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A Longitudinal Approach to Social Exclusion in Sweden

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Abstract

This thesis consists of four papers, and has as its central theme the accumulation of welfare problems and social exclusion. We use Swedish data and all analyses are based on individuals of working age. We perform longitudinal analyses to scrutinize the accumulation of disadvantages over the individual life courses as well as to detect the general trends in social exclusion occurrence in Swedish society during the past two decades.

In *Paper I*, in an analysis of social exclusion among immigrants in Sweden, we find that immigrants suffer more often from social exclusion than native Swedes do. We also find that even if the accumulation of welfare problems is more common among immigrants than native Swedes, the connections between welfare disadvantages are stronger among Swedes. Furthermore, a logistic regression analysis revealed that time spent in Sweden decreases the risk of social exclusion among immigrants. However, even though we control for several demographic variables, human capital indicators and socio-economic class, the odds for social exclusion are still greater for immigrants than for native Swedes. Some form of discrimination can therefore not be excluded.

Paper II is co-written with Björn Halleröd. This paper involves a longitudinal analysis of the accumulation of closely related welfare disadvantages, showing that the initial deprivation increases over time. Latent growth curve models reveal that a high initial deprivation is related to low socio-economic class and being single. It is also shown that a high initial deprivation decreases the probability of upward class-mobility as well as the probability of deprived singles becoming cohabiting. Moreover, a high initial deprivation increases the risk that couples will experience a household break-up.

In *Paper III*, we perform a longitudinal analysis of social exclusion in Sweden during the period 1979-2003, in which several logistic regression models for panel data are fitted to our data. We find no support that immigrants have been better integrated into Swedish society over time from the perspective of social exclusion risk. Instead, there are weak signs that integration has become worse. We also find weak signs that the higher social exclusion risk that men have relative to women has decreased during the past two decades. Furthermore, comparing with couples without children, the odds for social exclusion among singles with children have increased and the odds for couples with children have decreased during the period 1979-2003.

Paper IV utilizes latent class factor models to scrutinize the connections between welfare problems and a set of demographic variables, human capital indicators and socio-economic class. We find that welfare problems do cluster. Our results also support several of the findings in the previous paper. Family type, especially being single or living in a relationship, makes a clear difference in the propensity to accumulate welfare problems. Furthermore, immigrants characterize the factors with a high problem accumulation. Additionally, there is no general difference between the sexes in the problem accumulation itself, but experiences of threat or violence and having sleeping problems seem to be more often related to being a woman, whereas the lack of a close friend is most often related to being a man.

To conclude, this thesis reveals several interesting facts concerning the accumulation of welfare problems and social exclusion in Sweden. Considering the implications for policy, the situations of immigrants and single parents need to be underlined. That is, the integration of immigrants should be given more emphasis and measures should be taken to support single parents as well as to promote a discussion on how to make relationships last.

Key words: family, immigrant, longitudinal analysis, social exclusion, Sweden, welfare problem.

This thesis consists of an introductory part and four self-contained papers. These papers are:

[I] Bask, M. (2005). Welfare Problems and Social Exclusion Among Immigrants in Sweden. *European Sociological Review*, **21**: 73-89.

[II] Halleröd, B. and Bask, M. (2008). Accumulation of Welfare Problems in a Longitudinal Perspective. Forthcoming in *Social Indicators Research*.

[III] Bask, M. (2008). Social Exclusion Occurrence in Sweden during 1979-2003: The Significance of Sex, Family Type and Nationality Background.

[IV] Bask, M. (2008). Cumulative Disadvantage and Connections between Welfare Problems.

Part I. The research subject area

Introduction

Why is it that some people suffer from welfare problems and others do not? Can some kind of demographic characteristics explain the accumulation of welfare problems among the population? Questions like these are the common ground of all four papers in this thesis.

