Migration, Stress and Mental Ill Health

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Post-migration Factors and Experiences in the Swedish Context

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Linköping Studies in Arts and Science No. 480
Dissertations on Health and Society No. 16
Department of Medical and Health Sciences, Linköping University
Linköping 2009

Linköping Studies in Arts and Science • No 480

At the Faculty of Arts and Science at Linköping University, research and doctoral studies are carried out within broad problem areas. Research is organised in interdisciplinary research environments and doctoral studies mainly in graduate schools. Jointly, they publish the series Linköping Studies in Arts and Science. This thesis comes from the Division of Health and Society at the Department of Medical and Health Sciences.

Distributed by:
Department of Medical and Health Sciences
Linköping University
SE-581 83 Linköping

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Migration, Stress and Mental Ill Health
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Edition 1:1
ISBN 978-91-7393-627-9
ISSN 0282-9800
ISSN 1651-1646

Cover illustration: Daniel Kvist
Printed by LiU-Tryck, Linköping, Sweden, 2009

To Mimmi, Eira & Liv

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ACKNOWLEDGEMENTS

When arriving as a PhD-student to the Division of Health and Society I did not know much about my new workplace. I was not expecting much in terms of advice from supervisors and I was fine with that. However, my initial expectation did not come true, which I'm eternally grateful for. I regard myself very lucky to have had Lennart Nordenfelt as my supervisor. He possesses many qualities that make him into a truly excellent supervisor. For one thing, besides his sharp comments and constructive suggestions, I especially appreciate Lennart's flexibility and pragmatism which have given me the opportunity to redirect my work when I felt this was needed. I don't think neither of us, at the beginning, anticipated that the thesis would come to include three papers based on statistical analyses. From my co-supervisor John Carstensen I have learned a lot. John has provided invaluable guidance in how to perform and present the analyses in an appropriate way. His ability to identify less optimal (and wrong) phrasings and detect flaws in the statistical analyses has been a great comfort for me. My second co-supervisor, Thomas Hemmingsson, has introduced me into the epidemiologic research field and taught me much about how to execute and present an epidemiological study, for which I'm grateful.

This dissertation would not have been possible if it weren't for all the respondents that took the time to answer the questionnaires. I thank all of you. I would also like to express my gratitude to the interview participants.

That I was given the opportunity to work with PART data is greatly appreciated. A special thank goes to the PART-study group that at the time consisted of Yvonne Forsell, Kerstin Takker-Damström, Ingvar Lundberg, Tor Hällstöm and to all other individuals involved in the gathering of the data for this fine dataset. I'm also thankful to all you that in various ways assisted with the "Health among foreign- and native-born Swedes" survey. In particular I would like to thank Kwestan Babaey, Mostafa Ghaffari, Aydin Ghayour, Salam Hakari, Kamal Hassanpour, Nabil Khoshaba, Oschana Nissan and Anders Widmark.

Several persons have read drafts of the dissertation or parts of it at different stages and provided valuable comments. For this I would like to thank Mike

Bury, Anders Hjern, Marja-Liisa Honkasalo, Lars-Christer Hydén, Per Nettelbladt, Jan Sundin, Tommy Svensson and Sam Willner.

Robert Olsson, who has been a great friend since the age of six, also deserves my deepest gratitude. Hanging out with you discussing various work and non-work related topics is something I have always looked forward to. This thesis has benefited substantially from these relaxed beer sessions

When preparing the papers included in this thesis I have collaborated with a few additional people. Ingvar Lundberg has provided valuable suggestions when conducting the first study. It was also with Ingvar ideas concerning paper 1 first was discussed. I'm especially grateful to Suad Al-Saffar for the assistance when planning the Linköping survey and the translation of the questionnaires into Farsi and Arabic. I would like to thank Mimmi Eriksson for doing the interviews in such fine way, discussing them with me as well as reading through and commenting on drafts of the paper more times than you would have liked. The numerous discussions I have had with Bengt Richt have been stimulating, fun and immensely valuable for the improvement of the qualitative study. I also very much appreciate that you took the time to read through a draft of the dissertation and provide constructive suggestions regarding it.

The Division of Health and Society has been a very good environment for me as a PhD-student and I have always enjoyed being there, so thanks to all PhD-students and the rest of staff.

Malcolm Forbes has helped me to improve my English. Malcolm's keen eye for details and insightful reformulation suggestions has been a source of fascination.

