

Acculturation, adaptation and multiculturalism among immigrant adolescents in junior vocational education

Proefschrift
ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van de Rector Magnificus Prof. Mr. P. F. van der Heijden,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 9 december 2009
klokke 10.00 uur

door
Mitch van Geel
geboren te Amsterdam
in 1982

Promotor

Prof. Dr. P. Vedder

Beoordelingscommissie

Prof. Dr. C. Espin;

Dr. G. Horenczyk (Hebrew University of Jerusalem);

Prof. Dr. J. Mesman;

Prof. Dr. A.J.R. van de Vijver (Tilburg University).



ISED

Institute for the
Study of Education
and Human Development

Dankwoord

Mijn promotietraject is een fijne en leerzame tijd geweest, en daarvoor wil ik in ieder geval de volgende mensen bedanken:

Begüm voor haar tomeloze inzet om van dit project een succes te maken.

Alle leerlingen en leraren die hebben meegedaan aan het onderzoek.

Mijn collega's Ron, Fatima en Vanja omdat ze van mijn promotietraject een leuke en gezellige tijd hebben gemaakt.

Tito Nanding, Tita Marianne, Lawrence, Ate Lyn, Carrel en Valerie voor de gezelligheid en al het lekkere eten.

Mijn maatjes Donny, Laura, Robert, Merel, Tim, Jeffrey, Nick, Jordy, Rikus en Astrid. Het voetbal, het bierdrinken, het blauwtjes lopen bij de leuke meiden, en het lachen om en met elkaar was geweldig. Jullie hebben de ontspanning geleverd die je tijdens het schrijven van een proefschrift nodig hebt.

Mijn broers Nick, Robby en Shane die altijd voor me klaar stonden als ik hulp nodig had. Als je broers hebt waar je op kunt bouwen wordt elke grote taak stukken eenvoudiger.

Mijn moeder, dankzij haar kan ik dingen in het juiste perspectief zetten en sta ik met twee benen op de grond. Ma, je bent geweldig!

Mijn wetenschappelijk geweten (theorieën, experimenten, en gedragsmatige taken) en de liefste vrouw die ik me had kunnen wensen. Jenny, mahal na mahal kita, en wees niet boos als ik weer eens een vragenlijst gebruik.

Lieve oma, bedankt voor je onvoorwaardelijke liefde. Beste opa, bedankt voor al je steun, je vertrouwen en je wijsheid. Ik mis jullie nog iedere dag en dit proefschrift draag ik op aan jullie.

Contents

1	General introduction	6
2	The adaptation of immigrant and national students in the Netherlands: an immigrant paradox?	15
3	The acculturation and adaptation of immigrant adolescents in junior vocational education	25
4	The role of family obligations and school adjustment in explaining the immigrant paradox	43
5	Multicultural attitudes among adolescents: A multilevel model using individual and classroom level variables.	56
6	Conclusion	66
7	Samenvatting	72
8	References	75
9	Biography	83

1. General introduction

Introduction

The chapters in this book deal with the adaptation of immigrant adolescents in junior vocational education in the Netherlands. The concept of adaptation refers to how well persons are doing. It is a multifaceted phenomenon. Ward (1996) distinguishes two kinds of adaptation: *psychological* and *sociocultural*. *Psychological adaptation* refers to characteristics that are internal to the individual: good mental health (i.e., few *psychological problems* of anxiety, depression and psychosomatic symptoms); and a high sense of well-being (i.e., *self-esteem and life satisfaction*). *Sociocultural adaptation* refers to the quality of the relationships between individuals and their sociocultural contexts. It is mostly examined in terms of persons' attitudes toward and success in school or work, and lack of problem behaviors in their community, in short social adjustment. In this thesis adaptation is primarily considered as an outcome of acculturation processes. Acculturation has been defined as those phenomena that result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both (Redfield, Linton, & Herskovits, 1936).

In the seventies and eighties of the twentieth century many (mainly North-American scholars) were rather pessimistic about acculturation and the outcomes. They no longer believed in the notion that time could wash away all stain and pain as for example argued by Gordon (1964). Instead, Berry, Kim, Minde and Mok (1987) argued that the processes of immigration and acculturation were inherently stressful. Aronowitz (1984) provided a review of literature and concluded that immigrant children were vulnerable in terms of adaptation because of acculturation conflicts with their parents. In general, on the basis of the studies and writings from the seventies and eighties one would expect that immigrant adolescents would experience more behavioral and psychological problems, perform worse in school, and experience lower self-esteem.

We propose that present-day immigrant adolescents in the Netherlands also have to cope with acculturation stress. Moreover, these adolescents live under relatively poor socio-economic conditions (Central Bureau of Statistics, 2008) and growing up under poor socio-economic conditions has been found to lead to poor adaptation among children (Bradley & Corwyn, 2002; McLoyd, 1998). The specific group that we focus on, immigrant students in junior vocational high schools, may fare even worse because they lack perspective needed to change their socioeconomic situation. In short, based on the findings from mainly North-American studies in the latter decades of the 20th century and given their socioeconomic situation we might expect immigrant adolescents to experience adaptation problems in the Netherlands.

Despite the fact that immigrants often live under poor socio-economic conditions, later studies indicate that migration does not necessarily result in poor adaptation outcomes. Thus theories are needed to explain variability in adaptation outcomes among immigrant adolescents.

Berry (1997) stresses the importance of individual and group factors in explaining adaptation outcomes among immigrants. More recently, the notion that the context in which immigrants live and operate plays an important role in explaining adaptation outcomes has gained ground (Birman, Trickett, & Buchanan, 2005; Vedder, 2004).

The main questions that will be addressed in this thesis concern the adaptation of immigrant adolescents in junior vocational education in the Netherlands. The focus of the thesis is on describing the pattern of adaptation for these adolescents, as well as on conditions that are conducive to immigrant adolescents' adaptation. We use psychological problems, self-esteem and behavioral problems as indicators of immigrant adolescents' adaptation. We hope to increase our understanding of immigrant adolescents who live in relatively poor socio-economic circumstances as well as to validate and further refine theoretical frameworks, explaining the effects of immigration on adolescents. In the remainder of this chapter the theories that will be used throughout this book will be introduced, but first we devote our attention to the context in which the immigrant adolescents in this study experience their acculturation process.

Junior vocational education

The Dutch educational system, at least at the secondary level, is a highly diversified and selective system of hierarchically ordered school types or educational tracks. Three main tracks of secondary education are distinguished, namely the VMBO, the HAVO and the VWO. The VMBO, or junior vocational high school is the lowest educational track, provided that students do not repeat grades, it takes four years to complete. The VMBO itself has a hierarchical structure in that it distinguishes four streams or sections that vary in the extent to which they academically challenge the students. The VMBO prepares students for intermediate vocational education, but it does not qualify them for a profession. The intermediate vocational training that follows after the VMBO can prepare students for a wide array of professions, including nursing, plumbing, carpentry and bookkeeping. The specific VMBO track completed by the students and their achievements in the track are decisive for their eligibility for the type and level of training they can apply for in subsequent intermediate vocational education. Only the highest level of the VMBO grants a student permission to continue studies in the second of the three broad school types or tracks which is referred to as the HAVO, or school of higher general secondary education. HAVO is a five year track and prepares students for higher vocational education or the VWO, pre-university education. VWO is a six year track preparing students for university. Which school type students attend following primary school is largely determined by their earlier school performance, and particularly by the results on a national test at the end of the final grade in primary school. Eligibility to a school type or track is defined in terms of score ranges on this test; low scoring children may attend a VMBO only.

In the Netherlands there is an overrepresentation of immigrant adolescents in junior vocational education. Moreover, relatively high rates of students drop out of this school type (Central Bureau of Statistics, 2007). Dropping out of school in the Netherlands increases the risk of

delinquency and unemployment of youths (Scientific Advisory Board for Government Policy, 2009). For immigrant adolescents the situation is especially troublesome, not only is there a low representation of immigrant adolescents in the higher educational tracks, in junior vocational education immigrant adolescents perform worse than their national peers attending the same school. Compared to their national peers they receive lower grades and drop out of junior vocational education more often. The poor performance of immigrant adolescents in junior vocational education has been attributed to a relatively low socio-economic status and poor Dutch language skills (Herweijer, 2009). There are no empirical studies about the acculturation preferences and experiences of immigrant adolescents in junior vocational education in the Netherlands, and about how these acculturation preferences and experiences relate to the students' adaptation. The Netherlands participated in the International Comparative Study of EthnoCultural Youth (ICSEY; Berry, Phinney, Sam & Vedder, 2006) with 43.3% of the immigrant adolescents enrolled in junior vocational education (the other participants were all enrolled in higher educational tracks). In the ICSEY study, the subsample of immigrant youth in junior vocational education was not compared to the immigrant youth in the higher educational tracks, nor were separate analyses ran for the subsample in junior vocational education. The challenges of acculturation may be particularly difficult for immigrant adolescents in junior vocational education, as statistics suggest that, compared to the national adolescents, immigrant adolescents have trouble succeeding in education. And even when successful, junior vocational education offers relatively poor chances for upward mobility when compared to higher academic tracks. In the following sections theories are presented to help explain patterns of acculturation and adaptation among immigrant adolescents.

Immigrant paradox

In many countries immigrants live under poorer socioeconomic conditions than the national population and lack the opportunities to improve their economic position (Hernandez & Darke, 1999; Zhou, 1997a, b). This trend is also seen in the Netherlands: regardless of cultural group or ethnicity, immigrants are more likely to be unemployed, earn lower wages and have a higher chance of receiving welfare than Dutch nationals (Central Bureau of Statistics, 2008). One might expect immigrant adolescents to have poor patterns of adaptation, as a poor socio-economic status is considered risky for children's development (cf., Bradley & Corwyn, 2002; McLoyd, 1998). Surprisingly, however, ample research has found that immigrant adolescents perform as well as, or even better than their national contemporaries in terms of some areas of adaptation. Immigrant adolescents in the United States perform better in terms of school, mental health, behavioral and physical problems, and are less likely to engage in risky behavior like drug abuse when compared with national adolescents (Blake, Ledsky, Goodenow, & O'Donnell, 2001; Fuligni, 1997; Harris, 2000; Steinberg, 1996). Furthermore, first generation immigrants have been found to adapt better than second generation immigrants, who regress to the mean of the nationals (Beiser, Hou, Hyman,

& Tousignant 2002; Harker, 2001). This suggests that further assimilation into the national society does not promote better adaptation outcomes.

The finding that immigrants perform better than nationals in terms of adaptation, even though their socio-economic situation is less favorable has been labeled ‘immigrant paradox’ (Hayes-Bautista, 2004; Garcia-Coll, 2005). Sam, Vedder, Liebkind, Neto, and Virta (2008) identified three criteria for defining the immigrant paradox: Immigrant adolescents score higher on measures of adaptation than national adolescents, the first generation of immigrants show a better adaptation than the second generation of immigrants, and over time the adaptation of immigrant adolescents declines or converges towards the level of adaptation of the national adolescents. Using these criteria they were only able to find mixed support for an immigrant paradox across five European countries. Lower educated adolescents were underrepresented in their study. In the second chapter of this book we shall address the question whether and to what extent the adaptation of immigrant adolescents in junior vocational education in the Netherlands resembles an immigrant paradox.

The acculturation of immigrant adolescents

Immigrants experience acculturation as the consequence of contacts with different cultures and cultural groups. For both first and second generation immigrant adolescents the home situation will provide a link with the ethnic culture while contacts outside the home situation likely provide a link with the national culture. In older literature, acculturation is described as a linear process: As time passes immigrants lose more of their ethnic culture and ultimately become members of the host society (Gordon, 1964). However, this model fails to explain why certain ethnic groups never lose particular parts of their ethnic culture, for example the Turks in Western Europe, who hold on to their ethnic language as the preferred language at home (Extra & Yagmur, 2009) or the African Americans who cherish their African American identities and traditions, even after centuries in the United States (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). Gans (1992) argued that the linear approach could never explain such phenomena and instead argued for a bumpy line approach with no predictable end to the acculturation process.

Although the bumpy line approach arguably gives a better representation of the acculturation process it fails to explain how the acculturation process relates to the adaptation of immigrants. A theory that links acculturation to adaptation is the theory of segmented assimilation (Portes & Zhou, 1993; Rumbaut, 1994; Zhou, 1997a). These scholars distinguish three main trajectories of acculturation and propose that, in order to understand the outcomes of acculturation, it is important to consider the contexts or settings into which immigrants are assimilating. The classical path of linear assimilation (eg., Gordon, 1964) is related to success for those immigrants who arrive in the middle or upper classes of society. They will assimilate into favorable conditions with many opportunities for favorable development. However most immigrants will experience poverty and live in poor neighborhoods, thus assimilating into the lower segments of society (Hernandez & Darke, 1999). Immigrant adolescents in the lower segments of society face a socio-

economic setback and have poor chances for upward mobility (Portes & Zhou, 1993). Furthermore, they have to deal with experiences of discrimination and prejudice (Berry et al., 2006). This is associated with the adaptation into youth subcultures oppositional to the national culture. Peer pressure and poor prospects for improvement of their socio-economic status may explain the poor adaptation of immigrant adolescents in these subcultures. However, immigrant families can promote a successful adaptation among immigrant adolescents when facing poor socio-economic conditions.

The immigrant families that follow a trajectory of selective assimilation may be successful under poor socio-economic conditions if they encourage their children to assimilate only to those aspects or parts of the new society that will help them to succeed, like school culture and national language proficiency, but in all other aspects these families endeavor to transmit their ethnic culture to their children. Especially important to immigrant adolescents' success are the strong bonds within the ethnic community and the strong sense of family obligations (Portes & Zhou, 1993; Zhou, 1997a, b).

Perhaps the most well-known theory of acculturation is Berry's bidimensional model of acculturation (1997, 2005). The bidimensional model of acculturation explicitly takes personal choice about the acculturation process into account. Cultural maintenance and adaptation to the host culture are treated as separate uncorrelated dimensions, that is, an immigrants' choice for cultural maintenance and the choice for adaptation to the host society are completely independent. According to this model, immigrants have to answer two questions in order to decide their acculturation strategy: "Do I want to maintain my heritage culture?" and "Do I want to adapt to the majority culture?" Assuming that these questions can only be answered by yes or no, the answers to these questions lead to four different acculturation preferences. Immigrants who wish to adapt to the majority culture and maintain ties with their own culture prefer integration. Immigrants who want to adapt to the majority culture and discard their own culture prefer assimilation or a national orientation. Immigrants who wish to maintain their own culture and refrain from adapting to the majority culture prefer separation or an ethnic orientation. Finally, immigrants who want to neither adapt to the majority culture nor maintain their own culture prefer marginalization or are simply diffuse. The bidimensional model of acculturation has been used in many studies concerning the acculturation and adaptation of immigrants and often integration was found to be the most beneficial acculturation strategy in terms of well-being (e.g., Berry, 1997; Berry, Phinney, Sam, & Vedder, 2006; Neto, 2002).

Despite its widespread use, the bidimensional model of acculturation has also been criticized. Rudmin (2003) stated that the use of typologies leads to an excessive focus on personality variables to explain the acculturation of immigrants, whereas contextual variables may be equally or even more important to understand the acculturation process. Furthermore, Rudmin argues that the bidimensional model is plagued by a logical fault as two dimensions should lead to sixteen instead of four possible acculturation strategies. This argument is expanded by examples of

acculturation strategies that are not captured by the fourfold model. As the bidimensional model of acculturation reduces the acculturation process into four typologies it is deemed by Rudmin to be overly simplistic and useless in the study of acculturation.

Because of its success in explaining adaptation outcomes, and its emphasis on personal choice, the bidimensional model of acculturation is used in this study. However, by no means does the bidimensional model of acculturation completely describe the acculturation process of immigrant adolescents, nor was it intended to do so. To acquire a more complete understanding of the acculturation and adaptation of immigrant adolescents we shall also focus on variables derived from the theory of segmented assimilation, as well as variables referring to specific aspects of the acculturation process.

Perhaps the acculturation variable most strongly related to the adaptation of immigrants is perceived discrimination. Many studies link perceived discrimination to unfavorable adaptation outcomes. Because direct instances of discrimination may be hard to pinpoint or remember, many scholars prefer to assess how discriminated a person feels. This particular scope or aspect of discrimination has been labelled 'perceived discrimination'. In many studies perceived discrimination has been found related to behavioural and psychological problems in immigrant adolescents (Berry et al., 2006; Jasinskaja-Lahti & Liebkind, 2001; Liebkind, Jasinskaja-Lahti, & Solheim, 2004; Paradies, 2006; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Wong, Eccles, & Sameroff, 2003).

National and ethnic friendships and national and ethnic language proficiency will also be included in the design. The theory of segmented assimilation highlights ethnic networks and national language proficiency as important aspects in explaining the success of selective assimilation. There are not many empirical studies that relate ethnic or national friendships and national or ethnic language proficiency to adaptation. However, ethnic language proficiency has been found exert a positive influence on school adaptation and life satisfaction, and is related to fewer behavioral problems (Vedder & Virta, 2005). National language proficiency has been found to be related to fewer school problems (Gil & Vega, 1996), psychological problems (Birman, Trickett, & Vinokurov, 2002; Vedder, 2005) and behavioral problems (Vega, Khoury, Gil, Zimmerman, & Wahrheit, 1995). It has been found that immigrants who frequently have positive contact with nationals experience less psychological problems (Jasinskaja-Lahti, Liebkind, Jaakkola, & Reuter, 2006).

Finally, we shall use family obligations in order to explain adaptation among immigrants. As many non-western immigrants come from collectivistic cultures they often have a strong sense of family obligations (Fuligni, Tseng, & Lam, 1999; Vedder, Berry, Sabatier, & Sam, 2009). In the theory of segmented assimilation a strong sense of family obligations is a key factor in the success of selective assimilation. Many researchers argue that it is through strong bonds within the family that adolescents form attitudes that help them to achieve their success (Fuligni, 1998; Suarez-Orozco & Suarez-Orozco, 1995; Zhou & Bankston, 1998). Immigrant adolescents who feel indebted and

responsible to their families will avoid behavior that brings shame to their families and will work hard in school to ensure a positive future for their families.

By using elements from the bidimensional model of acculturation, as well as elements from the theory of segmented assimilation, we aim to provide an adequate description of immigrant adolescents' acculturation and its relation to their adaptation. The acculturation of immigrant adolescents and its relation to their adaptation is addressed in chapters three and four. Chapter three uses a wide array of variables but has a strong focus on the bidimensional model of acculturation. The theoretical framework of chapter four is based on the theory of segmented assimilation, and focuses on how family obligations and school adaptation predict immigrant adolescents' adaptation.

Classroom context

In the fifth chapter of this book we divert our attention from acculturation and adaptation to another important aspect of immigration, namely the support for immigration in the classroom environment. With a flow of immigrants that can only be expected to increase in the future (Suarez-Orozco, 2001) it is important to understand how immigrant adolescents are adapting and which factors affect their adaptation. Such understanding might help to ensure a positive development among these adolescents. In order to ensure a positive development among immigrant adolescents, as well as among national adolescents facing ethnic heterogeneity, it is important to ensure that positive contact between nationals and immigrants is experienced. There are theories that suggest that if there are fundamental differences between nationals and immigrants concerning the preferred acculturation strategy conflicting relationships may arise (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002). These theories suggest that a congruent attitude towards acculturation is necessary in order to ensure harmonious relations between nationals and immigrants, meaning that the attitude preferred by the immigrants is supported or respected by the nationals. Chapter 5 focuses on one particular attitude, multiculturalism. There are various definitions of the term 'multiculturalism'. In this book we use a definition inspired by Parekh (2002) and Berry and Kalin (1995): a notion stressing equal opportunities and minimizing discrimination as well as the conviction that the access to other cultures enriches one's own life. Nationwide, the support for multiculturalism in the Netherlands is fading (Arends-Toth & Van de Vijver, 2003; Van Oudenhoven, Prins, & Buunk, 1998), but less is known about the support for multiculturalism amongst youth in junior vocational education. The benefits associated with multiculturalism for immigrants are easy to see, as most immigrant adolescents prefer an acculturation strategy that includes cultural maintenance (Berry, Phinney, Sam, & Vedder, 2006), which has been shown to be conducive to positive adaptation (Berry, 1997; Neto, 2002; Portes & Zhou, 1993).

Empirical evidence that nationals benefit from holding a multicultural attitude is scarce; however Tatar and Horenczyk (2003) found that when it comes to dealing with ethnic diversity in the classroom, teachers benefit from a multicultural attitude. Those teachers who embraced

multiculturalism more strongly reported fewer feelings of stress as a consequence of ethnic diversity in their classroom. The fifth chapter in this book deals with predictors of multiculturalism among adolescents, both national and immigrant, in junior vocational education.

General method

To gather data questionnaires were used. For the most part questionnaires were used that were validated in previous studies. The questionnaires were administered to students during class under the supervision of a teacher and a research assistant. There were two waves of data collection of which the first took place during the school year 2007-2008 and the second during the school year 2008-2009. Twenty-six classes across four schools participated in the first wave of data collection and 27 classes across eight schools participated in the second wave of data collection. No school that participated in the first wave of data collection participated in the second wave of data collection. All schools were situated in the highly urbanized western part of the Netherlands. The same questionnaires were used to measure adaptation and socio-economic status across both waves of data collection. Thus for the second chapter in this book (concerning immigrant paradox) both waves of the data collection were combined. For the third chapter the first wave of data was used. For the fourth and fifth chapter the second wave of data was used. However, in the fifth chapter three classes were omitted from the data analysis because in these schools many students were absent when the surveys were administered. In the fifth chapter variables at a classroom level are analyzed, and as such (nearly) complete classes are necessary to obtain valid indicators.

Summary and main research questions

Compared to national adolescents in the Netherlands, immigrant adolescents are more often in lower educational tracks, have a lower socio-economic status and have to cope with their minority status. First, we study how these immigrant adolescents fare in terms of adaptation. Do their poor living conditions make for poor adaptation results or is their adaptation best described by an immigrant paradox? This is discussed in the second chapter. In the third and fourth chapters we aim to explain the pattern of adaptation among immigrant adolescents in terms of acculturation. In the third chapter we employ a broad focus using several variables often found to be related to the adaptation of immigrant adolescents. Chapter 3 provides an overview of the acculturation of immigrant adolescents and its relation to their adaptation. Although several variables are used and the segmented assimilation theory (Portes & Zhou, 1993) is discussed, this chapter has a strong focus on the bidimensional model of acculturation (Berry, 1997; 2005). The fourth chapter is also aimed at the explanation of immigrant adolescents' adaptation but has a stronger focus on the theory of segmented assimilation. Using an array of variables and different theoretical frameworks we aim to provide a thorough explanation of immigrant adolescents' adaptation. The last chapter deviates considerably from chapter two through four because the focus shifts away from adaptation. This chapter is based on notions that a successful adaptation and acculturation are dependent on the

environment in which immigrant adolescents are received (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002). As such in the fifth chapter multiculturalism is argued to be an attitude that helps to create positive interethnic relations. Moreover, predictors for multiculturalism at the individual and classroom level are assessed. The following research questions guide our studies:

1. What characterizes the way immigrant adolescents in the lower educational tracks are adapting?
2. What characterizes the way immigrant adolescents in the lower educational tracks are acculturating?
3. How is the acculturation of immigrant adolescents in the lower educational related to their adaptation?
4. How are classroom and individual level variables related to multiculturalism in junior vocational education?