Merton (1968) deals with cumulative disadvantage in examining why renowned researchers often get more credit than rather unknown ones do, even though their efforts are comparable. Merton (1968) draws the conclusion that credit will be given to those researchers who are already well-known for the simple fact that they *are* well-known and calls this phenomenon *the Matthew effect*, with reference to the Bible. This term is now widely used in studies to refer to the accumulation of different kinds of problems. This is an appealing approach, considering that the research themes in this thesis deal with the accumulation aspect as well as the longitudinal aspect of welfare disadvantages. But before we define a number of central concepts that are used in the thesis, let us begin with an example that illustrates the type of dynamics it examines, whereas the specific contributions are saved for Part II.

There is plenty of evidence that there exists inequality-creating strata in society, and this inequality can be generated directly or indirectly through societal institutions. An example of a directly generated inequality is an instable childhood environment at home that may worsen the ability of an individual to succeed later in life, and an indirect effect could be the inequality produced through educational attainment in school, since students from lower socio-economic backgrounds are less likely to start college early than are their age peers from higher socio-economic backgrounds. They also tend to drop out more often and are less likely to go to good colleges. All this, in turn, leads to a later life inequality in the form of lower earnings. Moreover, youth from less advantaged class backgrounds feel that they experience a greater

risk compared to their counterparts from higher class backgrounds in selecting higher education, and may therefore choose an education that leads to income more quickly (Beller and Hout, 2006; Breen and Jonsson, 2000; Carr, 2003; Erikson and Goldthorpe, 2002).

Social stratification and inequality

In more broad terms, the field of sociology in which this thesis belongs is called social stratification. The theory of stratification makes a clear distinction between positive social returns and the opportunities to reach these returns. If the opportunities for positive social returns are distributed equally in society, inequality in outcomes is often viewed as acceptable. It is therefore understood that the paths individuals choose to follow in life, even if they lead to different outcomes, are tolerable. Of course, equal opportunities at the beginning of life and the ability to make well-informed choices should be available to everyone in society. However, how equal the opportunities at the beginning of life truly are, and how informed the choices individuals make truly are, can in many cases be questioned.

Central research themes within the field of social stratification typically deal with questions regarding stratification based on socio-economic class, education and sex. Historically, the most important stratification determinant has been socio-economic class. In later years, however, some criticism has been raised against this view, and education and ethnicity, for instance, have been proposed as alternative stratification factors. Further, it is also expected that in advanced industrial societies, human and political capital will replace economic capital as the main stratification forces (Gottschalk, 1997; Grusky, 2001; Grusky and Sorensen, 1998; Meyer, 1994).

The accumulation of welfare problems and social exclusion is related to social stratification through previously mentioned socio-economic class, education and sex. These characteristics are therefore often included as explanatory variables in statistical analyses of social exclusion. For this reason, social exclusion can be viewed as

one of several possible outcomes of social stratification. Furthermore, we should be aware of the connections between class, education and sex. Education is often closely related to socio-economic class, and occupational segregation is related to both socio-economic class and education. A typical research theme within social stratification deals with inequalities on the labor market and whether these inequalities have to do with the employee's sex or socio-economic background (Grusky, 2001; Hout and DiPrete, 2006; Petersen and Morgan, 1995).

Welfare problems

Welfare problems decrease the well-being and quality of life among individuals. In this thesis, the following central welfare problems are discussed: (long-term) unemployment, economic problems, health problems, experiences of threat or violence, crowded housing, lack of interpersonal relationships and sleeping problems. We sometimes refer to these problems as welfare problems, whereas on other occasions we refer to them as welfare disadvantages. Naturally, however, welfare problems and welfare disadvantages refer to the same thing.

Individuals can suffer from no, one or several welfare problems. Further, the correlations between the welfare problems can be strong or weak. This thesis is concerned with both the accumulation of and the correlations between welfare problems. In *Paper I*, among other things, we estimate the correlations between six different central welfare problems and compare these correlations for different nationality groups. In *Paper II*, the main analysis is based on a latent variable "created" by closely related welfare problems, and in *Paper IV*, we perform both correlation and latent class factor analyses.

