also examines the extent to which we can observe developmental variation by gender, socio-economic background, and ethnicity.

#### **4.2. Employment and Changes in Delinquency**

Many attempts have been made to explain the changes in delinquency, which seem to coincide with developmental milestones in late adolescence. The empirical observation that the majority of adolescents desist from delinquent behavior as they get older supports various theoretical assumptions such as Moffitt's (1993) propositions of a Dual Taxonomy of Antisocial Behavior in adolescence which differentiates between 'life-course persistent' and 'adolescence-limited' offenders. The first type constitutes a rather small group of less than 5% of the male population and less than 1% of the female population. This group is usually characterized by specific risks such as impaired cognitive functioning and low self-control – factors that have been found to increase the likelihood for engagement in antisocial or delinquent behavior (e.g., Brennan et al., 2003; Moffitt & Caspi, 2001; Moffitt, Lynam, & Silva, 1994). These individuals show changing manifestations of delinquency across situations and in different stages in life.

The second type, coined "adolescence-limited offenders", constitutes a more common and larger group of adolescents. Individuals on this developmental trajectory do not appear to suffer from underlying neuropsychological problems and have no history of delinquent behavior in childhood. This group tends to show an onset of engagement in delinquent behavior in early adolescence and a decrease in late adolescence or emerging adulthood, with behavior showing little consistency across settings. The inconsistency in adolescent-limited offenders' behavior suggests that delinquent activities may be

reinforced in some and punished in other contexts. For this group of adolescents, delinquent behavior may be a temporal reaction to their environment. Moffitt (1993) proposed that the *maturity gap*, that is, the discrepancy between adolescents' biological maturity and their social and material position in contemporary Western societies, leads adolescent-limited offenders to initially engage in delinquency but also to desist from it once this discrepancy is reduced (e.g., by earning money). During adolescence, adolescence-limited offenders mimic their life-course persistent peers' behavior in order to attain adult status and the associated power and privileges that they associate with the life-course persistent adolescents' deviant behavior. In late adolescence and early adulthood, adolescents experience the transition into formal adult roles. Normatively, older adolescents enter the labor market and obtain formal and legal access to both material goods and adult status. At this stage, delinquent behavior does not provide benefits anymore but poses a substantial risk to the newly gained adult status. For most adolescence-limited offenders, delinquent behavior appears to cease at this age. Two main factors in this line of reasoning are 1) the role of others, especially peers, and 2) the role of the environment that can either discourage or reinforce delinquent behavior.

A different explanation to changes in delinquency throughout adolescence has been forwarded by Sampson and Laub (2005). Their Age-Graded Theory of Informal Social Control states that entering the labor market is accompanied by various changes in adolescents' social environment, among which an increase in their exposure to informal social control. Entrance into the labor market has the potential to initiate changes in adolescents' engagement in delinquent behavior as young people experience the transition from adolescent social roles into adult roles and the associated changes in social structures. Specifically, Sampson and Laub (2005) suggest five potential mechanisms for decreasing engagement in delinquent behavior at life transitions. (1) Transitions provide a cut; they separate the past from the future by changing adolescents' social context. (2) Relationships with peers change. In their novel social contexts, adolescents form new relationships with adults that may offer support and potential for personal growth. (3) New social contexts exercise direct and/or indirect social control over adolescents' behavior. In terms of the workplace, colleagues and superiors monitor young people's behavior and may impose sanctions. (4) Entering institutions such as the workplace changes daily routines and reduces the time adolescents spend in unstructured unsupervised settings with peers. This, in turn, reduces the opportunity to engage in



delinquent behavior. (5) Finally, the transition into different social contexts and the changes in social relationships along with changing roles and responsibilities create situations that allow for identity transformation and may change adolescents' propensity to delinquent behavior.

These mechanisms overlap with other theories of (desistance from) delinquency. Routine Activities Theory (e.g., Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996) states that delinquent and criminal behavior emerges by opportunity and in the absence of supervision or social control. Life transitions such as entering the labor market reduce adolescents' contact with potentially delinquent or criminal peers. Less time spent in unstructured and unsupervised settings reduces the opportunity to engage in delinquent behavior and consequently its prevalence (Warr, 1998). Put differently, exposure to unstructured socializing settings with peers and the absence of instances of punishment or authority enable and encourage delinquent behavior. Research by Haynie and Osgood (2005) provided support for this notion. Adolescents' time spent in unstructured socialization settings with peers was positively related to their engagement in delinquent behavior, even after controlling for their peers' levels of delinquent behavior. In contrast, the more time adolescents spend in structured socialization settings such as the workplace and the more social control they experience, the less likely they are to engage in delinquent behavior.

Whereas previous theoretical approaches emphasize the transition into new contexts, Situational Action Theory (Wikström, 2005) includes adolescents' personal characteristics in the explanation of changes in delinquent behavior. It argues that (im-)moral action and crime can be explained by an interaction between the environment and factors on the individual level (individual propensity). Delinquent behavior is seen as an action that strongly depends on the given environment and the individual's perception of what is right or wrong to do in this environment. Hence, people engage in delinquent behavior because they perceive it as a viable choice of action under the given circumstances. According to Situational Action Theory, changes in delinquent behavior depend on changes in the environment such as the transition into the labor market.

Finally, the notion that changes in the social environment can change engagement in delinquency is not a recent one. Matza's theory of delinquency and drift (see Velarde, 1978 for a review) suggests that delinquent adolescents are committed to neither delinquent nor law-abiding behavior. Instead, they are in a constant stage of drift

between delinquent and non-delinquent behavior. Adolescents engage in delinquent behavior when they are embedded in a peer group that encourages delinquency, but are expected to decline or desist when they leave the delinquent peer group.

#### **4.3. The Effects of a Gradual Onset of Employment**

For some adolescents, graduating from secondary education and entering the workplace represents a clear cut. However, for others the transition into the labor market is not abrupt but a gradual process. In the latter case, adolescents may already engage in part-time employment of different time intensity while still attending school. Their participation in the labor market, which is often characterized by holding one or more part-time jobs, is of a different kind than the participation of those who enter the labor market after completing formal education. Part-time jobs that are available to adolescents are often low-paid and offer little potential for personal growth and little adult supervision (Wright, Cullen, & Williams, 2002). Instead of providing adolescents with a contextual change that discourages delinquent or criminal behavior, engagement in part-time jobs in school-aged adolescents may in fact increase their delinquent behavior (Wright et al., 2002). Moreover, school-aged adolescents who choose part-time employment may be more focused on gaining material wealth than their non-employed peers who choose to invest their time in education, sports, or other hobbies. Because material wealth is not readily available at this age, adolescents who value material goods may also resort to more delinquent means of attaining these goods. Thus, whereas entering the labor market on a full-time basis following completion of formal education seems to support a decline in delinquency, part-time employment in adolescence might yield the opposite effect.

#### **4.4. The Present Study**

This study aims to investigate the association between employment and delinquency throughout adolescence, comparing effects at different ages. It is expected that employment in late adolescence is associated with decreased delinquent behavior, whereas employment at an early age is associated with increased delinquent behavior. Analyses of the development of delinquency throughout adolescence will show whether the transition into the labor market coincides with changes in delinquent behavior. Additionally, demographic factors are taken into account to investigate whether

associations between employment and delinquency are different for specific groups within the population. Prior research has shown that adolescent delinquent behavior differs according to a number of demographic factors. First, gender comparisons have indicated that males show more delinquent behavior than females (Moffitt, Caspi, Rutter, & Silva, 2001). Second, it has been shown that adolescents from lower socio-economic backgrounds have a higher risk of delinquency than their peers who grew up in more advantaged socio-economic conditions (Moffitt et al., 2001). Finally, research among Dutch adolescents has found that associations between adolescents' relationships with parents and peers and their levels of delinquency vary by ethnicity (Dekovic, Wissink, & Meijer, 2004).

## **4.5. Method**

### **4.5.1. The Data**

To examine the associations between employment and delinquency throughout adolescence, we use data from the TRAILS (TRacking Adolescents' Individual Lives Survey) study, a Dutch cohort study conducted in the North of the Netherlands with bi- or triennial measurements from age 11 to at least age 25 (De Winter et al., 2005; Huisman et al., 2008; Nederhof et al., 2012; Oldehinkel et al., 2014). Of the initially contacted target sample ( $N = 2935$ ),  $n = 2230$  (76.0%) children were enrolled in the first measurement wave in 2000 and 2001 ( $M_{\text{age}}$ : 11.09,  $SD = .55$ ; 50.8% female) with high retention rates in the following waves; 96.4% at T2 ( $n = 2149$ ;  $M_{\text{age}}$ : 13.5,  $SD = .53$ ; 51.0% female); 83.0% at T3 ( $n = 1816$ ;  $M_{\text{age}}$ : 16.30,  $SD = .73$ ; 52.1% female) and 84.3% at T4 ( $n = 1881$ ;  $M_{\text{age}}$ : 19.1,  $SD = .60$ ; 52.3% female). Longitudinal information allows us to examine changes in the domains of employment and delinquency. The present study uses information on delinquency on all four time points and information on employment from T2 onwards.

### **4.5.2. Measures**

#### **4.5.2.1. Delinquency**

Delinquency was measured using items from the Antisocial Behavior Questionnaire (ASBQ, Moffitt & Silva, 1988) that tap into delinquent behaviors. Questions in this measure included "How often have you destroyed something on purpose?" or "How often have you stolen something from a shop?". Across all waves, the ASBQ was

administered with a slightly varying number of items, reflecting developmental appropriateness of the measures: T1 (31 items,  $\alpha = .88$ ), T2 (26 items,  $\alpha = .86$ ), T3 (28 items,  $\alpha = .86$ ), and T4 (29 items,  $\alpha = .88$ ). At all times, items on the list were rated as (0) *no/never*, (1) *once*, (2) *two or three times*, (3) *four to six times*, and (4) *seven times or more*. When investigating delinquent or antisocial behavior it has been recommended to differentiate between the total number of all acts that were committed and the range of different acts (Bendixen, Endresen, & Olweus, 2003). Therefore, delinquency has been operationalized to tap into adolescents' frequency of delinquent behavior and the variety of behaviors they engage in. *Frequency scores* represent the number of times a delinquent act has been committed. They give an indication of the volume of acts committed by each participant. They are calculated by adding the responses to the different items of the ASBQ into a composite score. *Variety scores* represent the range of different acts committed by each participant. They are calculated by taking the sum of scores of each different type of delinquent behavior exhibited by each participant. How often each type of behavior has been committed is not relevant.

#### 4.5.2.2. Employment

Starting from T2, information is available on whether or not participants were employed at the time of measurement at each wave. A dichotomous variable has been devised for each wave to characterize participants as either working (1) or non-working (0). At T2 and T3, this indicator refers to working in part-time jobs next to following education, given the age of the respondents. At T4, participants may have already completed their formal education. To account for this, all analyses at T4 were repeated with four conditions to differentiate between participants who are (1) not working and not following education, (2) working only, (3) following education only, and (4) working and following education at the same time.

At T2, 11% ( $n = 245$ ) of all participants were working whereas 82.5% ( $n = 1835$ ) were not working (6.5% of adolescents did not provide data on this item). At T3, 28.2% ( $n = 628$ ) of all participants were working whereas 44.8% ( $n = 999$ ) were not (27.0% missing). On T4, 52.9% ( $n = 1180$ ) of all participants were working whereas 23.7% ( $n = 528$ ) were not (23.4 % missing). Splitting information derived at T4 into the aforementioned categories shows that 3.5% ( $n = 77$ ) of all participants were not working and not following any education, 7.0% ( $n = 157$ ) were solely working, 20.2% ( $n = 450$ )

were solely following education, and 45.3% ( $n = 1010$ ) were combining work and education (24.0% missing).

At T3 and T4, percentages of missing information on the employment status of adolescents were rather high. Comparison of mean scores shows that adolescents who provided information on employment did not significantly differ in delinquency from adolescents who did not provide information on employment at T3 ( $F(1,1624) = 1.65$ , *n.s.* for frequency and  $F(1,1624) = 2.47$ , *n.s.* for variety) and T4 ( $F(1,1648) = 1.11$ , *n.s.* for frequency and  $F(1,1648) = 0.12$ , *n.s.* for variety). Also, there were no significant ethnic differences between adolescents who did or did not provide information on their employment status at T3 ( $\chi^2(8,1627) = 13.94$ , *n.s.*) and T4 ( $\chi^2(8,1708) = 9.89$ , *n.s.*). However, more males than females did not provide information on employment at T3 ( $\chi^2(1,1627) = 21.87$ ,  $p < .01$ ) and T4 ( $\chi^2(1,1708) = 7.11$ ,  $p < .01$ ). Also, adolescents who did or did not provide information differed in their socio-economic background at T3 ( $\chi^2(2,1608) = 7.78$ ,  $p = .02$ ) and T4 ( $\chi^2(2,1685) = 22.36$ ,  $p < .01$ ), with adolescents from lower socio-economic backgrounds being underrepresented.

#### **4.5.2.3. Demographic Factors**

Gender was coded as 0 = *female* and 1 = *male*. Scores for adolescents' socio-economic background were based on parent-reported information on maternal and paternal education, occupation level of both parents, and household income. After standardization, the five variables were combined into one measure of socio-economic status (SES;  $\alpha = 0.84$ ). Next, SES has been classified into three categories, with the upper 25% on the scale being classified as high SES ( $n = 553$ ), the middle 50% as middle SES ( $n = 1084$ ), and the lower 25% as low SES ( $n = 551$ ). Finally, participants have been classified according to their ethnicity. Of the total sample, 86.5% ( $n = 1928$ ) indicated being Dutch and 13.5% ( $n = 302$ ) indicated being non-Dutch. Given the variety of countries of origin among the non-Dutch participants, ethnicity has been dichotomized as 0 = *non-Dutch* and 1 = *Dutch*.

#### **4.6. Results**

Trajectories of delinquent behavior throughout adolescence were examined. First, changes in adolescents' frequency of engagement in delinquent behavior and the variety of delinquent behaviors exhibited were compared from T1 to T4, covering the age

groups between 11 and 19 years. Second, the role of employment in delinquent behavior was examined. For all analyses, demographic factors were taken into account.

#### 4.6.1. Delinquency throughout Adolescence

In the following section, each analysis has been conducted in two ways to assess changes in both adolescents' frequency of delinquent behavior and the variety of delinquent behaviors they engage in. First, three paired sample t-tests were conducted to compare the changes in adolescents' frequency of delinquent behavior between subsequent time points, that is, from T1 to T2, from T2 to T3, and from T3 to T4. Overall, engagement in delinquency was modest at all assessments. Still, there is a clear decline in both the frequency and the variety of delinquent acts observable as adolescents grow older. Results show that there was a significant decline in delinquency from T1 ( $M = .32$ ,  $SD = .33$ ) to T2 ( $M = .29$ ,  $SD = .33$ ;  $t(2064) = 3.88$ ,  $p < .01$ ), a significant decline from T2 ( $M = .27$ ,  $SD = .30$ ) to T3 ( $M = .22$ ,  $SD = .30$ ;  $t(1627) = 5.48$ ,  $p < .01$ ), and from T3 ( $M = .21$ ,  $SD = .28$ ) to T4 ( $M = .07$ ,  $SD = .15$ ;  $t(1452) = 20.90$ ,  $p < .01$ ). Second, the same strategy was applied to examine changes in the variety of delinquent behaviors. Again, results show a significant decline from T1 ( $M = .19$ ,  $SD = .15$ ) to T2 ( $M = .17$ ,  $SD = .15$ ;  $t(2064) = 8.76$ ,  $p < .01$ ), from T2 ( $M = .15$ ,  $SD = .14$ ) to T3 ( $M = .12$ ,  $SD = .14$ ;  $t(1627) = 8.98$ ,  $p < .01$ ), and from T3 ( $M = .12$ ,  $SD = .13$ ) to T4 ( $M = .05$ ,  $SD = .08$ ;  $t(1452) = 22.43$ ,  $p < .01$ ). Results are displayed in Figure 4.1.