2. The adaptation of immigrant and national students in the Netherlands: an immigrant paradox?

This chapter addresses the possible existence of an immigrant paradox in a sample of immigrant adolescents attending junior vocational education. First generation immigrants show a more positive pattern of adaptation than nationals despite poorer economic conditions. Second generation immigrants regress to the nationals in terms of adaptation. This counterintuitive finding has been labeled 'the immigrant paradox'. Using the theory of segmented assimilation it is argued that an immigrant paradox is likely to occur when chances for economic mobility are suboptimal, as is the case for immigrant adolescents attending junior vocational education. A sample of 152 first generation immigrant adolescents, 285 second generation immigrant adolescents, and 406 nationals self-report about socio-economic status, psychological problems, behavioral problems and self-esteem. Results indicate support for an immigrant paradox indicating that increased assimilation does not necessarily lead to increased well being.

Introduction

Over the past decades many countries in the western world have received a steady influx of immigrants. In most of these countries immigrants now make up a sizeable portion of the total population. Immigration has been argued to be an inherently stressful process (Berry, Kim, Minde, & Mok, 1987). Migration may be stressful due to the loss of friends and family left behind, the burden of learning a new language and new cultural ways, finding new jobs and creating a new social network as well as being confronted with experiences of discrimination. Aronowitz (1984) argued that migration might lead to psychological and behavioral problems and that identity crises experienced by immigrant children, as well as acculturation conflicts with parents explained the poorer adaptation of immigrant children.

However, more recent studies have come to portray a more positive aspect of immigrant adolescents. Fuligni (1998) argues that immigrant children are doing remarkably well in terms of school achievement and psychological adaptation when compared to their national contemporaries. Such success is attributed to immigrants' sense of obligation to their families and their dedication towards school work. Because immigrant adolescents feel indebted to their parents who made many personal sacrifices to come to the new country, and because they feel a good education will allow them to help their parents in the future, immigrant adolescents show a remarkable motivation to do well in school (Suarez-Orozco & Suarez-Orozco, 1995). Because of their strong sense of family obligations, immigrant adolescents are unlikely to do things that would ruin their family's reputation, such as engaging in delinquency. Indeed, there is now a plethora of studies indicating that immigrant adolescents do not fare worse than national adolescents and may even do better in terms of adaptation (eg., Harker, 2001).

In a study conducted among 20,000 immigrant adolescents in the United States first and second generation immigrant adolescents were found to be less likely to engage in delinquent and violent acts, to use drugs or alcohol, or to be in poor health than national adolescents (Harris, 2000). The pattern of lower substance abuse for immigrant adolescents relative to nationals has been found in additional studies (Blake, Ledsy, Goodenow, & O'Donnell, 2001; Brindis, Wolfe, McCarter, Ball, & Starbuck-Morales, 1995; Vega, Gil, & Zimmerman, 1993). Also, the school adaptation of immigrant adolescents in the United States has been found to be superior to that of nationals, with immigrant adolescents spending more time on school work and receiving better results than nationals (Fuligni, 1997; Kao & Tienda, 1995). Similar results have been reported for psychological well-being. Immigrant adolescents in the United States have been found to score lower on self-reported measures of psychosomatic symptoms and psychological distress than nationals (Steinberg, 1996), and have been found to have self-esteem equal to that of national adolescents (Kao, 1999). The positive adaptation outcomes among immigrant adolescents are even more remarkable when their disadvantaged position is taken into account. Children from immigrant families are more likely to live in poverty in overcrowded houses, and may have parents who are less fluent in the

national language. Furthermore, immigrant children have to deal with experiences of discrimination and often have poor chances for improvement of their economic situation (Beiser, Hou, Hyman, & Tousignant, 2002; Hernandez & Darke, 1999; Zhou, 1997b). It is curious then, that immigrant children perform better than their national peers in terms of adaptation, as low socio-economic status has been reported to have a negative impact on child development (Bradley & Corwyn, 2002; McLoyd, 1998).

First generation immigrants seem to be better off than the second generation immigrants in terms of adaptation. The more 'assimilated' second generation has been argued to gradually lose the advantages of the first generation of immigrant adolescents in terms of adaptation. The pattern in which first generation immigrants are psychologically better adapted than the second generation has been reported by Harker (2001) for a sample of immigrants in the United States, and by Beiser, Hou, Hyman, and Tousignant (2002) for a sample of immigrant adolescents in Canada. The term immigrant paradox has been used earlier to describe the finding that immigrant adolescents are as well or even better adapted than national adolescents despite lower socioeconomic status (Garcia-Coll, 2005; Hayes-Bautista, 2004;), Sam, Vedder, Liebkind, Neto and Virta (2008) identified three criteria for defining the immigrant paradox: Immigrant adolescents have to score higher on measures of adaptation than national adolescents, the first generation of immigrants needs to show a better adaptation than the second generation of immigrants and over time the adaptation of immigrant adolescents declines or converges towards the level of adaptation of the national adolescents. Contrary to expectation, using these criteria, Sam et al. only found mixed support for the immigrant paradox in a sample of immigrants from five European countries. Compared to national and second generation immigrant adolescents, the first generation immigrant adolescents were shown to have a better sociocultural adaptation and a poorer psychological adaptation.

Segmented assimilation

Fuligni (1998) discusses the immigrant paradox and offers the dedication of immigrant adolescents to their education as a possible explanation for these findings. Immigrant families tend to value education highly (Caplan, Choy, & Whitmore, 1992; Suarez Orozco & Suarez Orozco, 1995) and adolescents who put effort into their studies tend to have better psychological well-being and are less likely to show behavioral problems (Steinberg, 1996). This explanation can be put into the broader framework of segmented assimilation (Portes & Zhou, 1993). The theory of segmented assimilation aims to explain differences in adaptation outcomes among immigrant adolescents referring to the differences in acculturation trajectories they follow. In order to understand the outcomes of acculturation it is important to consider the contexts or settings in which immigrants are assimilating: Assimilating into the upper segments of society may have beneficial effects for immigrants in terms of adaptation. Immigrants will have many opportunities for upward economic mobility and favorable development. However most immigrants will experience poverty and live in poor neighborhoods (Hernandez & Darke, 1999). In terms of adaptation, assimilating into the lower

segments of society can lead to the poor adaptation outcomes related to low socio-economic status. However, immigrant families have an alternative to assimilation into the lower segments. They may assimilate into school culture and at the same time maintain strong ties with their ethnic culture, guaranteeing future help from the ethnic community and sticking to values (eg., family obligations) that may help them to succeed despite an unfavorable environment. This diversified or selective pattern of acculturation adapted to particular setting is part of segmented assimilation (Portes & Zhou, 1993; Rumbaut, 1994; Zhou, 1997a, 1997b). For the first generation immigrants it seems easier to realize such a selective pattern of acculturation than for second generation immigrants. Second generation immigrants are more strongly affected by national peers and the broader national context, which results in a broader and stronger assimilation into those segments of society that are characterized by less social participation, lower wages and lower health. It is not surprising then that the first generation shows better adaptation outcomes than the second generation. The second generation is already more assimilated in a suboptimal environment and thus regressing towards the national population.

The current study

In this study the adaptation of immigrant adolescents in junior vocational education in the Netherlands is addressed. As in many countries immigrants in the Netherlands often experience less optimal economic circumstances than nationals: regardless of cultural group or ethnicity, immigrants are more likely to be unemployed, earn lower wages and have a higher chance of receiving welfare than Dutch nationals (Central Bureau of Statistics, 2008). Education should be an important tool for immigrants to improve their socio-economic situation. Unfortunately, however, in the Netherlands there is an overrepresentation of immigrant adolescents in junior vocational education, the lowest educational track at secondary level in the Netherlands. In junior vocational education there is generally a relatively high drop out of students and dropping out of school in the Netherlands is associated with delinquency and unemployment (Central Bureau of Statistics, 2007; Scientific Advisory Board for Government Policy, 2009). For the immigrant adolescents the situation is more troublesome. Not only is there a low representation of immigrant adolescents in the higher educational tracks, in junior vocational education immigrant adolescents perform worse than their national peers attending the same school. Compared to their national peers, immigrant adolescents receive lower grades and drop out of junior vocational education more often (Central Bureau of Statistics, 2008). In short, immigrant adolescents in junior vocational high schools in the Netherlands are at risk for assimilating into the lower segments of Dutch society. Particularly to them a selective acculturation trajectory or immigrant paradox would be important. An earlier study on the immigrant paradox involving immigrant adolescents in the Netherlands was not really conclusive (Berry et al, 2006), but then only 43% of the participants were enrolled in junior vocational high schools. The other adolescents were all enrolled in higher educational tracks. We hypothesize that the poor chances for economic mobility and the comparatively suboptimal

economic conditions make immigrant adolescents in junior vocational education a likely group to show an adaptation pattern similar to an immigrant paradox. Because first generation immigrant adolescents are less assimilated into unfavorable conditions, they are expected to show a better adaptation than second generation immigrant adolescents and national adolescents, while the more assimilated second generation adolescents should show a better or a similar level of adaptation to the national adolescents.

Method

Subjects

Participants were students from twelve schools in the highly urbanized western part of the Netherlands. Subjects were drawn from all four grades of junior vocational education. A total of 54 classes participated in this study. The sample consisted of 152 first generation immigrant adolescents, 285 second generation immigrant adolescents, and 406 host national adolescents. A first generation adolescent is born abroad and has two parents born abroad, a second generation immigrant is born in the Netherlands but has at least one parent born in a non-western country and a national adolescent is born in the Netherlands and has both parents born in the Netherlands. Only non-western immigrants were included in the analyses. The first generation sample consisted of 81 boys and 71 girls, the second generation sample consisted of 133 boys and 152 girls, the native national sample consisted of 216 boys and 190 girls. The ages in the sample ranged from 12 to 19. The mean age of the first generation was 14.32 ($SD = 1.244$), the mean age of the second generation was 13.98 ($SD = 1.198$) and the mean age of the national adolescents was 14.14 ($SD = .1045$). The immigrant adolescents mainly came from Turkey (27.7 percent), Surinam (14.6 percent) Morocco (18.5 percent) and the Antilles (12.6 percent). Of the immigrant adolescents 26.5 percent had a different non-western origin, such as Pakistani, Filipino, or Somali.

Procedure

Sixty-nine vocational schools in the Netherlands were invited to participate in a survey about multiculturalism and problem behavior. Schools were first contacted via telephone. When schools showed an interest in the research an appointment was made to explain the research in more detail. This led to twelve schools participating in the study. Prior to the research the teachers were informed about the goal of the research and letters of informed consent were sent to the students' parents. Strict anonymity was promised to the schools, the teachers and the students. The questionnaires were administered in the classroom during school hours under the supervision of a teacher and a researcher. Prior to the admission of the questionnaires the teachers received instructions about administering the questionnaire.

Instruments

A survey consisting of several scales was administered to the students. The survey began with questions about demographics namely age, gender, the birthplace of both parents of the respondent, the birthplace of the respondent and the respondents' religion. Socio economic status was measured with the Family Affluence Scale (Curry, Elton, Todd, & Platt, 1997). A sample item of this scale is 'How many computers does your family own.' Since the scale has different response categories for the separate items Cronbach's alpha could not be computed. The Family Affluence Scale has been found to be a valid indicator of adolescents' socio-economic status (Boyce, Torsheim, Currie, & Zambon, 2006). We also used the Rosenberg's (1965) self-esteem inventory. It consists of ten items which are answered on a five point scale ranging from 'completely disagree' to 'completely agree'. A sample item is 'On the whole I am satisfied with myself.' The psychological problems scale was taken from the ICSEY-study (Berry, et al., 2006) and consisted of 15 items answered on a five-point scale ranging from 'never' up to 'very often.' A sample item is 'I feel restless.' The behavioral problems questionnaire was an adaptation of Olweus' antisocial behavior scale (Bendixen & Olweus, 1999; Olweus, 1989, 1994). The original scale has been shown to have satisfactory psychometric properties. The scale consisted of ten items. The items were scored on a five point scale ranging from 'never' up to more than 3 times during the past 12 months. A sample item of this questionnaire is: 'had a serious fight with a teacher'.

As can be seen in Table 1, all scales had satisfactory to good reliability.

Table 1

The cronbachs alfas of the scales used in this study for the first generation immigrants the second generation immigrants and the nationals.

	First generation	Second generation	Nationals
Psychological problems	.88	.91	.86
Self-esteem	.73	.80	.88
Behavioral problems	.83	.83	.82

Results

Because age and gender have been found to be closely related to self-esteem, psychological problems and behavioral problems, it was necessary to examine whether there was an equal distribution of gender and age between the first generation, the second generation, and the national adolescents to prevent any attribution errors. A chi square test indicated that boys and girls were evenly distributed among the three groups ($\chi^2(2, N = 844) = 0.215, p > .05$). An ANOVA indicated that there were statistically significant age differences, $F(2, 838) = 4.387, p < .05, \eta^2 = .01$. The first generation immigrants ($M=14.32, SD= 1.244$) were the oldest, followed by the nationals ($M = 14.14, SD = 1.045$) and the second generation immigrants were the youngest ($M = 13.99, SD = 1.198$).

One element of the immigrant paradox is that immigrants perform better on measures of adaptation despite lower socioeconomic status. The mean scores and standard deviations of the variables self-esteem, psychological problems, behavioral problems and, socioeconomic status are reported in Table 2. To test whether there were differences in socioeconomic status between first generation immigrants, second generation immigrants, and host national adolescents on SES an ANOVA was conducted. There was a mean difference in socioeconomic status ($F(2, 841) = 51.721, p < .05, \eta^2 = .11$). Bonferonni adjusted t-tests indicated that nationals scored higher on socio-economic status than the immigrants. The means and standard deviations for socio-economic status are included in Table 2.

To test for differences between the first generation, the second generation and the nationals on self-esteem, psychological problems, and behavioral problems a MANOVA was conducted. The MANOVA revealed that group distinction was a statistically significant predictor of adaptation outcomes (Wilks' lambda $F(6, 1668) = 2.894, p < .05, \eta^2 = .01$). Follow-up univariate ANOVAs revealed significant effects of self-esteem ($F(2, 836) = 5.844, p < .05, \eta^2 = .01$) and psychological problems ($F(2, 836) = 5.190, p < .05, \eta^2 = .01$), but not behavioral problems ($F(2, 836) = .700, p > .05, \eta^2 = .00$). The effect sizes revealed small effects. The mean scores in Table 2 on the variables psychological problems and self-esteem show a pattern similar to an immigrant paradox. The mean score of the first generation immigrant adolescents shows the best adaptation, while the second generation falls in-between the first generation and the nationals.

To test the convergence hypothesis, an additional series of t-tests with Bonferroni adjustments was conducted to compare the first generation immigrant adolescents, the second generation immigrant adolescents and the nationals with regards to self-esteem, psychological problems, and behavioral problems. For both the self-esteem and psychological problem scales the first generation immigrant adolescents scored significantly higher than the nationals, while the second generation immigrant adolescents did not score significantly higher than the nationals.

Table 2

Means and standard deviations (between brackets) for the variables socioeconomic status, self-esteem psychological problems and behavioral problems.

	SES	Self-esteem	Psych. problems	Behavioral problems
First generation	2.37 (.50)	4.04 (.58)	1.92 (.67)	1.87 (.79)
Second generation	2,38 (.47)	3.84 (.63)	2.13 (.70)	1.77 (.68)
Nationals	2.73 (.41)	3.66 (.79)	2.29 (.74)	1.80 (.74)
First generation Muslims	2.31 (.49)	4.04 (.58)	1.92 (.67)	1.87 (.79)
Second generation Muslims	2.41 (.45)	3.84 (.63)	2.13 (.70)	1.77 (.68)

This pattern supports the existence of an immigrant paradox for the variables self-esteem and psychological problems. In general these findings support the immigrant paradox for measures of self-esteem and psychological problems. With regards to behavioral problems, Bonferroni adjusted t-tests reported no statistical significant difference between the first and second generation immigrant adolescents and the nationals. The results of these pairwise comparisons are summarized in Table 3.

Table 3

The p-values of the Bonferroni adjusted t-tests comparing the first, the second generation and the nationals on the variables psychological problems, self-esteem and behavioral problems.

	Compared with	Psychological problems	Self-esteem	Behavioral problems
First generation	second generation	.579	.135	.743
	nationals	.008**	.002**	1.000
Second generation	nationals	.135	.369	1.000

** = significant at the .01 level.

The initial sample of immigrant adolescents was culturally heterogeneous. To test whether the immigrant paradox could also be found in a more culturally homogeneous population, a subsample of immigrant adolescents with an Islamic religious background was drawn from the initial sample. This resulted in a subsample of 73 first generation Muslim adolescents and 175 second generation Muslim adolescents. The means and standard deviations of the socio-economic status, psychological problems, behavioral problems and self-esteem scales for this subsample are provided in Table 2. A MANOVA revealed that the same pattern existed in the Muslim subsample as in the larger immigrant sample. There was a marginal multivariate effect of generational status on adaptation outcomes (Wilks' lambda ($F(6, 1298) = 1.918, p < .10, \eta^2 = .00$)). A further investigation of the univariate ANOVAs indicated that there were significant effects of generational status on self-esteem ($F(2, 651) = 3.872, p < .05, \eta^2 = .01$) and on psychological problems ($F(2, 651) = 5.026, p < .05, \eta^2 = .02$), but not on behavioral problems ($F(2, 651) = .074, p > .05, \eta^2 = .00$). Again effects were small. To test the convergence hypothesis, an additional series of t-tests with Bonferroni adjustments was conducted to compare the first generation Muslim immigrant adolescents, the second generation Muslim immigrant adolescents, and the nationals with regards to self-esteem psychological problems and behavioral problems. There were no significant differences with regards to behavioral problems. The results of these pairwise comparisons are summarized in Table 4.

Table 4

The p-values of the Bonferroni adjusted t -tests comparing the first, the second generation Muslim subsamples and the nationals on the variables psychological problems, self-esteem and behavioral problems.

	Compared with	Psychological problems	Self-esteem	Behavioral problems
First generation	second generation	1.000	1.000	1.000
	nationals	.032*	.112	1.000
Second generation	nationals	.074	.175	1.000

* = significant at the .05 level.

With regards to psychological problems the first generation Muslim immigrants scored better than the nationals. While the ANOVA revealed significant differences on the variable self-esteem, no significant differences were found with the Bonferonni adjusted t-tests. The pattern of mean scores in Table 2, however, suggests an immigrant paradox for the Muslim subsample on the variables psychological problems and self-esteem.

Discussion

The goal of this study was to investigate whether an immigrant paradox existed in a sample of immigrant adolescents attending junior vocational education in the Netherlands. An immigrant paradox was expected in this sample because the theory of segmented assimilation states that in suboptimal environmental circumstances a lower degree of assimilation is related to more positive adaptation outcomes. To control for cultural heterogeneity in the initial sample a subsample was drawn consisting of immigrant adolescents with an Islamic background. In both the culturally diverse and in the Muslim sample the results were similar: First generation immigrants scored better than national adolescents on the variables self-esteem and psychological problems, but not on behavioral problems. Second generation immigrant adolescents were more similar to nationals in their adaptation outcomes. Immigrant adolescents achieved better adaptation outcomes than their national contemporaries despite lower socio-economic status.

The results reported in this study fit a pattern already found in the United States (Harker, 2001) and Canada (Beiser, Hou, Hyman, & Tousignant, 2002). Why are first generation immigrants relatively successful in their adaptation while second generation immigrants tend to lose their advantage? Strong family bonds and a high motivation to do well in school have been argued to be key factors in immigrant adolescents' remarkable adaptation (Fuligni, 1998; Fuligni, Tseng, & Lam, 1999). This represents segmented assimilation, or particularly selective acculturation in that a strong identification with or assimilation into the school context is combined with strong family bonds and adherence to corresponding traditional family values (Portes & Zhou, 1993; Zhou, 1997a, 1997b). The immigrants report lower socioeconomic status than the nationals while at the same time being better adapted. The second generation, however, is showing a decline in adaptation, because they

assimilate more broadly or more easily into the national context which to them is made up of relatively low poor socio-economic circumstances, lower educational tracks and less optimal health conditions.

In a previous attempt to find an immigrant paradox in Europe (Sam, Vedder, Liebkind, Neto, & Virta, 2008), only marginal support for the immigrant paradox was found. In this study the same questionnaires were used as in the study by Sam et al., and both studies were conducted in the European context, begging the question, what explains the difference? Firstly, this study was aimed particularly at an immigrant adolescent sample with low chances for upward mobility. The suboptimal environment may grant those adolescents who are less assimilated an advantage in terms of adaptation. Furthermore, in the study by Sam et al. a sample was drawn from several European countries. There are substantial differences between multicultural policies between European countries (Banting & Kymlicka, 2004), and the way in which immigrants are received may also play a part in the emergence of an immigrant paradox.

Unfortunately we could only get self reports as indications for the students' adaptation. Several studies suggest that rather strong and systematic differences in adaptation scores emerge depending who is the reporting person (self, parent, teacher or peer) (Achenbach et al., 1990; Stanger & Lewis, 1993; Stevens et al., 2003). It should be noted that up to now, all studies concerning the psychosocial aspect of the immigrant paradox have solely relied on self-reports. Using appraisals of other persons may produce a different pattern.

Although first generation immigrants were found to be better adapted than their national contemporaries the effect sizes were small. This may reflect the fact that we used a group level variable to explain differences in adaptation at the individual level. Normally individual level variables may account for more explained variance in adaptation outcomes. For example, the amount of perceived discrimination an immigrant reports has consistently been found to explain sizeable portions of variance in adaptation outcomes (Jasinskaja-Lahti & Liebkind, 2001; Liebkind, Jasinskaja-Lahti, & Solheim, 2004; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Paradies, 2006; Wong, Eccles, & Sameroff, 2003). Furthermore, the Dutch society, in its present constellation may not allow for bigger differences between groups, for instance, by providing for good health and youth care services to all who live in the country. Nevertheless, even the small effect sizes flag that immigration does not necessarily lead to a poor pattern of adaptation.