I'll also like to express my deep appreciation of my sister Gabriella who has always been a person to count on. That my brother Gustav has let me bunk at his place in Linköping when ever I needed is appreciated, in spite of his authoritarian regime concerning putting the shoes on the doormat and so forth. My mother has during my many years as an undergraduate and a graduate student scrutinised my use of both the Swedish and the English language more times than could be considered healthy. I thank you for so stoically enduring the drawback to have a son that is aware of his shortcomings. To Mats, my father, I would like to say that I greatly value your

positive outlook on life, even though it sometimes comes at the expense of realism.

I would have liked to be able to say that writing this thesis has not affected my family. This would however be a lie of historical proportions. Eira and Liv, the greatest kids one can ever ask for, I'll promise to work hard to become less absentminded. I am sorry I declined your kind offer to draw the cover (I am not sure princesses, flowers and other unidentifiable creatures would be fully appropriate). I am however glad that Daniel Kvist did my cover, which I like very much. And to Mimmi, THANK YOU for everything!

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This research project has been funded by a grant from the Swedish Council for Working life and Social Research. For executing the survey "Health among foreign- and native-born Swedes" financial support has also been received from The Swedish Integration Board and the Municipality of Linköping.

ABBREVIATIONS

ANOVA	Analysis of variance
CI	Confidence interval
DALYs	Disability-adjusted life years
DIF	Differential Item Functioning
DSM	Diagnostic and Statistical Manual of Mental Disorders
EFA	Exploratory factor analysis
HSCL-25	Hopkins Symptom Checklist-25
ICD	International Statistical Classification of Diseases and Related Health Problems
IP	Interview person
MDI	Major Depression Inventory
OR	Odds ratio
PART	Mental health, work and relations (*Psykisk hälsa, Arbete och Relationer*)
PTSD	Post-traumatic stress disorder
RTB	The Register of the Total Population (*Registret över totalbefolkningen*)
SEI	Socio-economic classification (*Socioekonomisk indelning*)
WHO	World Health Organisation

1. INTRODUCTION

This thesis deals with migration and its relation to stress and mental ill health. Empirically it concerns immigrants in Sweden. The main objective is to achieve a better understanding of which factors, circumstances and experiences occurring after settlement may influence migrants' mental health. It is a complex and multi-disciplinary field of study.

Numerous Swedish studies have reported that mental ill health is more common among immigrants than among the native-born (Bayard-Burfield et al., 2000; Bayard-Burfield et al., 2001; Ferrada-Noli & Asberg, 1997; Rundberg et al., 2006; *Stockholms läns landsting*, 2008; Sundquist, 1994; Vogel et al., 2002). Furthermore, it has been shown that some immigrant groups are particularly at risk for various forms of mental ill health (Bayard-Burfield et al., 2001; *Socialstyrelsen*, 2000; Wiking et al., 2004). The same has been observed in most Western countries, (Carta et al., 2005; Al-Issa & Tousignant, 1997; Nazroo & Policy Studies Institute, 1997) even though exceptions have been reported (Cochrane & Stopes-Roe, 1981; Vega et al., 1998; Nazroo & Policy Studies Institute, 1997). If one considers not only the individual suffering involved, but also the fact that immigrants in Sweden amount to about 14% of the entire population and that mental ill health is the second most burdensome disease in terms of DALYs (Ljung et al., 2005), immigrants' mental health can be regarded one of the most urgent public health issues in Sweden today.

2. BACKGROUND

Immigrants' mental health is by no means a new research topic. It is nevertheless a topic that needs constantly to be empirically re-examined as the immigrant populations, particularly in the Western countries, are constantly changing regarding demographic composition, motives for migration, health status on arrival, cultural background and so forth. These changes are partly a result of transformations taking place in the receiving countries. On the political level the immigration policies may be revised, with the consequence that individuals of a particular background are more likely to receive a residence permit at certain times in history. The immigrant flow and its composition are thus regulated by the receiving states. Some states, however, have great difficulty in regulating their immigrant population according to the outlined intentions. Geo-political location and a high attraction-value may especially challenge some countries' ability to control their borders. The USA, for example, is regarded in many parts of the developing world as such a desirable settlement destination, and is so close to Latin-America, that many individuals enter illegally by crossing the Mexican border. States' immigration policies evolve and change gradually and are often a product of a complicated mix of ideological and economic considerations. Moreover, a historical and cultural tie between countries or specific communities often influences these polices. The UK has because of its colonial heritage received and continues to receive migrants originating from former colonies, especially from southern Asia.