The reason it is interesting and important to analyze the occurrence of welfare problems and their connections with each other is that this gives us essential information about which problems decrease the quality of life among individuals. If an individual is suffering from a welfare problem that is strongly correlated with other prob-

lems, this individual may be at risk of accumulating more problems and becoming socially excluded. For example, it is shown in this thesis that economic problems are quite often correlated with other problems, and that the lack of a close friend is not. In *Paper I*, we find that the correlations are stronger among native Swedes than among immigrants, even if immigrants suffer from more welfare problems compared to native Swedes. Thus, it is not self-evident that strong correlations between welfare problems and a large accumulation of problems are apparent at the same time.

Social exclusion

Social exclusion is a popular term that often appears in public policy and in discussions on social welfare in general. There is also a great deal of literature on social exclusion. However, the term is not very straightforward for defining or operationalizing for analytical purposes. At any rate, the concept of social exclusion was first implemented in France in the 1960s, where it was first used when talking about the poor, and in the 1970s the term *"exclusion sociale"* was used when referring to individuals with different kinds of disadvantages such as being mentally and physically handicapped, abused children, aged invalids, asocial persons, substance abusers, etc. Over the years since then, studies on social exclusion have involved even more categories of individuals. Examples include deprived, illiterate, long-term unemployed, poor, single parents, social assistance recipients, substance abusers and residents living in deficient housing and disreputable neighborhoods. Thus, social exclusion is connected with different economical, social, political and cultural dimensions (Edgren-Schori, 2000; Silver, 1995).

Social exclusion is understood somewhat differently in the national debates in different countries, and more weight may be placed on certain aspects of exclusion depending on issues that are crucial in a certain country. The emphasis may, for example, be on issues that are the current subject of policy-making or on problems that are especially evident in a given society at that moment in time (Silver, 1995). How-

ever, in its agenda against poverty and social exclusion the European Union has pointed out some aspects that should be considered when talking about exclusion in the entire union. The following eight aspects have since been identified in a report from the Government Offices of Sweden concerning the national action plan against poverty and social exclusion for the years 2003-2005 (Government Offices of Sweden, 2003, p. 3):

1. Developing an inclusive labor market and promoting employment as a right and opportunity for all;
2. Guaranteeing an adequate income and resources to live in human dignity;
3. Tackling educational disadvantage;
4. Preserving family solidarity and protecting the rights of children;
5. Ensuring good accommodation for all;
6. Guaranteeing equal access to quality services (health, transport, social, care, cultural, recreational, legal);
7. Improving the delivery of services; and
8. Regenerating areas of multiple deprivation.

Essentially, the welfare problems that we treat as social exclusion indicators in this thesis correspond quite closely to these eight aspects.

The overlapping paths of different kinds of disadvantages have constituted a frequent theme in research on social exclusion. Silver (1995) describes the fact that researchers in the field of multiple disadvantages have not always found strong correlations between central welfare problems, and therefore the accumulation of disadvantages has been treated as social exclusion.

Atkinson (1998) has identified three central themes that one should be aware of when discussing social exclusion. These are relativity, agency and dynamics. Relativity means that social exclusion is taking place in a certain society and in the context that is relevant in just that society. For example, the material standard that is

considered necessary for a reasonable standard of living in one society may not be the same in another society, or in the same society at a different time period. Thus, technological inventions that were seen as luxury items a few years ago may today be available to the vast majority.

Agency in social exclusion refers to the fact that it is important to identify the agents related to the occurrence of exclusion, that is, who is responsible for the exclusion process. This theme, involving the search after agents causing social exclusion, is especially important in studies in which the emphasis is on the stratification *of* the life course and on the societal institutions as inequality-causing actors. An example of this would be the stratification that is mediated through the educational system. In this thesis, we do not pay special attention to the agency aspect or the stratification *of* the life course aspect.

The dynamics of social exclusion are related to the fact that it is not just the current circumstances that affect the exclusion. What has happened in the past and what the expectations are for the future are also relevant factors in the social exclusion process. This theme is an important aspect in this thesis. We pay, in other words, special attention to changes over time. The dynamic nature of social exclusion has also often been discussed in the literature. For example, Byrne (1999) defines social exclusion as *"changes in the whole society which have consequences for some of the people in that society"* (p. 1). Therefore, social exclusion comes from a stratification generating social change. To be able to empirically tell something about the dynamics of social exclusion, there is need for longitudinal data – most preferably with shorter time periods between the observations.