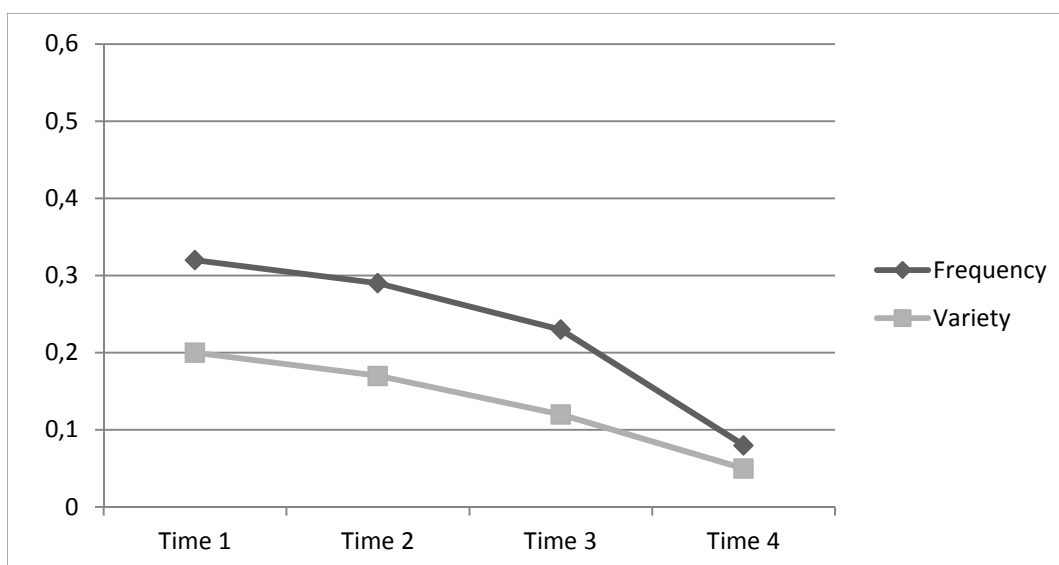


Figure 4.1. Frequency and Variety of Delinquent Behavior from T1 to T4

### 4.6.2. Demographic factors

In the following, changes in delinquency throughout adolescence were examined separately for (1) males and females, (2) adolescents with a high, middle, and low SES, and (3) adolescents of Dutch and non-Dutch ethnicity. Descriptive statistics of these analyses are depicted in Table 4.1.

#### 4.6.2.1. Gender

A repeated-measures ANOVA was conducted to compare the association between gender and delinquent behavior at different time points. Results show a significant between-subjects effect of gender, indicating that males and females differ in their frequency of delinquent behavior ( $F(1,1424) = 153.01, p < .01$ ). At all waves, males exhibited delinquent behaviors more frequently than girls ( $F(1,2204) = 241.03, p < .01$  at T1;  $F(1,2081) = 96.22, p < .01$  at T2;  $F(1,1656) = 82.44, p < .01$  at T3;  $F(1,1651) = 85.61, p < .01$  at T4). Within-subject effects of the repeated-measures ANOVA yielded a significant interaction between time and gender (Wilk's Lambda = 0.96,  $F(3,1422) = 22.49, p < .01$ ), indicating that males and females change in delinquent behavior over time in different ways. A series of three paired-samples t-tests run separately for males and females shows that in line with the overall pattern, males constantly and significantly decline in delinquency from one wave to the next. In females, the onset of decline in delinquency appears to be later than for males. There is no significant difference in female delinquent behavior between T1 and T2. From T2 onwards, delinquent behavior declines significantly from one wave to the next.

Results of a repeated-measures ANOVA are consistent with these findings, showing that males and females also differ in their variety of delinquent behaviors ( $F(1,1424) = 168.43, p < .01$ ). Similar to adolescents' frequency of delinquent behavior, males show a greater variety of delinquent behaviors than girls at all waves ( $F(1,2202) = 226.88, p < .01$  at T1;  $F(1,2083) = 119.25, p < .01$  at T2;  $F(1,1656) = 93.37, p < .01$  at T3;  $F(1,1651) = 106.29, p < .01$  at T4). Within-subject effects of the repeated-measures ANOVA show that the interaction between time and gender was significant (Wilk's Lambda = 0.97,  $F(3,1422) = 13.59, p < .01$ ). Just as frequency of delinquent behavior significantly declines with each consecutive wave, so does variety. This is true for both genders. However, the delayed onset of decline in delinquent behavior that has been shown in girls' frequency of delinquent behavior does not hold for the variety of these.

#### 4.6.2.2. SES

Group comparisons show that differences between adolescents of high, middle, and low SES are significant at T1 ( $F(2, 1405) = 4.37, p < .05$ ), T2 ( $F(2, 1405) = 4.05, p < .05$ ) and T3 ( $F(2, 1405) = 5.90, p < .01$ ), although it should be noted that these effects are driven by the difference between adolescents of high and low SES. At T4, adolescents from different socio-economic backgrounds do not differ in their frequency of delinquent behavior anymore ( $F(2, 1405) = 1.88, n.s.$ ). A repeated-measures ANOVA was conducted to examine the differences in frequency of delinquent behavior of adolescents with different socio-economic backgrounds over time. Between-subject effects were significant ( $F(2, 1405) = 7.29, p < .05$ ), showing that adolescents from different socio-economic backgrounds differ in the frequency with which they engage in delinquent behavior. The interaction between time and SES was not significant, indicating that adolescents do not differ in the overall way in which their delinquent behavior changes over time. A series of three paired-samples t-tests ran separately for adolescents of low, middle, and high SES at all waves shows that whereas adolescents with a high and middle SES show a decline in delinquency between all consecutive waves, adolescents with a low SES show a delayed onset of decline. Although adolescents with a low SES also show slight decreases in delinquent behavior throughout T1 to T3, this decrease only becomes significant between T3 and T4.

Adolescents' variety in delinquent behavior was shown to differ by their socio-economic background ( $F(2, 1407) = 7.20, p > .01$ ). Group comparisons show that adolescents of high, middle, and low SES significantly differ in their variety of delinquent behavior at T1 ( $F(2, 1407) = 3.26, p < .05$ ), T2 ( $F(2, 1407) = 7.10, p < .01$ ) and T3 ( $F(2, 1407) = 4.80, p < .01$ ), with only differences between high and low SES being significant at  $p < .06$  trend level. At T4, adolescents from different socio-economic backgrounds do not show significant differences in the variety of delinquent behaviors they engage in ( $F(2, 1407) = .98, n.s.$ ). The interaction between time and SES was not significant.

#### 4.6.2.3. Ethnicity

Separate group comparisons show that Dutch and non-Dutch adolescents do not significantly differ in the frequency with which they engage in delinquency throughout most of adolescence. Only at T2 ( $t(2081) = 3.92, p < .01$ ) do non-Dutch adolescents



engage in delinquent behaviors more frequently than their Dutch peers. A repeated-measures ANOVA was conducted to examine the associations between ethnicity and delinquency at different time points. Between-group effects were not significant, indicating that Dutch and non-Dutch adolescents do not differ in the frequency with which they engage in delinquent behavior. However, a series of paired-sample t-tests show that whereas Dutch adolescents constantly decline in delinquent behavior, the onset of decline is delayed for non-Dutch adolescents. Among non-Dutch adolescents, the observed declines in delinquent behavior are only significant between wave T2 and wave T3 and again between wave T3 and wave T4 but not between T1 and T2.

Similar to adolescents' frequency of delinquent behavior, a repeated-measures ANOVA showed that Dutch and non-Dutch adolescents do not differ in their variety of delinquent behavior. A paired-sample t-test shows a constant significant decline in the variety of delinquent behaviors exhibited by Dutch adolescents between each wave. Non-Dutch adolescents again show a delayed onset of decline that is significant only between T2 and T3 and between T3 and T4. Consequently, only at T2 do non-Dutch adolescents show a significantly greater variety of delinquent behaviors than Dutch adolescents ( $t(2083) = 4.09, p < .01$ ).



### 4.6.3. The Role of Employment in Delinquency

In the following sections, we look at the association between employment and delinquency across time. Due to the young age of participants at T1 and lack of information about employment, we exclude T1 and focus our analyses on T2 to T4. As stated earlier, participants may have finished formal education at T4. To account for this, all analyses at T4 have been computed with four conditions to account for participants who are (1) not working and not following education, (2) working only, (3) following education only, and (4) working and following education at the same time.

Results show that adolescents who are working at T2 show significantly higher frequencies of delinquent behavior than their non-working peers ( $t(2078) = -5.17, p < .01$ ). However, at T3 ( $t(1624) = 1.29, n.s.$ ) and T4 ( $t(1256) = .08, n.s.$ ), working and non-working adolescents do not differ in their frequency of delinquent behavior anymore. Neither the differences between working and non-working participants were significant at T4, nor when groups were divided into four conditions. Similar results were found for adolescents' variety of delinquent behaviors. Whereas adolescents who are employed at T2 exhibit a significantly greater variety of delinquent behaviors than their non-employed peers ( $t(2080) = -5.66, p < .01$ ), this pattern is not evident at T3 ( $t(1624) = 1.57, n.s.$ ) and T4 ( $t(1256) = .05, p < .10$ ). Again, results at T4 did not change when repeating the analyses with the four conditions. Results are displayed in Figure 4.2.

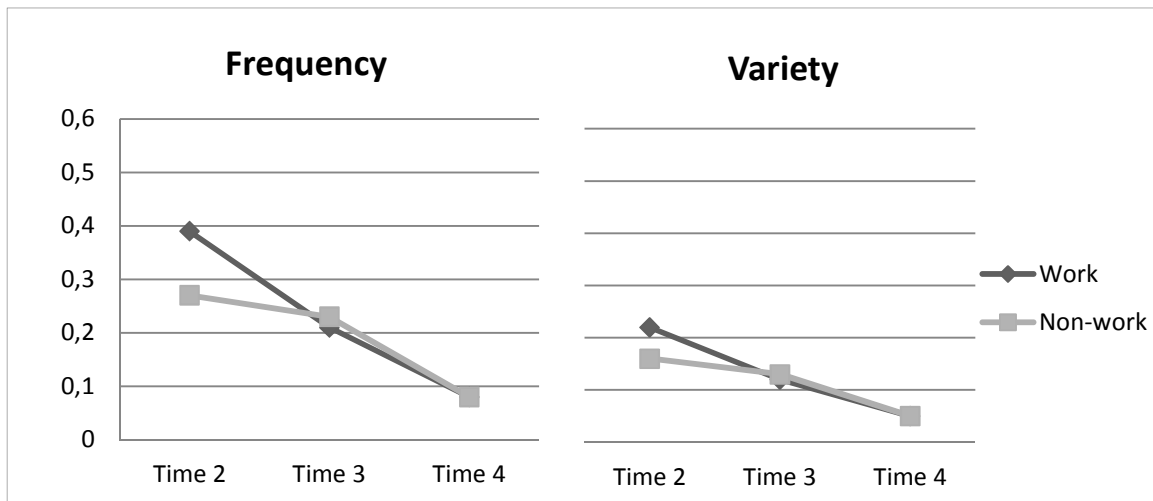


Figure 4.2. Differences in Frequency and Variety of Delinquent Behavior in Working and Non-Working Adolescents at T2-T4.

#### 4.6.3.1. Demographic Factors

##### 4.6.3.1.1. Gender

ANOVAs conducted to investigate gender differences in working and non-working adolescents' frequency of delinquent behavior yielded significant differences between the four groups ( $F(3,2076) = 39.80, p < .01$ ). Post-hoc analyses indicated that in line with overall findings, males engage in delinquent behavior more frequently than females and that males and females who are employed at T2 both engage in delinquent behaviors more frequently than their non-employed counterparts. The frequency of delinquent behavior in working females does not significantly differ from that of non-working males. At T3 and T4, overall gender differences between males and females persist, but working males and females do not differ significantly from their non-working peers. Results can be found in Table 4.2 and are displayed in Figure 4.3. Results concerning the variety of delinquent behaviors mirror the patterns observed in frequency of delinquent behaviors.

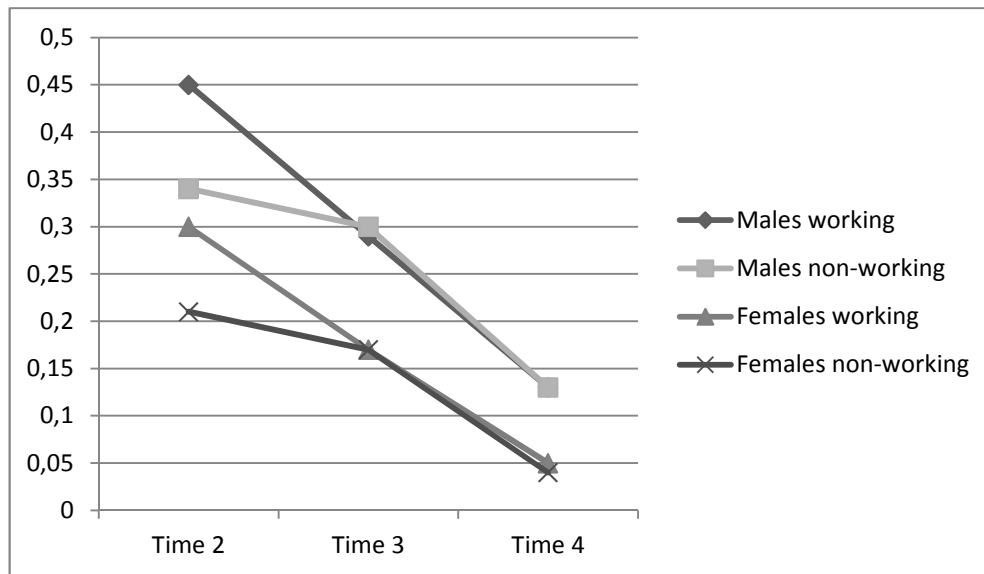


Figure 4.3. Gender Differences in the Frequency Delinquent Behavior according to Employment Status.

Table 4.2.

Descriptive Statistics of Gender Differences in Delinquent Behavior of Working vs. Non-Working Adolescents.

Delinquency	Employment	Gender			
		Male	<i>n</i>	Female	<i>n</i>
Time 2	Working	.45 (.42)	138	.30 (.32)	107
	Non-working	.34 (.36)	879	.21 (.25)	961
Time 3	Working	.29 (.35)	246	.17 (.23)	382
	Non-working	.30 (.34)	510	.17 (.24)	489
Time 4	Working	.13 (.23)	591	.05 (.11)	589
	Non-working	.13 (.23)	258	.04 (.10)	270
Variety		Male		Female	
Time 2	Working	.26 (.18)		.17 (.17)	
	Non-working	.19 (.17)		.13 (.13)	
Time 3	Working	.16 (.16)		.09 (.11)	
	Non-working	.15 (.16)		.10 (.12)	
Time 4	Working	.07 (.10)		.03 (.06)	
	Non-working	.07 (.10)		.03 (.06)	

#### 4.6.3.1.2. SES

We next examined whether the associations between employment and delinquency vary by adolescents' socioeconomic background. When looking at the frequency with which adolescents engage in delinquent behavior, no differences between working and non-working adolescents of high, middle, and low SES could be observed at T2 ( $F(2,2043) = .36, n.s.$ ) and T4 ( $F(2,1236) = 3.08, n.s.$ ). At T3, groups differed significantly ( $F(2,1601) = 3.50, p < .05$ ). Post-hoc Bonferroni comparisons indicated that non-working adolescents from low socio-economic backgrounds showed significantly more delinquent behavior than all other groups except for working adolescents with a low socio-economic background. It seems that the observed differences relate more to adolescents' SES than their employment status.

When looking at the variety of delinquent behavior that adolescents' engage in, the observed patterns of behavior are similar to the findings concerning their frequency of behavior. Groups do not differ at T2 ( $F(2,2045) = .74, n.s.$ ) and T4 ( $F(2,1236) = 2.13, n.s.$ ). At T3, groups again differ significantly ( $F(2,1601) = 3.86, p < .05$ ). Post-hoc Bonferroni comparisons show that non-working adolescents with a low socioeconomic background show a significantly greater variety of delinquent behavior than all other groups. Results can be found in Table 4.3 and are displayed in Figure 4.4.

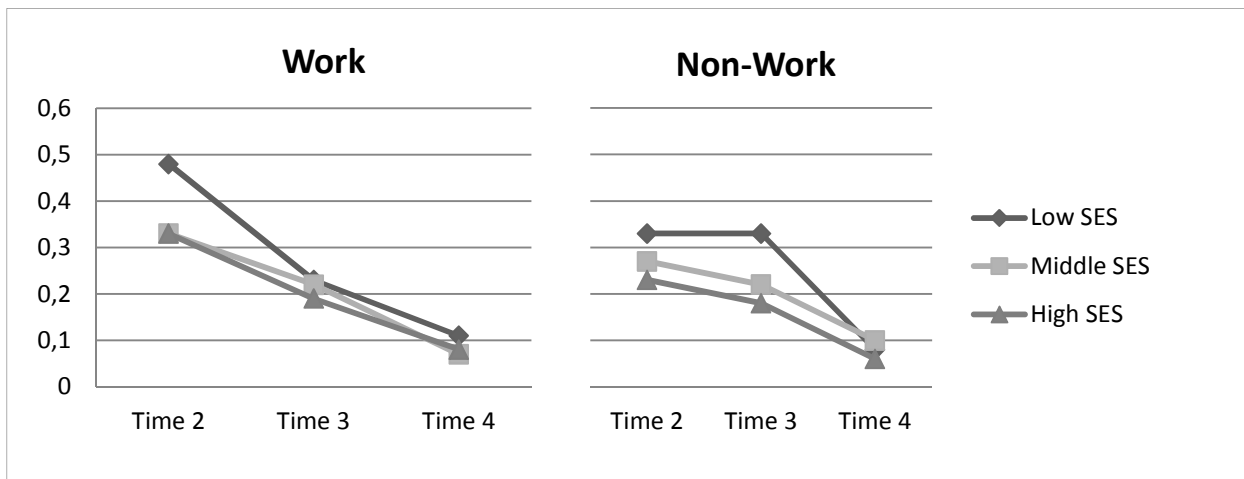


Figure 4.4. SES Differences in the Frequency Delinquent Behavior according to Employment Status.