Settled immigrants can furthermore find themselves living in environments more or less beneficial to their health. Attitudes towards, and treatment of, immigrants in general or specific immigrant populations in particular are produced through an interaction of state policies and public opinion. Public opinion and state policies often mirror one another. Racism, discrimination and structural barriers make realisation of some desired outcome more difficult, and are factors that migrants can encounter in the host society. These factors are potentially stressful for the individual (see e.g. Kleiner & Parker, 1970; Williams et al., 2003). However, the host country's environment, or some aspects of it, might have a positive effect on some immigration groups while being harmful to others. John Berry has outlined a useful typology to visualise the difference between host-country environments (Berry et al., 2002). He is

not implying that societal environments are so coherent that host societies always belong to one of the categories, it is rather a matter of degree. Berry first distinguishes between societies according to the level of interaction taking place between the dominant group and the non-dominant groups. Secondly, he makes a distinction between whether the dominant group is positive or negative towards the non-dominant group's ability to preserve its culture and identity. Putting these two distinctions together, one ends up with four ideal types. First we have the *multicultural society* where interaction between the dominant group and the non-dominant groups is encouraged and the idea of cultural diversity is widely cherished. Second we have the "*melting pot*" strategy where contacts between the ethnic groups are considered worth striving for but the non-dominant groups are in reality pressured to conform, as the dominance of the majority group makes alternative cultural lifestyles difficult to maintain. The third type is the *segregated society*, where interaction between ethnic groups is discouraged. However, non-dominant ethnic groups are allowed to keep their identities and cultures as long as they don't blend with the dominant group (e.g. the apartheid system). The final and least immigrant-friendly type is the society characterised by *exclusion.* Interaction between ethnic groups is here avoided and multiple cultures or identities in the society are unwanted. The most extreme form of this societal strategy is genocide.

Additionally, the world is continuously becoming more globalised, which has made cross-national migration both more attainable and more attractive. Such migration has as a consequence thereby increased substantially during recent decades (Castles & Miller, 2003). This trend has probably contributed to the increased attention given to immigrants' mental health as it has made their often difficult situation more visible.

2.1 Migration to Sweden in modern times

During the hundred years prior to the World War II, Sweden was a land of emigration rather than immigration. Poverty and famine were common around the turn of the century and the mortality rate was high. The Swedes who migrated most often went to North America. It has been estimated that more than 1.5 million Swedes settled in America during this period (Nilsson & Statistics Sweden, 2004), which was a sizable proportion of Sweden's citizens. For example, between the years 1870 and 1910, 17.5% of the Swedish

population had chosen to emigrate (Similä, 2003). In 1940 only 1% of the Swedish population were born in a foreign country (Ekberg, 1999). However, during World War II the immigration rate began to rise. The first major immigrant groups were refugees from the Baltic States (around 30,000) and Finland. From Finland 70,000 children were shipped over to Sweden to escape the horrors of the Russo-Finnish winter war. It was not unusual for these children to be adopted by their foster-parents and thus remaining in Sweden (Westin, 2000). The final group consisted of concentration camp victims, amounting to about 30,000.

A few years after the end of the war, Sweden experienced a rapid influx in national revenues, while many parts of Europe still lay in ruins. The expanding industrial sector was in urgent need of new employees. Immigrants come from all over Europe to seize this opportunity for employment. Labour migrants from many parts of Europe came to settle in Sweden from 1950 to 1975. Employers were during this time also actively recruiting labour, especially from southern European countries and Finland. The Finns arrived in Sweden in great numbers and are because of this the largest foreign-born group in Sweden today, in spite of the fact that about 50% of those arriving during the period in question have returned to Finland (Similä, 2003). Other notable groups of labour migrants originated from Yugoslavia, Greece and Turkey (Westin, 2000). In 1970, the foreign-born proportion of the total population had increased to around 7%; 90% of whom came from Europe, whereof 60% from the neighbouring Nordic countries (Ekberg, 1999). At the beginning of 1970s, labour migration reached its peak, and then a rapid decrease occurred. Labour migration to Sweden from non-Nordic countries came to an end in 1972. This was not because of any new decisions from the parliament, but a weakening of the market and the opposition of the trade unions. Immigration to Sweden has since shifted character and is now primarily a question of refugees and their relatives and not labour migration.

The first major wave of refugees that were granted asylum in Sweden during the seventies came from Chile. Some years later Iranians started to arrive in big numbers and as the case of the Chilean refugees it was a result of the fact that the state apparatus had come under the control of an authoritarian regime. However, in the Iranian case in particular a chain migration movement also started, which is indicated by the large proportion of Iranians that were granted residence permits on family reunification grounds.

Refugees from former Yugoslavia immigrated to Sweden at the beginning of the 1990s. During this decade and to the present, refugees of Somali and Eritrean origin also constitute notable migration waves. The most recent major immigrant group has been the Iraqis, and between 2005 and 2007 immigrants from Iraq almost doubled in number, making Sweden the largest recipient of Iraqi refugees (Hedberg et al., 2008). This was mostly an effect of a temporary asylum law introduced in 2006. In 2004 Sweden was one of only three countries in the European Union that did not enforce immigration restriction in the case of individuals from the new East European member states. The flow of labour migrants from these countries has however been rather limited (Westin, 2006).