3. The acculturation and adaptation of immigrant adolescents in junior vocational education

This chapter presents the findings of a survey conducted among immigrant adolescents in junior vocational education in the Netherlands. The goal of the study was to examine patterns in the acculturation of these immigrant adolescents and see how their acculturation was related to adaptation. The bidimensional model of acculturation, the theory of segmented assimilation, and the notion of immigrant paradox were used to study patterns in this groups' acculturation. Immigrant adolescents in junior vocational education are a particularly vulnerable group in terms of adaptation due to low socioeconomic status and poor chances of upward mobility.

A sample of 240 immigrant adolescents answered questions about national and ethnic language competence, national, co-ethnic and other immigrant friends, perceived discrimination, acculturation strategy, self-esteem, psychological problems and behavioral problems. Perceived discrimination was found related to lower self-esteem, and more behavioral and psychological problems. Using cluster analysis four acculturation profiles similar to the ones previously reported in the ICSEY study were found. The acculturation profiles were significantly related to adaptation. Moreover, adaptation differences between first generation immigrant adolescents, second generation immigrants, and national adolescents could be explained using the notion of immigrant paradox. The support for the theory of segmented assimilation was less clear cut.

Immigration comes with a range of choices and challenges. Immigrants are faced with the challenges of learning a new language, creating a new social network, finding a new job, grief over lost friends and family, and discrimination. The changes an individual goes through as a result of this process are called acculturation. Acculturation has been defined as those phenomena that result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both (Redfield, Linton, & Herskovits, 1936). In older literature acculturation was described as a one-dimensional process; the immigrants adjust to the majority culture and gradually lose their ethnic culture (Gordon, 1964). Over the course of many generations one single dominant culture would emerge. However, more recently scholars have come to realize that acculturation does not necessarily lead to complete assimilation.

Perhaps the best known theory of acculturation is Berry's bidimensional model of acculturation (1997, 2005). The bidimensional model of acculturation explicitly takes personal choice about the acculturation process into account. Cultural maintenance and adaptation to the host culture are treated as separate analytically independent dimensions. That is, an immigrants' choice for cultural maintenance and the choice for adaptation to the host society are completely independent. According to this model, immigrants have to answer two questions in order to decide their acculturation strategy: "Do I want to maintain my heritage culture?" and "Do I want to adapt to the majority culture?" Assuming that these questions can only be answered by yes or no, the answers to these questions lead to four different acculturation preferences¹.

Immigrants who wish to adapt to the majority culture and maintain ties with their own culture prefer integration. Immigrants who want to adapt to the majority culture and discard their own culture prefer assimilation or a national orientation. Immigrants who wish to maintain their own culture and refrain from adapting to the majority culture prefer separation or an ethnic orientation. Finally, immigrants who want to neither adapt to the majority culture nor maintain their own culture prefer marginalization or are simply diffuse. The bidimensional model of acculturation has been used in many studies concerning the acculturation and adaptation of immigrants, and often integration was found to be the most beneficial acculturation strategy in terms of well-being (e.g., Berry, 1997; Berry, Phinney, Sam, & Vedder, 2006; Neto, 2002).

Gans (1992) argues that some ethnic groups, such as African Americans in the United States, have never completely assimilated, even over the course of many generations. Straight line or one dimensional theories neglect that immigrants have a choice in their acculturation process and may

¹ In reality these are not "yes" or "no" matters but matters that are evaluated as interrelated issues. Questionnaires exploring these issues mostly use continuous rating scales, either enquiring the issues independently or using questions that combine the two issues. Both approaches result in continuous scores for either each of the issues or for each of the acculturation types. Cut off scores can be used to create a categorization. Critics consider both approaches reductionist, conceptually as well as statistically and therefore suboptimal (Rudmin, 2003).

choose to never completely assimilate. Gans argues that the straight line theory of acculturation should be replaced by a bumpy line approach; a process of acculturation with no predictable end. The theory of segmented assimilation also states that the acculturation process is strongly influenced by preferences. Immigrants choose how they want to acculturate. Depending on their specific situation certain choices might lead to more favourable outcomes. Immigrants in the upper segments of society might do well to assimilate as assimilating into the favourable upper parts of society will grant them access to opportunities for upward mobility. However, a large part of the immigrant population acculturates into the lower segments of society. These immigrants have little to gain by assimilating into these suboptimal circumstances, and maintenance of their ethnic culture will provide these immigrants with valuable support from their ethnic community (Portes & Zhou, 1993; Rumbaut, 1994; Zhou, 1997). The manifestation of this phenomenon is referred to as the immigrant paradox (Sam, Vedder, Liebind, Neto, & Virta, 2008). The immigrant paradox is the counterintuitive finding that immigrants often tend to show better adaptation outcomes than their national peers in spite of poorer socioeconomic status. Another aspect of the immigrant paradox is the convergence hypothesis. The convergence hypothesis deals with the phenomenon that further assimilation is related to a more problematic pattern of adaptation (Jasso, Massey, Rosenzweig, & Smith, 2004). Low educated immigrants may achieve the best pattern of adaptation when they stay within the own ethnic group and culture instead of acculturating into the culture of low educated, badly employed or unemployed national contemporaries (Portes & Zhou, 1993; Zhou, 1997). The immigrant paradox is well documented for the immigrant situation in the USA (Blake, Ledsky, Goodenow, & O'Donnell, 2001; Kaplan, Erickson, & Juarez-Reyes, 2002; Ortega, Rosenheck, Alegria & Desai, 2000; Portes & Rumbaut, 2001), but hardly for the European context (see however, Sam, et al., 2008). Available findings for the European context, particularly Finland, the Netherlands, Norway, Portugal, and Sweden, are contradictory. The expected pattern was evident only with school adjustment and behavioral problems, and even here the paradox was found only among males, and partly among immigrants in Sweden and Finland. No evidence of the paradox was found with respect to self-esteem, life satisfaction, and psychological problems.

Berry's bidimensional model of acculturation probably gained its popularity among social scientists because of its relative simplicity, which makes it easy to operationalize for use in empirical studies. Other acculturation models such as Gans' (1992) bumpy line approach or the segmented assimilation approach by Portes and Zhou (1993) are harder to operationalize for use in empirical studies. Critique towards the bidimensional model of acculturation has been issued by Rudmin (2003), stating that the bidimensional model of acculturation is an oversimplification of the acculturation process. Still, support for the bidimensional model of acculturation has been reported (Ryder, Alden, & Paulhus, 2000; Ben-Shalom & Horenczyk, 2003), and the bidimensional model of acculturation has been found successful in predicting adaptation outcomes.

While the bidimensional model of acculturation is still useful, scientists studying acculturation and its relation to adaptation should include more variables and use a variety of

models in their studies in order to gain more complete understanding of the acculturation and adaptation of immigrants. An example of such a study was carried out by Birman, Trickett and Vinokurov (2002). In this study it was found that different measures of acculturation were related to specific adaptation outcomes.

In the current study we use a variety of measures of acculturation and three models of acculturation (bi-dimensional, segmented assimilation, and immigrant paradox) to describe the acculturation and its relation to the adaptation of immigrant adolescents in the Netherlands. Moreover, we use a sample of adolescents enrolled in junior vocational education, thus optimizing our chances of documenting the working of the immigrant paradox in the Dutch acculturation context.

Immigrant adolescents in junior vocational education

For immigrant adolescents in junior vocational education the acculturation process is especially challenging. These adolescents have to perform the tasks associated with acculturation under suboptimal socioeconomic circumstances and with poor prospects of improving their economic situation. In many countries immigrants live under poorer socioeconomic conditions than the national population (Hernandez & Darke, 1999; Zhou, 1997). This is also true in the Netherlands: regardless of cultural group or ethnicity, immigrants are more likely to be unemployed, earn lower wages and have a higher chance of receiving welfare than Dutch nationals (Central Bureau of Statistics, 2008). Education should be the primary tool for helping immigrants improve their poor socio-economic situation. Unfortunately, in the Netherlands there is an overrepresentation of immigrant adolescents in junior vocational education, which is the lowest educational track at secondary level in the Netherlands. In junior vocational education there is a relatively high drop out of students. Dropping out of school in the Netherlands is associated with delinquency and unemployment (Central Bureau of Statistics, 2007; Scientific Advisory Board for Government Policy, 2009). For immigrant adolescents the situation is especially troublesome- not only is there a low representation of immigrant adolescents in the higher educational tracks- in junior vocational education immigrant adolescents perform worse than their national peers attending the same school. Compared to their national peers immigrant adolescents receive lower grades and drop out of junior vocational education more often (Central Bureau of Statistics, 2008). There are no empirical studies about the acculturation preferences and experiences of immigrant adolescents in junior vocational education in the Netherlands, and how these acculturation preferences and experiences relate to their adaptation. To date the Netherlands participated in the International Comparative Study of EthnoCultural Youth (ICSEY; Berry, Phinney, Sam & Vedder, 2006) with 43.3% adolescents enrolled in junior vocational education. The other participants were all enrolled in higher educational tracks.

The acculturation process

Although the bidimensional model of acculturation has been found to be strongly related to the adaptation of immigrants, it is not sufficient to describe the entire scope of the acculturation experience. In this study multiple indices of acculturation shall be used next to the bidimensional model of acculturation in order to provide a more complete picture of the acculturation of immigrant adolescents in junior vocational education.

Perhaps the most important aspect of the acculturation process is language. Mastery of the national language is required in order to participate and succeed in the new society, while for adolescents the ethnic language may provide a valuable link to the ethnic community. Ethnic language proficiency has been found to exert positive influence on school adaptation and life satisfaction, and is related to fewer behavioural problems (Vedder & Virta, 2005). National language proficiency has been found to be related to fewer school problems (Gil & Vega, 1996), psychological problems (Birman, Trickett, & Vinokurov, 2002; Vedder, 2005) and behavioral problems (Vega, et al., 1995). Language is also necessary for establishing intercultural contact. From an ideological standpoint, it is undesirable to have no intercultural contacts in a multicultural society. Intercultural contacts have been found to reduce prejudice (Allport, 1954; Pettigrew, 1998; Pettigrew & Tropp, 2006). Further, immigrants who frequently have positive contact with nationals experience fewer psychological problems (Jasinskaja-Lahti, Liebkind, Jaakkola, & Reuter, 2006).

A more negative aspect of the acculturation process is discrimination. The acculturation process of immigrants is influenced by the national population and by other ethnic groups, and experiencing discrimination may be seen as a reflection of a negative attitude of these other ethnic groups toward ones own group (Berry et al., 2006; Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002). Moreover, discrimination may severely disturb the acculturation process. Since exact instances of discrimination may be hard to pinpoint and remember, most scholars study perceptions of discrimination, labeled perceived discrimination. While overall levels of perceived discrimination are low in most western countries, immigrant adolescents do report feelings of discrimination (Berry, et al., 2006). Perceived discrimination has in many studies been found to be related to both internalizing and externalizing problem behavior (Jasinskaja-Lahti & Liebkind, 2001; Liebkind, Jasinskaja-Lahti, & Solheim, 2004; Paradies, 2006; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Wong, Eccles, & Sameroff, 2003).

Although all these variables clearly deal with different constructs, they are all central to the process of acculturation and have been found related to the adaptation of immigrants. In the ICSEY study (Berry, et al., 2006) a cluster analysis was used to describe the interpersonal acculturation patterns of immigrant adolescents, providing support for four distinct acculturation profiles. These four acculturation profiles were found to give a theoretically meaningful description of the acculturation patterns of immigrant adolescents. Furthermore, these acculturation profiles were significantly related to the adaptation of immigrant adolescents (Berry, et al., 2006). An ethnic, a national, an integrated, and a diffuse profile were found. The ethnic profile was characterized by a

high proficiency in the ethnic language, a preference for separation and a preference for ethnic friends over national friends. The national profile was characterized by a preference for assimilation, poor ethnic language capacity and a preference for national over ethnic friends. The integrated profile was characterized by an interest in ethnic and national friends and a strong preference for the integration strategy. The diffuse profile was characterized by a proficiency in the ethnic language, no clear acculturation preference, and a preference for both national and ethnic friends. The diffuse profile coincided with the highest rate of perceived discrimination. Creating profiles provides insight in the way people are acculturating and distinguish interpersonal patterns therein. We use a solution with four clusters in this study mainly because our study was partially based on the bidimensional model of acculturation. In the current study self-reports were used to measure acculturation strategy, language comprehension, friendships, and perceived discrimination in a sample of immigrant adolescents attending junior vocational education. Using cluster analysis we shall test whether a solution with four clusters is theoretically meaningful in a population of immigrant adolescents in junior vocational education and whether the clusters resemble the four clusters reported by Berry et al. (2006). As well as being theoretically meaningful, the clusters should predict adaptation outcomes. Replicating the four profiles will provide further validation and generalizability to the four clusters found by Berry et al. (2006). Furthermore, this study uses a sample of adolescents with low educational chances, thus allowing the investigation of whether the manifestation of the immigrant paradox depends on the likelihood of realizing upward mobility, which is quite low in this particular group. Apart from, but related to the attention for the immigrant paradox, this specific sample will allow us to use the theory of segmented assimilation to formulate specific hypotheses about adolescents' acculturation and adaptation. The following research questions are addressed in this study:

1. Can the acculturation process of immigrant adolescents be meaningfully described by a fourfold model?
2. Does the immigrant adolescents' adaptation fit the model of the immigrant paradox?
3. Are indices of acculturation related to adaptation?
4. Are the acculturation profiles related to adaptation?

It is hypothesized that the study will show that lower levels of perceived discrimination, higher levels of both ethnic and national language comprehension, more frequent contacts with both co-ethnic, other immigrant and national peers, and a stronger preference for integration in students enrolled in junior vocational education coincide with more positive adaptation outcomes. Moreover, we hypothesize that immigrant adolescents in junior vocational education can be meaningfully categorized using the four acculturation profiles previously reported by Berry et al. (2006): an ethnic, a national, an integrated, and a diffuse profile. Following the theory of segmented assimilation we hypothesize that the profiles related to the maintenance of ethnic culture (the

integrated and ethnic profiles) are the largest profiles, and related to more positive adaptation outcomes than the other two profiles. Given the low level of education and the expectation that most immigrant adolescents prefer to maintain contacts to their ethnic culture we expect a pattern of adaptation between national youth and first and second generation immigrant youth that is typical of the immigrant paradox (first generation immigrants have better adaptation than national youth and second generation immigrants converge towards the levels of adaptation typical of the national youth). Finally, an exploratory analysis will examine which demographic variables are related to the acculturation profiles.

Method

Subjects

Participants were students from four schools in the highly urbanized western part of the Netherlands. Subjects were drawn from all four grades of junior vocational education and a total of 26 classes participated in this study. The sample consisted of 86 first generation immigrant adolescents, 176 second generation immigrant adolescents, and 128 national adolescents. A first generation immigrant is born abroad and has two parents born abroad, a second generation immigrant was born in the Netherlands but has at least one parent born in a non-western country, and a national adolescent is born in the Netherlands and has both parents born in the Netherlands. Only non-western immigrants were included in these analyses. The first generation sample consisted of 49 boys and 37 girls, the second generation sample consisted of 93 boys and 83 girls. The national sample consisted of 65 boys and 63 girls. The mean age of the first generation was 13.79 ($SD = 1.06$), of the second generation 13.63 ($SD = 1.05$) and of the national adolescents 13.36 ($SD = .64$). The immigrant adolescents mainly came from Turkey (30.4 percent), Surinam (18.5 percent) Morocco (16.5 percent) and the Antilles (13.8 percent). Of the immigrant adolescents 20.8 percent had a different non-western origin.

Procedure

Twenty-three junior vocational schools in the Netherlands with an ethnically diverse student body were invited to participate in a survey about acculturation and adaptation. Schools were first contacted via telephone. When schools showed an interest in the study an appointment was made to explain the study in more detail. This led to four schools participating in the study. Prior to the data collection the teachers were informed about the goal of the study and letters of informed consent were sent to the students' parents. Strict anonymity was promised for the schools, the teachers and the students. The questionnaires were administered in the classroom during school hours under the supervision of a teacher and a researcher. Prior to the admission of the questionnaires the teachers received instructions about administering the questionnaire. After the data collection had finished the participating schools received a report comparing their school to the other schools in the dataset

with regards to the adaptation of students. In this report the school officials were only able to identify the school they worked at.

Instruments

A survey consisting of several scales was administered to the students. The survey began with questions about demographics namely age, gender, the birthplace of both parents of the respondent, the birthplace of the respondent, the respondents' religion, and a five point scale measuring the ethnic composition of the respondents' neighborhood ranging from 1 'mainly immigrant' to 5 'mainly nationals'. Socio economic status was measured with the Family Affluence Scale (Curry, Elton, Todd, & Platt, 1997). A sample item of this scale is 'How many computers does your family own.' Since the scale has different response categories for the separate items Cronbach's alpha could not be computed. The Family Affluence Scale has been found to be a valid indicator of adolescents' socio-economic status (Boyce, Torsheim, Currie, & Zambon, 2006). We also used the Rosenberg's (1965) self-esteem inventory. It consists of ten items which are answered on a five point scale ranging from 'completely disagree' up to 'completely agree'. A sample item is 'On the whole I am satisfied with myself.' The Cronbach's alpha for this scale was .75. The psychological problems scale was taken from the ICSEY-study (Berry, et al., 2006) and consisted of 15 items answered on a five-point scale ranging from 'never' up

to 'very often'. The Cronbach's alpha for this scale was .89. A sample item is 'I feel restless.' The behavioral problems questionnaire was an adaptation of Olweus' antisocial behavior scale (Bendixen & Olweus, 1999; Olweus, 1989, 1994). The original scale has been shown to have satisfactory psychometric properties. The scale consisted of ten items. The items were scored on a five point scale ranging from 'never' up to more than 3 times during the past 12 months. A sample item of this questionnaire is: 'had a serious fight with a teacher.' The Cronbach's alpha for this scale was .80.

To assess ethnic language proficiency a self-report scale from the ICSEY study (Berry, et al., 2006) was used. The scale consisted of four items inquiring how well respondents were able to read, write, speak and understand their ethnic language. The Cronbach's alpha for this scale was .83. To assess national language the same format was used as for the ethnic language scale, but inquiring about how well respondents were able to read, write, speak and understand Dutch. The Cronbach's alpha for this scale was .82. The perceived discrimination scale was a four item scale taken from the ICSEY study. Respondent answered on a five point likert scale how often they had been treated unfairly or unjustly by teacher, other adults, peers in school and peers outside school. The Cronbach's alpha for this scale was .86.

The acculturation scale was adapted from the acculturation scale of Ben-Shalom and Horenczyck (2003), which has been shown to have satisfactory psychometric properties. The adapted scale consisted of three integration, three separation and three assimilation items. Responses were given on a five point scale ranging from 'completely disagree' up to 'completely agree'. A sample item of the assimilation subscale is 'During school time I mainly want to have

contact with Dutch children. The Cronbach's alpha for the subscales was .69 for integration, .76 for separation and .71 for assimilation. Host, co-ethnic and immigrant friends were measured with a five point likert scale inquiring how many Dutch, co-ethnic and friends from other nationalities the respondent had. The ordinal level response scale ranged from 'none' up to 'many'.

Results

This study was conducted to analyze the acculturation and adaptation of immigrant adolescents in junior vocational education and to examine the relationship between acculturation and adaptation. There are slight differences in the number of subjects used for every analysis because not all respondents completed every scale. For missing data we used the listwise deletion procedure. Table 1 provides the means and standard deviations for all the variables in this study, and Table 2 provides the correlations between the variables. The overall means for psychological problems and behavioral problems were low and immigrant adolescents did not report much perceived discrimination. The standard deviation for perceived discrimination, however, indicates that there were considerable individual differences in the amount of discrimination immigrant adolescents perceived. A high proficiency in the national language was reported for the sample. In general immigrant adolescents reported more ethnic than national friends.

Table 1

The means and standard deviations of variables in this study (min. 1- max. 5).

	Mean	Standard deviation
National friends	3.28	1.33
Ethnic friends	4.60	.79
Immigrant friends	3.69	.94
Integration	3.41	.72
Separation	3.18	.82
Assimilation	2.40	.66
National language competence	4.67	.46
Ethnic language competence	3.59	.99
Perceived discrimination	1.92	.99
Behavioral problems	1.80	.72
Self-esteem	3.91	.62
Psychological problems	2.06	.69

Table 2

Correlations between the acculturation and adaptation variables.

	Nat. friends	Ethn. friends	Imm. friends	Perc. discr	Integr.	Separ.	Assim.	Nat. Lang.	Ethn. Lang.	Beh. probl	Self-est
Ethnic friends	-.057	-	-	-	-	-	-	-	-	-	-
Immigrant friends	.211**	.364**	-	-	-	-	-	-	-	-	-
Perceived discrimination	-.051	.018	.072	-	-	-	-	-	-	-	-
Integration	.365**	-.023	-.021	-.119	-	-	-	-	-	-	-
Separation	-.304**	.301**	-.017	.187**	-.288**	-	-	-	-	-	-
Assimilation	.358**	-.099	-.154*	-.070	.483**	-.144*	-	-	-	-	-
National language	-.045	-.066	.103	.038	.054	-.045	.011	-	-	-	-
Ethnic language	-.068	.114	.024	.130*	.043	.283**	-.028	.032	-	-	-
Behavioral problems	-.009	.063	.112	.255**	-.149*	.246**	-.078	-.083	-.056	-	-
Self-esteem	.008	.071	.093	-.120	.074	.011	-.174*	.149*	.012	-.115	-
Psychological problems	-.009	-.084	-.113	.193**	.008	.016	.169**	-.139*	.116	.258**	-.473**

* = significant at .05; ** = significant at .01

In a first effort to see which acculturation variables predicted behavioral problems, self-esteem and psychological problems we performed three simple multiple regression analyses. The results of these simple multiple regressions are summarized in Tables 3, 4 and 5. As hypothesized, perceived discrimination was related to poorer adaptation outcomes. Perceiving more discrimination was related to lower self-esteem and more psychological and behavioral problems. Thus perceived discrimination was negatively related to all adaptation outcomes in this study. The results of language comprehension were less clear: national language comprehension was related to higher self-esteem and fewer psychological problems, but no significant effects for ethnic language comprehension were found. In our analyses only national language comprehension was related to more positive adaptation outcomes.