Table 4.3.

Descriptive Statistics of SES Differences in Delinquent Behavior of Working vs. Non-Working Adolescents.

Delinquency	Employment	SES					
		High	<i>n</i>	Middle	<i>n</i>	Low	<i>n</i>
Time 2	Working	.33 (.42)	55	.33 (.35)	138	.48 (.44)	48
	Non-working	.23 (.29)	474	.27 (.31)	884	.33 (.35)	450
Time 3	Working	.19 (.29)	158	.22 (.28)	324	.23 (.30)	136
	Non-working	.18 (.23)	316	.22 (.28)	463	.33 (.41)	210
Time 4	Working	.08 (.15)	220	.07 (.14)	430	.11 (.25)	201
	Non-working	.06 (.14)	125	.10 (.20)	209	.08 (.16)	57
Variety		High	Middle		Low		
Time 2	Working	.18 (.16)	.21 (.17)		.27 (.19)		
	Non-working	.14 (.13)	.16 (.15)		.19 (.17)		
Time 3	Working	.10 (.13)	.12 (.13)		.12 (.13)		
	Non-working	.10 (.12)	.12 (.14)		.17 (.17)		
Time 4	Working	.05 (.08)	.05 (.07)		.06 (.10)		
	Non-working	.04 (.06)	.06 (.10)		.05 (.08)		

#### 4.6.3.1.3. Ethnicity

Moreover, we examined whether the associations between employment and delinquency differ for adolescents with a Dutch and a non-Dutch ethnic background. At T2, groups differ significantly in their frequency of delinquent behavior ( $F(3,2076) = 4.06, p < .05$ ). Non-Dutch adolescents show more frequent delinquent behavior than Dutch adolescents and both working Dutch and working non-Dutch adolescents show more frequent delinquent behavior than their non-working ethnic counterparts. Working adolescents of Dutch origin and non-working adolescents of non-Dutch origin do not significantly differ in their frequency of delinquent behavior. At T3 and T4, groups show no significant differences in delinquency anymore. Patterns of adolescents' variety of delinquent behavior mirror patterns of frequency. Results can be found in Table 4.4 and are displayed in Figure 4.5.

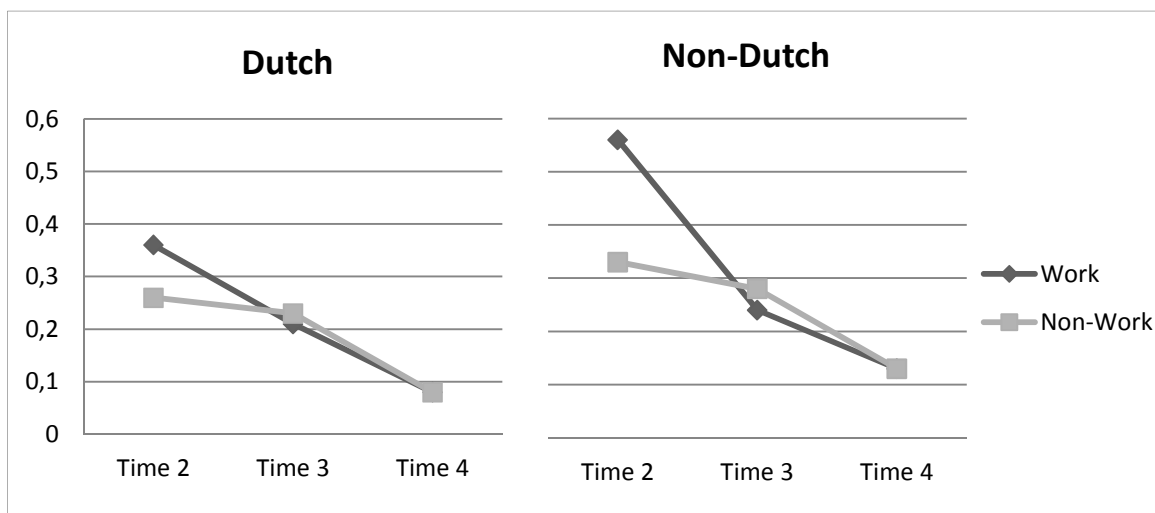


Figure 4.5. Ethnicity Differences in the Frequency Delinquent Behavior according to Employment Status.



Table 4.4.

*Descriptive Statistics of Ethnic Differences in Delinquent Behavior of Working vs. Non-Working Adolescents.*

<b>Delinquency</b> <b>Frequency</b>	<b>Employment</b>	<b>Ethnicity</b>			
		<b>Dutch</b>	<b><i>n</i></b>	<b>Non-Dutch</b>	<b><i>n</i></b>
Time 2	Working	.36 (.38)	214	.56 (.41)	31
	Non-working	.26 (.35)	1601	.33 (.36)	234
Time 3	Working	.21 (.29)	576	.24 (.25)	52
	Non-working	.23 (.30)	868	.28 (.36)	130
Time 4	Working	.08 (.16)	771	.13 (.26)	91
	Non-working	.08 (.17)	351	.13 (.23)	45
<b>Variety</b>		<b>Dutch</b>		<b>Non-Dutch</b>	
Time 2	Working	.20 (.17)		.32 (.19)	
	Non-working	.16 (.15)		.18 (.17)	
Time 3	Working	.12 (.13)		.12 (.11)	
	Non-working	.12 (.14)		.15 (.16)	
Time 4	Working	.05 (.08)		.07 (.11)	
	Non-working	.05 (.08)		.07 (.11)	

#### 4.6.3.1.4. Multiway Interactions

Finally, we examined if the different demographic factors under study interact to explain changes in adolescents' engagement in delinquency. At T2 and T3, none of the three or four-way interactions between the variables gender, SES, ethnicity, and employment was significant. At T4, the three-way interaction between employment, ethnicity and SES was significant ( $F(2,1218) = 3.68, p < .05$ ). A similar effect is found for adolescents' variety of delinquent behavior ( $F(2,1218) = 3.41, p < .05$ ). Figure 4.6 depicts the results of the three-way interaction for adolescents' frequency of delinquent behavior. As can be seen, Dutch adolescents of all socioeconomic backgrounds show rather low levels of delinquency whether they are working or not. However, the effect of employment on delinquent behavior seems to be especially salient for non-Dutch adolescents of varying socioeconomic backgrounds. Non-Dutch adolescents from a low socio-economic background showed substantially higher levels of delinquent behavior than all other groups when working ( $M = .17, SD = .37$ , see left panel of Figure 4.6). However, the same

group showed the lowest levels of delinquent behavior when not working ( $M = .02$ ,  $SD = .02$ ; see right panel of Figure 4.6). This group's behavior seems to be strongly affected by employment status. Notably, the effect appears to be reversed for non-Dutch adolescents of middle and high SES, who show higher levels of delinquent behavior when non-working rather than working.

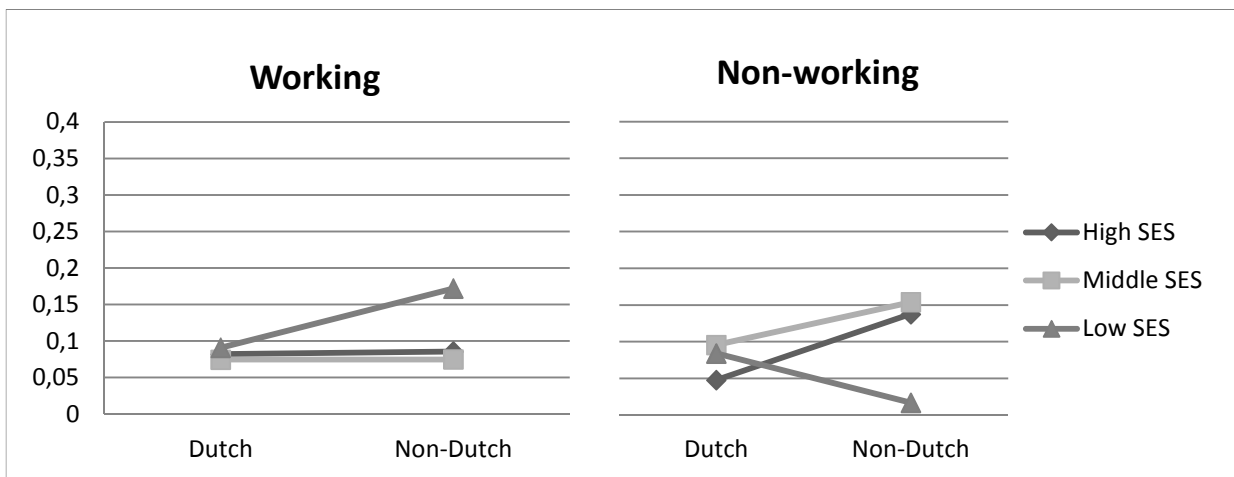


Figure 4.6. Effects of Ethnicity and SES on Delinquency in Working and Non-Working Adolescents at T4.

#### 4.7. Discussion

In this chapter, we examined to what extent developmental patterns of delinquency in adolescence differ by gender, socio-economic status, ethnicity, and participation in the labor market, using data from a longitudinal cohort study of Dutch adolescents. To this end, we examined both frequency and variety of delinquent behaviors. Whereas the former indicates the overall frequency of delinquent acts, the latter represents the number of different delinquent acts adolescents were involved in. Because results were largely consistent for both types, we will discuss the findings for delinquency in general.

The analyses revealed a clear trend towards decreasing levels of engagement in delinquency even though initial levels were already relatively low. Patterns of decrease, however, varied by gender, socioeconomic status, ethnicity, and employment situation. First, it appeared that boys scored higher on delinquency across adolescence than girls. Girls showed a delayed decline in delinquent behavior, starting after T2, instead of a linear decrease from T1 to T4 as found for boys. A potential explanation for this pattern may be that early-adolescent girls engage in delinquent behavior in the context of older, male peer

groups rather than with age-mates (especially if their biological maturation occurs at that time; Moffitt, Caspi, Rutter, & Silva, 2001; Veenstra, Huitsing, Dijkstra, & Lindenberg, 2010). Given that overall levels of delinquency remained higher for boys than for girls across the course of adolescence, girls may not decline in delinquency as soon because of their involvement with older boys. Moreover, it has been suggested that some girls show a delayed onset of delinquency (Silverthorn & Frick, 1999). We may not have captured the more extreme expressions of this in our sample of relatively low delinquent adolescents but the “delayed-decline” of girls in our sample corresponds to this idea. In detail, some girls are assumed to be affected by the same risk factors as early-onset boys but act out only from a later stage. In any case, these results require further research and it should not be overlooked that even though girls decline slower, their overall levels of delinquency are lower than those for boys.

Second, although adolescents from low socio-economic backgrounds initially scored highest on delinquency, this difference with middle and high SES adolescents declined and eventually disappeared during adolescence. Third, a similar pattern was found for non-Dutch versus Dutch adolescents. Non-Dutch adolescents started off with higher levels of delinquent behavior but decreased more than Dutch adolescents, resulting in the same levels of delinquent behavior at the end of adolescence. Although a plethora of studies have examined differences in delinquent behavior by SES and membership in minority versus majority ethnic groups, little is known about developmental trends in differences that were the focus of this study. Discrepancies seem to diminish which may have different reasons, ranging from specific effects of secondary schooling (most of the participants in this sample changed schools between T1 and T2) or normative developmental effects that are more strongly observable in adolescents with initially high levels of delinquency. Future research is called to replicate and further elucidate these patterns.

#### **4.7.1. Employment and Delinquency**

The main focus of this study was the role of employment in delinquency. On the one hand, employment in late adolescence and emerging adulthood is seen as an important transition to the adult world with corresponding roles and responsibilities, and therefore an important demarcation point in the decline in delinquency. On the other hand, employment in early and mid-adolescence is mostly part-time, low-wage work that does

not provide adolescents with the same stability and social control as full employment in adulthood would do (Lustig & Liem, 2010). Given the lack of these important factors, part-time employment in early and mid-adolescence might also have detrimental effects on delinquency. When developmental trends in delinquent behavior and engagement in part-time employment were observed conjointly, three key findings emerged. First, adolescents who engaged in part-time employment in early adolescence showed the highest levels of delinquent behavior among early adolescents. Secondly, this effect was only observed in early adolescence and not at later stages. Thirdly, non-Dutch adolescents from disadvantaged socioeconomic backgrounds who also worked scored highest in delinquent behavior in late adolescence, whereas the same group also showed the lowest level of delinquent behavior when not working. Note that it was assessed whether each adolescent was employed independently at each wave and that groups of employed and non-employed adolescents are not identical across waves.

Why do we observe such high levels of delinquency in part-time employed early adolescents? Or stated differently, why might delinquent early adolescents be more likely to seek part-time employment? Not observed in this study is materialism as a factor that may contribute both to delinquent behavior and part-time work. Adolescents who place high value on material goods and financial status may be more likely to engage in both of these behaviors to obtain goods in legit or illegitimate ways. Previous research has suggested that adolescent delinquents are neither committed to delinquent nor to conventional societal norms but drift between both (see Velarde, 1978). This supports the notion that delinquent adolescents with high material values might next to delinquent behavior also draw on legal and more conventional manners to gain material goods and seek employment. Notably, SES and ethnicity further moderated the association between delinquency and employment – non-Dutch adolescents from low SES backgrounds were at particularly high risk for delinquent behavior when they were also engaged in part-time employment. Future studies are well advised to include values and beliefs such as materialism to shed further light at such patterns.

#### **4.7.2. Limitations and Future Directions**

Despite the insights into demographic differences in delinquency and co-development of delinquent behavior and adolescent engagement in employment, our study is not free of limitations. The adolescents in our sample showed relatively low levels of delinquent

behavior throughout the course of the study, which might have different reasons and consequences. For instance, rater bias might have been an issue given that adolescents reported themselves on their behavior. Moreover, we did not differentiate between minor and more serious forms of delinquent activities. Higher averages and different developmental trends and associations might emerge when different forms of delinquency are examined separately. For instance, aggressive delinquency (e.g., fighting, weapon carrying, and mugging) are more commonly observed in early-onset persistent offenders. Their persistent pathway means that we would not expect this group to refrain from delinquency upon entrance into the labor market. Thus, associations between employment and aggressive and non-aggressive forms of delinquency may require separate theoretical foundations and analyses. When it comes to sample composition, our sample is biased towards adolescents of Dutch background, which may have resulted in more ethnicity differences to remain undetected. Also, at T3 and T4, there are rather high levels of missing information on adolescents' employment status. Adolescents who did and did not provide information on their employment status did not differ in terms of delinquency. However, males and adolescents from a low socio-economic background were underrepresented among adolescents who provided information on employment at both waves. We cannot exclude the possibility that the higher amount of missing information in these groups influenced the results. Moreover, our analyses focused on differences in delinquency based on multiple demographic characteristics as well as a combination of these characteristics. For some group compositions, especially groups focusing on ethnic minorities, this yielded rather small sample sizes. Future studies may specifically focus on these minority groups and selectively sample according to certain demographic characteristics. Also, the data of the TRAILS study are not (yet) suited to explore the long-term course of delinquent behavior. Only seven percent of the participants made the transition to full-time employment in late adolescence, indicating that the vast majority did not yet enter the labor market completely. Future assessments will allow a more detailed examination of the impact that the transition from school to work has on the development of delinquency. Finally, exploring potentially differential patterns for boys and girls in more depth may be an interesting avenue for further research given likely differences in the types of employment that males and females seek.

Despite these limitations, this study revealed a detailed description of how delinquency develops in adolescence and the way employment as well as gender,

socioeconomic status, and ethnicity affect these developmental patterns. Counselors and mentors working with young people may benefit from the insights of this study and show greater awareness for the potential differences in the link between employment and delinquency for different demographic subgroups. This study has particularly shown that the onset of employment is not necessarily a turning point in young people's engagement in delinquent behavior, and that the timing of the onset of employment is an important factor.



## Chapter 5

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# **Peer Status beyond Adolescence: Types and Behavioral Associations<sup>8</sup>**

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<sup>8</sup> This chapter is co-authored with Jan Kornelis Dijkstra, René Veenstra, and Siegwart Lindenberg. A slightly different version of this chapter has been revised and re-submitted at an international peer-reviewed journal.





### 5.1. Introduction

A prominent characteristic of the adolescent peer culture and a strong predictor of emotional and behavioral adjustment is individuals' status in the peer group (Coie, Dodge, & Coppotelli, 1982; Dijkstra, Lindenberg, & Veenstra, 2008; Dijkstra, Lindenberg, Verhulst, Ormel & Veenstra, 2009; Parkhurst & Hopmeyer, 1998). Especially the distinction between affective measures of liking or acceptance and reputational measures of popularity has received widespread attention (e.g., Mayeux, Houser, & Dyches, 2011; Parkhurst & Hopmeyer, 1998). However, whereas extensive research has been conducted on the nature and behavioral associations of peer status in childhood and adolescence (Coie et al., 1982; Dijkstra et al., 2009; Lease, Kennedy, & Axelrod, 2002; Parkhurst & Hopmeyer, 1998), knowledge on peer status beyond adolescence is scarce. Research on peer status in this developmental period can help researchers understand motivations of behavior in this age group and shed light on the presumed long-term developmental implications of peer popularity as a potentially risky form of peer status (Mayeux, Sandstrom & Cillessen, 2008; Rodkin, Farmer, Pearl & Van Acker, 2000).