By December 2007 more than 1.2 million of the Swedish population were born in a foreign country, which corresponds to 13.4% of the total population. In the table below the composition of the immigrants in Sweden is displayed. It illustrates that the immigrants cannot be conceived as a homogeneous population segment. One can also see that almost 50% were born in non-European countries, many of which can be classified as conflict or post-conflict societies. The proportion of non-European immigrants has increased substantially since the 1970s, which cannot only be attributed to a change in the migration patterns, but is also a consequence of the fact that many former labour migrants have chosen to return to their countries of origin or have died in Sweden.

Table 1. The Swedish immigrant population by region/continent and figures for the ten most common foreign birth countries in December 2007.*

Region or county of origin (rank according to relative size)	Number of individuals in thousands	Proportion of foreign-born population in percent
Nordic countries	273	22.3
Denmark (7)	46	3.7
Finland (1)	178	14.5
Norway (8)	45	3.6
Europe (except Nordic countries)	403	32.8
Bosnia-Herzegovina (5)	56	4.5
Germany (8)	45	3.7
Poland (4)	58	4.7
Yugoslavia (3)	73	5.9
Asia	370	30.2
Iran (6)	57	4.6
Iraq (2)	98	7.9
Turkey (9)	38	3.1
North and Central America	27	2.2
South America	59	4.8
Chile (10)	28	2.3
Africa	82	6.7
Oceania	4	0.3

*Figures based on official Swedish statistics retrieved from http://www.immi.se/migration/statistik/2000.htm. 090220.

2.2 Sweden as a receiving and settlement country

From 1950 to 1967 Sweden basically applied free immigration of labour force. During this period, whoever wanted to settle could do so without any major interference from the state. There were no policies to guide how the integration of the migrants should be conducted. Westin has characterised the immigration policy during this time as an "unreflected policy of assimilation", implying that immigrants were integrated into Swedish society simply by being a part of the labour force (Westin, 2000). No language or other types of courses to facilitate the immigrants' integration were initiated by the state.

A radical shift in "immigration policy" occurred in 1974, when a government-appointed commission that had looked over the issue presented their recommendations. These can be summed up as consisting of three goals which should impregnate future immigration policy. These were *equality*, *freedom of*

choice and *partnership*. *Equality* mainly refers to the fact that the welfare system should be as accessible to immigrants as to native Swedes. *Freedom of choice* may be understood in terms of Sweden as a multicultural society, where individuals are free to live according to their cultural preferences. No collective body should impose any restrictions on individuals' choice of identity or cultural affiliation. A political policy in line with the multicultural ambitions involves the right for all school children to be given the opportunity to be taught the language spoken at home as part of the regular school curriculum. A second policy is that the state shall provide financial support for immigrant organisations (see e.g. Westin, 2000; Vedder & Virta, 2005). What *partnership* actually stands for is not equally clear, but it could be interpreted as the "rejection of social exclusion, racism and discrimination on ethnic or racial grounds" (Westin, 2000, p. 24).

At the beginning of 1990 the issues of immigration and integration started to shift more towards the centre of the political arena. The populist party *Ny Demokrati* appeared on the political scene and was able to attract a lot of voters by arguing for assimilation of immigrants and a restriction of immigration. It has since been more difficult to immigrate to Sweden. Tougher criteria concerning who is to be allowed to stay on refugee grounds have been enforced. Moreover, the multicultural ideal appears to be more frequently questioned than before. This can be illustrated by the fact that the established Liberal Party in the 2002 election campaign suggested that all immigrants should have adequate Swedish language skills to qualify for citizenship. In 2008 the government issued a document declaring their goals with regard to integration policy. There is a clear focus on facilitating immigrants' acquisition of relevant skills in order to become more integrated into the labour market. It is also stated that Sweden should be a country with a common set of basic values (*värdegrund*) that is becoming increasingly pluralistic (*Regeringsskrivelse [Government Writing]* 2008/09:24). Comparing the goals set out in this document with the recommendations in the 1974 report, two shifts can be observed. Firstly, the goals from 1974 are mainly concerned with societal structures while the 2008 document more emphasises the individual's role. Secondly, the 2008 document appears to be more in favour of an assimilation approach to immigrant integration than its predecessor. That a firmer assimilation policy is what is likely in the future is corroborated by the attitude survey conducted by the Swedish Immigration Board in 2006 which showed that 60% of the population are in favour of an assimilation policy and only 10% strongly object such a policy.