As it is clear by now, social exclusion is a many-faceted concept with several definitions. When performing quantitative analyses on social exclusion, we must also operationalize the concept before the analysis can be conducted, and be aware that even though the definition of social exclusion would be comparable in different studies, the operationalization may differ.

The definition of social exclusion we apply in this thesis is that an individual is socially excluded when he or she suffers from several central welfare problems. When analyzing exclusion, the problems we refer to as social exclusion indicators are long-term unemployment, economic problems, health problems, experiences of threat or violence, crowded housing and lack of interpersonal relationships. The advantage of this definition is that it is in accordance with the previously cited national action plan against poverty and social exclusion. Furthermore, all the problems we deal with are beyond doubt central welfare problems.

However, Burchardt et al. (2002) have performed an analysis of exclusion in which the lack of opportunity to participate in one of four central dimensions of integration has been treated as social exclusion. These dimensions are consumption, referring to the capacity to purchase goods and services; production, standing for participation in economically or socially significant proceedings; political engagement, which implies engagement in local or national decision-making; and social interaction, which refers to integration with family, friends and the community one lives in. Another example is Chakravarty and D'Ambrosio (2006), who treat the length of sufferance of a certain welfare problem as the threshold for social exclusion.

In *Paper I* and *Paper III*, we define social exclusion as the accumulation of central welfare problems. The welfare problems we discuss therein are the previously mentioned problems. The operationalization is done so that we treat those suffering from two or more problems as socially excluded. There are, of course, other welfare problems one could incorporate into the list of social exclusion indicators. One such problem is homelessness. Unfortunately, most of the surveys do not include homeless people, and this is also the case with the data sets we use in this thesis (Levitas et al., 2007).

The life-course approach to social exclusion

To empirically analyze the dynamics of social exclusion, one needs to follow the same individuals over time, if exclusion over the life course is in focus, or to have repeated observations over time if the interest concerns general changes or trends in the social exclusion occurrence. Since access to this kind of data has been scarce until recent years, a large part of the literature on social exclusion deals with static analyses at a specific point in time. Another problem is that there may be difficulties when obtaining and handling data with phenomena at both the macro and micro levels. To be more precise, it is problematic to identify and analyze social change at the macro level since it could be related to or caused by social exclusion at the micro level (cf., the Lucas critique in economics.) One also needs to be aware of the possible time lag between cause and effect.

In Paper *III*, we use data that span over slightly more than two decades. However, to be able to conduct an analysis that covers the whole life course, we would need observations from a longer period of time. At the same time, since we have included an employment variable as a social exclusion indicator in this paper, we restrict our analysis to those individuals who are of "workforce age". Therefore, our analysis basically traces the middle part of the life course. Moreover, when analyzing social exclusion over the life course, a distinction can be made between the exclusion *over* and *of* the life course. While in this thesis we more closely touch on social exclusion *over* the life course, social exclusion *of* the life course concerns relationships between the state, family and market that may generate exclusion for certain groups (Dewilde, 2003). Recall the agency aspect in the social exclusion process we discussed above (Atkinson, 1998).

Cumulative disadvantage

In *Paper II* and *Paper IV*, we discuss and empirically trace cumulative disadvantage. Cumulative disadvantage is a process of increasing intra-cohort differentiation over time, and is therefore closely related to social exclusion over the life course. The process has two instruments, the initial inequality and a time effect, whereby the

inequality-creating processes are complex and involve stratification both through individuals' stress-causing experiences of hardship relative to others and through institutional processes. For example, a low achievement in education may lead to a poor labor market status, which leads to low earnings, which lead to a low standard of living, which leads to health problems. The increasing inequality may also depend on the fact that some individuals are not involved in a general positive economic trend in society, meaning that even though welfare problems are not accumulating, the inequality is increasing over time (O'Rand, 1996, 2003).