We argue that the emergence of peer popularity in adolescence originates in adolescents' desire to create an image of maturity among their peers through the engagement in adverse behaviors (Dijkstra et al., 2009; Moffitt, 1993), and that the upcoming transition to work contributes to the closing of the maturity gap. We expect that the approaching onset of employment alters the criteria by which status is ascribed and affects individuals' conceptions of what behaviors are admirable and merit a high status position in the peer group. We specifically expect that reputational status will be less driven by adverse behaviors and that peer popularity will be a less salient aspect of the young adult peer culture. We empirically test this expectation by investigating what groups of peer status can be identified in young adulthood along with the behavioral associations of these status in a sample of Dutch young adults on the verge of the transition from vocational education to work.

### 5.2. Peer Status throughout Adolescence

Adolescent peer status often distinguishes between affective measures of *peer acceptance* and reputational measures of *peer popularity* as two conceptually different but to some extent overlapping types of status in the peer group (e.g., Parkhurst & Hopmeyer, 1998). Peer acceptance reflects the extent to which adolescents are well-liked by their peers and

has been linked to positive developmental and behavioral outcomes such as prosociality, trustworthiness, and better academic achievements (Lubbers, Van Der Werf, Snijders, Creemers & Kuyper, 2006; Parkhurst & Hopmeyer, 1998). Peer popularity reflects the extent to which individuals are socially salient and admired by their peers and serves as an indicator of social dominance and prestige in the peer group (Mayeux et al., 2011; Parkhurst & Hopmeyer, 1998; Vaillancourt & Hymel, 2006). Besides its positive associations, peer popularity also shows close links with disruptive and norm-breaking behaviors such as alcohol and substance use (Dijkstra et al., 2009; Lansford, Killeya-Jones, Miller, & Costanzo, 2009; Mayeux et al., 2011). Previous studies further distinguished between popular adolescents who are also well-liked by their peers and those who are not (Parkhurst & Hopmeyer, 1998; Rodkin et al., 2000; De Bruyn & Cillessen, 2006). Whereas the former group shows favorable behavioral associations comparable to those found in well-accepted peers, the latter group has been shown to engage in fights and relational aggression more often and to be regarded as vulgar or bullies by their peers (De Bruyn & Cillessen, 2006; Parkhurst & Hopmeyer, 1998). Due to the potentially negative repercussions of the behaviors associated with adolescent peer popularity, it has been argued that peer popularity may bear a risk in a long-term perspective if the disruptive behavior persists into adulthood (e.g., Mayeux et al., 2008; Rodkin et al., 2000). This may be especially true for those members of the peer group who are popular but not well-liked. We argue that in young adult peer groups, popularity will be a less salient form of status and may thereby lose its role as a potential risk factor for the continued engagement in disruptive behavior.

### **5.3. Developmental Changes in the Association between Acceptance and Popularity**

Previous research has shown that the distinction between peer acceptance and peer popularity is less clear in younger samples. The emergence of peer popularity as a distinct form of status has been shown to occur in adolescence (Cillessen & Borch, 2006; Cillessen & Mayeux, 2004), and to be higher among elementary school children (e.g., Lease et al., 2002) as compared to middle school children (e.g., Parkhurst & Hopmeyer, 1998). A recent study in a sample of school-bound young adults in the Netherlands has suggested that the two forms of status become more closely related again beyond adolescence (Lansu & Cillessen, 2011). The finding that the distinction between affective and reputational forms of peer status becomes salient throughout adolescence but appears

to decline again in young adulthood suggests that this distinction originates in the social and contextual changes that take place in adolescence. In a period where adolescents experience a discrepancy between biological maturity and the acknowledgement of adult social roles in society, engagement in adverse behavior conveys an image of maturity that is often admired among other adolescents (Moffitt, 1993). Accordingly, it has been argued that popularity can be achieved through the engagement in behaviors that emphasize maturity, and that adolescents' engagement in norm-breaking behaviors such as alcohol and substance use contributes to the closing of this maturity gap (Dijkstra et al., 2009). If true, this implies that the distinction between peer acceptance and peer popularity and the status-benefits of disruptive and norm-breaking behavior are contingent on individuals' experience of the maturity gap. Consequently, we argue that once social and contextual changes close the maturity gap during the transition to young adulthood, the status-enhancing benefits of adverse and norm-breaking behaviors and the importance of peer popularity as a distinct form of reputational status declines.

#### **5.4. Contextual Changes in Young Adulthood**

Late adolescence and young adulthood is a developmental period that is characterized by a vast variability in educational and occupational trajectories along with social and contextual changes (Arnett, 2000). As individuals' social contexts and relationships change, so may their conceptions of what characteristics and behaviors merit a high status position in the peer group. Whereas in adolescence, engagement in aggressive or norm-breaking behavior may be beneficial in order to become popular, these same behaviors may not be advantageous and even be detrimental if the immediate social context ceases to convey a popular status position to those who engage in these behaviors. In support of this notion, previous research has suggested that popular adolescents may lose their status position as they enter social contexts with different reward structures and different criteria for social prominence (Cillessen & Rose, 2005). One of the major contextual changes in this developmental period is the transition from school to work (Erikson, 1959; Zarrett & Eccles, 2006), which goes along with the gradual transition from the peer group as a primary socialization context to adult social contexts. We argue that the upcoming transition to the labor market lowers individuals' perceived discrepancy between their biological and societal maturity. Once individuals approach the access to formal adult social roles, attempts of creating an impression of maturity through the engagement in

aggressive, deviant, or norm-breaking behaviors may lose their status-enhancing function. This is in line with previous research suggesting that life transition and in particular the onset of employment can act as a turning point in young people's behavior through changing social roles and responsibilities and the initiation of identity transformation (e.g., Carlsson, 2012; Sampson & Laub, 2005).

Whereas the approaching onset of employment is likely to affect the salience and behavioral associations of peer popularity as a distinct form of reputational peer status, this effect is not probable to hold for the salience and behavioral associations of peer acceptance. Peer acceptance is believed to be a more universal measure of social relatedness tapping into individuals' fundamental need to belong (Baumeister & Leary, 1995). Consequently, interpersonal liking is expected to remain a core aspect of peer status also beyond adolescence. Likewise, the benefits of prosociality for the attainment of affective status are not likely to be bound to a specific developmental period.

### **5.5. The present Study**

Building on the line of argumentation presented above, the present study examines what groups of peer status can be identified in a young adult sample at the verge of the transition from school to work along with the behavioral profiles of the identified status groups. We expect that peer status in young adults is (H1) more strongly defined by affective (i.e., liking) as compared to reputational (i.e., popularity) indicators of status, and (H2) more strongly associated with prosocial as compared to aggressive or norm-breaking behaviors.

Engagement in relational forms of aggression has further been described as more normative for females and shown to be either equally distributed among both genders or higher for females (Crick, 1997; Crick & Grotpeter, 1995; Salmivalli & Kaukiainen, 2004). Likewise, aggressive behavior and substance use have been shown to be differently associated with peer status for males than for females (Cillessen & Rose, 2005; Cillessen & Mayeux, 2004; Lansford et al., 2009; Salmivalli, Kaukiainen, & Lagerspetz, 2000). To account for these gender differences, relational and overt aggression will be addressed separately in the analyses and interactions with gender will be explored

## **5.6. Method**

### **5.6.1. Data and Educational Context**

Data stem from a study conducted in the Netherlands aimed at young peoples' transition from vocational school to working life or further education. In the Netherlands, vocational training is provided as a school-based form of education that students commonly enroll in at the age of 16 (Dutch MBO-BOL). Degrees can be obtained for a variety of professions and at different skill levels. The professional training that is provided at vocational schools typically lasts two to four years, depending on the profession and skill level. During this time, students follow regular classes as well as practical classes in which they acquire vocation-specific knowledge and skills under the supervision of a teacher. Classes are taught in a fixed classroom structure throughout the entire vocational education, meaning that students in the current sample who were at the beginning of their final year in education knew each other for at least one but mostly two to three years (depending on whether they follow a three- or four-year program) at the time of measurement. Throughout their vocational training, students further gain practical hands-on experience in their profession in the course of several internships each lasting several weeks to several months. This implies that the school term is split into periods in which students either attend school or follow an internship. Students are required to spend at least 20% but not more than 60% of their time on internships, meaning that they spend 40% - 80% of their time at school together with their peers.

In the Netherlands, following school-based vocational education is a common and widespread educational pathway. In the years during which data collection for the present study has taken place (2011-2013), approximately 500.000 Dutch students have been enrolled in this type of education. This represents roughly 13.5% of all Dutch students, including all levels from primary education to university. As of the beginning of the school term 2010/2011, vocational schools follow the principle of competence-based education, which means that students do not receive grades. Instead, their progress is evaluated based on their attained competences. The profile of competences that a student needs to attain in a specific profession is a combination vocation-specific professional skills and knowledge as well as aspects of a good professional attitude such as good communication skills and teamwork. These profiles are jointly developed by educational experts and practitioners. Upon completion of their training, students can either enter the labor market directly within their profession or enroll in additional or follow-up

vocational education at the same or a higher level of education. Students who complete their vocational education at the highest obtainable level are eligible to enroll at a University of Applied Sciences. Data collection for the present study has taken place in the school term of 2011/2012 at the beginning of respondents' final year in education.

### **5.6.2. Procedure**

Questionnaires have been administered during regular class hours and consisted of a self-report questionnaire and a sociometric survey. Respondents were assured of the confidentiality of their answers and were free to refrain from participation at any moment of the study. No monetary incentives or course credits have been offered for participation. Names and other identifying information of all respondents and their classmates have been replaced by code numbers in the resulting dataset. Neither respondents nor schools have been given access to any of the raw data retrieved through the self-report or sociometric survey or the coding of respondents' names. In accordance with common practices and ethical research standards in the Netherlands, students who did not themselves participate in the study could still be nominated in the sociometric survey. Information pertaining to respondents' peer status has been derived from the sociometric survey and therefore includes information on respondents and their classmates.

### **5.6.3. Sample**

The data that have been used in the present study stem from  $N = 603$  individuals divided over 52 classrooms ( $M_{\text{age}} = 20.09$ ,  $SD = 2.49$ , 51.3 % female) of which  $n = 413$  respondents who provided and received peer nominations in the sociometric survey ( $M_{\text{age}} = 20.02$ ,  $SD = 2.75$ , 50.1 % female) and  $n = 190$  of their classmates who only received but did not provide peer nominations ( $M_{\text{age}} = 20.26$ ,  $SD = 1.79$ , 54% female). Class sizes ranged from 6 to 34 students ( $M_{\text{classroomsize}} = 19.45$ ,  $SD = 7.16$ , average response rate 69.1%). Respondents who provided and received nominations did not significantly differ from their classmates who only received nominations on any of the study variables with the single exception that the former were regarded as more popular ( $t(601) = -2.82$ ,  $p < .01$ ).

### **5.6.4. Measures**

#### **5.6.4.1. Peer Status**

Respondents were presented with a list of questions containing a positive and a negative

question assessing reputational peer status (“Which of your classmates is popular”; “Which of your classmates is not popular”) and affective peer status (“Which of your classmates do you like”; “Which of your classmates do you not like?”). For each question, respondents could nominate an unlimited number of classmates except for themselves. Standardizing peer nominations within the reference group (i.e., the classroom) controls for variability in classroom sizes and therefore differences in the maximum number of nominations possible. In accordance with methods applied in research on adolescent peer status, proportion scores have been formed for each of the four questions (e.g., Dijkstra et al., 2008; Dijkstra et al., 2009; Salmivalli et al., 2000). For every member of the classroom, the total number of nominations *received* on each of the questions was divided by the number of participating classmates (i.e., the maximum number of nominations possible). This procedure yielded proportion scores ranging from 0 to 1 reflecting the extent to which every class member is liked, disliked, regarded as popular or regarded as unpopular by their classmates (0 = none of the participants has nominated this individual on the respective question; 1 = every participant has nominated this individual on the respective question).

#### **5.6.4.2. Classroom Behavior**

To assess prosocial and aggressive classroom behavior, respondents were asked to nominate classmates who show prosocial behavior (“Which of your classmates are helping you”), overt aggressive behavior (“Which of your classmates often fight or seek trouble?”), and relationally aggressive behavior (“Which of your classmates socially exclude others?”). Again, proportion scores within classrooms have been formed for each behavior under study.

#### **5.6.4.3. Alcohol and Substance Use**

Respondents were asked to indicate whether and if so, how often they consumed alcohol (‘Do you drink alcohol such as beer, wine or liquor (with or without a mixer drink)?’) and drugs (‘Do you use drugs such as weed/marihuana or other?’). Both questions could be answered on a 5-point scale ranging from 0 = *never* to 5 = *every day*. Because self-report information on alcohol and drug use was only available for respondents who filled in a questionnaire ( $n = 413$ , 68.5%) and not for their classmates who only received peer nominations but did not provide information themselves ( $n = 190$ , 31.5%), multiple



imputations were used to minimize the loss of statistical power.

#### **5.6.4.4. Gender**

Gender was coded as 0=*female* and 1=*male*.

#### **5.6.5. Strategy of Analysis**

Iterative k-means cluster analysis (Calinski & Harabasz, 1974; Jain & Dubes, 1988; Milligan & Cooper, 1985) with running means was used to create clusters of respondents based on their nominations as being liked, disliked, popular, and unpopular. K-means cluster analysis maximizes between-cluster differences and minimizes within-cluster differences to identify relatively homogeneous groups of respondents who differ in their profiles of received nominations on the peer status items. The algorithm requires a pre-specified number of clusters. To evaluate the optimal number of clusters the Variance Ratio Criterion (VRC) by Calinski and Harabasz (Calinski & Harabasz, 1974; Milligan & Cooper, 1985) was calculated for a sequence of two- through five cluster solutions. The VRC compares different cluster solutions based on the ratio between the between-cluster variance and the within-cluster variance. The cluster solution with the highest VRC represents the optimal number of clusters in the data. Based on the VRC,  $\omega_k$  can be calculated as  $(VRC_{k+1} - VRC_k) - (VRC_k - VRC_{k-1})$  where  $k$  is the number of clusters to be evaluated. Using  $\omega_k$  as an alternative means of evaluating the optimal number of clusters, the optimal number of clusters is the one with the lowest value for  $\omega_k$ . Both the VRC and  $\omega_k$  will be reported.

In a second step, the behavioral profiles of the groups of peer status obtained through the k-means cluster analyses were investigated. An initial ANOVA examined whether the groups were significantly different from each other on the target behaviors (prosocial behavior, overt and relational aggression, alcohol and substance use). Next, a logistic regression analysis has been conducted to examine the behavioral associations of the obtained clusters of peer status.

### **5.7. Results**

#### **5.7.1. Descriptive Statistics**

Table 1 displays the descriptive statistics and correlations among the main study variables. As expected, being liked and being popular are positively correlated. Though popularity is

positively correlated with prosocial and aggressive behavior, the correlation with prosocial behavior is higher than the correlation with both overt and relational aggression. Liking positively correlates with prosocial but not aggressive behavior. Neither being popular nor being liked are correlated with alcohol or substance use.

Table 5.1.  
Descriptive Statistics and Correlations ( $N = 603$ )

	<i>M</i>	<i>SD</i>	Range	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Gender (1 = male)												
<b>Peer Relationships</b>												
2. Liked	.34	.28	0.00-1.00	-.09*								
3. Popular	.09	.16	0.00-1.00	.08 <sup>†</sup>	.48**							
4. Disliked	.03	.08	0.00-0.60	-.11**	-.11**	-.04						
5. Unpopular	.05	.09	0.00-0.75	-.03	-.08*	-.03	.55**					
<b>Classroom Behavior</b>												
6. Prosocial Behavior	.16	.21	0.00-1.00	.06	.71**	.60**	-.09*	-.10*				
7. Overt Aggression	.03	.08	0.00-0.60	.06	.07 <sup>†</sup>	.25**	.35**	.25**	.07 <sup>†</sup>			
8. Relational Aggression	.04	.08	0.00-0.71	-.05	-.01	.14**	.52**	.41**	.03	.54**		
<b>Norm-Breaking Behavior</b>												
9. Alcohol Use	3.01	1.05	1.00-5.00	.18*	-.01	.01	-.06	-.11 <sup>†</sup>	-.03	.05	-.07	
10. Substance Use	1.40	0.71	1.00-5.00	.10*	.01	-.01	.01	-.01	.02	.10 <sup>†</sup>	.02	.13**

Note. \*\*  $p < .01$ . \*  $p < .05$ . <sup>†</sup>  $p < .10$ .