Hypotheses concerning friendships were rejected, as there were no significant effects of co-ethnic, national or immigrant friends on the adaptation measures. The preferences for integration, assimilation and separation were also entered in the regression equation. The hypothesis that integration was positively related to adaptation was not supported. Instead, we found that integration was unrelated to the adaptation measures, whereas higher separation scores coincided with more behavioral problems and a stronger assimilation preference corresponded to more psychological problems and lower self-esteem. Thus integration was the only acculturation strategy without a negative relation to adaptation.

In order to examine patterns describing the acculturation attitudes and experiences of immigrant adolescents in the Netherlands the following variables were entered in a k-means cluster analysis: perceived discrimination, acculturation strategy, ethnic language competence, national language competence, national friends, ethnic friends and immigrant friends. We found four distinct profiles which closely resembled previous results from Berry, et al. (2006). One cluster resembled the ethnic profile: Immigrant adolescents who have a high competence in their ethnic language, prefer to have co-ethnic friends and tend to opt for a separation strategy. A second cluster resembled the integrated profile: Immigrant adolescents who tended to have co-ethnic, other immigrant, and national friends, opted for an integration strategy, and scored low on separation and perceived discrimination. The third cluster resembled the national profile: Immigrant adolescents who preferred to make national friends, make few co-ethnic and other immigrant friends, and scored high on the assimilation subscale. The fourth cluster is the diffuse profile: Immigrant adolescents who scored high on ethnic language competence, tended to make co-ethnic, other immigrant, and national friends, and felt more discriminated than immigrant youth characterized by an integrated, ethnic or national profile. For ease of interpretation we standardized the scores entered in the cluster analysis, the standardized scores for the four profiles are presented in Figure 1. Of the adolescents, 35.0% were categorized in the ethnic profile, 9.6 % in the national profile, 21.3 % in the diffuse profile and 34.2 % in the integrated profile.

Table 3

Results of regression analysis on psychological problems.

	β	Standard error	p-value
National friends	-.077	.040	.304
Ethnic friends	-.067	.063	.341
Immigrant friends	-.027	.054	.710
Integration	-.049	.073	.512
Separation	-.052	.061	.469
Assimilation	.233	.079	.002
Perceived discrimination	.200	.045	.002
National language	-.161	.096	.011
Ethnic language	.120	.046	.066

 $R^2 = .13, F(10, 229) = 3.313; p < .001 .$

Table 4

Results of regression analysis on self-esteem.

	β	Standard error	p-value
National friends	.080	.035	.292
Ethnic friends	.036	.056	.611
Immigrant friends	.024	.048	.740
Integration	.170	.065	.025
Separation	.061	.055	.401
Assimilation	-.288	.071	.000
Perceived discrimination	-.129	.040	.047
National language	.140	.085	.028
Ethnic language	-.019	.041	.776

 $r^2 = .11, F(10, 229) = 2.815; p < .01 .$

Table 5

Results of regression analysis on behavioural problems.

	β	Standard error	p-value
National friends	.041	.041	.309
Ethnic friends	-.031	.064	.631
Immigrant friends	.065	.055	.237
integration	-.085	.074	.254
separation	.211	.062	.001
assimilation	.010	.081	.904
Perceived discrimination	.153	.046	.001
National language	-.115	.098	.240
Ethnic language	-.082	.046	.077

 $r^2 = .14, F(10, 229) = 3.690; p < .001 .$

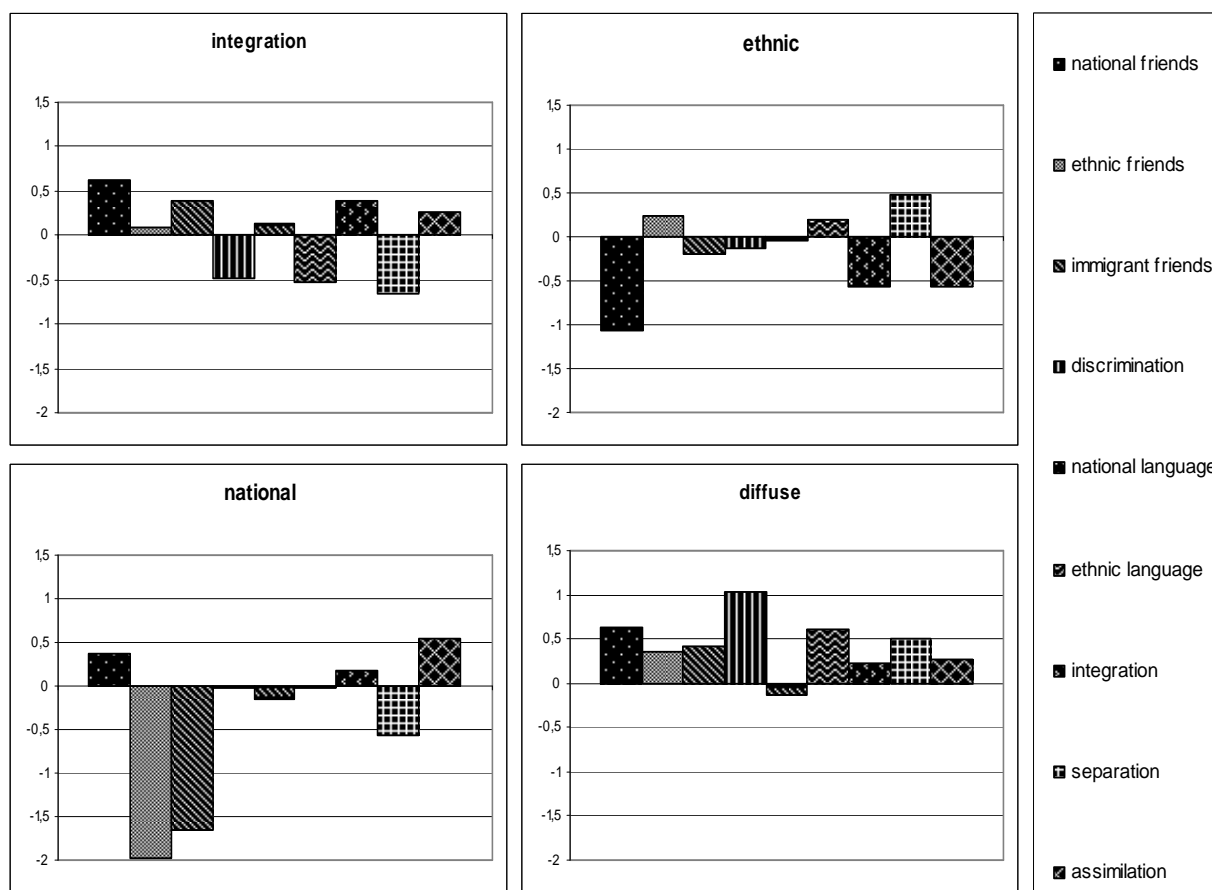


Figure 1. *standardized mean scores of the four profiles on all the acculturation variables.*

We tested how these profiles were related to demographic variables. An ANOVA revealed that respondents in the ethnic profile reported a significantly lower SES ($F(3, 236) = 4.289, p < .05, \eta^2 = .05$). An ANOVA was used to test for age differences between the profiles, but there were no significant age differences between the profiles ($F(3, 235) = .270, p > .05, \eta^2 = .00$). Using chi-square tests we found that profile membership was significantly related to gender, generational status, the ethnic composition of the neighborhood and ethnicity. Boys were more likely to be classified in an ethnic profile whereas girls were more likely to be classified in an integrated profile ($\chi^2(3, N = 240) = 7.797, p < .05$). First generation immigrant adolescents were more likely to be classified in a diffuse profile than second generation immigrant adolescents, while second generation adolescents were more likely to be classified in an integrated profile ($\chi^2(3, N = 240) = 7.941, p < .05$). To enhance ease of interpretation and to prevent empty cells the five point scale measuring ethnic composition of the neighborhood was recoded into three categories. Immigrant adolescents who reported living in a neighborhood with mainly immigrants were more likely to be categorized in an ethnic profile, whereas most adolescents who lived in a neighborhood with predominantly national inhabitants were more likely to be categorized in a national or integrated profile ($\chi^2(6, N = 240) = 21.685, p < .05$). We tested whether ethnicity was related to profile membership. This analysis could

only be conducted for the four largest ethnic groups, namely the Turks, the Moroccans, the Surinamese, and the Antilleans. Inclusion of other ethnic groups would have caused too many empty cells in the crosstab. Ethnicity was related to profile membership, the Surinamese were more often categorized in the integrated profile than other immigrants ($\chi^2(9, N = 191) = 19.991, p < .05$). The results of the chi square tests are summarized in Figure 2.

For testing the immigrant paradox we compared 128 national adolescents with 86 first and 176 second generation immigrant youths. As expected the first generation immigrants had more positive adaptation scores than either the second generation immigrants or the nationals (Wilks' $F[6, 770] = 3.955, p < .01; \eta^2 = .03$). Subsequent ANOVAs revealed that the pattern held for self-esteem ($F(2, 387) = 8.269, p < .001, \eta^2 = .04$), and for psychological problems ($F(2, 387) = 7.064, p < .01, \eta^2 = .04$), but not for behavioral problems ($F(2, 387) = .648, p > .05, \eta^2 = .00$). In Figure 3 the standardized mean scores for the variables psychological problems, self-esteem and behavioral problems for the first and second generation and the nationals are presented. The scores were standardized to do away with confounding effects between-group differences (sampling artifacts and response sets) and to increase the comparability, and therefore the interpretability, of the findings.

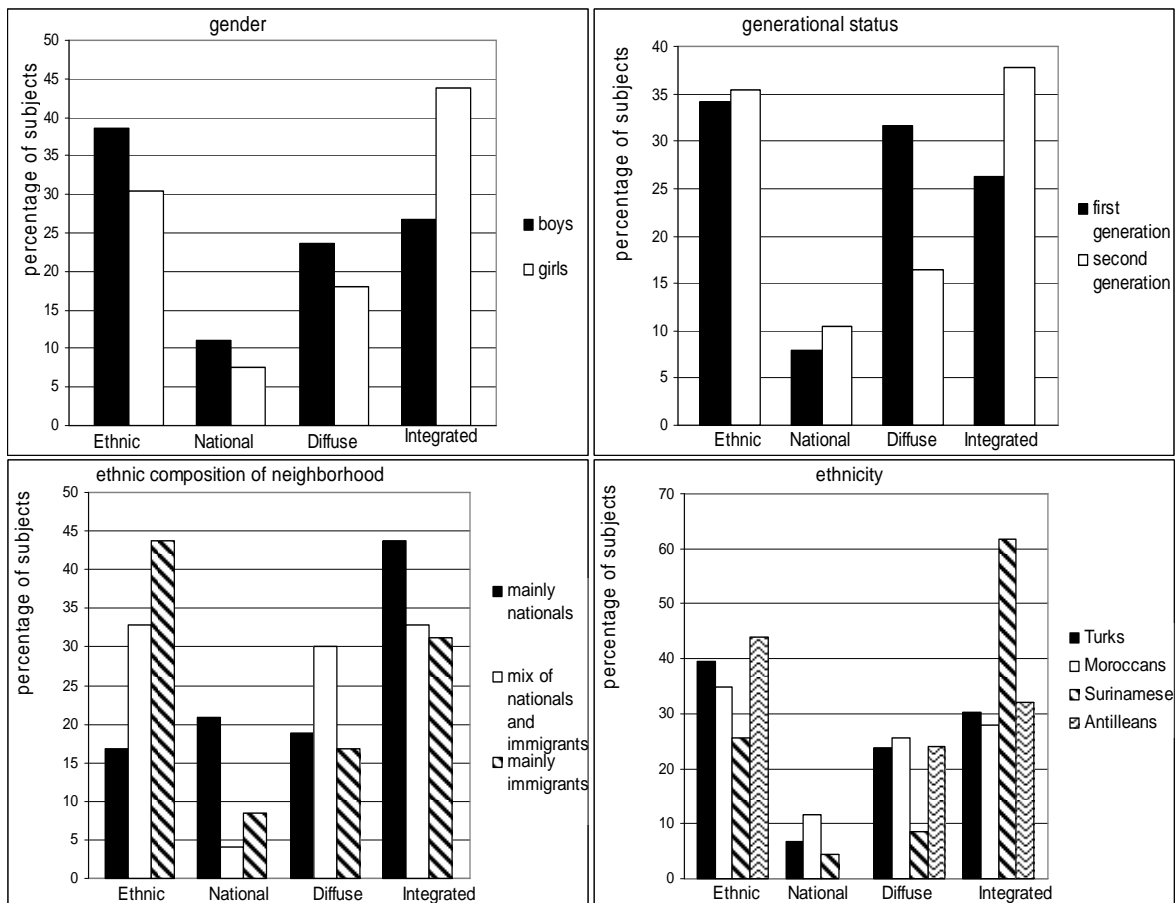


Figure 2. Distribution of gender, generation status, ethnic composition of neighborhood and ethnicities across the acculturation profiles.

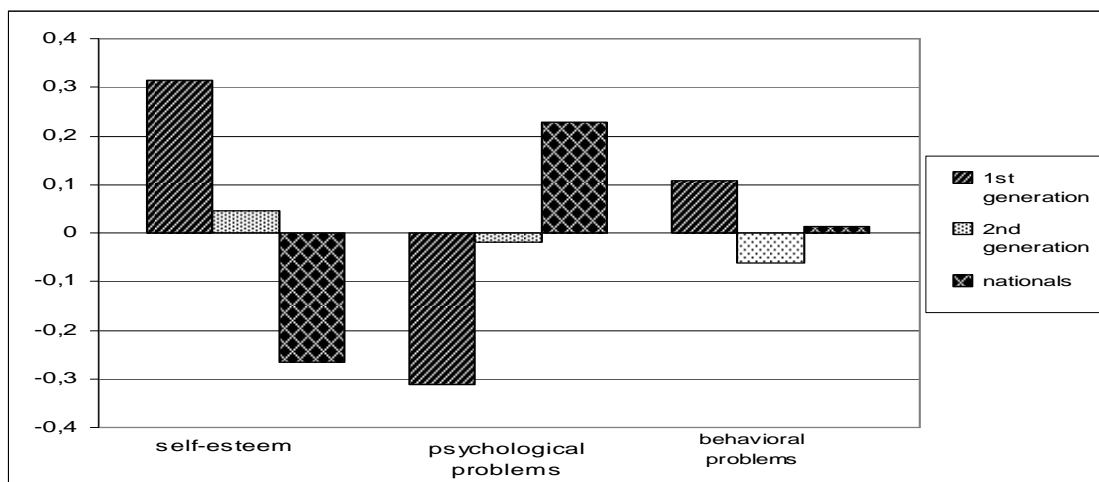


Figure 3. Standardized scores of the first generation immigrants, the second generation immigrants and the nationals on the variables self-esteem, psychological problems and behavioral problems.

To test whether the acculturation profiles were related to adaptation we used a MANOVA with the acculturation profile as an independent variable, and self-esteem, psychological problems and behavioral problems as dependent variables. The MANOVA indicated that intercultural profile was a significant predictor of adaptation outcomes Wilks' lambda ($F(9, 570) = 2.588, p < .05, \eta^2 = .03$). A further investigation of the univariate ANOVAs indicated that there were significant effects on psychological problems ($F(3, 236) = 3.294, p < .05, \eta^2 = .04$), and on behavioral problems ($F(3, 236) = 4.729, p < .05, \eta^2 = .06$), but not on self-esteem ($F(3, 236) = 1.093, p > .05, \eta^2 = .01$). In Table 6 the means and standard deviations of the variables psychological problems, behavioral problems and self-esteem are reported for the ethnic, the integrated, the national and the diffuse profile. A least significance difference test indicated that the diffuse profile was related to more behavioral problems than either the integrated, national or the ethnic profile. The national profile was associated with more psychological problems than the integrated and ethnic profiles, indicating that the diffuse and national profiles were associated with poorer adaptation outcomes.

Table 6

The means and standard deviations (between brackets) of the four profile groups on the variables psychological problems, behavioral problems and self-esteem.

	Psychological problems	Behavioral problems	Self-esteem
Integrated	1.95 (.61)	1.65 (.60)	3.94 (.68)
Ethnic	1.99 (.76)	1.80 (.74)	3.96 (.59)
National	2.39 (.69)	1.65 (.66)	3.73 (.62)
Diffuse	2.18 (.71)	2.10 (.81)	3.83 (.56)

Discussion

This paper set out to describe how immigrant adolescents in junior vocational education in the Netherlands were acculturating and whether their acculturation would be related to their adaptation. While mainly based on the bidimensional model of acculturation, this study also used the theory of segmented assimilation to formulate hypotheses about how immigrant adolescents in junior vocational education would acculturate and how their acculturation would be related to their adaptation. Our hypothesis concerning perceived discrimination was completely confirmed: Perceiving more discrimination corresponded to lower self-esteem and more psychological and behavioral problems. Similar results have often been reported in studies concerning discrimination and health outcomes (e.g., Paradies, 2006). National language comprehension was related to better adaptation as it predicted fewer psychological problems and higher self-esteem. Ethnic language comprehension was not related to adaptation outcomes. In an earlier study, Vedder (2004) explained the differential role of national and ethnic language comprehension by showing that it is not so much the language comprehension as such but the relationship between expectations with respect to language competence in adolescents' proximal social environment and actual language competence. The more the adolescents can satisfy the expectations, the more positive the adaptation outcomes. This corresponds to a goodness of fit model or person - environment congruency model. In Vedder's study the expectations were clear with respect to the national language and unclear or less explicit with respect to the ethnic language. In the present study there may have also been a clear expectations regarding the national language and less explicit expectations regarding the ethnic language.

Neither having more co-ethnic, immigrant, or national friends was related to better adaptation outcomes. Generally it is thought that friends are a developmental asset in adolescents' lives, and indeed friends can have a positive function (Rubin, Bukowski, & Parker, 2006). However, this is not always the case. The findings in the present study reflect a combination of positive and negative adaptation outcomes. Popularity has been found to have positive effects on the development of adolescents; however there are also negative effects of popularity such as increased drug use and delinquency. Popular children are more likely to engage in behavior approved by their peers, instead of behavior approved by adults (Allen, Porter, McFarland, Marsh, & McElhaney, 2005). The well documented phenomenon of contagion (cf. Dishion & Dodge, 2005) suggests that peer pressure and modeling effects in a suboptimal developmental situation may lead to negative adaptation effects.

Acculturation strategy was differentially related to adaptation outcomes. Unlike previous studies (e.g., Berry, 1997; Neto, 2002) a preference for integration was not found to predict better adaptation outcomes. However, it was the only acculturation preference that was not negatively related to adaptation outcomes as assimilation was related to lower self-esteem and more psychological problems, and separation was related to more behavioral problems. Using a cluster

analysis we could distinguish four profiles that were remarkably similar to the profiles found in the ICSEY study (Berry, et al., 2006): an ethnic profile, an integrated profile, a national profile, and a diffuse profile. Compared to the other profiles adolescents in the diffuse profile scored relatively high on all measures of acculturation strategy, indicating no clear preference. Adolescents with a diffuse profile made both national and co-ethnic friends and were proficient in their ethnic language. Immigrant adolescents with a diffuse profile perceived a high degree of discrimination. The diffuse profile was associated with experiencing more behavioral problems, while the national profile was associated with more psychological problems.

When compared to the Dutch sample in the ICSEY study, fewer adolescents were classified in a national profile (9.6 % in this study as compared to 13.6 % in the ICSEY study) while a similar percentage of immigrant adolescents was classified in an ethnic profile (35 % as compared to 37 % in the ICSEY study). The percentage of immigrant adolescents classified in the integrated profile was slightly lower than in ICSEY (34.2 % and 39.1 % respectively) whereas in the current study clearly more students were categorized as diffuse (current: 21.3 %, ICSEY 10.2 %).

In terms of segmented assimilation it makes sense that these immigrant adolescents would prefer cultural maintenance and have an aversion against assimilation. The theory of segmented assimilation predicts that immigrants acculturating in the lower segments of society have little to gain by assimilating and will be best off maintaining their own culture. Adding the ethnic and integration profiles together, it became clear that almost 70 percent of immigrant adolescents wanted to maintain their ethnic culture. In terms of adaptation the immigrant adolescents who preferred to maintain their ethnic culture performed better in terms of adaptation than immigrant adolescents who chose to abandon their ethnic culture (national profile) or had not made any clear choice about their acculturation (diffuse profile). The national profile was associated with more psychological problems, and the diffuse profile was associated with more behavioral problems. However, we had expected that a larger share of the adolescents would have been categorized as either ethnic or integration oriented given that they were enrolled in the lowest educational track in the Netherlands. Categorization in the ethnic profile was related to a lower socio-economic status. In terms of segmented assimilation it makes sense that immigrants with a lower socio-economic status had a strong preference for cultural maintenance, because these immigrants had little to gain by assimilating into suboptimal circumstances, while maintaining their ethnic culture would provide them with support from their ethnic community. Interestingly, in terms of adaptation, the immigrant adolescents categorized in the ethnic profile performed as well as the immigrants in the integrated profile, and better than the immigrant adolescents in the national and diffuse profiles, despite lower socio-economic status.

Why were not more adolescents categorized in the ethnic profile, as could be expected based on the theory of segmented assimilation? More than we had foreseen, first generation immigrant youth were categorized as diffuse. Perhaps they lack direction and their commitment to resolving their diffuse state is low (Marcia, 1994). In addition, the fact that we chose to work with a sample in

the lowest educational track of the Dutch secondary school system may mean that they simply lack the cognitive tools to resolve their diffuse state on their own. Further studies will have to clarify this.

Limitations

It is important to mention several shortcomings of this study. Cluster analysis must always be interpreted cautiously because error variation in the data may be a major factor in the creation of the clusters. We chose to analyze a solution with four clusters. Our choice was guided by the ICSEY study in which four profiles were found that were theoretically meaningful and could successfully predict adaptation. The clusters formed in this study show a high degree of similarity with clusters previously reported in the ICSEY study and show the same degree of predictive validity when used to predict adaptation outcomes. However, other cluster solutions may also prove to be theoretically meaningful and able to predict adaptation outcomes. Future studies should address more possible cluster solutions. This study was conducted using a cross sectional design, so nothing can be inferred about causation.

Conclusion

We provided further validation for the acculturation profiles reported by Berry, et al. (2006) by finding a very similar cluster solution for acculturation profiles which we demonstrated to be related to adaptation outcomes. It is important to realize that the bidimensional model of acculturation is a useful model in describing part of the acculturation process; however it is not intended to and it is not sufficient to describe the entire complicated process of acculturation. To the best of our knowledge, this is the only study to use the bidimensional model of acculturation in conjunction with the theory of segmented assimilation and the notion of the immigrant paradox. Using the combination of these theories has made it possible to study this sample using the bidimensional model while explaining results in terms of segmented assimilation and the immigrant paradox. Future acculturation research should aim to incorporate multiple theories in explaining acculturation processes, as this will provide a better understanding of the complicated and fascinating phenomenon of acculturation.