Though integration policies and other official documents can provide some information about the social climate immigrants live in, they may depart substantially from the reality. In a study in which the attitudes to immigrants were examined in 23 European countries, the Swedes exhibited the second most positive general attitudes towards immigrants and immigration (Masso, 2009). This result would suggest low levels of discrimination and racism directed towards immigrants in Sweden. However, a markedly different picture is provided when the immigrants themselves are asked. Anders Lange (1995, 1996, 1997, 1999) performed four surveys to investigate experiences of ethnic discrimination. These studies showed that experiences of racism were very common. More than 60% of the African males reported having experienced racism when seeking employment. Experiences of ethnic discrimination were most frequently reported by the non-European immigrants. It may be said to be particularly important that ethnic discrimination on the labour and housing markets should be dealt with. In 2003 the government assigned Paul Lappalainen the task of examining the phenomenon of structural discrimination. His final report, "*Det blågula glashuset*", showed that discriminatory practices were present in all sectors of society and were made possible by an "us and them" thinking (SOU [Government Official Reports] 2005:56).

3. THEORY, CONCEPTS AND PREVIOUS STUDIES

3.1 Immigrants

Individuals may come to a foreign country for numerous reasons. All such people are not, however, considered migrants or immigrants; take for example tourists or persons travelling for short business engagements. Others, like exchange students, who plan to return home after a specified time abroad are not regarded as immigrants either. To be an immigrant implies that one has no specific date in mind for repatriation. Cross-national travellers who have such return dates are sometimes referred to as sojourners. Moreover the reasons for migrating may be more or less impregnated with the idea of leaving an environment or arriving at one, i.e. the push or pull mechanism. The label "refugee" most often refers to an individual pushed from his or her home-country, while labour-force migrants are mainly subjected to the pull mechanism. In reality it is often a mix of both pushing and pulling. The sizable Iranian group that got residence permits for Sweden during the 1980s constitutes a good example of where both mechanisms were involved in various degrees. Motives for embarking on a cross-national journey and intended length of stay are nevertheless, I believe, important when comes to research on foreign-born subjects. Several types of factors may be relevant to the mental health status of all of them, while others may not. The relevant factors influence the foreign-born people's expectations of, and experiences in, the receiving countries. Furthermore, the level of preparedness for dealing with obstacles in the receiving country is likely to be associated with such factors.

Second-generation immigrants and indigenous minorities are two population groups often found within societies. Individuals belonging to these categories are clearly not migrants and certainly not sojourners. However, they may have in common with immigrants that they belong, or are perceived as belonging, to a non-dominant cultural group in the society. As a result of this they may share certain types of experiences with the immigrants.

3.2 Culture

The concept "culture" has been described as one of the most complex in the English language (Eagelton, 2000). Numerous suggestions of how to describe or define culture have been made. Kroeber and Kluckhohn found in their classic review from 1952 more than 160 definitions of what culture actually is or what the word should refer to. The anthropologist Edward T. Hall (1984) has argued that in each human group one can find three different levels of culture. The tertiary level is culture in its most observable form including, such things as ways to dress, festivities and cuisine. The secondary level is a less detectable form which refers to underlying rules and assumptions known to the group members but rarely shared with outsiders. The primary level concerns the usually unconscious rules that group members share and which are obeyed by all. Clifford Geertz's widely used definition of culture as "a historically transmitted pattern of meanings embodied in symbols" (Geertz, 1973, p. 89) can be viewed as linking the manifest cultural form with the submerged levels.

Employing the concept of culture to demarcate particular groups of individuals has been criticised as being more or less obsolete in the "post-modern" era, which is characterised by globalisation and fragmentation (see e.g. Hannerz, 1996; Featherstone, 1995; Gupta & Ferguson, 1992; Appadurai, 1996). Individuals nowadays are more exposed to influences from external sources than at any time previously in history (owing to the evolution of media and communications technology, the Internet and increased travelling). Boundaries between "cultural groups" are also becoming increasingly blurred and overlapping. Kroeber, who perceived culture as a collective phenomenon where groups of individuals are distinguished from one another, pointed out that although individuals come and go and one generation is replaced by another, a culture remains relatively unchanged. A culture, he says, is therefore not dependent on the presence of any particular individuals (Kroeber, 1917). Kroeber argues that a culture should not be viewed as a location where all "cultural goods" are completely shared among its members. No individual knows or is aware of his or her entire culture, in analogy with the circumstance that no individual knows all the laws, political institutions, economic structure etc. in the society where he or she is residing. These old observations of a certain level of stability and variation of "culture-specific knowledge" are of crucial importance for using the collectivistic notion of culture in a meaningful way. However, it is nonetheless questionable whether

culture as a collective phenomenon is an appropriate empirical research tool in this day and age.