### 5.7.2. Clusters of Peer Status

Iterative k-means cluster analysis showed the highest VRC and the lowest  $\omega_k$  for the three cluster solution ( $VRC_3 = 1409.3$ ,  $\omega_3 = -303.8$ ) when compared with the 2 through 5 cluster solutions ( $VRC_2 = 1220.1$ ,  $\omega_2$  not obtainable<sup>9</sup>;  $VRC_4 = 1294.7$ ,  $\omega_4 = 76.4$ ;  $VRC_5 = 1256.5$ ,  $\omega_5 = -168.6$ ), indicating an optimal solution of three clusters. Final cluster centers of the four variables under study are given in parentheses for each cluster. A graphic depiction of the final cluster centers is displayed in Figure 1.

The first cluster (Cluster 1 – Liked) covers 109 of the respondents (18.1%) and describes a cluster of peer status that is characterized by high levels of being liked (.71) and low levels of being popular (.06), unpopular (.02), and disliked (.01). The second cluster (Cluster 2 – Liked-Popular) covers 81 of the respondents (13.4%) and describes individuals who are both liked and popular as indicated by high levels of being liked (.66), moderately high levels of being popular (.44), and low levels of being unpopular (.05) and disliked (.03). The third cluster (Cluster 3 – Neutral) covers 413 of the respondents (68.5%) and describes a neutral cluster of peer status that is characterized by moderate levels of being liked (.18) and low levels on all other measures (.06 for unpopular, .04 for popular, .04 for disliked).

An additional ANOVA provides information on the extent to which each variable has contributed to the separation between clusters. Because the observed significance levels are not corrected for the choice of cluster means to maximize the difference among cases in different clusters, F-statistics are only used for descriptive purposes and cannot be interpreted as a test of the hypothesis that cluster means are different. Results show that the extent to which an individual is liked has the highest contribution to the cluster formation ( $F(2, 600) = 726.24$ ,  $p < .01$ ) followed by being popular ( $F(2, 600) = 668.22$ ,  $p < .01$ ), being unpopular ( $F(2, 600) = 8.84$ ,  $p < .01$ ) and being disliked ( $F(2, 600) = 5.98$ ,  $p < .01$ ). Results are partially consistent with the expectation that peer status is more strongly defined by affective as compared to reputational measures of peer status (consistent with Hypothesis 1) for the positive (liked, popular) but not the negative (disliked, unpopular) items, though popularity is the second strongest predictor of the cluster formation.

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<sup>9</sup> Calculation of  $\omega_2$  not possible due to the term  $VRC_{k-1}$  in the formula.

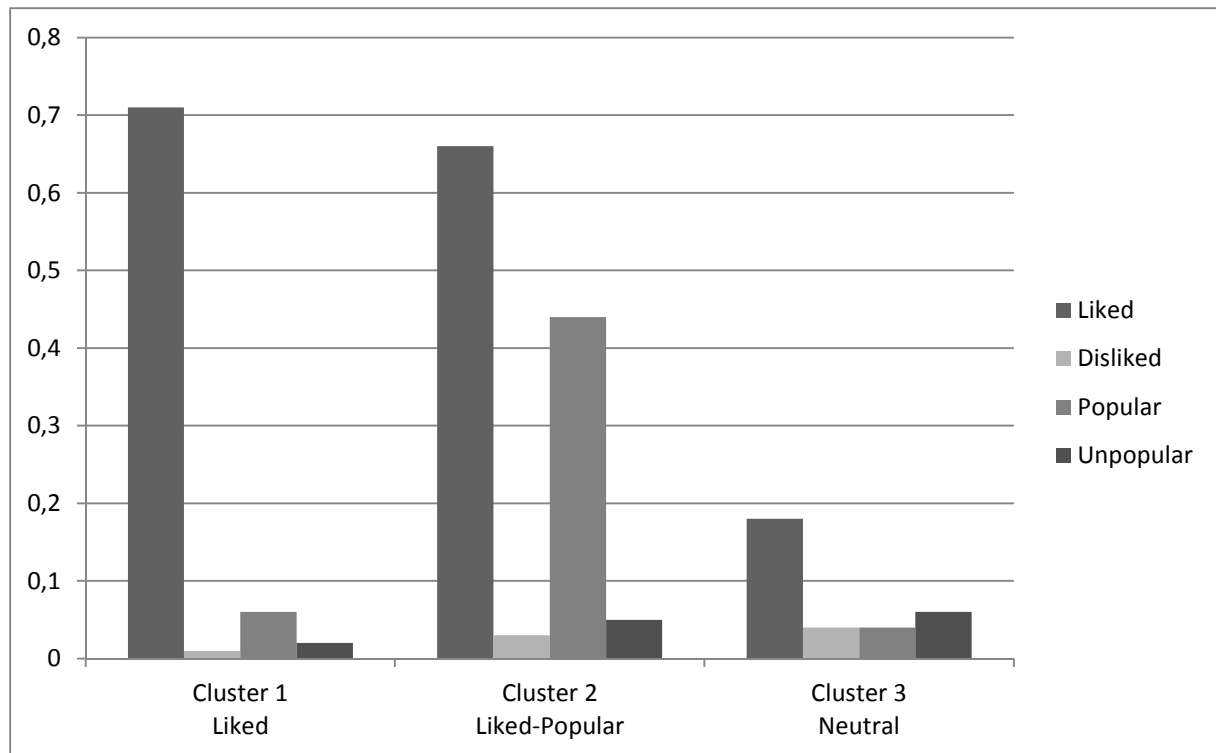


Figure 5.1. Final Cluster Centers of the Three-Cluster Solution to Peer Status

### 5.7.3. Behavioral Associations of Peer Status

In the following steps it is examined how the three-cluster solution to young adult peer status that has been obtained through the iterative k-means cluster analysis is associated with prosocial and aggressive classroom behavior, alcohol and substance use. Table 2 shows the descriptive statistics of the behavioral variables for each of the three clusters of peer status.

First, an ANOVA was conducted to examine whether the three groups of peer status were significantly different on the target behaviors. Results revealed that the groups significantly differed in their prosocial behavior ( $F(2,600) = 218.69, p < .01$ ), overt aggression ( $F(2,600) = 27.68, p < .01$ ) and relational aggression ( $F(2,600) = 8.21, p < .01$ ) but not in their alcohol ( $F(2,600) = 0.08, p = n.s$ ) and substance use ( $F(2,600) = 0.19, p = n.s$ ). Bonferroni post-hoc comparisons indicated that the mean score for prosocial behavior of the neutral status group ( $M = .07, SD = .10$ ) significantly different from the mean score of the liked status group ( $M = .29, SD = .25, p < .01$ ) and the liked-popular group ( $M = .43, SD = .24, p < .01$ ), as were the mean scores of the liked and liked-popular status group ( $p < .01$ ). The mean scores for overt aggression of the neutral status group ( $M = .02, SD = .06$ ) were significantly different from the liked-popular status group ( $M = .08,$

$SD = .15, p < .01$ ) but not the liked group ( $M = .01, SD = .03, p = n.s.$ ). The difference between the liked and liked-popular group was significant ( $p < .01$ ). The mean scores for relational aggression of the neutral status group ( $M = .04, SD = .08$ ) were likewise significantly different from the liked-popular status group ( $M = .07, SD = .12, p < .01$ ) but not the liked group ( $M = .02, SD = .05, p = n.s.$ ). Again, the difference between the liked and liked-popular group was significant ( $p < .01$ ).

Second, a multinomial logistic regression analysis has been conducted to examine the behavioral associations of each cluster. Results indicate to what extent the odds of being liked (Cluster 1) or liked-popular (Cluster 2) as compared to occupying a neutral status position (Cluster 3, reference category) change depending on respondents' classroom behavior (prosocial behavior, overt and relational aggression), alcohol and substance use with gender as control variable. For reasons of interpretability, proportion scores of classroom behavior have been multiplied by 100 resulting in a continuous variable ranging from 0 to 100% with every 1-unit increase in this variable representing 1% increase in the overall percentage of classmates who have nominated a respondent for the respective behavior. In a first step, the main effects of classroom behavior, alcohol and substance use have been examined. In a second step, the interaction effects with gender have been examined. Results are displayed in Table 3.

Table 5.2.

Means and Standard Deviations of Behavior per Cluster

	Cluster 1		Cluster 2		Cluster 3	
	Liked		Liked-Popular		Neutral	
	$n = 109$		$n = 81$		$n = 413$	
	$M$	$SD$	$M$	$SD$	$M$	$SD$
Prosocial Behavior	0.29	0.25	0.43	0.24	0.07	0.10
Overt Aggression	0.01	0.03	0.08	0.15	0.02	0.06
Relational Aggression	0.02	0.05	0.07	0.12	0.04	0.08
Alcohol Use	3.03	0.99	3.01	1.00	3.08	1.07
Substance Use	1.38	0.64	1.36	0.79	1.39	0.71

### 5.7.3.1. Liked Status Position

Females have higher odds of being liked than males (Cluster 1;  $B = -1.88$ ,  $\text{Exp}(B) = 0.15$ ,  $p < .01$ ). Results further show that the odds of being liked rather than neutral are higher for individuals who engage in prosocial behavior ( $B = 0.12$ ,  $\text{Exp}(B) = 1.12$ ,  $p < .01$ ) and lower for individuals who engage in relational aggression ( $B = -0.08$ ,  $\text{Exp}(B) = 0.92$ ,  $p < .01$ ). With every additional percent of class members who nominated a peer as someone who shows prosocial behavior, this peer's odds of being liked increase by 12%. With every additional percent of class members who nominated a peer as someone who is relationally aggressive, this peer's odds of being liked decrease by 8%. Neither alcohol nor substance use significantly affected the odds of being liked.

### 5.7.3.2. Liked-Popular Status Position

Again, females have higher odds of being liked-popular than males (Cluster 2;  $B = -1.40$ ,  $\text{Exp}(B) = 0.25$ ,  $p < .01$ ). Results further show that the odds of being liked-popular rather than neutral are higher for prosocial individuals ( $B = 0.14$ ,  $\text{Exp}(B) = 1.15$ ,  $p < .01$ ) but also for individuals who engage in overt aggression ( $B = 0.10$ ,  $\text{Exp}(B) = 1.10$ ,  $p < .01$ ). With every additional percent of class members who nominated a peer as someone who shows prosocial behavior, this peer's odds of being liked-popular increase by 15%. With every additional percent of class members who nominated a peer as someone who shows overt aggression, this peer's odds of being liked-popular increase by 10%. Again, alcohol and substance use showed no significant effects.

### 5.7.3.3. Interactions with Gender

In Step 2, interaction effects with gender have been added. A marginally significant interaction with gender was found for the link between prosocial behavior and being liked (Cluster 1;  $B = -0.04$ ;  $\text{Exp}(B) = 0.96$ ;  $p = .06$ ; 1 = male). An additional simple slope analysis showed that prosocial behavior increases the odds of being liked for both genders, with a marginally higher effect for females as compared to males ( $B = 0.10$ ,  $\text{Exp}(B) = 1.11$ ,  $p < .01$  for males;  $B = 0.14$ ,  $\text{Exp}(B) = 1.15$ ,  $p < .01$  for females; lower part Table 5.3; 0 = female).

A significant interaction with gender was found for the link between prosocial behavior and being liked-popular (Cluster 2;  $B = -0.06$ ,  $\text{Exp}(B) = 0.94$ ,  $p = .02$ ; 1 = male). Additional simple slope analysis of this interaction showed that for males, every 1-unit

increase in prosocial behavior increases the odds of being liked-popular by 13% ( $B = 0.12$ ,  $\text{Exp}(B) = 1.13$ ,  $p < .01$ ). For females, every 1-unit increase in prosocial behavior increases the odds of being liked-popular by 20% ( $B = 0.18$ ,  $\text{Exp}(B) = 1.20$ ,  $p < .01$ ; part Table 5.3; 0 = female). Results show that whereas prosocial behavior is positively associated with a liked-popular status position for both genders, the effect is stronger for females. A second significant interaction with gender was found for the link between overt aggression and being liked-popular (Cluster 2;  $B = 0.13$ ,  $\text{Exp}(B) = 1.14$ ;  $p < .01$ ; 1 = male). Simple slope analysis showed that for males, every 1-unit increase in overt aggression increases the odds of being liked-popular by 16% ( $B = 0.15$ ,  $\text{Exp}(B) = 1.16$ ;  $p < .01$ ). For females, overt aggression does not significantly affect the odds of being liked-popular ( $B = 0.02$ ,  $\text{Exp}(B) = 1.02$ , *n.s.*; lower part Table 5.3; 0 = female).

Our results show that whether young adults occupy a high status position in the peer group both in terms of being liked or being liked-popular primarily depends on the extent to which they engage in prosocial behavior (consistent with Hypothesis 2). This effect is evident for both genders, though it appears to be stronger for females than for males. Results further show that relational aggression lowers the odds of being liked for both genders, whereas overt aggression increases the odds of being liked-popular for males but not for females.



Table 5.3.

Logistic Regression Results of the Behavioral Associations of Peer Status ( $N = 603$ )

Cluster 1 – Liked										Cluster 2 – Liked-Popular			
Step 1 – Main Effects	B	SE	Exp(B)	CI Lower	CI Upper	B	SE	Exp(B)	CI Lower	CI Upper			
Intercept	-2.53	0.57				-3.55	0.68						
Gender (1 = male)	-1.88**	0.32	0.15	0.08	0.28	-1.40**	0.38	0.25	0.12	0.52			
Prosocial Behavior	0.12**	0.01	1.12	1.10	1.15	0.14**	0.01	1.15	1.12	1.18			
Overt Aggression	-0.02	0.04				0.10**	0.02	1.10	1.05	1.15			
Relational Aggression	-0.08**	0.03	0.92	0.87	0.97	-0.03	0.02						
Alcohol Use	0.12	0.15				0.04	0.19						
Substance Use	0.02	0.21				0.35	0.32						
Step 2 - Interaction													
Intercept	3.12	0.76				-4.35	0.98						
Gender (1 = male)	-0.57	0.20				0.07	1.48						
Prosocial Behavior	0.14**	0.02	1.15	1.11	1.19	0.18**	0.02	1.20	1.15	1.24			
Overt Aggression	-0.04	0.05				0.02	0.04						
Relational Aggression	-0.10**	0.04	0.91	0.85	0.98	0.01	0.03						
Alcohol Use	0.19	0.21				0.13	0.25						
Substance Use	0.20	0.28				-0.57	0.54						
Gender*Prosocial Behavior	-0.04†	0.02	0.96	0.92	1.00	-0.06*	0.03	0.94	0.90	0.99			
Gender*Overt Aggression	0.03	0.06				0.13**	0.05	1.14	1.04	1.25			
Gender*Relational Aggression	-0.01	0.08				-0.07	0.05						
Aggression													
Gender*Alcohol Use	-0.16	0.32				-0.18	0.39						
Gender*Substance Use	-0.39	0.44				0.30	0.64						

Note. \*\*  $p < .01$ . \*  $p < .05$ . <sup>†</sup>  $p < .10$ . Cluster 3 (Neutral) as reference category. CI = 95% Confidence Interval.

## 5.8. Discussion

In this study, we argue that the adolescent distinction into an affective and a reputational form of peer status and particularly the emergence of popularity as a distinct form of peer status is driven by adolescents' desire to create an image of maturity through the engagement in norm-breaking and adverse behaviors (Moffitt, 1993; Dijkstra et al., 2009). We further argue that as young people approach the transition from school to work, the maturity gap gradually starts to close, making norm-breaking and aggressive behaviors less admirable and making popularity a less salient form of peer status in this age group. To empirically test this proposition, this study investigated the different groups of peer status that can be identified in a sample of Dutch young adults on the threshold of the transition from vocational education to work along with the behavioral associations of these status groups in terms of young people's engagement in prosocial behavior, overt and relational aggression, and their alcohol and substance use.

The results of our study suggest that the main criterion that determines whether young adults occupy a high status position in the peer group is the extent to which they are liked by their peers. However, it also appears to remain of relevance whether or not being liked is combined with being popular. We identified a cluster of individuals who were both liked and popular and who thus occupied a high status position in terms of both affective and reputational measures. In contrast to adolescent samples (e.g., De Bruyn & Cillessen, 2006; Parkhurst & Hopmeyer, 1998; Rodkin et al., 2000), we did not identify a group of individuals who were popular without also being well-liked by their peers. Our findings demonstrate that although popularity as a reputational measure of status does not cease to exist in the young adult peer group, it is closely linked to affective measures of status and does not come about independent from being well-liked.

### 5.8.1. Prosocial and Aggressive Behavior

In line with our expectation, prosocial behavior showed the strongest associations with high peer status, both in terms of being liked and being liked-popular. This effect was evident for both genders, though the effects were stronger for females than for males. This observation is consistent with our expectation that prosocial rather than norm-breaking or aggressive behaviors discriminate between peers who occupy a high status position in the young adult peer group and those who do not. The results of the behavioral analysis further strengthen our assumption that engagement in aggressive

behavior becomes less admirable in young adulthood, though this observation requires a more in depth discussion. An initial observation of the descriptive statistics supports the conclusion that popularity as a reputational form of peer status does not entirely cease to exist in the young adult peer group and shows that both overt and reputational aggression remain positively correlated with popularity (though to a lower extent than prosocial behavior). Whereas the correlations as well as the results of the regression analysis indicate that both a liked and a liked-popular status position is most strongly associated with prosocial behavior in the peer group, the correlational data also suggest that aggressive behavior does not entirely lose its role in young adult peer status but remains an important factor in the behavioral repertoire of high status individuals in the young adult peer group.