Merton (1968) introduced the term *Matthew effect* in sociology when explaining how a minority of scholars was standing for the majority of publications and rewards. The term originates from the Bible's Gospel according to Matthew 13:12 (NIV): "*Whoever has will be given more, and he will have an abundance. Whoever does not have, even what he has will be taken from him*". Merton's (1968) conclusion was that the reputation of renowned scholars made reviewers appreciate their work more than the work of other scholars with less of a reputation, including younger scholars, which leads to more publications for scholars who already have a good reputation, meaning that early achievements are determinants for later appreciation. In other words, individual development curves continue to grow further apart from each other as time goes by.

Cumulative advantage means therefore that early gain and success offers rewards and leads to greater achievements and success over time. The literature on economic status over the life course suggests, however, that there are certain life-course events that may interrupt the cumulative advantage process and the upward trajectory it involves. These interrupting life-course events can be, for instance, health problems, loss of a spouse or a divorce. One should also take into account that not all life courses involve differentiation since there are constant and convergent life-course trajectories as well (O'Rand 1996, 2003).

Of course, the relationships between disadvantages can be so complex that it is not possible to determine the direction of causality between the problems, and, in some cases, there is reason to believe that the causality functions in both directions. This complexity is demonstrated in *Paper II*, where we show that the initial inequality among individuals increases over time, that a high initial deprivation is related to socio-economic class and that the deprivation reduces upward class mobility over time. Similar relationships are also found between deprivation index and family type.

Part II. The contribution of this thesis to the research area

When we consider what has been done so far within the research field of welfare problem accumulation and social exclusion, our first reaction is that a large part of the literature concentrates on economic problems. Although economic problems are an important factor in the social exclusion process, other factors are also important, which is demonstrated in this thesis. Furthermore, as previously mentioned, the largest part of the literature concentrates on static analysis of social exclusion at a specific point in time, which is quite understandable since the access to longitudinal data has been limited in many cases.

The recent increase in longitudinal data has, however, made it possible to more extensively examine social exclusion and the accumulation of disadvantages from a longitudinal perspective, including from a life-course perspective. It would therefore be desirable to more thoroughly examine these issues. The analysis of aspects other than just economic ones is especially interesting since human capital inequality is expected to be superior to economic inequality as a social stratification force, and most of the studies on social exclusion are still concentrated on the analysis of economic inequality and therefore basically measure exclusion from consumption (Grusky, 2001; Morris and Western, 1999).

The contribution in this thesis to the research areas of social stratification, inequality and, more specifically, social exclusion, can be stated in three central themes:

1. Social exclusion and welfare problem accumulation more generally;
2. The situation of immigrants and other vulnerable demographic categories in Sweden concerning social exclusion; and
3. The disadvantage accumulation from a longitudinal perspective.

Concerning the first theme, we find that there are categories of individuals who experience welfare problem accumulation and social exclusion. These categories of individuals with higher problem probabilities include immigrants and singles with children. We also find that it actually might be the case that the correlations between welfare problems are stronger among a group of people that has a low accumulation of problems, while the correlation may be weaker among a group of people with a high problem accumulation. Moreover, we find that the social exclusion risk is higher among men than women even though the unequal position of women in society is a frequently discussed topic in the Swedish debate.

In *Paper I*, we find that the correlations between welfare problems are more apparent among native Swedes than among immigrants. This may be surprising, as problem accumulation is higher among immigrants. In *Paper IV*, we wanted to not only take a closer look at the correlations and accumulation of welfare problems, but also to determine which covariates are related to which problems. We found that crowded housing is most often a problem for younger age categories, and that women suffer more often from experiences of threat or violence and sleeping problems.

As previously mentioned, immigrants make up a central group under investigation in this thesis. We have, however, identified other vulnerable groups for social exclusion as well. In most papers, the group with the highest risk for social exclusion is lone parents. *Paper III* discusses the significance of sex, family type and immigra-

tion as social exclusion predictors in more detail and examines the general social exclusion development over the past two decades in Sweden.