4. The role of family obligations and school adjustment in explaining the immigrant paradox²

This chapter examines the role of family obligations and school adjustment in explaining immigrant adolescents' adaptation. Despite a relatively low socio-economic status, immigrant adolescents have been found to have a pattern of adaptation superior to that of national adolescents. Immigrant adolescents' strong sense of family obligations and positive school adjustment have been used to explain these positive adaptation outcomes. Using self-reports in a sample of 277 national adolescents and 175 non-western immigrant adolescents it was found that despite a lower socio-economic status the adaptation of immigrant adolescents was as good as the nationals' adaptation. Immigrant adolescents scored higher on family obligations and school adjustment. A series of regression analyses indicated that school adjustment functioned as a mediator between family obligations and measures of adaptation in both the immigrant and national samples. In underprivileged environments a strong sense of family obligations may help adolescents to achieve positive adaptation.

² This chapter is based on: Van Geel & Vedder (2009). The role of family obligations and school adjustment in explaining the immigrant paradox. Manuscript accepted for publication in: Journal of Youth and Adolescence.

Immigration is a complex and challenging process, especially for immigrant adolescents, who do not yet have the full emotional and cognitive development that adults have. Constructing a positive ethnic identity, dealing with prejudice and discrimination and dealing with different expectations from the family and the new society may cause considerable stress (Berry, Kim, Minde, & Mok, 1987; Gil, Vega, & Dimas, 1994; Hovey & King, 1996). Furthermore, immigrant adolescents from non-western societies usually have to perform these tasks in underprivileged environments, as the socio-economic status of these immigrants is consistently found to be lower than that of nationals (Hernandez & Darke, 1999; Beiser, Hou, Hyman, & Tousignant, 2002; Zhou, 1997a). It has been found that a low socio-economic status is related to lower intelligence, poorer socioemotional functioning, poorer health, increased substance use, and low scholarly achievement in children (Bradley & Corwyn, 2002; McLoyd, 1998).

Immigrant paradox

It is not surprising that in older literature, migration is presented as a risk factor to children's development (eg., Aronowitz, 1984). More recent insights and findings, however, suggest that migration does not necessarily lead to poor adaptation. Contrary to previous beliefs, immigrant adolescents are often found to perform as well as or even better than their national contemporaries on many forms of adaptation despite a lower socio-economic status. In a study conducted among 20,000 immigrant adolescents in the United States first and second generation immigrant adolescents were less likely to engage in delinquent and violent acts, to use drugs or alcohol, and were less likely to be in poor health than national adolescents (Harris, 2000). The pattern of lower substance use by immigrant adolescents than by national adolescents has been found in more studies (eg., Blake, Ledsy, Goodenow, & O'Donnell, 2001; Brindis, Wolfe, McCarter, Ball, & Starbuck-Morales, 1995; Vega, Gil, & Zimmerman, 1993). Also, results have been reported that indicate that immigrant adolescents receive better grades in school than national adolescents (Fuligni, 1997; Kao & Tienda, 1995). The phenomenon that immigrant adolescents perform better in terms of adaptation than national adolescents despite lower socio-economic status has been labeled the immigrant paradox (Hayes-Bautista, 2004; Garcia-Coll, 2005). This pattern has been found in the United States (Harker, 2001) and Canada (Beiser, Hou, Hyman, & Tousignant, 2002). However, the support for an immigrant paradox in Europe is less clear-cut (Sam, Vedder, Liebkind, Neto, & Virta, 2008). It is likely that part of the secret to immigrants' remarkable adaptation can be explained by their strong sense of family obligations. Unlike western culture, in which individualism and self development is promoted, in many non-western cultures there is a strong reliance on and sense of obligation towards family members. In a study among Asian and South-American immigrant youth in the United States it was indeed found that there was a far stronger sense of

family obligations among immigrant adolescents then among national adolescents (Fuligni, Tseng, & Lam, 1999).

Family obligations and school adjustment

Especially for those immigrant adolescents in lower segments of society a strong sense of family obligations may promote positive adaptation outcomes. It is in the lower segments of society that immigrant adolescents may be socialized into delinquent behavior and oppositional youth culture. Those adolescents with a strong sense of family obligations are more likely to obey their parents, resist the temptations of maladjustment and be motivated to do well in school (Portes & Zhou, 1993; Zhou, 1997a; 1997b). Indeed, empirical findings generally indicate positive relations between family obligations and adaptation outcomes (Fuligni, 1997; Fuligni, Tseng, & Lam, 1999). Immigrant adolescents see performing well in school as an important part of their family obligations, as they believe being successful in school will help them acquire good jobs in the future, which will help them to take care of their families. However, the relationship between sense of family obligations and school adjustment is not linear: Those adolescents who reported the strongest sense of family obligations in the Fuligni et al study (1999) did less well in school. It could be that because of their strong sense of family obligations they preferred to help their families immediately instead of spending time on school work. The same result was reported by Suarez-Orozco and Suarez-Orozco (1995) among Mexican immigrant adolescents. Nevertheless, sense of family obligations is thought to be an important resource for most immigrant youth when it comes to their school adjustment.

School adjustment as mediator

A sense of family obligations may be important for adolescents' school adjustment; its role for other forms of adaptation is more circumstantial. Zhou and Bankston (1998) suggest that a strong sense of family obligations may keep adolescents from engaging in delinquency as they do not want to harm or embarrass their family. This implies a direct relation between family obligations and behavioral problems. However, more factors may play a role in the positive adaptation of immigrant adolescents, and school adjustment has also been used to explain the positive pattern of adaptation reported by immigrant adolescents (Fuligni, 1998; Steinberg, 1996). School adjustment has been found to be positively related to adaptation (Bryant, Schulenberg, O' Malley, Bachman, & Johnston, 2003; Ludden & Eccles, 2007; Vazsonyi & Pickering, 2003). This could imply that school adjustment is a mediator between family obligations and different forms of adaptation. Adolescents who feel a strong sense of obligations towards their families might be better adjusted at school and, through this increased school adjustment, might experience a better adaptation in general. As of yet, school adjustment has not been studied as a mediator in the relations between family obligations and adaptation. Studying this mediation could help to clarify whether family obligations have direct effects on adaptation, or whether the positive effects of family

obligations on adaptation can be partially or completely explained by an increased school adjustment.

Junior vocational education; an underprivileged setting for adaptation

If indeed a strong sense of family obligations is an asset or resource for immigrant adolescents' adaptation in underprivileged environments, such effects should particularly be found for immigrant adolescents enrolled in junior vocational education. In many countries immigrants live under poorer socioeconomic conditions than the national population (Hernandez & Darke, 1999; Zhou, 1997b). Education should be the primary tool to help immigrants improve their poor socio-economic situation. Unfortunately, however, in the Netherlands there is an overrepresentation of immigrant adolescents in junior vocational education, which is the lowest educational track at secondary level in the Netherlands. In junior vocational education there is a relatively high drop out of students (Central Bureau of Statistics, 2007; Scientific Advisory Board for Government Policy, 2009). For the immigrant adolescents the situation is even more troublesome, not only are they overrepresented in junior vocational education, compared to their national peers they receive lower grades and drop out of junior vocational education more often (Central Bureau of Statistics, 2008). Immigrant adolescents attending junior vocational education have relatively poor chances of improving their situation through education and thus may be seen as an example of a lower segment of society.

The current study

The goal of this study was to test whether there was an immigrant paradox among adolescents in junior vocational education. Furthermore, we tested whether family obligations and school adjustment could predict adaptation in an immigrant adolescent and a national adolescent sample. Earlier Steinberg (1996) used school adjustment to explain positive adaptation outcomes, but did not include family obligations in his model. Fuligni used both family obligations and school adjustment to explain positive adaptation outcomes among immigrant adolescents, but only provided empirical evidence for the positive effects of family obligations on grades (Fuligni, 1997, 1998; Fuligni, Tseng, & Lam, 1999). In this study the variables family obligations and school adjustment are used to predict a more comprehensive range of adaptation outcomes, namely school grades, self-esteem, psychological and behavioral problems. These analyses were conducted with a national and an immigrant adolescent sample.

The first hypothesis was that the sample of immigrant adolescents in this study would have a lower socio-economic status than the national adolescents. Previous studies in the Netherlands have reported that immigrant adolescents usually come from households with a lower socio-economic status than Dutch national adolescents (Central Bureau of Statistics, 2008; Herweijer, 2009).

The second hypothesis was that immigrants would perform better in terms of adaptation than nationals. We drew this hypothesis from immigrant paradox findings (eg., Harker, 2001).

The third and fourth hypotheses were that immigrants would score higher on family obligations and school adjustment than nationals (Fuligni, 1997; Fuligni, Tseng, & Lam, 1999). Our final hypothesis was that in the immigrant adolescent sample school adjustment would be a partial mediator in the relations between family obligations and other aspects of adaptation. Partial mediation was expected because several scholars argued that family obligations have unique direct effects on adaptation and school adjustment (Fuligni, 1998; Suarez-Orozco & Suarez-Orozco, 1995; Zhou & Bankston, 1998). The role of family obligations in national adolescents' adaptation has not received much attention in previous studies (however, see Berry, Phinney, Sam & Vedder, 2006). In this study we tested the relation between family obligations and adaptation in both a sample of immigrant adolescents and a sample of national adolescents. Given the scarcity of earlier studies, no specific hypotheses were specified with respect to the national sample.

As adaptation variables we choose self-esteem, psychological problems, behavioral problems and grade point average. These variables have been included in a study concerning the immigrant paradox in Europe (Sam, Vedder, Liebkind, Neto, & Virta, 2008) and a study concerning family obligations (Fuligni, Tseng, & Lam, 1999). The measures previously used by Sam et al. were found to be structurally equivalent across cultures, which is important when making cross-cultural comparisons. By using similar variables this study may serve as a further validation of previous results

Method

Participants

A total of 277 Dutch national students and 175 non western immigrant students completed the questionnaires. In addition, nineteen western immigrants participated in the data collection. Because the number of western immigrants was too small to be meaningfully included in the analyses they were removed from the dataset. The students were spread across 8 schools and 27 classrooms. The mean age of the national students was 14.52 ($SD = .97$), and the mean age of the immigrant students was 14.64 ($SD = 1.20$). The national sample consisted of 150 boys and 126 girls, one respondent did not answer the question concerning gender. The immigrant sample consisted of 72 boys and 103 girls. Forty one had a Turkish cultural background (9.1 %), 39 a Moroccan (8.6 %), 16 a Surinamese (3.5 %), 16 an Antillean (3.5 %), and 63 immigrant adolescents (13.9 %) had a different cultural background (they originated from Afghanistan, Algeria, Argentina, the Dominican Republic, the Philippines, Sri- Lanka, Somalia, Senegal, Columbia, Lebanon, Russia, Taiwan, Vietnam, Egypt, Cap-Verde, Haiti and the People's Republic of China).

Instruments

A survey consisting of several scales was administered to the students. The survey began with questions about demographics namely age, gender, the birthplace of both parents of the respondent, the birthplace of the respondent and the respondents' religion. Socio economic status was measured

with the Family Affluence Scale (Curry, Elton, Todd, & Platt, 1997). A sample item of this scale is 'How many computers does your family own'. Because the scale has different response categories for the separate items Cronbach's alpha could not be computed. Higher scores are indicative of a higher socioeconomic status. The Family Affluence Scale has been found to be a valid indicator of adolescents' socio-economic status (Boyce, Torsheim, Currie, & Zambon, 2006). To get an indication of students' grade point average we asked students to report their last report grades for Dutch language, English language and math. The mean of these three grades was used in the analyses. Grades varied between one through ten, in which one was the lowest and ten is the highest possible score.

The scale used to measure family obligations was developed by Georgas, Berry, Shaw, Chrisakopoulou and Mylonas (1996). It consists of fourteen items which are answered on a five point scale ranging from 'completely disagree' up to 'completely agree'. Sample items are 'Children should obey their parents' and 'A child has to take care of its parents when they need help'. A higher total score indicates a stronger sense of family obligations. The Cronbachs' alphas were .73 for the immigrant sample and .66 for the national sample.

The school adjustment questionnaire was adapted from the ICSEY-study (Berry, et al., 2006). It consists of six items which are answered on a five point scale ranging from 'completely disagree' up to 'completely agree'. Sample items are 'I would like to quit school completely' and 'I dislike going to school in the morning'. Five items were reverse coded so that a higher total score was indicative of a better school adjustment. In the ICSEY study this scale was found to have a unifactorial factor structure and to be structurally equivalent across different ethnic groups. The Cronbachs' alphas were .63 for the immigrant sample and .70 for the national sample.

We also used the Rosenberg's (1965) self-esteem inventory. It consists of ten items which are answered on a five point scale ranging from 'completely disagree' up to 'completely agree'. A sample item is 'On the whole I am satisfied with myself'. A higher score indicated higher self-esteem. The Cronbachs' alphas were .83 for the immigrant sample and .89 for the national sample. The psychological problems scale was taken from the ICSEY-study (Berry, et al., 2006) and consisted of 15 items answered on a five-point scale ranging from 'never' up to 'very often'. A sample item is 'I feel restless'. A higher score was indicative of more psychological problems. In the ICSEY study this scale was found to have a unifactorial factor structure and to be structurally equivalent across different ethnic groups. The Cronbachs' alphas were .92 for the immigrant sample and .90 for the national sample. The behavioral problems questionnaire was an adaptation of Olweus' antisocial behavior scale (Olweus, 1989, 1994). The original scale has been shown to have a good construct validity and reliability (Bendixen & Olweus, 1999). The Cronbachs' alphas were .85 for the immigrant sample and .80 for the national sample. The scale consisted of ten items. The items were scored on a five point scale ranging from 'never' up to more than 3 times during the past 12 months. A sample item of this questionnaire is: 'had a serious fight with a teacher'.

Procedure

Forty-eight junior vocational schools in the Netherlands with an ethnically diverse student body were invited to participate in a survey about multiculturalism and adaptation. Schools were first contacted via telephone. Only schools in the urbanized western part of the Netherlands were contacted, as these schools have ethnically diverse student populations. We followed a convenience sampling approach since there is no register available of schools and the ethnic composition of their student body. When schools showed an interest in the study an appointment was made to explain the study in more detail. This led to seven schools participating in the study. Prior to the data collection the teachers were informed about the goal of the study and letters of informed consent were sent to the students' parents. If parents did not want their children to participate in the study they could contact the researcher. No parents made use of this possibility. Strict anonymity was promised for the schools, the teachers and the students. The questionnaires were administered in the classroom during school hours under the supervision of a teacher and a researcher. Students were informed that participation in the study was entirely voluntary. No students decided to withdraw from the study. All questionnaires were written in Dutch. The research assistants received no indication from the teachers or the students that the Dutch fluency of any of the immigrant students was insufficient to understand the questionnaire. Students with poor Dutch language comprehension were not to be expected given that participation in junior vocational education requires good command of the Dutch language. Prior to the admission of the questionnaires the teachers received instructions.

Results

To analyze whether nationals scored higher on the SES than immigrants a t-test was computed. Results revealed a significant difference between immigrants and nationals, with immigrants ($M = 2.41$, $SD = .46$) scoring significantly lower than nationals ($M = 2.69$, $SD = .42$), $t(453) = (6.487)$, $p < .05$, with a medium effect size, Cohen's $D = .64$. The results indicate that immigrant adolescents score substantially lower than nationals on the SES scale, although they were all in the same schools and classes.

To test for an immigrant paradox a MANOVA was computed. The immigrants were compared to the nationals on the variables grade point average, self-esteem, behavioral problems and psychological problems. The mean scores and standard deviations are reported in Table 1. As the number of boys and girls differed substantially for both the immigrant and the national adolescent samples gender was added as a variable in the design. The multivariate test indicated that there were no significant differences between the national and immigrant adolescent samples (Wilks' lambda $F(3, 438) = .1.297$, $p > .05$, $\eta^2 = .01$). Subsequent ANOVAs indicated that immigrant adolescents did not experience more behavioral problems ($F(1, 440) = .893$, $p > .05$, $\eta^2 = .00$) or psychological problems ($F(1, 440) = 2.082$, $p > .05$, $\eta^2 = .01$), and did not differ in terms of self-

esteem ($F(1, 440) = 1.512, p > .05, \eta^2 = .00$), when compared with the nationals. There was a multivariate effect for gender (Wilks' lambda $F(3, 438) = .24.944, p < .05, \eta^2 = .15$). Subsequent ANOVAs indicated that girls experienced fewer behavioral problems ($F(1, 440) = 12.689, p < .05, \eta^2 = .03$), more psychological problems ($F(1, 440) = 48.625, p < .05, \eta^2 = .01$), and a lower self-esteem ($F(1, 440) = 21.055, p < .05, \eta^2 = .05$), than boys did. There was a multivariate interaction effect between gender and nationality on adaptation (Wilks' lambda $F(3, 438) = 6.254, p < .05, \eta^2 = .04$). Subsequent ANOVAs indicated that there were no interaction effects for behavioral problems ($F(1, 440) = 2.568, p > .05, \eta^2 = .01$) or psychological problems ($F(1, 440) = .010, p > .05, \eta^2 = .00$), but that there was a significant interaction term for self-esteem ($F(1, 440) = 12.351, p < .05, \eta^2 = .03$). Immigrant boys scored lower than national boys in terms of self-esteem, whereas immigrant girls scored higher than national girls in terms of self-esteem.

Table 1

Means and standard deviations (between brackets) for the variables school grades, self-esteem, psychological problems and behavioral problems.

	immigrants		nationals	
	boys	girls	boys	girls
School grades	7.08 (.97)	6.91 (.97)	6.88 (.84)	6.81 (.91)
Self-esteem	3.85 (.71)	3.79 (.85)	4.05 (.76)	3.43 (.83)
Psychological problems	1.97 (.67)	2.44 (.79)	2.05 (.60)	2.52 (.66)
Behavioral problems	2.14 (1.01)	1.72 (.70)	1.90 (.70)	1.80 (.73)

Because the immigrant adolescents scored lower on socio-economic status than the nationals, and because socio-economic status may effect adaptation we reran the MANOVA described above and added socio-economic status as a covariate. There was a significant multivariate effect for nationality (Wilks' lambda $F(4, 394) = 2.727, p < .05, \eta^2 = .03$) and a significant multivariate interaction effect between gender and nationality (Wilks' lambda $F(4, 394) = 2.727, p < .05, \eta^2 = .03$). A series of follow up ANCOVAs indicated that immigrants received significantly higher grades than nationals ($F(1, 397) = 4.343, p < .05, \eta^2 = .01$). A marginally significant effect indicated that immigrant adolescents experienced fewer behavioral problems than nationals ($F(1, 397) = 1.673, p < .10, \eta^2 = .01$). An interaction effect indicated that immigrant adolescent girls had a higher self-esteem than national adolescent girls ($F(1, 397) = 7.129, p < .05, \eta^2 = .03$), whereas immigrant and national adolescent boy did not differ in terms of self-esteem.

An ANOVA was computed to analyze whether immigrants scored higher on the family obligations scale than nationals. To account for the unbalanced number of boys and girls gender was added in the design. The ANOVA yielded a significant difference between immigrants and nationals, with immigrants ($M = 3.06, SD = .60$) embracing family obligations more strongly than nationals

($M = 2.57$, $SD = .50$), ($F(1, 441) = 96.737$, $p < .05$, $\eta^2 = .18$). There was no significant effect of gender ($F(1, 441) = .870$, $p > .05$, $\eta^2 = .00$), and there was no significant interaction effect ($F(1, 441) = 1.160$, $p > .05$, $\eta^2 = .00$).

To analyze whether immigrants scored higher on the school adjustment scale than nationals an ANOVA was computed. To account for the unbalanced number of boys and girls gender was added in the design. The ANOVA indicated that there was a significant difference between immigrants and nationals, with immigrants ($M = 3.61$, $SD = .80$) scoring significantly higher than nationals ($M = 3.35$, $SD = .84$), ($F(1, 446) = 7.350$, $p < .05$, $\eta^2 = .02$) on school adjustment. There was no significant effect of gender ($F(1, 446) = .870$, $p > .05$, $\eta^2 = .00$), and there was no significant interaction effect ($F(1, 446) = 1.160$, $p > .05$, $\eta^2 = .00$).

To test the relations between family obligations, school adjustment and adaptation we ran mediation analyses in the national and immigrant samples. To test for mediation we used the stepwise method described by Baron and Kenny (1986). The correlations between the variables are reported in Table 2.

Table 2

Pearson correlation coefficients for the variables in this study.

	National	SES	Fam.O.	School	GPA	Ps.	Beh.
Immigrant						Prob.	Prob.
SES			-.004	.042	.139*	-.069	.132*
Family Obligations.		-.107		.148*	.036	-.140*	-.202**
School Adjustment		-.116	.208**		.253**	-.372**	-.453**
GPA		.078	.200*	.142		-.104	-.189*
Psychological Problems		-.032	-.026	-.378**	-.096		.193**
Behavioral Problems		.191*	-.291**	-.374**	-.035	.042	
Self-Esteem		.053	.227**	.230**	.141	-.375**	.045

* $p < .05$; ** $p < .01$.

Positive relations between family obligations and school adjustment were found in both the national and the immigrant adolescent sample. In the immigrant sample partial mediation was found for the variables behavioral problems and self-esteem. These partial mediations indicated that family obligations and school adjustment both had unique

contributions to a higher self-esteem and fewer behavioral problems. Furthermore it was found that family obligations were related to a higher grade point average, but this relation was not mediated by school adjustment. The results of the regression analyses in the immigrant sample are summarized in Table 3. In the national sample partial mediation was found for the variable behavioral problems. This partial mediation indicated that family obligations and school adjustment both had unique contributions to fewer behavioral problems. A full mediation was found between

family obligations, school adjustment and psychological problems, revealing that the relation between a stronger sense of family obligations and fewer psychological problems can be fully explained through school adjustment in the national sample. The results of the regression analyses in the national sample are summarized in Table 4.

Table 3

Results of the stepwise regression analyses for the immigrant adolescent sample.

	Independent variable	Dependent variable	F (df)	B	SE	β	R ²	R ² change
Step 1.	Fam.Obl.	GPA	6.276(1,150)	.315	.126	.200*	.04*	
	Fam.Obl.	Psych.	.111(1,168)	-.033	.099	-.026	.00	
	Fam.Obl.	Beh. Prob.	15.346(1,166)	-.407	.104	-.291**	.09**	
	Fam.Obl.	Self-Est	9.201(1,170)	.294	.097	.227	.05**	
Step 2.	Fam.Obl.	School Adj	7.708(1,170)	.278	.100	.208**	.04**	
Step 3.	Fam.Obl.	GPA	3.968(2,149)	.278	.129	.177*	.05*	.04
	School Adj			.123	.096	.105		.01
	Fam.Obl.	Beh. Prob.	19.100(2,165)	-.319	.100	-.227**	.19**	.09
	School Adj			-.346	.075	-.328**		.10
	Fam.Obl.	Self-Est	7.567(2,169)	.246	.098	.189*	.08**	.05
	School Adj			.175	.073	.180*		.03

*= $p < .05$; ** $p < .01$

Table 4

Results of the stepwise regression analyses for the national adolescent sample.