### **5.8.2. Gender Differences Aggressive Behavior and Peer Status**

Upon closer inspection, the effect of aggression on young adult peer status further appears to be gender-specific. In younger samples, engagement in overt and relational aggression is positively correlated with popularity for both genders (for a comparison see Dijkstra et al., 2009;  $r = .28$  overt aggression/boys,  $r = .36$  relational aggression/boys,  $r = .28$  overt aggression/girls,  $r = .41$  relational aggression/girls). Regression results of the present study show no positive association between relational aggression and either form of peer status but rather indicate that engagement in relational aggression *decreases* the odds of being liked for both genders. Engagement in overt aggression increased the odds of being liked-popular for males but not for females.

The finding that overt aggression is positively associated with a liked-popular status position for young males suggests that aggressive behavior still serves a status-enhancing function in this age group. Especially the strategic use of aggressive behavior may not be bound to the peer group but provide benefits in other social contexts and therefore persist beyond adolescence. Whereas aggressive behavior is unlikely to be rewarded with a higher status position in informal settings, it may provide individuals with status benefits in formal settings. Organizational literature has shown that instrumental aggression reflects a form of strategic goal-oriented action in organizational settings that can be used to acquire status and to 'get ahead' (Neuman & Baron, 1998; 2005; Spector, Fox & Domagalaski, 2006). Likewise, adolescent research has identified individuals who draw on bi-strategic forms of prosocial and coercive behavior to acquire

power among their peers but who nonetheless take in a central position in the peer group (Hawley, 2003). Research on adolescent samples has further suggested that overt aggression is more normative and frequent in males as compared to females (Crick, 1997; Crick & Grotpeter, 1995). It appears that instrumental overt aggression is a distinctive feature of higher status and a tolerated form of strategic goal-oriented action for young adult men, but not for women.

Stated differently, the results suggest that in young adulthood, a certain level of aggressive behavior is tolerated and might even be rewarded with the attainment of a higher status in males, whereas females do not derive status benefits from these same behaviors. Especially in the light of the strategic use of aggressive behavior a form of strategic goal-oriented action in organizational settings, these findings suggest that whereas for men it may be tolerated to pursue their career-goals in an aggressive manner, women will need to rely on different strategies to achieve their goals, presumably less assertive and therefore potentially less effective ones in the light of their prospective career advancements. Given that a certain level of assertiveness and aggressiveness is often regarded as a strategic means to acquire status and advance one's career (Neuman & Baron, 1998; 2005; Spector, Fox & Domagalaski, 2006), this may pose a challenge for young women seeking to get ahead in their professional career.

### **5.8.3. Alcohol and Substance Use in Young Adulthood**

The behavioral associations of peer status identified in the present study are consistent with our notion that the norm-breaking behaviors that are commonly associated with popularity in adolescence (Dijkstra et al., 2009; Lansford et al., 2009) are less admirable in older peer groups. Whereas in adolescent samples, norm-breaking behavior (alcohol and substance use) is positively correlated with popularity in both boys and girls (see for example Dijkstra et al., 2009 for a comparison with Dutch adolescents;  $r = .30$  for boys,  $r = .26$  for girls), the results of our study show no significant associations of alcohol or substance use with peer status. This lack of an effect may be due to the developmental meaning of these behaviors in this age group. Whereas in adolescent samples, alcohol and drug use clearly represent a form of norm-breaking and in some instance also illegal behavior, these behaviors become less provocative in older age groups. Once these behaviors do not clearly violate a norm anymore but become to some extent 'normative' to the whole age group as the majority of young people engage in them to some extent,

they lose their signaling function as a marker of maturity and adult status. The finding that alcohol and substance use did not significantly correlate with any of the peer nominations (liked, disliked, popular, unpopular) and that the three status groups (neutral, liked, liked-popular) did not significantly differ on these variables support the notion that at least these types of norm-breaking behaviors are no longer relevant to peer status in young adulthood.

#### **5.8.4. Strengths and Limitations**

The present study is among the first to address the conceptualization and behavioral associations of peer status beyond adolescence and advances our knowledge on peer status in young adulthood. There are however some limitations to this study. First, we focused on prosocial and aggressive classrooms behavior as well as alcohol and substance use. Although these are behaviors that are commonly associated with peer status in adolescence (Dijkstra et al., 2009; Mayeux et al., 2008), future studies may take into account a wider array of behaviors. It is possible that certain behaviors which can be classified as norm-breaking in adolescence are perceived differently in older samples. For instance, whereas alcohol use may be a form of norm-breaking behavior in an underage sample, it might be perceived as less severe or even to some extent 'normative' in older age groups. Instead, new forms of norm-breaking behavior that were not yet available to adolescents might emerge (e.g., reckless driving). Future research may focus on additional behavioral associations, positive and negative, of peer status in young adulthood.

Second, the present study employs a sample of young adults who are on the verge of the transition from school to work. This unique sample is one of the major strengths of the present study and allows us to examine peer status in the transition period to adulthood. One great advantage of this sample and the form of vocational education that respondents are following is the relatively high amount of time that students spend together with their peers in the classroom as compared to different forms of vocational training that primarily rely on one-the-job-training. However, while providing a great number of benefits to the present study, this sample may also limit the generalizability of the results to young people who experience different forms of transitions. Respondents in the present sample are going through an extended transition period in which they gradually approach working life. While this is a normative transition in the cultural

context of the Netherlands in which the study was conducted, this may not be the case in other countries and cultural settings. The results of the present study therefore need to be interpreted in the light of this specific context. It is a worthwhile endeavor for future studies to investigate other forms of transitions in which individuals move more abruptly from the peer group of the classroom to the workplace. Findings may differ for young people who are not embedded in a reasonably stable peer context in the classroom during the transition period. However, the classroom is not the only setting in which young adults interact with their peers and in which status is established. Future studies may address the question whether the findings that have been obtained the school-bound peer group in the present study can be replicated in young adult peer groups in non-educational settings.

Finally, results do not provide information on how peer status changes throughout the course of the transition and after individuals have completed the transition. Future studies may take a longitudinal approach and examine how the types and behavioral associations of peer status change during the transition to adulthood. However, there are practical constraints attached to the examination of peer status beyond the school context. As young people who are embedded in more diverse social contexts can no longer be approached in an institutional setting, identifying the focal peer group for the assessment of peer status becomes a major obstacle to research on peer relationships beyond the school context.

#### **5.8.5. Conclusions and Future Directions**

The present study has shown that in young adult peer groups, peer status is most consistently associated with prosociality. The results of our study suggest that the status-enhancing benefits of norm-breaking and to some extent also aggressive behaviors are lower in young adulthood than commonly found in adolescent samples. However, the status-enhancing benefits of overt aggression are not eradicated and appear to persist beyond adolescence for young adult males. Future studies may extend the present research to different cultural contexts and different forms of the transition to working life.



## **Chapter 6**

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### **General Discussion**





## 6.1. Introduction

The transition from school to working life is an important step in young people's lives. The successful mastery of this step is decisive for young people's early career trajectories, their future socio-economic standing, and their psychological well-being (Ashby & Schoon, 2010; Erikson, 1959; Haase, Heckhausen, & Köller, 2008; Piquart, Juang, & Silbereisen, 2003; Savickas, 1999; Schoon & Parsons, 2002). This transition is not a single event but a developmental period that is characterized by numerous decisions and actions. In order to accomplish the tasks that comprise this transition, young people need to make occupational decisions about the desirability and attainability of their aspired future careers, prioritize their personal and professional goals, and effectively engage in a number of activities that help them achieve these goals. All these things do not happen in isolation. In time of uncertainties and when facing important life decisions, young people are likely to seek guidance and support from those who are close to them. In late adolescence and young adulthood, peers become an important source of social support, guidance, and advice (Cheng & Chan, 2004; Furman & Buhrmester, 1992). The four empirical studies that comprise this book take a relational approach to early career development and address the issue, seeking to answer the question: *How do peer relationships affect the transition from school to work?*

This final chapter discusses the main insights of this book along with the implications for both researchers and practitioners. Finally, directions for future research will be discussed followed by a general conclusion.

## 6.2. Insights from the Studies

Theories of career development have long taken the stance that career development is a relational process that takes place in social contexts and that besides personal characteristics, interactions and social relationships affect career decisions and behaviors. So far, the role of peers has received relatively little attention in investigations of young people's career development. A prominent theoretical approach for investigating the role of peers in young people's career development is the Social Cognitive Career Theory (SCCT; Lent & Brown, 2013; Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999; Leung, 2008), which specifically focuses on the interaction between personal and environmental factors in the development of career-

related decisions and behaviors. The insights of this dissertation support the notion that social relationships affect young people's early career trajectories and show that this also holds for social relationships with peers. The studies that comprise this book demonstrate that peer relationships play a role in young people's transition from school to working life in a variety of ways. In four empirical chapters the role of peers in young people's early career decisions and trajectories has been addressed from different angles and in terms of different outcomes. Part I of this book (Chapter 2 and 3) focused on career-related cognitions and behaviors and examined the link between peer relationships and young people's work values (Chapter 2), and the role of an efficacious peer network in the initiation of career-directed behaviors and the successful mastery of the transition (Chapter 3). Part II of this book (Chapter 4 and 5) focused on the developmental implications of the onset of employment and particularly the consequences for individuals' engagement in delinquent behavior throughout adolescence (Chapter 4), and their engagement in aggressive and norm-breaking behaviors at the end of vocational education (Chapter 5).

This book shows that young people's goals and relationship experiences with peers are associated with their work values and thereby their subsequent preferences for certain vocational contexts over others (Chapter 2), and that peers can stimulate the active engagement in career-directed activities (Chapter 3, Study 1). Being embedded in a network of efficacious peers in the classroom proved to be beneficial even beyond the school context as it increased young people's chances of having successfully completed the transition from school to work or follow-up education three years later (Chapter 3, Study 2). Results further show that the approaching onset of employment can act as a turning point in how young people evaluate their peers' aggressive and norm-breaking behavior (Chapter 5). However, the timing of employment is important, as employment in early adolescence was associated with higher rather than lower engagement in delinquent behavior (Chapter 4).

### **6.3. Practical and Scientific Implications**

Research on the role of social relationships in career decisions and career-directed behavior often focuses on the importance of relationships with parents, spouses, and other adult mentoring figures (Dietrich & Salmela-Aro, 2013; Flap & Völker, 2001). Likewise, research on the role of social relationships in adult job seekers has strongly

focused on the benefits of career-relevant social ties, emphasizing the practical utility of job seekers' social networks for the attainment of information or other instrumental resources (Coleman, 1988; Granovetter, 1995; Lin, 1999; Van Hove, Van Hooft, & Lievens, 2009). The results of the studies that comprise this book contribute to a growing stream of literature which demonstrates that socially oriented theories of career development can be applied to the peer context as well (e.g., Dietrich, Parker, & Salmela-Aro, 2012; Kiuru, Salmela-Aro, Nurmi, Zettergren, Andersson, & Bergman, 2012). Besides young people's relationships with adult attachment and mentoring figures, relationships with peers contribute to their career-related decisions and behavior. On a scientific level, these results demonstrate that current theories of career development that take an explicit relational stance can benefit from including the peer context as a relational context in which young people's career decisions and behaviors are shaped. Chapter 2 has for instance shown that young people's social goals and their relatedness in the peer group are associated with individual differences in work values, showing that besides their social origins and relationship experiences in the family context, peer relationships can serve as predictors of the relative preference that young people attach to certain rewards of work, thereby providing information on the motivation to choose certain careers or vocational contexts over others.

On a practical level, teachers, mentors, and practitioners working with young people in the transition to working life may benefit from these insights and more explicitly draw on the peer context when providing guidance and counseling. Chapter 3 has shown that being embedded in an efficacious peer network can facilitate young people's transition to work by stimulating greater engagement in career-directed activities (completing a greater number of applications) and increase their chances of successfully completing the transition within a three year time-frame. Practitioners might encourage such network effects by taking group approaches to career counseling in young adults in the transition to work. Practitioners might for instance encourage young people to increase their interactions with efficacious peers when making career-decisions and to jointly engage in career-relevant activities together with their peers.

Employment is often regarded as a factor that gives young people stability and draws them away from the engagement in adverse behavior (Carlsson, 2012; Sampson & Laub, 2005). Chapter 4 has shown that employed early adolescents showed higher levels of delinquent behavior as compared to their non-employed peers in the same age group.

Chapter 4 further shows that young people from ethnic minorities and disadvantaged socio-economic backgrounds who were employed in late adolescence scored highest in delinquent behavior, whereas the same group also showed the lowest level of delinquent behavior when they were not employed. Although employment might be regarded as a turning point in young people's engagement in adverse behaviors, Chapter 4 suggests that this might not be the case for all young people. It is possible that other than full time employment in older age groups, adolescents' employment situations often do not provide them with the stability that is believed to contribute to their desistance from delinquency (Lustig & Liem, 2010). It is also possible that adolescents with initially higher levels of delinquency are more likely to seek employment. Young people who value material goods and financial status but who have few means of obtaining these may engage in both legitimate and illegitimate ways to achieve their goals. Taken together, it is important to note that employment need not necessarily be a demarcation point of the desistance from delinquency or protect young people from the engagement in delinquent behavior. Practitioners and counselors may look out for the potential risks that can be associated with part-time employment in adolescence and tailor their counseling and support accordingly.

Chapter 5 further contributes to research on adolescent peer status and the concern that peer popularity as a distinct form of reputational status may pose a risk to young people's development in a long-term perspective due to its potentially harmful behavioral associations (e.g., Mayeux, Sandstrom, & Cillessen, 2008; Rodkin, Farmer, Pearl, & Van Acker, 2000). The results of chapter 5 do not support the concern that popularity can be regarded as a risk-factor in a long-term perspective. In the current sample of young adults, peer status is most consistently associated with prosocial behavior. As young people approach the transition to work, aggressive and norm-breaking behaviors appear to be less salient characteristics of high status members in the peer group. However, overt aggression remained to be associated with a higher status position in young adult males.

#### **6.4. Future Directions**

The role of peers in the transition from school to work has been an understudied topic and only recently have peers received attention in empirical work on young people's early career development. The insights of the studies that comprise this book have

demonstrated that it is worthwhile to devote greater attention to take into account the peer group as a development context in research on young people's transition from school to work. The present studies have shown that peer relationships matter both on the cognitive and the behavioral level. Future studies on career trajectories in late adolescence and young adulthood may build on these findings and extend these insights in a number of ways.

First, whereas the present studies have addressed a number of aspects of young people's peer relationships they are by no means exhaustive. Future studies may extend the scope of this research and include different relationship aspects of the peer context, both positive and negative, that can affect young people's transition to working life.

Second, the social and professional contexts in which young adults are embedded can be diverse. In this developmental period, both educational and occupational contexts can be considered normative and many young people enter neither context directly. The present studies have focused on peer relationships in the school context. However, due to the variability in social contexts in this developmental period the findings of the present studies may not be generalizable to other populations of young adults. Future studies may address the question of whether and how peer relationships matter for young people who are not embedded in educational contexts and hence pursue different transitions to working life. On a related note, the present study has focused on peer relationships among young people who are embedded in a stable school-based peer culture. Peer contexts become more diverse throughout adolescence and young adults may have meaningful peer relationships outside the classroom. This holds for both school-bound and non-school-bound young people alike. Both for young people who are embedded in stable school-based peer networks and even more for those who are not, peer relationships in other settings of everyday life may be an important developmental context as well. Future studies may incorporate peer relationships inside and outside the school context to take a more inclusive approach to young people's peer networks. However, this also complicates the accessibility of study participants as they can no longer be approached within the institutional setting of the school (see section 6.5.).

Third, the transition from school to work is not a single event but refers to a series of transitions that take place during an extended period of time during which young people make vocational decisions, set goals, explore their preferences and ambitions, and find their way in the labor market. The studies that comprise this book have focused on

the immediate transition period at the end of vocational education up until young people's first two years after graduation. Whereas these studies cover aspects of the *process* of the transition, they do not cover the *completion* of the transition for all study participants. Future research may extend the time frame of their studies to follow young adults through their early career pathways up until the completion of the transition. However, compared to previous generations, the transition to working life and to adulthood in general has been extended and delayed. Young people today move out from the parental homes later and spend more time in education than previous generations (Arnett, 2000; Buchmann & Kriesi, 2011). To study the completion of the transition to work, both longitudinal research that covers a longer time frame into respondents' late twenties and a clear definition of when the transition has been completed will be needed. In the present research, we have conceptualized the successful completion of the transition as the state when young people have made the transition from secondary school to either higher-level education or working life and were not planning to make any further changes to their current situation at the time of measurement (Chapter 3, Study 2). However, careers are less stable today than they were in previous generations, making job changes more common and frequent in today's young workforce. Accordingly, (planned) changes in educational and vocational pathways do not necessarily indicate non-completion of the transition for all individuals. Future studies may extend this operationalization to include additional indicators of a completed transition such as satisfaction with one's job and life situation.