If we accept that "sharedness" is a necessary component of culture, the question of what needs to be shared and what such "sharedness" enables us to do, needs to be explored. One attractive and straightforward response would be to say that culture is a shared store of knowledge/representations embedded in the minds of individuals that enables a high level of understanding among members of a community despite the fact that this community is composed of individuals with different knowledge. We are thus referring to inter-subjectivity, but the shared knowledge needs to be of a kind that excludes non-members.

Harris (1975) has pointed out that it is actually not chiefly the shared *knowledge* of cultural rules that is the foundation of a cultural group, but rather a shared *understanding* of these rules. The intention behind culturally sanctioned behaviour needs to be understood. I believe Harris's differentiation between knowledge and understanding is similar to Hall's differentiation between the secondary and primary cultural levels. In using the term knowledge, Harris, as I see it, is referring to the "being aware" part of the cultural rules; while in order to truly understand such rules, the individual needs to share unconscious, taken-for-granted assumptions underlying them. This must be a *commonsense* type of knowledge in the sense that it is internalised and taken for granted. Otherwise we would label skilled anthropologists as belonging to the cultural group they are investigating, which is obviously absurd. So, the central aspect, I would argue, of being part of a culture is that culture-specific knowledge has been internalised. In line with this, Hope Landrine says of culture that it is "a set of shared (intersubjective) unconscious definitions and assumptions, it is a cognitive variable … that cannot be observed but is nonetheless powerful; culture is the unwritten social and psychiatric dictionary that we have each memorized and then repressed" (Landrine, 1992, p. 401) .

To talk in terms of cultures or cultural groups implies that it is empirically possible to distinguish one cultural group from another. However, "cultures" do, as mentioned above, overlap each other, which will always to some extent make distinctions between cultures or cultural spheres arbitrary. In the present thesis the concept of culture will be employed as a set of shared

representations[1] enabling certain ways of interacting socially, and not to demarcate specific groups of individuals from other groups of individuals. My suggestion is that *two individuals belong to the same culture if, and only if, they are able to interact in routinised daily activities and rarely misunderstand each other, without having to perform deliberate intellectual operations, for other reasons than of a linguistic nature.* It might also be possible to lessen the demand on mutual understanding between individuals and instead refer to different cultural spheres as well as multiple overlapping cultural spheres (e.g. individualistic vs. collectivistic cultures, horizontal vs. vertical cultures (Triandis & Suh, 2002) holistic vs. analytic cultures (Nisbett et al., 2001) and guilt vs. shame cultures (Benedict, 1977)). Moreover, it should be pointed out that self-ascribed ethnicity or group identification is not the same as being part of a cultural group, although in many circumstances it is probably the best available proxy.

3.3 Acculturation and diaspora

The concept of acculturation has been used to describe *changes* occurring on a macro or a micro level when representations or "goods" produced in different cultural contexts come into contact**.** On the macro level a variety of changes of a technological, social, political or cultural nature can appear (Redfield et al., 1936). On an individual level, which is of more relevance in this thesis, exposure to different cultural influences may induce changes in behaviour, values or even sense of identity (Gordon, 1978; Graves, 1967).

Immigrants are particularly likely to undergo such an individual acculturation process. The magnitude of the transformation, however, may be of varying degree. The level of exposure to the new environment, cultural distance, ability and/or will to maintain ties with one's original culture and sentiments regarding the new culture are all factors that influence how and to what extent

[1] The concept of cultural representation is employed in this thesis in analogy with how Serge Moscovici uses the term "social representation" (see e.g. Moscovici, 1988). All cultural representations are social representations. All social representations are not, however, necessarily cultural representations since the "sharedeness" criterion, described above, might not be adequately met. Furthermore, it is probably the case that some existing representations are not socially produced at all, but are the consequence of the biological make-up of humans. The concept of knowledge can be taken to be synonymous with the concept of representation. There are, however, two reasons why the concept of knowledge is considered less suitable here. Firstly, "knowledge" has the connotation that it is either true of false. Secondly, "knowledge" does not usually refer to individuals' axiomatic categories, employed for making sense of the world.

one is affected by the acculturation (see further Ward et al., 2001; Berry et al., 2002). John W Berry has not only designed a model for distinguishing between different receiving countries as described above; he has also proposed a two-dimensional acculturation model from the immigrants' perspective, based on the degree of cultural maintenance and the degree of cultural acquisition (Berry, 1997; Berry et al., 1987; Berry et al., 2002). This position is thus in opposition to the idea that full cultural maintenance and full cultural acquisition should be perceived as the two end-points on a single scale (cf. enculturation). In other words, the original culture can be maintained, while simultaneously incorporating elements from the "new" culture. Berry outlines an idealised typology consisting of four strategies to tackle the acculturation process: *integration, assimilation, separation and marginalisation,* which he defines in the following way:

> …when individuals [from non-dominant groups] do not wish to maintain their cultural identity and seek daily interaction with other cultures, the Assimilation strategy is defined. In contrast, when individuals place a value on holding on to their original culture, and at the same time wish to avoid interaction with others, then the Separation alternative is defined. When there is an interest in both maintaining one's original culture, while in daily interactions with other groups, Integration is the option; here, there is some degree of cultural integrity maintained, while at the same time seeking to participate as an integral part of the larger social network. Finally, when there is little possibility or interest in cultural maintenance (often for the reason of enforced cultural loss), and little interest in having relation with others (often for the reason of exclusion or discrimination) then Marginalisation is defined. (Berry, 1997, p. 9)

Berry's acculturation strategies have during the past twenty years generated a fair amount of empirical research. However, they have also been criticised. Dina Birman (1994) has for example argued that a distinction between acculturation strategies regarding the identity and behavioural domains would be valuable, as acculturation strategies used or internalised in these two domains may be different. Others have argued that individuals do not use the same acculturation strategy all the time, but switch between one strategy and another depending on the situation. Such criticism is only relevant, however, if Berry's model is perceived as a categorical construct, which he claims it isn't (see e.g. Berry & Sam, 2003). LaFromboise and colleagues (1993) have pointed

out that Berry's integration strategy is founded on the idea that integration takes place within a single social system, i.e. the individuals attempt to *fuse* the cultures together. An alternative way for the individual to deal with the exposure to multiple cultures is to alternate between them. It is considered that alternation in this sense cannot be accommodated in Berry's model. An alternation strategy, if successful, can be characterised as a case of cognitive polyphasia (see e.g. Jovchelovitch & Gervais, 1999), a situation where incompatible representations are harboured by a single individual without causing psychological tension, as the incompatible representations basically are used separately. A second possibility is that contradictions of this kind are not experienced by the individual as the demand for logical consistency is low (Blaxter, 1993). Some empirical evidence exists supporting this scenario, as it has been revealed that bicultural individuals are more integratively complex (have greater ability to accept or use clashing perspectives) than mono-cultural individuals (Tadmor et al., 2009).

Acculturation can be a central perspective when studying immigrants or ethnic minorities. However, it is by no means the only perspective. During the last ten years or so the concepts of transnationalism and diaspora have become more popular. Diaspora can be viewed as a cultural community that attempts to keep a sense of home alive outside the geographical borders of its perceived cultural homeland (Tölöyan, 1996). In this line of research the construction of the identity is often the central focus (e.g. Fortier, 2000), or how links with the cultural homeland influence life in exile (e.g. Wahlbeck, 1999). Identity formation in transnational communities has been described as a dialogic process where the immigrants negotiate their identity in the light of the past and the present, tradition and modernity, self and others (Bhatia, 2002). One advantage of the diaspora concept is that it places an explicit focus on the immigrants' continual relationship with their home country. Migrants of today quite often remain in close contact with friends and relatives from "home". The media-technological revolution has furthermore enabled migrants to keep themselves updated with regard to events, trends and so forth occurring in their home countries. Being part of a diaspora community and the advances in communications technology provide the immigrant with the opportunity to stay within his or her initial cultural environment. The immigrants' original cultural repertoire can thus continue to evolve in spite of geographical dislocation. Belonging to a diaspora can be understood in terms of individuals' attempt to counter the risk of becoming marginalised or assimilated. It may however be in line with both the segregation and

integration strategy, as I see it. Birman's proposed distinction gives us a tool to characterise individuals within diaspora-communities better. The acculturation strategy regarding their identity appears mostly to be in line with the segregation option, while the acculturation strategy concerning behaviour in particular may be of the integrational type.

3.4 Mental ill health

Below I will compare two conceptualisations of mental ill health, the symptomatic one and the low subjective wellbeing one. It will be argued that these two conceptualisations partially overlap and that both are essential.

The concept of mental ill health is used in this thesis as an overarching concept, not referring to any specific type of illness or disorder. Most often in this thesis, mental health is dichotomised when used in statistical analyses. Whether this is always the most appropriate way to understand mental ill health could be debated. Taxometric studies have however suggested that at least anxiety and depression are better represented by a dimensional than a categorical operationalisation (Furgeson, 2009; Ruscio, et al., 2006; Haslam, 2003), thereby questioning the idea of an ontological difference between health and ill health for conditions like these. But using a cut-off procedure can also be a strategy to focus on the most severe cases of mental ill health (Sandanger et al., 2002), which might be preferable for clinical purposes.