	Independent variable	Dependent variable	F (df)	B	SE	β	R ²	R ² change
Step 1.	Fam.	GPA	.323(1,251)	.064	.112	.036	.00	
	Fam.	Psych.	5.425(1,272)	-.187	.080	-.140*	.02*	
	Fam.	Beh. Prob.	11.559(1,272)	-.300	.088	-.202**	.04**	
	Fam.	Self	.008(1,272)	.009	.104	.005	.00	
Step 2.	Fam.	School	6.113(1,272)	.254	.103	.148*	.02*	
Step 3.	Fam.	Psych.	23.279(2,271)	-.115	.076	-.086	.15**	.02
	School			-.281	.044	-.360**		.14
	Fam.	Beh. Prob	39.067(2,271)	-.205	.080	-.138*	.22**	.04
	School.			-.375	.047	-.433**		.18

*= $p < .05$; ** $p < .01$

Discussion

The aim of this study was to test for an immigrant paradox among immigrant adolescents in the Netherlands and to analyze the relations between family obligations, school adjustment and adaptation in an immigrant and national adolescent sample. Based on immigrant paradox findings (eg., Garcia-Coll, 2005; Hayes-Bautista, 2004;) the immigrant adolescents were expected to score better on measures of adaptation than national adolescents. However, the results provided no clear support for an immigrant paradox. When we reran the analysis with socio-economic status as a covariate it was found that immigrant adolescents had higher grades and there was a marginally significant effect for behavioral problems. Immigrant girls had a significantly higher self-esteem than national adolescent girls. This pattern of adaptation is not as spectacular as the immigrant paradox findings in American and Canadian studies (Beiser, Hou, Hyman, & Tousignant, 2002; Harker, 2001), but it is similar to previous European results (Sam et al., 2008). A particular aspect of the immigrant paradox is that immigrants tend to lose their benefits in terms of adaptation when they become more assimilated in the national society (Sam et al., 2008), eventually resulting in an adaptation pattern that is the opposite of an immigrant paradox. This phenomenon is well documented in the US (Jasso, Massey, Rosenzweig, & Smith, 2004; Rumbaut, 1999; Suarez-Orozco & Suarez-Orozco, 2002), but may not materialize in the Netherlands. In the Netherlands there is a more extensive and accessible social welfare system than in the United States (Alesina, Glaeser, & Sacerdote, 2001; Gustafsson & Stafford, 1994). The accessibility of health care and welfare in the Netherlands may ensure that all ethnic groups and social classes are doing relatively well, and as such there may not be large differences in adaptation measures. Still, the immigrant adolescents in this sample did not score worse in terms of adaptation than their national contemporaries, despite a strong disadvantage in terms of socio-economic status. Given that many developmental risks are associated with poor socio-economic conditions (Bradley & Corwyn, 2002; McLoyd, 1998), it is remarkable that immigrant adolescents show as good an adaptation as national adolescents.

Immigrant adolescents had a stronger sense of family obligations and a better school adjustment than national adolescents, supporting previous research findings (Fuligni, 1997; Fuligni, Tseng, & Lam, 1999; Steinberg, 1996). In this study a sample of non-western immigrant adolescents was used. Non-western immigrants are more likely than national adolescents to embrace collectivistic values. As such, they may place a higher importance on helping, obeying and spending time with family members. Because immigrant adolescents see the sacrifices their families made to come to the new country for their better futures, and because they see school as a possibility to help their families in the future, they are usually well motivated to perform well in school (Fuligni, 1998; Zhou & Bankston, 1998).

For the immigrant adolescent sample we hypothesized that the relations between family obligations and mean grades, behavioral problems, psychological problems and self-esteem were partially mediated by school adjustment. We formulated this hypothesis based on literature that

states that a strong sense of family obligations is related to a better school adjustment and a more positive pattern of adaptation (Fuligni, 1997, Fuligni, Tseng, & Lam, 1999. Zhou & Bankston, 1998), and to literature that states that school adjustment is related to a better pattern of adaptation (Steinberg, 1996).

The correlations indicated that in the immigrant adolescent sample, family obligations were related to better grades, a better school adjustment, higher self-esteem, and fewer behavioral problems. The relations between family obligations and self-esteem and family obligations and behavioral problems were partially mediated by school adjustment. These partial mediation effects indicated that part of the effect of family obligations on self-esteem and behavioral problems could be explained through school adjustment, but there was also a direct effect of family obligations on behavioral problems and self-esteem. Thus, the hypotheses were confirmed for two of the four measures of adaptation. In the national adolescent sample the correlations table indicated that a stronger sense of family obligations was related to a better school adjustment, fewer psychological problems and fewer behavioral problems. The relation between family obligations and psychological problems was fully mediated by school adjustment and the relation between family obligations and behavioral problems was partially mediated by school adjustment. The full mediation between family obligations and psychological problems indicates that the effect of family obligations on psychological problems can be completely explained by the better school adjustment.

In the national adolescent sample, the positive relations that were found between family obligations and school adjustment and behavioral problems could be explained by the same process as in the immigrant adolescent sample. Those adolescents, national or immigrant, who feel a strong sense of obligation to their families may take more of an effort to do well in school to make their families proud and may be more hesitant to engage in delinquent acts to avoid bringing shame to their families. But what explains the differences between these two groups, why are family obligations related to self-esteem and mean grades in the immigrant but not in the national sample? Even more than national adolescents, immigrant adolescents may feel that they have a debt to pay to their parents who migrated so that they could have a better future. As such, approval of family members may be even more important, and those adolescents who are obedient to their parents may feel a sense of fulfillment translating in better self-esteem whereas those immigrant adolescents that disobey parents may feel more ashamed translating into a lower self-esteem. The lower socio-economic status that immigrant adolescents likely grew up within may explain the relation between family obligations and grades. Immigrant adolescents may feel a stronger need to help their families overcome comparatively poor living standards, and getting good grades may qualify them for a better education and a better job later (Freeburg & Stein, 1996).

Limitations and prospects

This study has several limitations. The reliabilities of the family obligations and school adaptation scales are on the low side. By using the variables self-esteem, behavioral problems,

psychological problems and grades as dependent variables in the design, we aimed to provide a better understanding of the immigrant paradox. Given the inconclusive pattern of results in this study -full mediation, partial mediation and no mediation were found- further models need to be considered in future studies. Self-esteem was used as a dependent variable but it can be argued that self-esteem causes a better school adjustment (Rosenberg, Schoenbach, Schooler, & Rosenberg, 1995), while a reciprocal relation between self-esteem and school achievement has also been suggested (Rosenberg, Morris, & Schoenbach, 1989). School adjustment has in this study been used as a predictor for behavioral and psychological problems, but it may be that behavioral and psychological problems lower a students' motivation to do well in school. While this study provides evidence that family obligations and school adjustment are related to better adaptation outcomes in immigrant and national adolescents, the specific relation between the variables remains unclear. New studies with longitudinal designs are needed to clear this up. Nonetheless, the results from this study that immigrant adolescents score higher on school adjustment and family obligations than national adolescents, and that family obligations and school adjustment are related to a higher self-esteem and fewer behavioral problems, suggest that family obligations and school adjustment may indeed be important factors in explaining the immigrant paradox.

An interesting finding is that national adolescents also seem to benefit from a strong sense of family obligations. However, they score substantially lower on family obligations than immigrant adolescents. This may provide an interesting opportunity for nationals, as learning from the immigrant community to increase the sense of family obligations may help improve national adolescents' adaptation. Acculturation is a two way street as prolonged contact between cultural groups can change the culture of both groups. Ideally, this would entail positive changes for both groups. However, in the Netherlands there is a growing demand towards immigrant groups to forsake their ethnic cultures and completely assimilate in mainstream Dutch culture (Arends-Toth & Van de Vijver, 2003; Oudenhoven, Prins, & Buunk, 1998). This is unfortunate as forcing immigrants to completely abandon their ethnic culture does not only deprive immigrants from the means to ensure a positive adaptation; it also robs nationals from valuable acculturation opportunities.

5. Multicultural attitudes among adolescents: A multilevel model using individual and classroom level variables

In this study predictors of multiculturalism at the individual and classroom level are tested in a multilevel model. Previous studies attempting to find predictors of multiculturalism focused only on the individual level, possibly risking an attribution error. Multiculturalism is presented in this study as a notion stressing equal opportunities and minimizing discrimination as well as the conviction that the access to other cultures enriches ones' own life. Using a sample of 448 adolescents from junior vocational education it was found that immigrants endorsed multiculturalism more strongly than nationals and a greater number of immigrant friends and a higher ethnic diversity at the classroom level were positively related to support for multiculturalism. Contrary to our expectations, socioeconomic status was negatively related to support for multiculturalism. The results indicate that support for multiculturalism is dependent on demographic factors, but the classroom can be used to increase adolescents' support for multiculturalism.

Introduction

As the western world is becoming more ethnically diverse, so are its classrooms. More than ever, teachers and students alike face ethnic diversity in the classroom. This trend of increasing cultural diversity is strongly linked to immigration, which represents a steadily growing globalization. It is to be expected that a continuing trend of globalization will increase ethnic diversity at all levels of society. Especially western societies benefitted and still benefit from the reception of educated immigrants (Suarez-Orozco, 2001). However, when attitudes towards acculturation preferences between ethnic groups differ, ethnic diversity can lead to conflicts (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002). Furthermore, The ethnic composition of classrooms in schools has been found to be related to racist victimization (Verkuyten & Thijs, 2002). As ethnic diversity is may be related to conflict and racist victimization, the increase of ethnic diversity in society requires policies and mindsets that are conducive to strengthening positive consequences and avoiding or resolving the negative ones.

What is the best way to prepare adolescents for participation in an ethnically diverse society? Some scholars argue that support for multiculturalism is essential to manage a culturally diverse society (e.g. Berry & Kalin, 1995). Here it is important to distinguish between multicultural policy and multicultural attitudes. Multicultural policies refer to policies designed to prevent discrimination, create equal opportunities and facilitate cultural maintenance for all cultures and ethnicities in an environment (Banting & Kymlycka, 2004). These policies are implemented and maintained by social or political groups. A multicultural attitude is the conviction that *individuals* view the world from within deeply rooted cultural beliefs, and the conviction that other cultures not only have the right to exist, but also may provide valuable learning opportunities (Parekh, 2002). Multicultural attitudes are related to multicultural policies as those people that hold strong multicultural attitudes usually support multicultural policies, and a culturally heterogeneous society (Berry & Kalin, 1995).

Parekh presents a largely positive notion of multicultural attitudes. Based on a conceptual and philosophical analysis Verkuyten and Brug (2004) conclude that multicultural attitudes are rooted in essentialism, which refers to the existence and corresponding categorization of ethnic and cultural groups as being authentically and inherently different from other groups. Multiculturalism then entails that essential differences be respected, because denial is treated as equivalent to short sightedness and injustice. As an essentialist notion, multiculturalism comes close to a notion of strong or extreme cultural relativism that cannot be bridged. It fuels prejudice and racism. As such multiculturalism elicits strong critique, because it creates a breeding ground for conflict. A color blind ideology has been suggested as an alternative (Barry, 2001). Empirical studies, however, suggest that this is not really a good alternative. A study of Richeson and Nussbaum (2004) suggests that persons who endorse multiculturalism experience less prejudice than persons who endorse color blindness. Tatar and Horenczyck (2003) suggest that when it comes to dealing with ethnic

diversity in the classroom, teachers benefit from a multicultural attitude. Those teachers who embraced multiculturalism more strongly reported fewer feelings of stress as a consequence of ethnic diversity in their classroom.

Based on these empirical studies, and inspired by Parekh's notion of multicultural attitude, in this paper we adopt a notion stressing equal opportunities and minimizing discrimination as well as the conviction that the access to other cultures enriches one's own life.

A positive attitude towards cultural diversity such as multiculturalism is most important for those people who often deal with people of many different cultural backgrounds. In the Netherlands one such a population is adolescents in ethnically diverse classrooms. Despite the relatively high percentage of immigrant adolescents in the Netherlands, there is a trend of segregation in Dutch schools (Vedder, 2006). The immigrant population is mainly concentrated in the highly urbanized western part of the Netherlands. The sample for this study was gathered in junior vocational education, the lowest of the three regular educational tracks in Dutch secondary schools. The majority of the immigrant adolescents in the Netherlands attend junior vocational education. The largest immigrant groups in the Netherlands are the Turks and Moroccans, of whom 78 percent attend junior vocational education, as compared to 53 percent of the nationals that attend junior vocational education. The overrepresentation of immigrant adolescents in junior vocational education is mainly due to poor socio-economic circumstances and language disadvantage among immigrant adolescents. (Herweijer, 2009). The fact that immigrant students are overrepresented in junior vocational high schools means that they are relatively ill prepared for social participation in Dutch society. The ill preparation for social participation makes issues concerning ethnic diversity and multiculturalism particularly important for these students. Multicultural attitudes correspond to acceptance of cultural maintenance and support equal rights. Most immigrant adolescents prefer cultural maintenance (Berry, Phinney, Sam, & Vedder, 2006), and support for cultural maintenance is a key point of multiculturalism. Moreover, in ethnically diverse classrooms multicultural attitudes among nationals may help to reduce interethnic tension: Agreement concerning cultural maintenance between immigrants and nationals is necessary to ensure harmonious intergroup relations (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002).

The present study

Studies attempting to find identifiers for multiculturalism have typically focused on predictors at the individual level, such as intercultural contact, ethnic identity and nationality (Berry & Kalin, 1995; Ward & Masgoret, 2006; Verkuyten & Martinovic, 2006). Increasingly social scientists are realizing that people exist within a context, and that variables at the contextual level need to be included in designs to correctly explain variations in peoples' attitudes and behavior. In this study we will look at the classroom level as a predictor for adolescents' multicultural attitudes. Adolescents in the same classroom will likely share experiences which may influence their attitudes. Merely focusing on the individual level may cause an attribution error as several scholars discuss the

important role of group composition and school characteristics for adolescents' interracial friendliness (cf. Gniewosz & Noack, 2008).

Earlier studies found that intercultural contact rarely persists outside the school (Masson & Verkuyten, 1993). This suggests that the classroom is the primary and major medium, and perhaps an ideal one to bring adolescents from different ethnic groups in continuous first hand contact. This is an important challenge, since at least for the situation in the Netherlands, it has been found that, when controlling for gender and sociometric status, adolescents prefer to have friends with similar ethnic backgrounds (Fortuin, Zibera, & Vedder, 2009). However, this preference does not necessarily mean that students avoid contact with adolescents from other ethnic groups. Studies and reviews suggest that school policy with respect to ethnic composition and regulating intercultural contact has an impact on the quality of interethnic relations and may stimulate interethnic friendliness (cf. Khmelkov & Hallinan, 1999; Moody, 2001; Stearns, 2004). Hence, our first hypothesis was that the classroom level would explain a significant portion of the variation in adolescents' intercultural attitudes.

Studies attempting to identify predictors of multiculturalism have typically focused on predictors on the personal level. In contrast, the main focus of this study was to find out whether ethnic heterogeneity of the classroom predicts students' multiculturalism. However, a model containing personal variables was analyzed first. In this way, it could be ascertained whether or not, and to what extent, adding predictors at a classroom level would result in a model that would be significantly better than a model with only predictors at the individual level.

An important predictor at the individual level is nationality because immigrant adolescents have been consistently found to embrace multiculturalism more strongly than nationals (Arends-Toth & Van de Vijver, 2003; Verkuyten & Brug, 2004; Verkuyten & Martinovic, 2006). Support for multiculturalism is likely to increase when people see the benefits associated with it (Berry & Kalin, 1995). Immigrants' appreciation of multiculturalism is linked to a sense of justification-or at least a belief in the justified wish for cultural maintenance and equal opportunities-whereas nationals may perceive multiculturalism as threatening to their social dominance and their ethnic identities (Van Oudenhoven, Prins, & Buunk, 1998). Therefore our second hypothesis was that immigrants would endorse multiculturalism more strongly than nationals.

Breugelmans en Van de Vijver (2004) found that a higher level of education was related to a stronger support for multiculturalism. In this study all adolescents attended the same level of education, namely junior vocational education, but socio-economic status was included in the design. Because socio-economic status and level of education are strongly related concepts (cf. Curry, Elton, Todd, & Platt, 1997) our third hypothesis was that socioeconomic status was positively related to support for multiculturalism.

Contact has often been found to improve relations between ethnic groups. Intercultural contact reduces prejudice and improves the relations between different ethnic groups (Allport, 1954; Pettigrew, 1998; Pettigrew & Tropp, 2006). Contact with immigrants may lower prejudice and

increase sympathy for immigrants' positions. It has been found that both national and immigrant adolescents with more out-group friends endorse multiculturalism more strongly (Verkuyten & Martinovic, 2006). In this study, instead of out-group friends we focused on friends with immigrant backgrounds. Out-group friends always have an ethnic background different from the respondent's, while immigrant friends are all those friends who have an immigrant background, but may have the same ethnicity in case the respondent is an immigrant. The fourth hypothesis was that the number of immigrant friends was positively related to support for multiculturalism.

All thus far presented hypotheses dealt with individual level variables, while earlier we argued that classroom variables add considerably to explaining students' multicultural attitude. An ethnically diverse classroom enables students to come into prolonged contact with different cultures and learn about new cultural ways. The opportunities or inevitability, as well as the willingness to meet adolescents with other backgrounds, is likely to depend on the ethnic composition of or ethnic diversity in a classroom. The ethnic heterogeneity of the classroom will be included in a model testing classroom and individual level variables. As adolescents tend to be ethnocentric (Fortuin, Zibera, & Vedder, 2009), it is expected that in ethnically homogenous classrooms adolescents will mainly befriend same ethnicity peers. However, in ethnically heterogeneous there is a higher likelihood of coming into prolonged and frequent contact with immigrant classmates. This increased contact may increase support for multiculturalism because adolescents develop more understanding for the position of immigrants. The fifth hypothesis was that the ethnic diversity in the classroom was positively related to multiculturalism.

In an exploratory manner, the individual level variables gender and age and the classroom level variable classroom size were included in the design.

Method

Participants

A total of 264 national students and 184 immigrant students completed the questionnaires. The students were spread out across 7 schools and 24 classrooms. The mean age of the students was 14.46 ($SD = 1.07$). The sample consisted of 222 boys and 226 girls, one respondent did not answer the question concerning gender. The sample consisted of 264 national students (58.8 percent), 37 Turkish (8.2 percent), 36 Moroccan (8.0 percent), 15 Surinamese (3.3 percent), 15 Antillean (3.3 percent) and 81 immigrant adolescents with a different ethnicity (18.0 percent) like Pakistani or Chinese. Of one respondent the ethnic background was not known.

Measures

A survey consisting of several scales was administered to the students. The survey began with questions about demographics namely school, classroom, age, gender, the birthplace of respondents' both parents, the birthplace of the respondent and the respondent's religion. To measure multiculturalism an adapted version of the multiculturalism ideology scale (MIS) was used (Berry &

Kalin, 1995). The scale consisted of ten items and was adapted to increase understanding among young adolescents in junior vocational education. The items were scored on a five point scale ranging from ‘completely disagree’ up to ‘completely agree’. Sample items are ‘Dutch people should accept that immigrants live in the Netherlands’ and ‘If immigrants want to maintain their own culture, they should be allowed to do so at home only’. The Cronbach’s alpha for this scale was .87. Socioeconomic status was measured with the Family Affluence Scale (Curry, Elton, Todd, & Platt, 1997). A sample item of this scale is ‘How many computers does your family own’. Since the scale has different response categories for the separate items Cronbach’s alpha could not be computed. The Family Affluence Scale has been found to be a valid indicator of adolescents’ socio-economic status (Boyce, Torsheim, Currie, & Zambon, 2006). To get an indication of how many Dutch and immigrant friends the respondents had they were asked ‘We would like to know how many friends you have and what their cultural background is’. Respondents were asked to write down how many friends they had in each of the following ethnic categories: Dutch friends, Moroccan friends, Turkish friends, Surinamese friends, Antillean friends and friends with different ethnic backgrounds. To correct for outliers, all number of friends beyond ten were recoded to eleven. To measure the ethnic diversity of the classroom we used an index devised by Simpson (1949). This index is based on the number of different ethnic groups as well as the relative representation of each group in a classroom, ranging from 0 for a population with no ethnic diversity to 1 as the highest possible degree of ethnic diversity. The index is calculated as:

$$D_c = 1 - \sum_{i=1}^g p_i^2$$

The index D_c stands for the ethnic diversity in the classroom p_i is the percentage of students in the classroom that belong to ethnic group i . We calculated D_c for every classroom and the diversity ranged from .14 to .88. A higher D_c indicates a more ethnically diverse classroom.

Procedure

Forty-eight junior vocational schools in the Netherlands with an ethnically diverse student body were invited to participate in a survey about multiculturalism and adaptation. Schools were first contacted via telephone. When schools showed an interest in the study an appointment was made to explain the study in more detail. This led to seven schools participating in the study. Prior to the data collection the teachers were informed about the goal of the study and letters of informed consent were sent to the students’ parents. Strict anonymity was promised for the schools, the teachers and the students. The questionnaires were administered in the classroom during school hours under the supervision of a teacher and a researcher. Prior to the admission of the questionnaires the teachers received instructions about administering the questionnaire.

Analyses

In this study variables at the individual and at the classroom context level were used. Because students within the same classroom may not be statistically independent, using classical regression analyses to analyze this data is not appropriate as statistical independence is an important assumption of classical regression. If the nested structure of students within classrooms is ignored and regression analyses are used to test the hypotheses this may lead to spurious results. To correctly analyze the data multilevel modeling will be used (Bryk & Raudenbush, 1992; Hox, 1994).

Results

In Table 1 the means and standard deviations for the variables in this study are provided. The mean of immigrant friends is rather high, but the standard deviations suggest a population that varies strongly in the number of immigrant friends and the embracement of multiculturalism. The low standard deviation of SES suggests that this population is homogeneous in terms of affluence.

Table 1

The means and standard deviations of the variables in this study.