### **6.5. Research on Young Adults in Transition: Reflections and Directions**

Research on young adults in transition is a complicated endeavor and greatly differs from research on younger samples in educational contexts or older samples that are embedded in, for instance, work contexts. The transition from late adolescence to young adulthood is a developmental period that is characterized by an enormous variability in social contexts and by changing social relationships (Arnett, 2000). Whereas during adolescence, young people are usually part of a stable school-based peer context, the contexts in which young adults are embedded diversify. This and other practical constraints have resulted in an underrepresentation of research on non-college bound young adults - for this reason sometimes referred to as 'the forgotten half' (Blustein et al., 2002; Haggerty, 1989; Ling & O'Brien, 2012). The claim that young people who are

not embedded in educational contexts are an understudied population is not new. Over the past decades, studies on the transition to adulthood and the economic prospects of young people after the transition from school to work have primarily focused on college-bound youth. Already since the late 1980s, scholars called for the need to investigate the transition from school to work in non-college bound youth (Blustein et al., 2002; Haggerty, 1989; Ling & O'Brien, 2012). However, other than practical considerations there is no rationale to pay less attention to young people who do not enter a college education (or comparable form of follow-up education) after completion of their secondary education.

In the School to Employment (StEP) project I aimed to follow young people during their last year of vocational education and their first year after graduation, irrespective of their educational or occupational pathways. During the design and conduction of the School to Employment (StEP) project throughout the past years, I faced many obstacles. Some of these I had foreseen and had taken precautions to overcome them. Others I had not foreseen. I believe that it is worthwhile to share my experiences in designing and conducting such a study so that future researchers can benefit from the insights that I gained during the project. I have come to the conclusion that most of the recommendations that I can give to future researchers pertain to two greater topics: Communication and commitment.

### **6.5.1. Communication**

Communication is important on a variety of levels. Communication of the goals and aims of the study to the respondents is an essential part in gaining young people's collaboration, and constant communication with the schools is important to ensure prolonged cooperation and support for the project from the executives and teachers. However, one of the greatest challenges of the project was the continuity of the communication after respondents had graduated from school and finding the proper means of staying in touch with them. Once respondents could no longer be approached in the classroom, they had to be reached through different channels. I anticipated on this by asking for extended contact information in the first two waves of the data collection. Respondents were asked to provide primary and secondary email addresses, landline and mobile phone numbers and their postal address. Although respondents were assured that this information would not be used for any other purpose than communication regarding



the research project, many were reluctant to provide personal contact information or only provided some details.

Among those respondents who provided contact information, different obstacles had to be faced. The transition to work is a phase where young people move to find jobs. Consequently, their contact information may be quickly outdated as postal addresses change. During the data collection I experienced that even phone numbers changed more rapidly than I expected. This appeared to be even more so the case for email addresses, through which survey links were primarily distributed. Often times, respondents could be reached by phone and were given a reminder to complete the questionnaire or an update on an outdated email address could be acquired in the conversation over the phone. However, in the end, not all of these reminders resulted in a completed questionnaire. In future research conducted on this age group it might be worthwhile to include phone interviews as a substitute for the online questionnaire where respondents fail to complete the initial survey. However, this is a costly and time-consuming approach to data collection that requires a larger team of researchers involved. Whereas it was not possible for one person to conduct all required interviews on the phone, future research projects involving larger teams may benefit from additional phone interviews to reduce attrition after respondents have left the school context. Finally, if surveys or invitations to complete an online survey are to be distributed over regular mail, my experience has shown that although young people often do not live in their parental homes anymore, their parental postal addresses are among the more stable contact details throughout this period. Hence, even though respondents do not live with their parents anymore, incorporating the parents, keeping them informed on the ongoing study, and encouraging them to pass on the surveys they receive by mail to their children may be a viable way to stay in touch with the respondents. Moreover, if parents are involved in the study, they may also encourage their children to complete the survey and to continue their participation, potentially resulting in higher response rates in the later waves.

### **6.5.2. Commitment**

Besides reaching respondents to provide them with the possibility to complete the survey, it is also essential that they are committed to the project and are willing to complete a survey. Although motivating respondents to participate in research is an important part of any data collection, it may be more even important in samples of young

adults in transition during an often rapidly changing period in their lives. In the first waves, surveys were completed in the class context during a time that was specifically designated for the completion of the survey. This was not the case after respondents had left the school context. Whereas participation was voluntary and motivation to participate in the study was also an important factor in the first waves of the study, it became even more important once respondents needed to complete the survey in their own time. Other than in adolescent samples, material incentives may be encouraging participation but will most likely be of lesser value. Once respondents finish their education, get their first jobs, and start to earn money, small material or monetary rewards may be more easily attainable and less valuable as an incentive to them. The present study did not offer participants monetary incentives for their participation (a lottery for gift cards was held after the final wave). Instead, respondents received updates on the progress of the study through a regularly distributed newsletter to increase their commitment.

Next to respondents' commitment, communication and commitment of the participating institutes or school was of crucial importance. Schools were the primary facilitators of the data collection during the waves that were collected in the school context, and the way in which schools communicate the goals of the study to their students may affect students' conceptions of the importance of the research and their role in it. Even after respondents had left the school context, I have stayed in close contact with the educational institute where the research was conducted. Teachers as well as executives were informed about the progress of the study through newsletters and intermediate reports. Discussing the progress and intermediate findings of my research with the schools has often helped me get a better understanding of my data. Moreover, schools may have their own means of keeping in touch with their former students which may be an additional way to keep in contact with respondents in the later stages of the data collection.

Finally, before I started the project I did not know what young people's first year after graduation looks like or where and how I could reach them. These were issues that I had to figure out 'along the way'. Especially for researchers who work with young people in diverse and rapidly changing social contexts, commitment to the project and creativity in addressing the obstacles that arise will be an essential part of the work.

## **6.6. Concluding Remarks**

Together, the four studies of this book underline the notion that social relationships with peers deserve closer attention when seeking to understand young people's transition from school to work. It is important to acknowledge that young people's career decisions and behaviors do not take place in isolation but are developed in interactions with significant others – in this developmental period often their peers. The insights of this research can help us to better understand why young people make the decisions that they do and how their career-directed behaviors are affected by their larger peer networks. Especially practitioners taking group approaches to counseling and guidance in young people's career development may benefit from these insights and devote greater attention to the group dynamics that may take place in these settings.

The results of this research can further contribute to a better understanding of how the (approaching) onset of employment can be a turning point in young people's engagement in adverse behaviors. Whereas it is often assumed that the onset of employment pulls young people away from the engagement in deviant or norm-breaking behaviors, our studies suggest that this may be the case in early or emerging adulthood but is not necessarily true at younger ages and not for all demographic subgroups. Both researchers and practitioners may derive valuable insights from the results of the present studies when trying to understand young people's early career-decisions and behaviors and when providing guidance and counseling to young people in transition.





# Nederlandse samenvatting

## (Summary in Dutch)

De overgang van school naar werk is een belangrijke fase in de ontwikkeling van jongeren en jongvolwassenen, die gekenmerkt wordt door ingrijpende veranderingen in hun sociale relaties en hun sociale contexten (Arnett, 2000; Erikson, 1959; Zarrett & Eccles, 2006). Het behalen van een beroepskwalificatie en een soepele overgang naar een eerste baan zijn belangrijke stappen in deze fase. Eerder onderzoek heeft laten zien dat de overgang naar de arbeidsmarkt een van de belangrijkste uitdagingen in deze levensfase is met implicaties voor de sociaal-economische status van jongeren en hun emotioneel welbevinden (Ashby & Schoon, 2010; Erikson, 1959; Haase, Heckhausen, & Köller, 2008; Pinquart, Juang & Silbereisen, 2003; Savickas, 1999; Schoon & Parsons, 2002).

Loopbaantheorieën leggen al langer de nadruk op de rol van sociale relaties in beroepskeuzes (Blustein, Schultheiss, & Flum, 2004; Felsman & Blustein, 1999; Jokisaari & Nurmi, 2005; Lent & Brown, 2013; Lent, Brown, & Hackett, 1994; Lent, Hackett, & Brown, 1999; Leung, 2008; Super, 1980). Tegenwoordig is er een groeiend aantal onderzoeken dat zich richt op de vraag of en hoe ook sociale relaties met leeftijdsgenoten de beroepskeuze en loopbaanontwikkeling van jongeren en jongvolwassenen kunnen beïnvloeden (Felsman & Blustein, 1999; Kiuru, Salmela-Aro, Nurmi, Zettergen, Andersson, & Bergman, 2012). Het onderzoek in dit boek gaat in op de samenhang tussen relaties met leeftijdsgenoten en de keuzes en het gedrag van jongeren en jongvolwassenen op verschillende momenten gedurende de overgang naar werk. De centrale vraag waarop de vier empirische studies in dit boek zich richten, luidt: *Welke rol spelen sociale relaties met leeftijdsgenoten in de loopbaankeuzes en het gedrag van jongeren en jongvolwassenen gedurende de overgang van school naar werk?*

### Context en data

Om deze onderzoeksvraag te kunnen beantwoorden heb ik in het kader van mijn promotieonderzoek het *School to Employment Project* (StEP) opgezet. StEP is een

onderzoeksproject dat zich richt op de overgang van school naar werk onder leerlingen in het middelbaar beroepsonderwijs (MBO) en is uitgevoerd in samenwerking met een grote onderwijsinstelling in het Noorden van Nederland. Het doel van dit onderzoek is om te achterhalen welke factoren de overgang van leerlingen naar de arbeidsmarkt bevorderen dan wel belemmeren. Onderdeel hiervan is het uitzoeken van de manier waarop jongeren hun toekomstige baan kiezen en op welke manieren ze proberen een baan te vinden. De data voor het onderzoek zijn op vier meetmomenten tussen november 2011 en juni 2013 verzameld door vragenlijsten af te nemen bij de respondenten. Vragenlijsten werden afgenomen in november 2011, mei/juni 2012, november 2012 en mei/juni 2013. De eerste twee metingen vonden plaats terwijl de respondenten in het laatste jaar van hun opleiding zaten. De laatste twee metingen vonden plaats nadat het merendeel van de respondenten hun opleiding in 2012 afgerond had.

De data verkregen uit het StEP-onderzoek zijn in hoofdstuk 2, 3 (Studie 1) en 5 gebruikt. Hoofdstuk 4 maakt gebruik van data uit het Nederlandse TRacking Adolescents' Individual Lives Survey (TRAILS; De Winter, Oldehinkel, Veenstra, Brunnekreef, Verhulst & Ormel, 2005; Oldehinkel et al., 2014), een longitudinaal onderzoek naar de ontwikkeling van jongeren vanaf de vroege adolescentie tot aan de jongvolwassenheid. Hoofdstuk 3 maakt in aanvulling op de StEP-data gebruik van de Finse FinEdu-data (Studie 2), een langlopend onderzoek naar de overgang van school naar werk onder Finse jongeren en jongvolwassenen.

### **Bevindingen van het onderzoek**

De bevindingen van dit boek zijn onderverdeeld in twee delen. Deel I van dit boek (hoofdstuk 2 en 3) gaat over de beroepsgerichte cognities en het gedrag van jongvolwassenen in de overgang van school naar werk. Deel II van dit boek (hoofdstuk 4 en 5) is gericht op de gedragsmatige veranderingen van jongeren in de overgangsfase naar werk.

## **Deel I. Beroepsgerichte cognities en gedrag**

### **Hoofdstuk 2: “Hoe hangen doelen in de omgang met leeftijdsgenoten en sociale status binnen de klas samen met individuele verschillen in werkgerelateerde waarden?”**

Jongvolwassenen in de overgangsfase van school naar werk moeten een reeks beslissingen nemen over hun carrière en het soort banen dat zij nastreven. Werkgerelateerde waarden kunnen bij dit soort keuzes een leidraad zijn. Waarden geven een indicatie van wat mensen belangrijk vinden in een baan, welke aspecten en beloningen van het werk zij waarderen, wat hen motiveert om te werken, en hoe tevreden zij zijn met hun werk (Dobson, Gardner, Metz, & Gore, 2014; Johnson, 2001; Porfeli & Mortimer, 2010; Sortheix, Dietrich, Chow, & Salmela-Aro, 2013).

In hoofdstuk 2 is nagegaan of de status van leerlingen binnen de sociale hiërarchie van de klas en hun doelen in de omgang met leeftijdsgenoten een indicatie vormen voor de werkgerelateerde waarden die zij nastreven. Er wordt onderscheid gemaakt tussen sociale werkgerelateerde waarden (zoals het waarderen van een goede samenwerking en vriendschappelijke omgang met collega's) en status-gerelateerde waarden (zoals het waarderen van een baan met hoog aanzien, veel invloed en een hoog inkomen). De verwachting is dat leerlingen die in de klascontext een sterkere neiging hebben om sociale relaties na te streven (sociale doelen) en die een geschiedenis van een hoge affectieve status binnen de klas hebben (acceptatie binnen de klas), eerder geneigd zijn deze doelen ook in de toekomstige werkcontext na te streven door de sociale aspecten van hun toekomstige banen sterker te waarderen dan de status-gerelateerde aspecten. Van leerlingen die in de klascontext de neiging hebben om invloed en aanzien na te streven (statusdoelen) en die een geschiedenis van een hoge status binnen de klas hebben (populariteit binnen de klas), wordt verwacht dat ze de status-gerelateerde aspecten van een baan sterker waarderen dan de sociale aspecten.

Hoofdstuk 2 laat zien dat de doelen die leerlingen binnen de klas in de omgang met leeftijdsgenoten nastreven, gerelateerd zijn aan hun werkgerelateerde waarden. Leerlingen die in de klas sociale doelen nastreven, hechten in de keuze van hun toekomstige werkplekken inderdaad meer waarde aan een goede relatie met hun



collega's (sociale werkgerelateerde waarden) dan aan status-gerelateerde aspecten zoals inkomen en invloed. Leerlingen die in de klas statusdoelen nastreven, hechten bij de keuze van hun toekomstige werkplekken meer waarde aan aspecten zoals een hoog aanzien, hoog inkomen en invloed op het werk (status-gerelateerde waarden). Hoofdstuk 2 laat ook zien dat leerlingen die in de klas een hoge affectieve status hebben (acceptatie binnen de klas), eveneens de neiging hebben om sociale aspecten van het werk hoger te waarderen dan status-gerelateerde aspecten. Voor populaire leerlingen was een dergelijk effect niet te vinden. Terwijl status- en sociale doelen in de omgang met leeftijdsgenoten een significant verband met werkgerelateerde waarden laten zien, is de samenhang tussen de statuspositie binnen de klas en werkgerelateerde waarden minder eenduidig.

### **Hoofdstuk 3: “Kunnen relaties met vrienden en leeftijdsgenoten het sollicitatiegedrag en de transitie-uitkomsten van jongeren bevorderen?”**

Het is herhaaldelijk aangetoond dat werkzoekenden strategische voordelen hebben bij het vinden van een baan wanneer zij zich wenden tot bekenden, vrienden en collega's voor advies en informatie over mogelijke vacatures (Coleman, 1988; Granovetter, 1995; Lin, 1999; Van Hove, Van Hooft, & Lievens, 2009). Onderzoek heeft aangetoond dat het gebruik van sociale contacten bij het zoeken naar een baan voordelen biedt in termen van bijvoorbeeld het aantal aangeboden banen. Jonge werkzoekenden die voor de eerste keer de arbeidsmarkt betreden, hebben mogelijk nog maar een beperkt aantal van dit soort werkgerelateerde sociale contacten. Jongvolwassenen hebben echter wel andere sociale contacten en netwerken waartoe zij zich bij het zoeken naar een baan kunnen wenden. Vooral als het gaat om sociale steun, vertrouwen jongvolwassenen op hun vriendschapsnetwerk (Furman & Buhrmester, 1992). Eerder onderzoek heeft laten zien dat jonge werkzoekenden aan wie gevraagd werd om hun werkgerelateerde contacten te noemen, vaak hun vrienden en leeftijdsgenoten noemen (Jokisaari & Nurmi, 2005, Marmaros & Sacerdote, 2002; Tynkkynen, Nurmi, & Salmela-Aro, 2010).