In *Paper I* and *Paper III*, we have concentrated to a certain degree on the situation of immigrants in Sweden. In *Paper IV*, we have included immigrants as one of the covariates but do not concentrate on them more than on other characteristics. *Paper I* shows that time spent in Sweden is a significant factor in lowering immigrants' risk for social exclusion, and *Paper III*, in which we analyze social exclusion from a longitudinal perspective, shows that there is no evidence that immigrants are better off now than more than two decades ago, seen from a social exclusion perspective.

We use a longitudinal perspective in *Paper II* as well, where we analyze the accumulation of closely related welfare problems and find that individuals who score high on a deprivation index from the beginning are increasingly prone to accumulate additional welfare problems over time. The analysis also reveals that deprivation affects class mobility. Also, household constellation and changes in household type are closely connected to deprivation and changes in deprivation over time. These results are therefore examples of cumulative disadvantage.

About the data sets used

The Swedish Survey of Living Conditions (*Undersökningen av levnadsförhållanden, ULF*) is the data set we use in all papers in this thesis. ULF is a yearly living condition survey conducted by Statistics Sweden. ULF has been conducted since the year 1974, and is one of the largest data sets in the world within this field. The data set has both cross-sectional and longitudinal elements and includes individuals between 16 and 84 years of age. The annual sample size is 7,600 and the response rate is about 80 percent (Vogel, 2001).

Paper I uses the so-called master register, involving about 70,000 individuals interviewed during the years 1990-2000. The remaining papers utilize the longitudinal

panel of ULF. In *Paper II*, we use observations from a cohort that has been interviewed on four occasions (1979, 1986-87, 1994-95 and 2002-03), and in *Paper III* we use all observations from the unbalanced longitudinal panel in which the individuals are interviewed at the same points in time as those in the cohort analysis. In *Paper IV*, we use the last two waves from the cohort of the panel data set.

Summary of the papers

(i) In *Paper I*, which is entitled *Welfare Problems and Social Exclusion Among Immigrants in Sweden* (published in *European Sociological Review*, **21**: 73-89), we examine social exclusion among immigrants in Sweden. The groups under scrutiny are native Swedes, first-generation Swedes, naturalized Swedes, Nordic citizens and non-Nordic citizens. Specifically, because one goal of the welfare state is to break the connections between different welfare problems, we investigate the associations between welfare problems among different immigrant groups as well as among native Swedes. We find that the accumulation of welfare problems is higher among immigrant groups, but that the correlations between welfare problems are stronger among Swedes. Finally, we analyze social exclusion among immigrants using a logistic regression analysis. Because a regression analysis with explanatory variables such as demographic variables, human capital indicators and socio-economic class cannot explain the difference between immigrants and native Swedes, discrimination is a reasonable explanation. We have used the SPSS package in the analysis.

(ii) In *Paper II*, co-authored with Björn Halleröd and entitled *Accumulation of Welfare Problems in a Longitudinal Perspective* (forthcoming in *Social Indicators Research*), the aim is to analyze the extent to which welfare problems accumulate over time and how such an accumulation is related to class position and household formation. We use structural equation modeling to extract latent deprivation indexes based on seven manifest indicators. Thereafter, the indexes are used as input values in a latent growth curve model when estimating the deprivation intercept and deprivation slope. We finally estimate two structural models. In the first model, the relationship

over time between class position, class mobility and deprivation are estimated, and the second model deals with the relationship between household type, change of household type and deprivation.

Several interesting results can be reported. We find a strong relationship between the deprivation indexes over time. The latent growth curve model can also confirm that individuals who score high on the deprivation index from the beginning are increasingly likely to accumulate additional welfare problems over time. The analysis also reveals a clear class gradient as well as effects of class mobility. In addition, it is shown that deprivation affects class mobility, meaning that we can confirm selection effects. Household constellation and changes of household type are also closely connected with deprivation and changes in deprivation over time. The analysis reveals selection effects even in this case. We have used the Mplus package in the analysis.