	<i>M</i>	<i>SD</i>
Multiculturalism	3.20	.88
Immigrant friends	4.16	3.79
SES	2.57	.45
Ethnic diversity	.53	.20
Classroom size	20.02	4.90

The statistical program MLWIN was used to analyze the multilevel models. To discover whether between-class variances were significant, a model with a fixed intercept was compared to a model with a random intercept. The random intercept model tests the first hypothesis that variance in multicultural attitudes can be explained by the classroom context. The results are reported in Table 2.

The results indicated that the variance between classes was significant, meaning that support for multiculturalism in adolescents is not only dependent on personal factors but also on the classroom context. The intra class correlation coefficient (class level variance divided by total variance) indicated that 21.0 percent of the variance in multiculturalism can be accounted for by the classroom level. Thus, while the within class variances are larger than the between-class variance, classroom context still explains a significant and substantial part of variance in multiculturalism.

In the second model the individual level variables were examined. With this model the second third and fourth hypothesis concerning nationality, socioeconomic status and immigrant friends were tested. The variables ethnicity (split up in nationals and immigrants), gender, age, SES,

and number of immigrant friends were included in the model. Dichotomous variables were dummy coded. The results are summarized in Table 2. The deviance difference test indicates that this model fitted the data significantly better than the model with random intercepts. This means that adding individual level variables in the model significantly improved the model fit. Ethnicity was a significant predictor of multiculturalism, with immigrants ($M = 3.76$, $SD = .63$) more strongly endorsing multiculturalism than nationals ($M = 2.81$, $SD = .83$). Girls ($M = 3.37$, $SD = .86$) were more in favor of multiculturalism than boys ($M = 3.03$, $SD = .86$). SES was negatively related to multiculturalism. Those adolescents with higher SES tended to have lower multicultural attitudes. The number of immigrant friends was positively related to multiculturalism. Adolescents with more immigrant friends tended to have a stronger multicultural attitude. Age was not significantly related to multiculturalism.

Table 2

The results of the multilevel analysis for multiculturalism.

	Model 1	Model 2	Model 3
<i>Individual variables</i>			
nationality		-0.735 ^c (0.080)	-0.661 ^c (0.081)
SES		- 0.177 ^a (0.079)	-0.175 ^a (0.078)
Immigrant friends		0.032 b (0.010)	0.024 ^a (0.010)
age		-0.046 (0.037)	-0.042 (0.033)
gender		-0.181 ^a (0.072)	-0.192 ^b (0.068)
<i>Classroom variables</i>			
Simpson (cultural diversity)			0.948 ^c (0.204)
Classroom size			0.012 (0.008)
<i>Variance</i>			
Between classes	0.161	0.029	0.003
Between individuals	0.604	0.480	0.478
df	1	5	2
Deviance difference	65.501 ^c	135.895 ^c	16.652 ^c
Explained variance	21.35	37.50	37.76

^a $p < .05$; ^b $p < .01$; ^c $p < .001$.

The regression weights are reported with the standard errors between brackets.

In the third model classroom variables were added to the individual level variables. This will test the fifth hypothesis that ethnic diversity in the classroom is positively related to multiculturalism. The Simpson measure of ethnic diversity and the classroom size were entered as variables. The results are reported in Table 2. More ethnic diversity in the classroom was found positively related to more support for multiculturalism. Thus, adolescents who attended classrooms

that were more ethnically heterogeneous tended to hold stronger multicultural attitudes. Classroom size was not significantly related to multiculturalism. The deviance difference test indicated that this model fitted the data significantly better than the model with only individual level variables.

Discussion

The goal of this study was to find individual and classroom level predictors of multiculturalism among adolescents in Dutch junior vocational education. Consistent with previous studies it was found that immigrants embrace multiculturalism more strongly than nationals (Arends-Toth & Van de Vijver, 2003; Verkuyten & Brug, 2004; Verkuyten & Martinovic, 2006). Support for multiculturalism is likely to increase when people see the benefits associated with it (Berry & Kalin, 1995). For immigrants their appreciation of multiculturalism is linked to a sense of justification of or at least a belief in the justified wish for cultural maintenance and equal opportunities whereas nationals may perceive it as threatening to their social dominance and their ethnic identities. A simpler explanation may be that nationals score lower on multiculturalism not because they are opposed to it, but simply because they think it has nothing to do with them. For example, Arends-Toth and Van de Vijver (2003) found that Dutch nationals viewed assimilation and integration solely as a task for immigrants, which implies little interest in multicultural affairs.

SES was found negatively related to support for multiculturalism. This contradicts an earlier finding of Breugelmans and Van de Vijver (2004) who found that multiculturalism was positively related to the level of education. Although Breugelmans and Van de Vijver studied an adult sample in which the respondents had different levels of education. People with a high level of education may learn the benefits of ethnic diversity through travel or study. However, this sample is homogenous in terms of level of education. The different results are still peculiar but may perhaps be explained by the poor socioeconomic circumstances most immigrant adolescents experience. Most immigrants live in relatively poor neighborhoods and under such circumstances usually show the best patterns of adaptation when they adhere strongly to their ethnic culture (Portes & Zhou, 1993). The awareness that immigrants under poor socio-economic conditions benefit from cultural maintenance may be more present among adolescents with low socio-economic status, as they are most likely to be immigrants or live in neighborhoods with strong immigrant representation. In other words, adolescents with low socio-economic status may be more likely to witness the benefits immigrants reap from cultural maintenance, and thus favor multiculturalism more strongly.

Verkuyten and Martinovic (2006) found that having more out-group friends was related to an increased support for multiculturalism. In this study we used a different measure, namely immigrant friends. In the study by Verkuyten and Martinovic respondents used a seven point measure to indicate how many ingroup and outgroup friends they had, while in this study respondents directly wrote down how many friends of different ethnicities they had. Although we used a more direct and precise measure of friendships, we could not make a distinction between

ingroup and outgroup friends. Nevertheless, the same explanation can be used for the results in both studies: having more immigrant friends would increase understanding and sympathy for immigrants' positions, resulting in a stronger support for multiculturalism.

To the best of our knowledge, this is the first study to report that the ethnic heterogeneity of the classroom is related to multiculturalism. This result can be explained with the intergroup contact theory (Allport, 1954; Pettigrew, 1998; Pettigrew & Tropp, 2006), stating that intergroup contact improves the intercultural relations. Classrooms seem an ideal setting to establish intergroup contact as classrooms meet at least three of the important conditions hypothesized to lower prejudice as a result of interethnic contact. In classrooms there is (a) a common goal (success in education), (b) opportunity for cooperation, and (c) support of the same authority (teacher). However, as adolescents in high schools tend to be ethnocentric (Fortuin, Zibera, & Vedder, 2009), it is to be expected that adolescents will only engage in intergroup contact in ethnically heterogeneous contexts. The increased contact facilitated by the ethnically heterogeneous classroom may result in improved relations and more positive evaluations of different cultural groups and thus a stronger support for multiculturalism.

In this study it has been found that multiculturalism is significantly related to the unchangeable variables gender and nationality and the stable characteristic SES. Much of the variation in multiculturalism is thus determined by factors that can hardly be changed through interventions. However, interventions can be aimed at the classroom. This study indicates that a substantial part of adolescents' multicultural attitudes is attributable to the classroom level. Providing adolescents with ethnically diverse classrooms will provide them with the opportunities or inevitability to form interethnic friendships and learn about other cultures.

6. Conclusion

The purpose of this research project was to gain insight into the acculturation and adaptation of immigrant adolescents in junior vocational education in the Netherlands. Junior vocational education may be seen as a particularly challenging context for undergoing the acculturation process, because immigrant adolescents in this educational track lack opportunities for upward economic mobility (Central Bureau for Statistics, 2008; Herweijer, 2009). Whereas in older literature (Aronowitz, 1984; Berry, Kim, Minde, & Mok, 1987) it has been described that migration may cause considerable stress, in this book we hypothesized an immigrant paradox among immigrant adolescents in junior vocational education.

Immigrant paradox

Our research in chapter two indicated that immigrant adolescents in junior vocational education did not show a poor pattern of adaptation at all. The immigrant adolescents in our sample showed a pattern of adaptation that was at least as good as the national adolescents' in the same educational track, despite a lower socio-economic status. The first generation immigrant adolescents even showed a pattern of adaptation that was superior to that of the national adolescents. The second generation had a slightly poorer pattern of adaptation than the first generation, but still performed as well as the national population. The same pattern was found for a more homogeneous population that included only immigrant adolescents with Islamic religious backgrounds. The pattern of adaptation found in this study showed strong resemblance with earlier immigrant paradox findings in Canada and the United States (Beiser, Hou, Hyman, & Tousignant, 2002; Harker, 2001). The specific aspect of the immigrant paradox that first generation immigrants show a better pattern of adaptation than second generation immigrants has been explained in terms of a higher degree of cultural maintenance. It has been argued that maintenance of the ethnic culture helps immigrants to succeed in their new environments.

Patterns of acculturation among immigrant adolescents and its relation to adaptation

To gain more insight into the immigrant paradox finding, the acculturation of these immigrant adolescents was studied in chapters three and four. In chapter three, two theoretical frameworks were discussed that explicitly took cultural maintenance into account, namely the bidimensional model of acculturation (Berry, 1997, 2005) and the segmented assimilation theory (Portes & Zhou, 1993). To gain a broader understanding of the acculturation of immigrant adolescents in junior vocational education, the variables ethnic and national language comprehension, ethnic, national, and immigrant friends, perceived discrimination, and the preference for assimilation, separation, and integration were analysed. Multivariate regressions were used to analyze the effects of these acculturation variables on adaptation. Most notably, perceived discrimination was related to a greater number of psychological and behavioral problems and with

lower self-esteem. This fits into a large body of research literature (eg., Berry, Phinney, Sam, & Vedder, 2006; Van Geel & Vedder, 2009). Although the overall levels of perceived discrimination were low, the negative effects perceived discrimination has on adaptation still make it a serious problem.

In the third chapter we entered all variables into a cluster analysis. We could discern four acculturation profiles, showing a high degree of similarity with the profiles previously found in the ICSEY study (Berry et al., 2006). One cluster resembled the ethnic profile: Immigrant adolescents who have a high competence in their ethnic language, prefer to have co-ethnic friends and tend to opt for a separation strategy. A second cluster resembled the integrated profile: Immigrant adolescents who tended to have co-ethnic, other immigrant, and national friends, opted for an integration strategy, and scored low on separation and perceived discrimination. The third cluster resembled the national profile: Immigrant adolescents who preferred to make national friends, make few co-ethnic and other immigrant friends, and scored high on the assimilation subscale. The fourth cluster is the diffuse profile: Immigrant adolescents who scored high on ethnic language competence, tended to make co-ethnic, other immigrant, and national friends, and felt more discriminated than immigrant youth characterized by an integrated, ethnic or national profile.

Categorization in the ethnic profile was related to a lower socio-economic status. In terms of segmented assimilation it makes sense that immigrants with a lower socio-economic status have a strong preference for cultural maintenance, because these immigrants have little to gain by assimilating into suboptimal circumstances, while maintaining their ethnic culture will provide them with support from their ethnic community. Interestingly, in terms of adaptation the immigrant adolescents in the ethnic profile performed as well as the immigrant adolescents in the integrated profile, and better than the immigrant adolescents in the national and diffuse profiles, despite lower socio-economic status. The successful adaptation of immigrant adolescents in an ethnic profile cannot be easily explained with the bidimensional model, as studies using the bidimensional model often find integration to be the most optimal strategy in terms of adaptation (Berry, 1997; Berry et al., 2006; Neto, 2002). However, the results can be explained in terms of segmented assimilation (Portes & Zhou, 1993; Rumbaut, 1994; Zhou, 1997). Acculturating into the conditions of low socio-economic status and relatively poor chances of upward mobility may not help these adolescents. Acculturating in this segment of society may lead them to socialize into an unfavourable pattern of adaptation. A pattern of selective assimilation may produce better results for these adolescents. This means that these adolescents only acculturate to those aspects of the national society that directly promote success, such as learning the national language. For the rest they endeavor to maintain their ethnic cultures.

Family obligations and adaptation

To further test the notion of segmented assimilation we studied the role of family obligations in explaining adaptation outcomes among immigrant adolescents in chapter four. Family obligations have been presented as a trademark cultural characteristic of immigrants with non-western backgrounds. In both conceptual and empirical articles it has been concluded that a strong sense of family obligations promotes a motivation to do well in school and helps immigrant children to achieve a positive pattern of adaptation (Fuligni, 1997, 1998; Portes & Zhou, 1993; Suarez Orozco & Suarez Orozco, 1995; Zhou & Bankston, 1998). Our results indicated that immigrant adolescents indeed endorsed a sense of family obligations much more strongly than national adolescents and immigrant adolescents also showed a better school adjustment. Both family obligations and school adjustment were found to be related to a positive adaptation of immigrant adolescents, indicating that adhering to certain aspects of the ethnic culture may indeed be related to a better adaptation for immigrant adolescents. Regression analyses indicated that a strong sense of family obligations was related to a better school adjustment, higher grades, a better self-esteem and fewer behavioral problems in immigrant children. The relations between family obligations and behavioral problems, and family obligations and self-esteem, were partially mediated by school adjustment.

Support for multiculturalism among adolescents in junior vocational education

Our results in chapters three and four suggest that adhering to aspects of the ethnic culture may be conducive to the adaptation of immigrant adolescents. Thus for the benefit of immigrant adolescents' adaptation, as well as for harmonious intergroup relations, it is desirable that the direct context in which immigrant adolescents are acculturating is supportive of cultural maintenance (Bourhis, Moise, Perreault, & Senecal, 1997; Piontkowski, Rohmann, & Florack, 2002). An ideology that respects the need for cultural maintenance is multiculturalism. In this book we used a definition of multiculturalism inspired by Parekh (2002) and Berry and Kalin (1995): a notion stressing equal opportunities and minimizing discrimination as well as the conviction that the access to other cultures enriches one's own life. In chapter five the analyses indicated that among national adolescents there was little support for multiculturalism. However, the analyses also revealed that the support for multiculturalism was related to the ethnic heterogeneity in the classroom, which suggests that adolescents' support for multiculturalism may be increased by prolonged contact with adolescents from different cultures.

The low support for multiculturalism among national adolescents in junior vocational education found in chapter five may explain why there was a relatively large percentage (21.3 %) of immigrant adolescents who were classified as having a maladaptive diffuse profile, as reported in chapter three. These adolescents felt discriminated and lacked support in the environment for cultural maintenance. Their lack of direction may have been caused by the pressure in the school environment to assimilate combined with the pressure from family members to maintain strong

links with the ethnic group. Aronowitz (1984) describes how different expectations from society and family may cause psychopathology in immigrant adolescents.

The relation between the results in this book and the state of affairs in the Netherlands

The sample in this study included only national and non-western immigrant adolescents attending junior vocational education. Given that context has been found to be an important factor in the acculturation processes (Birman, Trickett, & Buchanan, 2005; Vedder, 2004) we should be wary of generalizing these findings to other settings. Immigrant adolescents in higher educational tracks are in a context of favorable opportunities for economic mobility and may fare better when assimilating than when using a pattern of selective assimilation (Portes & Zhou, 1993). Nevertheless, we would like to consider what the results in this study mean for the larger context of the Netherlands.

In chapter two immigrant adolescents showed a positive pattern of adaptation when compared to their national contemporaries. How does this relate to the high drop-out rates among immigrant adolescents (Herweijer, 2009)? The low socio-economic status of many immigrant adolescents may frustrate their scholarly achievements, but other explanations are possible. A strong sense of family obligations may promote a positive pattern of adaptation. However, when faced with economic adversity those adolescents who have the strongest sense of family obligations may choose to quit school and help their families (Fuligni, Tseng, & Lam, 1999). The combination of low socio-economic status and high family obligations found among immigrant adolescents in chapter four of this study may thus help to explain why immigrant adolescents experience high drop-out rates in junior vocational education. As such, a strong sense of family obligations may be a double-edged sword, promoting positive adaptation outcomes but simultaneously increasing the chances of drop-out.

In this study, we found low support for multiculturalism among national adolescents in junior vocational education in chapter five. These results fit into a nationwide pattern of declining support for multiculturalism among nationals (Arends-Toth & Van de Vijver, 2003; Van Oudenhoven, Prins, & Buunk, 1998). Because most immigrants live under poor socio-economic circumstances and most immigrant adolescent attend junior vocational education (Herweijer, 2009), the immigrant adolescents are likely to rely on aspects of their ethnic culture to achieve a positive pattern of adaptation. The declining support for multiculturalism among nationals may make it increasingly difficult for many immigrant adolescents to realize social participation in society that is desired and respected by all.

It is important to realize that the confirmation of the existence of the immigrant paradox presented in this book does not mean that immigrant adolescents are doing fine. It merely means that when compared to nationals at the same educational level, immigrant adolescents do not necessarily have a poorer pattern of adaptation. From a nationwide point of view however, there is still work to be done as immigrant adolescents are still underrepresented in the higher educational

tracks and live under poorer socio-economic circumstances than nationals (Herweijer, 2009). Although the theories and results in this book suggest that immigrants can achieve remarkable positive results on their own, the conditions have to be created for immigrants to experience a positive acculturation process.

Limitations and directions for future research

The results in this study have been obtained by using self-report questionnaires. To obtain meaningful results we used questionnaires that were validated and structurally equivalent across cultural groups as much as possible. However, in studies with immigrant children it has been found that using teacher and parental reports may provide results that are different from those obtained in self-reports (Achenbach et al., 1990; Stanger & Lewis, 1993; Stevens et al., 2003). As schools only had a limited amount of time to participate in research we could not use a longitudinal design. The hypothesized directions of effects that are presented in this book are all derived from theoretical frameworks and prior research, but without a longitudinal design we cannot be sure that the hypothesized direction of the effects is correct. A third important point of critique has to be made with regards to the samples. Immigrant students are known to drop out of junior vocational education more often than national students, 16.8 percent as opposed to 11.2 percent (Herweijer, 2009); this may have contributed to finding confirmation for the immigrant paradox.

This study provides an overview of the acculturation and adaptation of the largest group of immigrant adolescents in the Netherlands, those in junior vocational education. When compared with other adolescents in junior vocational education these immigrant adolescents are doing rather well. However, when compared to a nationwide sample, the under representation in higher education suggests that the position of immigrant adolescents remains to be improved. As such, future studies should address the question why immigrant adolescents have a positive pattern of adaptation, but fail to perform as well as national students in terms of education.

Conclusion

Despite a low socio-economic status and comparatively poor chances for upward economic mobility immigrant adolescents, especially first generation immigrant adolescents, show a positive pattern of adaptation. The second generation decline suggests that further assimilation to the national society may not be conducive to the adaptation of immigrant adolescents. To further test how assimilation was related to adaptation, we studied the acculturation of immigrant adolescents. In chapter three we found that the bidimensional model of acculturation gives a plausible description of the acculturation of immigrant adolescents, but it was not found that an integrated profile was best in terms of adaptation. The ethnic and integrated profiles were related to the most positive patterns of adaptation, although the immigrant adolescent in the ethnic profile achieved the positive pattern of adaptation despite a lower socio-economic status than the immigrant adolescents in the integrated profile. This result could be better explained in terms of segmented assimilation

than in terms of the bidimensional model of acculturation, in which integration is usually found to be the most optimal choice in terms of adaptation (Berry, 1997; Berry et al., 2006; Neto, 2002). To further test this we analyzed how one specific aspect of the culture of many non-western immigrant adolescents, namely family obligations, was related to their adaptation. It was found that a strong sense of family obligations was related to a more positive pattern of adaptation in immigrant adolescents. This led us to conclude that the maintenance of at least some parts of the ethnic culture may help immigrant adolescents in junior vocational education achieve a good adaptation. Multiculturalism is an attitude towards cultural diversity that recognizes the importance of cultural maintenance. Among national adolescents in junior vocational education, there is little support for multiculturalism, but this support can be increased by creating ethnically diverse classrooms.

7. Samenvatting

In dit boek zijn de resultaten van een onderzoek naar migrantenjongeren op het VMBO in Nederland besproken. Migrantjongeren zijn op het VMBO doorgaans minder succesvol dan hun autochtone leeftijdsgenoten die hogere cijfers halen en minder vaak uitvallen zonder de benodigde diploma's voor een baan. Een lagere socio-economische status en een taalachterstand zijn aangedragen als verklaringen voor de relatief slechte prestaties van migrantjongeren op het VMBO. Vertalen de lagere socio-economische status en de relatief slechte onderwijsprestaties zich ook in een slechte adaptatie? Vanuit verschillende theorieën is in dit boek getracht de acculturatie en adaptatie van deze migrantjongeren in kaart te brengen.

In hoofdstuk twee is hierbij aandacht besteed aan de migrantenparadox. Vooral in studies uit de Verenigde Staten wordt gerapporteerd dat migrantjongeren ondanks een lagere sociaal economische status een betere adaptatie hebben dan autochtonen, waarbij vooral de eerste generatie migrantjongeren een positieve adaptatie ervaren. In hoofdstuk twee van dit boek is dit patroon bevestigd in een steekproef van migrantjongeren op het VMBO in Nederland. De eerste en tweede generatie migrantjongeren rapporteerden een significant lagere socio-economische status. Desondanks bleek dat de eerste generatie migrantjongeren minder psychologische problemen ervoeren en een beter gevoel voor eigenwaarde hadden dan de autochtone jongeren. Er werden door de eerste generatie migrantjongeren evenveel gedragsproblemen gerapporteerd als door de autochtone jongeren. De tweede generatie migrantjongeren was qua adaptatie meer vergelijkbaar met de autochtone jongeren; met andere woorden, zij verliezen de voorsprong van de eerste generatie. De tweede generatie migrantjongeren verliest dit positieve adaptatiepatroon.