In hoofdstuk 3 is nagegaan of het vriendschapsnetwerk binnen de klas voordelen kan bieden bij het vinden van een baan en bij de succesvolle afronding van de overgang naar werk of een vervolgopleiding. Hoewel een groter netwerk van vrienden ook een grotere bron van steun gedurende de overgang naar werk kan zijn, werd verwacht dat het niet zozeer het aantal, maar eerder de eigenschappen van de vrienden zijn die een steun voor

jonge werkzoekenden vormen. Er is vooral gekeken of vrienden een positieve inschatting van hun eigen kansen op de arbeidsmarkt hadden en zichzelf in staat achtten hun carrièredoelen te bereiken (*job-search self efficacy* of zelfeffectiviteit in het vinden van een baan). Binnen het onderzoek is nagegaan of een netwerk van vrienden met hoge self-efficacy een motiverende en ondersteunende rol kan spelen bij het vinden van een baan. Deze vraag is beantwoord aan de hand van twee onafhankelijke onderzoeken, één in Nederland (Studie 1) en één in Finland (Studie 2). Er is onderzocht of een netwerk van vrienden met hoge self-efficacy het sollicitatiegedrag van jongvolwassenen en de uitkomsten daarvan kan bevorderen (Studie 1) en de kans op een succesvolle afronding van de overgang van school naar werk of een vervolgopleiding vergroot (Studie 2).

Hoofdstuk 3 laat zien dat de zelfeffectiviteit binnen het vriendschapsnetwerk van een werkzoekende positief samenhangt met het sollicitatiegedrag van deze werkzoekende. Werkzoekenden van wie de vrienden hun eigen kansen en vaardigheden op de arbeidsmarkt positiever inschatten, hebben bij meer bedrijven gesolliciteerd en kregen hierdoor ook vaker een baan aangeboden (Studie 1, voorspelling over een periode van zes maanden). Hoofdstuk 3 laat verder zien dat een hogere zelfeffectiviteit binnen het vriendschapsnetwerk in de klascontext de kans dat jongeren de overgang van school naar werk of een vervolgopleiding succesvol afronden, significant vergroot (Studie 2, voorspelling over een periode van drie jaar).

## **Deel II. Gedragmatige veranderingen in de overgang naar werk**

### **Hoofdstuk 4: “Wat is de samenhang tussen werk en delinquent gedrag gedurende de adolescentie?”**

Gedurende de adolescentie ervaren jongeren vaak een gat tussen hun biologische ontwikkeling en hun rol binnen de maatschappij (*maturity gap*; Moffitt, 1993). Terwijl jongeren biologisch al vroeg rijp zijn, worden zij vaak pas laat in hun ontwikkeling maatschappelijk als ‘volwassen’ gezien. In deze ontwikkelingsfase laten adolescenten een hogere mate van kleine delinquentie en alcohol- en drugsgebruik zien, omdat deze gedragingen onder leeftijdsgenoten een indruk van ‘volwassenheid’ kunnen wekken die de maatschappij hen nog ontzegd (Moffitt, 1993). Het hebben van een baan en vooral de eerste baan wordt vaak beschouwd als een ‘keerpunt’ in het leven van jongeren en een

keerpunt in de mate waarin zij dit gedrag vertonen (Carlsson, 2012; Sampson & Laub, 2005).

In hoofdstuk 4 is nagegaan hoe het hebben van een baan op verschillende leeftijden gedurende de adolescentie samenhangt met delinquent gedrag en of deze samenhang tussen werk en delinquentie verschilt per demografische subgroep. Er wordt soms verondersteld dat het hebben van een baan jongeren aan nieuwe normen en waarden blootstelt, een bepaalde mate van sociale controle (door volwassenen) op hen uitoefent en stabiliteit in hun leven geeft waardoor delinquent gedrag gaat afnemen (Carlsson, 2012; Sampson & Laub, 2005). Het is echter mogelijk dat vooral de banen die voor jongeren in de vroege adolescentie beschikbaar zijn, hun deze stabiliteit niet kunnen bieden (Lustig & Liem, 2010).

Hoofdstuk 4 laat zien dat jongeren die in de vroege adolescentie een deeltijdbaan hebben, op deze leeftijd een hogere mate aan delinquent gedrag vertonen dan hun leeftijdsgenoten die geen baan hebben. Hoofdstuk 4 laat verder zien dat jongeren uit etnische minderheden en met een lage sociaal-economische status de hoogste mate van delinquent gedrag onder hun leeftijdsgenoten vertonen wanneer zij in de late adolescentie een baan hebben, maar de laagste mate van delinquent gedrag wanneer zij geen baan hebben. Hoewel er geen causale verbanden gelegd kunnen worden, laten de resultaten zien dat het hebben van een baan voor deze jongeren niet per se een keerpunt in het vertonen van delinquent gedrag vormt. Het is mogelijk dat jongeren die een grotere waarde hechten aan materiële bezittingen, een grotere kans hebben om te werken om deze bezittingen op legale wijze te verkrijgen, maar ook om delinquent gedrag te vertonen om deze bezittingen op illegale wijze te verkrijgen.

### **Hoofdstuk 5: “Wat zijn de types en gedragsmatige samenhangen van sociale status binnen de klas onder jongvolwassenen?”**

Het is een bekend en herhaaldelijk aangetoond fenomeen dat agressief of normafwijkend gedrag onder adolescenten vaak samenhangt met een hogere sociale status binnen de groep (Dijkstra, Lindenberg, Verhulst, Ormel, & Veenstra, 2009; Mayeux, Houser, & Dyches, 2011; Parkhurst & Hopmeyer, 1998). Wie gedrag zoals roken, drinken of drugsgebruik vertoont, heeft een reputatie als ‘populair’ groepslid. Zoals eerder gezegd,

wordt in theoretische benaderingen uitgelegd dat adolescenten een gat tussen hun biologische ontwikkeling en hun status binnen de maatschappij waarnemen (*maturity gap*, Moffitt, 1993). Door het vertonen van grensverleggend gedrag wordt onder leeftijdsgenoten een indruk van volwassenheid gecreëerd die beloond wordt met bewondering en een populaire status (Dijkstra et al., 2009). Adolescenten hebben hierdoor een ‘motief’ om dit soort gedrag te vertonen. Er zijn echter ook nadelen en risico’s aan dit gedrag verbonden, namelijk buiten de sociale context van de klas waarin deze status toegekend wordt. Adolescenten kunnen door hun agressief of normafwijkend gedrag buiten de context van de klas in de problemen raken met mogelijk ernstige consequenties op lange termijn. Hierdoor wordt populariteit binnen de klas soms als een risicofactor beschouwd indien het gedrag na de adolescentie wordt voortgezet (Mayeux, Sandstrom, & Cillessen, 2008; Rodkin, Farmer, Pearl, & Van Acker, 2000).

In hoofdstuk 5 is nagegaan of de statusvoordelen van agressief en normafwijkend gedrag onder jongvolwassenen voortbestaan tijdens de overgang van school naar werk of dat deze overgang juist een keerpunt kan vormen. Door de transitie naar de arbeidsmarkt zal de status van jongvolwassenen binnen de maatschappij veranderen en zal het gat tussen hun biologische en maatschappelijke ontwikkeling geleidelijk worden gedicht. Jongvolwassenen in de overgang van school naar werk zullen minder behoefte ervaren om een kunstmatige indruk van volwassenheid onder hun leeftijdsgenoten te creëren en agressief of normafwijkend gedrag zal dientengevolge ook niet langer door een hogere statuspositie ‘beloond’ worden. Hierdoor valt een groot deel van de motivatie weg die het vertonen van agressief en normafwijkend gedrag onder adolescenten bevordert, en zal populariteit niet langer gepaard gaan met dit soort gedrag.

Hoofdstuk 5 laat zien dat onder jongvolwassenen een hoge status binnen de klas sterker door hun affectieve relaties met klasgenoten dan door hun reputatie als populair gekenmerkt wordt. Een hoge status binnen de klas hangt vooral samen met prosociaal gedrag. Normafwijkend gedrag (alcohol- en drugsgebruik) is niet gerelateerd aan een hogere status binnen de klas. De resultaten laten verder zien dat fysieke agressie (naast prosociaal gedrag) samenhangt met een hogere status bij jongvolwassen mannen, maar niet bij jongvolwassen vrouwen. Relationele agressie blijkt niet gerelateerd aan een hogere status maar blijkt samen te hangen met een lagere affectieve status binnen de

klas. Deze resultaten wijzen erop dat het risico van potentiële negatieve effecten van een populaire status binnen de klas op lange termijn wellicht minder ernstig is dan vaak wordt aangenomen. Terwijl de potentiële nadelen van agressief of normafwijkend gedrag buiten de klascontext voortbestaan, lijken de statusvoordelen binnen de klas af te nemen.

### **Implicaties en conclusies**

De studies in dit boek laten zien dat loopbaantheorieën die de rol van sociale relaties en contexten benadrukken, ook toepasbaar zijn op sociale relaties met vrienden en leeftijdsgenoten. De resultaten van deze studies geven hierdoor steun aan de bevindingen van eerdere onderzoeken naar de rol van leeftijdsgenoten in de loopbaankeuzes en de loopbaanontwikkeling van jongeren en jongvolwassenen (Dietrich, Parker, & Salmela-Aro, 2012; Kiuru, Salmela-Aro, Nurmi, Zettergren, Andersson, & Bergman, 2012). Loopbaanbegeleiders, leerkrachten en anderen die jonge mensen in de overgang naar werk begeleiden, kunnen van de bevindingen uit deze studies profiteren door in hun begeleiding een duidelijkere nadruk op de rol van leeftijdsgenoten te leggen. Zo kunnen loopbaanbegeleiders bijvoorbeeld de omgang met vrienden en leeftijdsgenoten met een hogere self-efficacy stimuleren. De bevindingen in dit boek laten zien dat jongvolwassenen wier vrienden erin geloven dat zij de benodigde competenties bezitten om de transitie succesvol af te ronden, (1) meer frequent sollicitatiegedrag laten zien, (2) een groter aantal banen aangeboden krijgen, en (3) een grotere kans hebben om de overgang naar werk (of een vervolgopleiding) succesvol binnen drie jaar af te ronden (hoofdstuk 3).

Het is ook van belang om mentoren ervan bewust te maken dat er niet per se voordelen aan verbonden zijn wanneer jonge mensen aan het werk zijn. Dit geldt vooral voor het hebben van bijbanen in de vroege adolescentie. Er wordt in de literatuur vaak van uitgegaan dat het hebben van een baan een ‘keerpunt’ in het deviante of delinquent gedrag van jongeren kan vormen, doordat jongeren aan nieuwe normen en waarden blootgesteld worden en mogelijk doordat het gat tussen hun biologische en maatschappelijke ontwikkeling wordt gedicht (Carlsson, 2012; Sampson & Laub, 2005). De bevindingen in dit boek (hoofdstuk 4) laten zien dat jongeren die in de vroege adolescentie een bijbaan hebben, meer delinquent gedrag vertonen dan hun leeftijdsgenoten die geen bijbaan hebben. Het is belangrijk voor loopbaanbegeleiders en

mentoren om zich bewust te zijn van de implicaties van het hebben van een bijbaan op jonge leeftijd en de mogelijke risico's die hieraan verbonden zijn.

Afsluitend kan er geconcludeerd worden dat onderzoekers en loopbaanbegeleiders ervan kunnen profiteren om niet alleen naar de jongeren zelf te kijken, maar ook hun relaties met vrienden en leeftijdsgenoten in beschouwing te nemen als zij willen begrijpen welke aspecten bij de keuzes voor een baan een rol spelen en als zij het zoekgedrag naar een baan willen stimuleren. Vooral jongeren en jongvolwassenen die niet (meer) in opleiding zijn en om deze reden ook niet binnen de schoolcontext benaderd kunnen worden, zijn echter vaak moeilijk voor onderzoek te bereiken (Arnett, 2000; Blustein et al., 2002; Haggerty, 1989; Ling & O'Brien, 2012). Desondanks bieden de studies naar sociale relaties van jongvolwassenen met hun leeftijdsgenoten, die in dit boek beschreven zijn, relevante inzichten voor zowel onderzoekers als loopbaanbegeleiders en zijn de resultaten de extra tijd en moeite die het onderzoek bij deze leeftijdsgroep met zich meebrengt waard gebleken.



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## Curriculum Vitae

Britta Rüschhoff (1984) was born in Münster, Germany and moved to the Netherlands in 2005. She completed her Research Master's degree with a specialization in Work- and Organizational Psychology and Developmental Psychology at the Behavioural Science Institute (BSI) of the Radboud University Nijmegen (2010, cum laude). In the summer of 2010, she joined the Interuniversity Center for Social Science Theory and Methodology (ICS) at the University of Groningen to work on her PhD research on the role of peer relationships in young people's transition from school to work. During this time, she initiated and coordinated the School to Employment Project (StEP). In the four years that she spent at the ICS, she has also been involved in the Dutch TRAILS study and worked with the Finnish FinEdu data. On the 4<sup>th</sup> of June 2015, she will defend her dissertation titled *Peers in Careers: Peer Relationships in the Transition from School to Work* in Groningen, the Netherlands.



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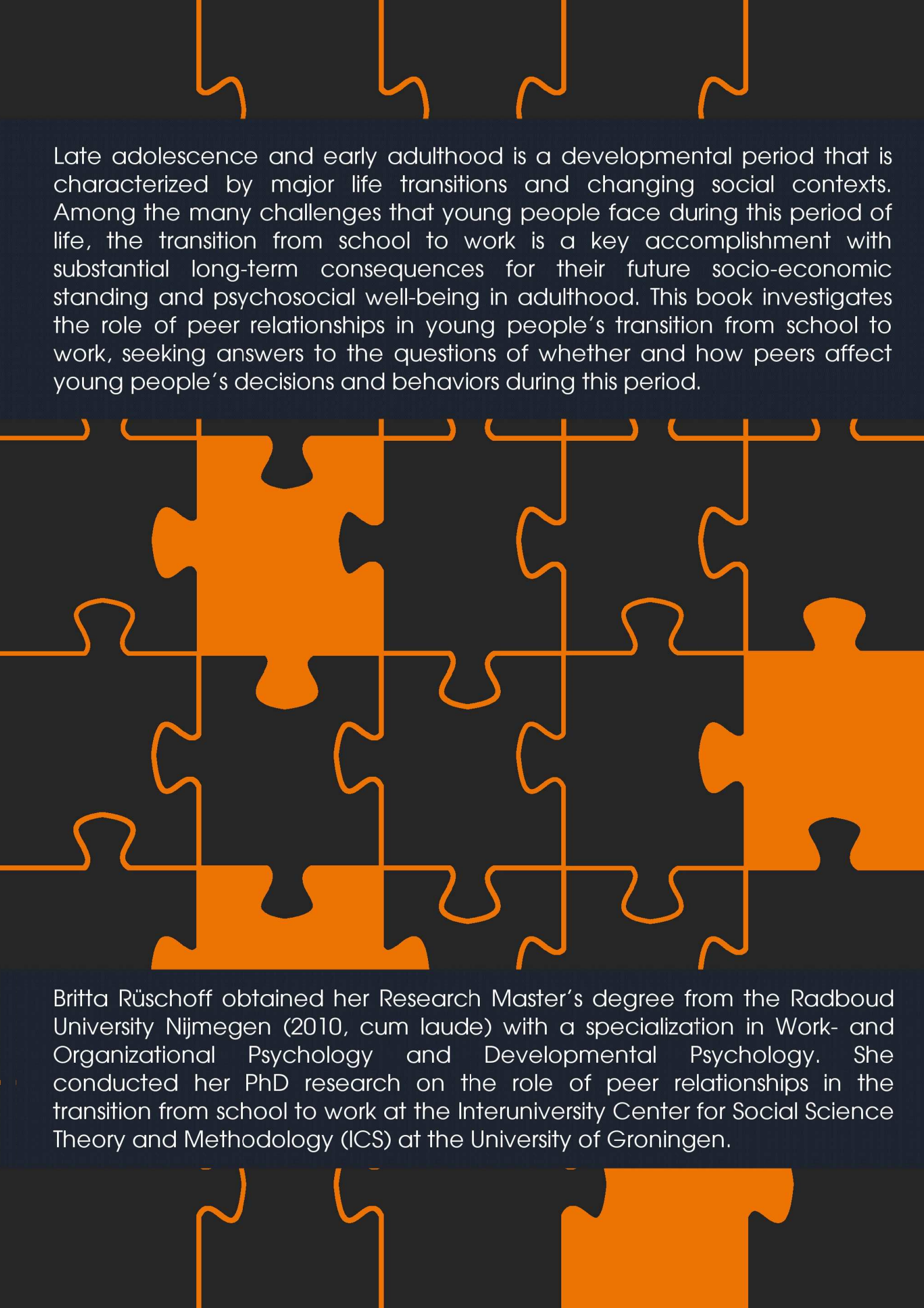
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Late adolescence and early adulthood is a developmental period that is characterized by major life transitions and changing social contexts. Among the many challenges that young people face during this period of life, the transition from school to work is a key accomplishment with substantial long-term consequences for their future socio-economic standing and psychosocial well-being in adulthood. This book investigates the role of peer relationships in young people's transition from school to work, seeking answers to the questions of whether and how peers affect young people's decisions and behaviors during this period.

Britta Rüschoff obtained her Research Master's degree from the Radboud University Nijmegen (2010, cum laude) with a specialization in Work- and Organizational Psychology and Developmental Psychology. She conducted her PhD research on the role of peer relationships in the transition from school to work at the Interuniversity Center for Social Science Theory and Methodology (ICS) at the University of Groningen.