(iii) In *Paper III*, entitled *Social Exclusion Occurrence in Sweden during 1979-2003: The Significance of Sex, Family Type and Immigration*, we again take a longitudinal approach to social exclusion. In the empirical analysis, we fit a logistic regression model for longitudinal data to our panel, which consists of four waves. Our main finding is that being a female native Swede without children and living in a relationship significantly decreases the social exclusion risk. Or, if we focus on the other extreme, being a male immigrant in Sweden with children, but not living in a relationship, significantly increases the same risk. Further, there is no evidence that immigrants have become better integrated into Swedish society over time, considering the social exclusion risk. Instead, there are weak signs that integration has become worse. Further, even though men are worse off than women when it comes to the social exclusion risk, there are weak signs that their relative situation has improved over time. We have used the SPSS and STATA packages in the analysis.

(iv) In *Paper IV*, which is entitled *Cumulative Disadvantage and Connections between Welfare Problems*, we take a closer look at the welfare problem occurrence

within a cohort from the Swedish population at two waves. Specifically, we examine the connections between welfare problems in three age categories for the years 1994-95 and 2002-03. Moreover, we perform a latent class factor analysis to reveal the connections between the welfare problem indicators and active covariates. We find several interesting results. For instance, sleeping problem occurrence has clearly increased between the years 1994-95 and 2002-03. We also find that certain welfare problems are connected with certain categories of people, for instance that crowded housing is more often a problem for younger people and that experiences of threat or violence and sleeping problems are more common among women. Further, the findings confirm the results in *Paper III* that immigration and family type are the main explanatory variables for welfare problem accumulation. Conversely, we find that living in a relationship and being a native Swede are characteristics that are less likely to appear in the factor levels with problem accumulation. We have used the SPSS and Latent GOLD packages in the analysis.

Conclusive remarks

Central themes in this thesis are the analysis of welfare problem accumulation and social exclusion. We have analyzed social exclusion among immigrants in Sweden. Further, we have performed a longitudinal analysis with growth curve models to trace the deprivation over time within a cohort of the Swedish population. Another longitudinal analysis, in which logistic models for longitudinal data were fitted, showed the development of social exclusion over the past two decades in Sweden. Finally, the mutual connections between welfare problems and the covariates are revealed in a latent class factor analysis. The most important contribution of this thesis is that we have shown essential empirical facts about the relationships between central welfare problems and scrutinized the accumulation of these problems and their risk factors from a longitudinal perspective.

Based on our findings, we can present some policy recommendations as well as ideas for future research. If we start with the immigrants' situation, we clearly see

that this group suffers from social exclusion more often than native Swedes do. We also know that even first-generation Swedes are worse off than natives, and that the situation does not seem to equalize even after immigrants have been in Sweden for a long time. We have not conducted an analysis in which we can point out the reasons for these findings, but we can at least wake an interest in scrutinizing these phenomena more closely. It would probably be fruitful to scrutinize whether and how the social exclusion risk for especially immigrant women and first-generation Swedes differs depending on cultural background. There are probably differences between first-generation Swedes whose parents are well integrated into Swedish society and have been able to mediate the kind of human capital that is needed when their children start school and children with less integrated parents. It would also be interesting to examine whether it is true that education and human capital are more important to immigrants than to natives in tackling the risk of social exclusion.

Family dissolutions are very common in Sweden. It has been shown in previous research that children from broken homes are worse off than their counterparts in many respects. Furthermore, our results show that being single with children increases one's social exclusion risk significantly. It is clear that there is a need for support for single parents, but at the same time there should also be a discussion on why marriages so often end in divorce and how to make marriages last. Such a discussion could be beneficial to both parents and children. There is obviously a grand wisdom in the long-standing words *"It is not good for the man to be alone"* (Genesis 2:18 NIV).

In Sweden, public policy discussion concerning the inequality between men and women has concentrated on women's unequal labor market position. It is, however, clear that men suffer more often from social exclusion than women do. This means that apart from a disadvantaged labor market position, women do not fall into the accumulation of welfare problems as often as men do. Perhaps it is the case that the majority of men are relatively well off, but there is a multi-problem group that con-

sists mainly of men. This is another theme that definitely needs a more careful examination to determine the measures needed to hinder social exclusion.

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