In hoofdstuk drie van dit boek is de acculturatie van migrantjongeren op het VMBO onderzocht. Acculturatie kan gedefinieerd worden als de veranderingen die iemand ondergaat ten gevolge van contact met mensen met een andere culturele achtergrond. Daarnaast is in hoofdstuk drie onderzocht hoe de acculturatie van deze jongeren samenhangt met hun adaptatie. Om de acculturatie breed in kaart te brengen zijn de migrantjongeren gevraagd naar hun acculturatievoorkeuren, hun Nederlandse en etnische taalcompetenties, hun Nederlandse, co-etnische en migrantenvrienden, en de door hen ervaren discriminatie. Met een clusteranalyse konden vier acculturatiepatronen worden onderscheiden die sterke gelijkenissen tonen met de acculturatiestrategieën die eerder werden beschreven door Berry en collega's, namelijk een integratie profiel, een etnisch profiel, een nationaal profiel en een diffuus profiel. Het integratieprofiel en het etnische profiel waren gerelateerd aan de beste adaptatie-uitkomsten. Opvallend was dat de migrantjongeren in het etnische profiel een significant lagere socio-economische status hadden dan de migrantjongeren in de andere profielen. In eerder onderzoek wordt doorgaans gerapporteerd dat een integratiestrategie samenhangt met de beste adaptatie-uitkomsten. Dat voor migrantjongeren op het VMBO ook het etnische profiel samenhangt met gunstige adaptatie-uitkomsten kan verklaard worden aan de hand van de gesegmenteerde assimilatie theorie. Hierin

wordt gesteld dat migranten in economisch ongunstige omstandigheden een gunstige adaptatie kunnen bewerkstelligen voor hun kinderen door vast te houden aan aspecten van hun etnische cultuur en steun uit de etnische gemeenschap, en alleen te assimileren aan die aspecten van de nationale cultuur die belangrijk zijn voor economische vooruitgang. Er waren ongeveer evenveel jongeren in het etnische profiel als in het geïntegreerde profiel. De minste jongeren zaten in het nationale profiel. Relatief veel jongeren werden geclassificeerd in het diffuse profiel dat samenhang met slechte adaptatie-uitkomsten. Over het algemeen voelden de migrantenjongeren op het VMBO zich niet erg gediscrimineerd. Het ervaren van discriminatie hing wel duidelijk samen met een slechtere adaptatie, aangezien discriminatie samenhang met meer psychologische en gedragsproblemen en een lager gevoel van eigenwaarde.

Om het belang van de etnische cultuur in het bereiken van een gunstige adaptatie verder te onderzoeken is er in hoofdstuk vier voor gekozen om onderzoek te doen naar een kenmerkend aspect van niet-westerse culturen, namelijk een gevoel van familie verplichtingen. In de wetenschappelijke literatuur is beschreven dat adolescenten met een sterk gevoel van familie verplichtingen willen voorkomen dat de familie zich over hen schaamt en daarom is het minder waarschijnlijk dat deze adolescenten gedragsproblemen vertonen. Tevens willen deze adolescenten een bijdrage leveren aan het welzijn van hun families. Hiertoe zetten ze zich op school in om later een betere kans te hebben op een goede baan. Dit patroon is bevestigd in ons onderzoek. Migrantjongeren hadden in vergelijking met autochtone jongeren een sterker gevoel van familie verplichtingen en een positievere houding ten opzichte van school. Voor migrantjongeren hing een sterk gevoel voor familie verplichtingen samen met hogere schoolcijfers, een positievere houding ten opzichte van school, een beter gevoel voor eigenwaarde en minder gedragsproblemen.

In zowel hoofdstuk drie als vier is gevonden dat het behoud van de etnische cultuur samenhangt met een positievere adaptatie van migrantjongeren. Uit de literatuur blijkt echter dat er in Nederland steeds minder steun is voor het cultuurbehoud van minderheden. Hoe zit dat onder jongeren op het VMBO? In hoofdstuk vijf bekeken wij voorspellers van multiculturaliteit van jongeren op het VMBO. Over het algemeen was er onder autochtone jongeren weinig steun voor multiculturaliteit. Autochtone jongeren kunnen multiculturaliteit zien als een bedreiging van hun sociale dominantie, of zij zien simpelweg het belang niet in van multiculturaliteit. Een hogere socio-economische status hing samen met minder steun voor multiculturaliteit. Het kan zijn dat vooral de jongeren in de lagere socio-economische klassen contact hebben met migranten, en hierdoor sympathie krijgen voor de positie die migranten innemen in de maatschappij. Er was een positieve samenhang tussen de etnische diversiteit in de klas en de steun voor multiculturaliteit onder jongeren op het VMBO. Dit suggereert dat kinderen voorbereid kunnen worden op deelname in een etnisch diverse samenleving door ze op school in contact te laten komen met kinderen met een andere etnische achtergrond.

Migrantjongeren op het VMBO in Nederland kunnen een positieve adaptatie bewerkstelligen ondanks een lagere socio-economische status dan de autochtone jongeren. Uit de

resultaten in dit proefschrift blijkt dat voor migrantenjongeren het behoud van aspecten uit de etnische cultuur samenhangt met een positieve adaptatie. In de maatschappij en binnen de meer specifieke context van de klas in het VMBO is er onder autochtonen echter weinig steun voor multiculturaliteit. Een goede stap richting meer positieve interetnische relaties en een makkelijker acculturatietraject voor migrantenjongeren zal gezet kunnen worden door het bevorderen van multiculturaliteit.

8. References

- Achenbach, T., Bird, H., Canino, G., Phares, V., Gould, M., & Rubio-Stipec, M. (1990). Epidemiological comparisons of Puerto Rican and U.S. mainland children: parent, teacher and self reports. *Journal of the American Academy of Child & Adolescent Psychiatry*, 29, 84–93.
- Alesina, A., Glaeser, E., & Sacerdote, B. (2001). Why doesn't the US have a European-style welfare state? *Brookings Papers on Economic Activity*, 2, 187–277.
- Allport, G. (1954). *The nature of prejudice*. Garden City, NJ: Doubleday Anchor Books.
- Aronowitz, M. (1984). The social and emotional adjustment of immigrant children: A review of the literature. *International Migration Review*, 18, 237-257.
- Arends-Toth, T., & Van de Vijver, F. J. R. (2003). Multiculturalism and acculturation: Views of Dutch and Turkish-Dutch. *European journal of social psychology*, 33, 249-266.
- Banting, K., & Kymlicka, W. (2004). Do Multiculturalism policies erode the welfare state? In P. Van Parijs (Ed.), *Cultural diversity versus economic solidarity* (pp.227-284). Brussels: Editions De Boeck Université.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Barry, B. (2001). *Culture and equality: An egalitarian critique of multiculturalism*. Cambridge: Polity.
- Beiser, M., Hou, F., Hyman, I., & Tousignant, M. (2002). Poverty, family process, and the mental health of immigrant children in Canada. *American Journal of Public Health*, 92, 220 – 227.
- Bendixen, M., & Olweus, D. (1999). Measurement of antisocial behaviour in early adolescence and adolescence: Psychometric properties and substantive findings. *Criminal Behaviour and Mental Health*, 9, 323 – 354.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46, 5-68.
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29, 697-712.
- Berry, J. W., & Kalin, R. (1995). Multicultural and ethnic attitudes in Canada: An overview of the 1991 national survey. *Canadian Journal of Behavioural Science*, 27, 301–320.
- Berry, J.W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, 21, 491-511.
- Berry, J. W., Phinney, J. S., Sam, D., & Vedder, P. (Eds.). (2006). *Immigrant youth in cultural transition: Acculturation, identity and adaptation across national contexts*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Birman, D., Trickett, E. & Buchanan, R. M. (2005). A tale of two cities: Replication of a study on the acculturation and adaptation of immigrant adolescents from the former Soviet Union in a different community context. *American Journal of community Psychology*, 35, 87-101.

- Birman, D., Trickett, E. J., & Vinokurov, A. (2002). Acculturation and adaptation of Soviet Jewish refugee adolescents: Predictors of adjustment across life domains. *American Journal of Community Psychology, 30*, 585-607.
- Blake, S. M., Ledsky, R., Goodenow, C., & O'Donnell, L. (2001). Recency of immigration, substance use, and sexual behavior among Massachusetts adolescents. *American Journal of Public Health, 91*, 794 – 798.
- Bourhis, R.Y., Moise, L.C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International journal of psychology, 32*, 369-386.
- Boyce, W., Torsheim, T., Currie, C., & Zambon, A. (2006). The Family Affluence Scale as a measure of national wealth: validation of an adolescent self-report measure. *Social Indicators Research, 78*, 473-487.
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53*, 371–399.
- Breugelmans, S.M., & Van de Vijver, F. J. R. (2004). Antecedents and components of majority attitudes towards multiculturalism in the Netherlands. *Applied Psychology: An International Review, 53*, 400-422.
- Brindis C, Wolfe, A.L., McCaiter, V., Ball, S., & Starbuck-Morales, S. (1995). The associations between immigrant status and risk-behavior patterns in Latino adolescents. *Journal of Adolescent Health, 17*, 99-105.
- Bryant, A. L., Schulenberg, J. E., O'Malley, P. M., Bachman, J. G., & Johnston, L. D. (2003). How academic achievement, attitudes, and behaviors relate to the course of substance use during adolescence: A 6-year, multiwave national longitudinal study. *Journal of Research on Adolescence, 13*, 361–397.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage Publications.
- Caplan, N., Choy, M., & Whitmore, J. (1992). Indochinese refugee families and academic achievement. *Scientific American, 266*, 18–24.
- Central Bureau of Statistics. (2007). *Jaarrapport onderwijs 2007 [Year report education 2007]*. SDU: The Netherlands: The Hague.
- Central Bureau of Statistics. (2008). *Jaarrapport integratie 2008 [Year report integration 2008]*. SDU: The Netherlands: The Hague.
- Currie, C. E., Elton, R. A., Todd, J., & Platt, S. (1997). Indicators of socio-economic status for adolescents: the WHO health behaviour in school-aged survey. *Health Education Research, 12*, 385–397.
- Extra, G., & Yagmur, K. (2009). Language proficiency and socio-cultural orientation of Turkish and Moroccan youngsters in the Netherlands. *Language and Education, 23*, 1-16.
- Fortuin, J., Zibera, A., & Vedder, P. (2009). *The effect of ethnic background on friendship and social interaction networks: A network approach*. Manuscript submitted for publication.

- Fuligni, A. J. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. *Child Development, 68*, 261–273.
- Fuligni, A. J. (1998). The adjustment of children from immigrant families. *Current Directions in Psychological Science, 7*, 99–103.
- Fuligni, A. J., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents with Asian, Latin American, and European backgrounds. *Child Development, 70*, 1030–1044.
- Freeburg, A., & Stein, C. (1996). Felt obligation toward parents in Mexican-American and Anglo-American young adults. *Journal of Social and Personal Relationships, 13*, 457–471.
- Gans, H. J. (1992). Comment: ethnic invention and acculturation, a bumpy-line approach. *Journal of American Ethnic History, 12*, 42–52.
- Garcia Coll, C. (2005). *The immigrant paradox: Critical factors in Cambodian students' success*. paper presented at the 2005 Biennial meeting of the Society for Research in Child Development. Atlanta, GA, April 7 – 10.
- Georgas, J., Berry, J., Shaw, A., Christakopoulou, S., & Milonas, K. (1996). Acculturation of Greek family values. *Journal of Cross-Cultural Psychology, 27*, 329–338.
- Gil, A., & Vega, W. (1996). Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families. *Journal of Personal Social Relationships, 13*, 435–456.
- Gil, A., Vega, W., & Dimas, J. (1994). Acculturative stress and personal adjustment among Hispanic adolescent boys. *Journal of Community Psychology, 22*, 43–54.
- Gordon, M. M. (1964). *The assimilation into American life: the role of race, religion and national origins*. London: Oxford university press.
- Gniewosz, B., & Nowack, P. Classroom climate indicators and attitudes towards foreigners. *Journal of Adolescence, 31*, 609–624.
- Gustafsson, S., & Stafford, F. (1994). Three Regimes of Child-care: the United States, the Netherlands, and Sweden. In R. Blank (ed.) *Social Protection versus Economic Flexibility* (pp. 333–362). Chicago : University of Chicago Press.
- Harker, K. (2001). Immigrant generation, assimilation and adolescent psychological well-being. *Social Forces, 79*, 969 – 1004.
- Harris, K. M. (2000). The health status and risk behaviors of adolescents in immigrant families. In D. Hernandez (Ed.), *Children of immigrants: Health, adjustment, and public assistance* (pp. 286–347). Washington, DC: National Academy Press.
- Hayes-Bautista, D. (2004). *La Nueva California: Latinos in the Golden State*. Los Angeles: University of California Press.
- Hernandez, D. J., & Darke, K. (1999). Socioeconomic and demographic risk factors and resources among children in immigrant and native-born families: 1910, 1960, and 1990. In D. J. Hernandez (Ed.), *Children of immigrants: Health, adjustment, and public assistance* (pp. 19–125). Washington, DC: National Academy Press.

- Herweijer, L. (2009). *Making up the gap: migrant education in the Netherlands*. SCP: The Netherlands: The Hague.
- Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35, 1183–1192.
- Hox, J. J. *Applied multilevel analysis*. Amsterdam: TT-Publikaties, 1994.
- Jasinskaja-Lahti, I., & Liebkind, K. (2001). Perceived discrimination and psychological adjustment among Russian-speaking immigrant adolescents in Finland. *International Journal of Psychology*, 36, 174-185.
- Jasinskaja-Lahti, I., Liebkind, K., Jaakkola, M., & Reuter, A. (2006). Perceived discrimination, social support networks and psychological well-being among three immigrant groups. *Journal of Cross-Cultural Psychology*, 37, 1–19.
- Jasso, G., Massey, D. S., Rosenzweig, M. E., & Smith, J. P. (2004). Immigrant health: Selectivity and acculturation. In N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 227 – 266). Washington, DC: The National Academy Press.
- Liebkind, K., Jasinskaja-Lahti, I., & Solheim, E. (2004). Cultural identity, perceived discrimination, and parental support as determinants of immigrants school adjustments: Vietnamese youth in Finland. *Journal of Adolescent Research*, 19, 635 - 656.
- Kao, G. (1999). Psychological well-being and educational achievement among immigrant youth. In D. J. Hernandez (Ed.), *Children of immigrants: Health, adjustment, and public assistance* (pp. 410–477). Washington, DC: National Academy Press.
- Kao, G., & Tienda, M. (1995). Optimism and achievement: The educational performance of immigrant youth. *Social Science Quarterly*, 76, 3–19.
- Liebkind, K., Jasinskaja-Lahti, I., & Solheim, E. (2004). Cultural identity, perceived discrimination, and parental support as determinants of immigrants school adjustments: Vietnamese youth in Finland. *Journal of Adolescent Research*, 19, 635 - 656.
- Ludden, A. B., & Eccles, J. S. (2007). Psychosocial, motivational, and contextual profiles of youth reporting different patterns of substance use during adolescence. *Journal of Research on Adolescence*, 17, 51-88.
- Khmelkov, V.T., & Hallinan, M.T. (1999). Organizational effects on race relations in schools. *Journal of Social Issues*, 55, 627-645.
- Masson, C. N., & Verkuyten, M. (1993). Prejudice, ethnic identity, contact and ethnic group preferences among Dutch young adolescents. *Journal of Applied Social Psychology*, 23, 156 - 168.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185–204.

- Moody, J. (2001). Race, school integration and friendship segregation in America. *The American Journal of Sociology*, 107, 679-716.
- Neto, F. (2002). Acculturation strategies among adolescents from immigrant families in Portugal. *International Journal of Intercultural Relations*, 26(1), 17-38.
- Olweus, D. (1989). Prevalence and incidence in the study of antisocial behaviour: Definition and measurement. In M. Klein (Ed.), *Cross-national research in self-reported crime and delinquency* (pp. 187-201). Dordrecht, Holland: Kluwer Academic.
- Olweus, D. (1994). *The revised Olweus Bully/Victim Questionnaire*. Bergen, Norway: Research Center for Health Promotion, University of Bergen.
- Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International Journal of Epidemiology*, 35, 888-901.
- Parekh, B. (2002). *Rethinking multiculturalism: Cultural diversity and political theory*. London: MacMillan.
- Pettigrew, T.F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65-85.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90, 751 – 783.
- Piontkowski, U., Rohmann, A., & Florack, A. (2002). Concordance of acculturation attitudes and perceived threat. *Group processes & intergroup relations*, 5, 221-232.
- Portes, A., & Zhou, M. (1993). The new second generation: Segmented assimilation and its variants. *Annals of the American Academy of Political & Social Science*, 530, 74-96.
- Redfield, R., Linton, R., & Herskovits, M. (1936). Memorandum on the study of acculturation. *American Anthropologist*, 38, 149-152.
- Richeson, J. A., & Nussbaum, R. J. (2004). The impact of multiculturalism versus color-blindness on racial bias. *Journal of Experimental Social Psychology*, 40, 417-423.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M., Schooler, C., & Schoenbach, C. (1989). Self-esteem and adolescent problems: Modeling reciprocal effects. *American Sociological Review*, 54, 1004-1018.
- Rosenberg, M., Schooler, C., Shoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 60, 141-156.
- Rudmin, F. W. (2003) Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, 7, 3-37.
- Rumbaut, R. (1994). The crucible within: Ethnic identity, self-esteem, and segmented assimilation among children of immigrants. *International Migration Review*, 28, 748-794.
- Rumbaut, R. G. (1999). Assimilation and its discontents: Ironies and paradoxes. In C. Hirschman, P. Kasinitz, & J. DeWind (Eds.), *The handbook of international migration: The American Experience* (pp. 172-195). New York: Russel Sage foundation.

- Sam, D. L., Vedder, P., Liebkiend, K., Neto, F., & Virta, E. (2008). Immigration, acculturation and the paradox of adaptation in Europe. *European Journal of Developmental Psychology, 5*, 138-158.
- Scientific Advisory Board for Government Policy. (2009). *Vertrouwen in de school [Trusting the school]*. Amsterdam University Press: The Netherlands: Amsterdam.
- Sellers, R.M., Caldwell, C.H., Schmeelk-Cone, K.H., & Zimmerman, M.A. (2003). Racial identity, Racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior, 44*, 302-317.
- Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A. J., & Chavous, T. M. (1998). Multidimensional Model of Racial Identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review, 2*, 18-39.
- Simpson, E. H. (1949). Measurement of diversity. *Nature, 163*, 688.
- Stanger, C., & Lewis, M. (1993). Agreement among parents, teachers, and children on internalizing and externalizing behavior problems. *Journal of Clinical Child Psychology, 22*, 107-115.
- Stearns, E. (2004). Interracial Friendliness and the Social Organizations of Schools. *Youth and Society, 35*, 395-419.
- Steinberg, L. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York: Simon & Schuster.
- Stevens, G.W. J. M., Pels, T., Bengi-Arslan, L., Verhulst, F. C., Vollebergh, W. A. M., & Crijnen, A. A. M. (2003). Parent, teacher and self-reported problem behavior in the Netherlands: Comparing Moroccan immigrant with Dutch and with Turkish immigrant children and adolescents. *Social Psychiatry and Psychiatric Epidemiology, 38*, 576-585.
- Suárez-Orozco, C., & Suárez-Orozco, M. M. (1995). *Transformations: Immigration, family life, and achievement motivation among Latino adolescents*. Stanford, CA: Stanford University Press.
- Suarez-Orozco, C., & Suarez-Orozco, M.M. (2002). *Children of immigrants*. Cambridge, MA: Harvard University Press.
- Suárez-Orozco, M. M. (2001). Globalization, immigration, and education: The research agenda. *Harvard Education Review, 71*, 345-365.
- Tatar, M., & Horenczyk, G. (2003). Diversity-related burnout among teachers. *Teaching and Teacher Education, 19*, 397-408.
- Van Geel, M., & Vedder, P. (2009). Perceived discrimination and psychological adjustment of immigrants. A review of research. In I. Jasinskaja-Lahti & T. Anna Mähönen (Eds.), *Identities, intergroup relations and acculturation: the cornerstone of intercultural encounters* (pp. 179-190). Helsinki: Gaudeamus Helsinki University Press.
- Van Oudenhoven, J.P., Prins, K.S., & Buunk, B.P. (1998). Attitudes of minority and majority members towards adaptation of immigrants. *European Journal of Social Psychology, 28*, 995-1013.

- Vazsonyi, A. T., & Pickering, L. E. (2003). The importance of family and school domains in adolescent deviance: African American and Caucasian youth. *Journal of Youth and Adolescence*, 32, 115–128.
- Vedder, P. (2004). Turkish immigrant adolescents' adaptation in the Netherlands: The impact of the language context. *Estudios de Sociolingüística*, 5(2), 257-276.
- Vedder, P. (2006) Black and white schools in the Netherlands. *European Education*, 38 (2), 36 – 49.
- Vedder, P., Berry, B., Sabatier, C. & Sam, D. (2009). The intergenerational transmission of values in national and immigrant families: the role of zeitgeist. *Journal of Youth and Adolescence*, 38, 642–653.
- Vedder, P., & Virta, E. (2005). Language, ethnic identity, and the adaptation of Turkish immigrant youth in the Netherlands and Sweden. *International Journal of Intercultural Relations*, 29, 317-337.
- Vega, W.A., Gil, A.G., & Zimmerman, R.S. (1993). Patterns of drug use among Cuban-American, African-American, and White non-Hispanic boys. *American Journal of Public Health*, 83, 257-259.
- Vega, W. A., Khoury, E. L., Zimmerman, R. S., Gil, A. G., & Warheit, G. J. (1995). Cultural conflicts and problem behaviors of Latino adolescents in home and school environments. *Journal of Community Psychology*, 23, 167–179.
- Verkuyten, M., & Brug, P. (2004). Multiculturalism and group status: the role of ethnic identification, group essentialism and protestant ethic. *European Journal of Social Psychology*, 34, 647-661.
- Verkuyten, M., & Martinovic, B. (2006). Understanding multicultural attitudes: The role of group status, identification, friendships and justifying ideologies. *International Journal of Intercultural Relations*, 30, 1-18.
- Verkuyten, M., & Thijs, J. (2002). Racist victimization among children in the Netherlands: the effects of ethnic group and school. *Ethnic and Racial Studies*, 25, 310-331.
- Ward, C. (1996). Acculturation. In D. Landis & R. Bhagat (Eds.), *Handbook of intercultural training* (pp.124-147). Thousand Oaks, CA: Sage.
- Ward, C., & Masgoret, A. (2006). An integrative model of attitudes toward immigrants. *International Journal of Intercultural Relations*, 30, 671–682.
- Wong, C.A., Eccles, J.S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*, 71, 1197-1232.
- Zhou, M. (1997a). Growing up American: The challenge confronting immigrant children and children of immigrants. *Annual Review of Sociology*, 23, 63–95.
- Zhou, M. (1997b). Segmented assimilation: Issues, controversies, and recent research on the new second generation. *International Migration Review*, 31, 923–960.

Zhou, M., & Bankston, C. L. (1998). *Growing up American: How Vietnamese children adapt to life in the United States*. New York: Russel Sage Foundations.

9. Biography

Mitch van Geel was born on the 9th of November 1982 in Amsterdam. He attended a gymnasium at the Bredero Lyceum in Amsterdam, from which he graduated in 2001. After that he studied psychology with a specialization in psychological methods at the University of Amsterdam, from which he graduated in 2006. From 2006 until 2009 he has been working on a PhD project entitled 'multiculturalism and social cohesion among immigrant adolescents in junior vocational education' at Leiden University.