Boorse has introduced the influential bio-statistical theory of health. Boorse states that: "A *disease* is an internal state which is either an impairment of normal functional ability, i.e. the reduction of one or more functional abilities below typical efficiency, or a limitation on functional ability caused by environmental agents" (Boorse, 1997, p. 7). Disease is thus according to Boorse a certain state or condition of statistical sub-normality, while health is the same as non-disease, i.e. within the range of statistical normality of functional abilities. Moreover, disease here refers to something different from what commonly is indicated by the illness concept. Andrew Twaddle (1994), who has attempted to differentiate between the concepts of disease, illness and sickness, characterises disease as an objective and physiological condition of malfunctioning. Illness on the other hand is a question of an individual's subjective suffering or inability, while sickness is ill health as "defined by participation in the social system" (Twaddle, 1994, p. 11). An illness can

however be an effect of a disease, but the two concepts nonetheless refer to different types of phenomena. A person with an illness does not necessarily need to have a disease, and vice verse (see further Nordenfelt, 2001, pp. 75-88). The present thesis is about mental illness and not mental disease. The illness concept should furthermore not be understood in the Boorsian sense as being determined in relation to a population's functional abilities.

The typical way of talking about mental ill health within the medical sciences is in terms of mental disorders. A mental disorder is a specific cluster of symptoms which are described in the diagnostic manual of DSM IV or ICD 10. In DSM IV mental disorders are described in the following way: "each of the mental disorders is conceptualised as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. painful symptoms) or disability (i.e. an impairment in one or more areas of functioning) or with a significantly increased risk of suffering, death, pain, disability or an important loss of freedom" (American Psychiatric Association, 1994, p. XXI). Aetiological considerations have intentionally been discarded when constructing the DSM manual. These diagnoses are therefore quite different from the somatic diagnoses. However, describing mental disorder as a "clinically significant … psychological syndrome or pattern" does not do much to clarify what the "mental" part of mental disorder actually is. This vagueness is probably deliberate in order for the concept of mental disorder to encapsulate both states that are caused by psychological internal processes but with somatic symptoms, e.g. somatoform disorder, and ones that are caused by non-psychological elements which have psychological consequences, e.g. neurobiological conditions. Brülde and Radovic (2006) have in depth discussed how the mental component of mental disorder can be understood. They outline and scrutinise three potential types of responses to this question in their review article. Firstly the *internal cause view* is described. It implies that the psychological mechanism is at least partially responsible for the manifestation of symptoms or disabilities. Secondly there is the *symptom view,* whose proponents perceive the nature of the symptoms as the deciding factor with regard to mental disorders: if the symptoms are of psychological character the disorders are mental. The third variant is the *mixed* or *pluralistic view* which is a combination of the *internal cause view* and the *symptom view*. The definition of mental disorder provided in DSM IV is in line with this variant. The second criterion that needs to be fulfilled according to DSM IV in order for a person to be classified as having a mental disorder is the presence

of distress or disability. Inclusion of these elements makes the definition into a holistic notion of mental ill health (Nordenfelt, 2007, p. 129) and sets it in opposition to Boorse's biostatistical theory of health and disease. The sharp line between health and ill health is however shared with the Boorsian view, as an individual is in a state of mental ill health only if he or she fulfils the diagnostic criteria in respect of a specific disorder.

Subjective wellbeing can be defined as "a person's cognitive and affective appraisal of his or her life" (Berry et al., 2002, p. 436). Numerous alternative definitions have been suggested, but this type of conceptualisation is quite common. The difference between low subjective wellbeing and having a mental disorder is not easily described, as low subjective wellbeing is regarded as a symptom of most types of mental disorders, in particular those that are called mood disorders. There are however numerous other symptoms that are linked to mental disorders. So, even though an obvious overlap exists between low subjective wellbeing and disorders, especially concerning the anxiety/depression kinds, it is nevertheless possible to have a symptomatic profile in accordance with the classifications of some mental disorders while simultaneously having a high subjective wellbeing. The cardinal example would be a hypomanic episode, but it may also be the case with some personality disorders. Secondly, a purely symptomatic approach is based on the notion that an individual without symptoms is healthy. Identification of low subjective wellbeing is different in this respect as it concerns the lack of something (i.e. positive appraisal of one's life), rather than the presence of something (i.e. symptoms).

A third important approach to health and illness focuses on individuals' ability for action. However, this approach is in stark opposition to the value-free notion of disease set forth by Boorse who, suggests that disease is the same as statistical sub-normality of functions. Fulford's and Nordenfelt's respective definitions are examples of such holistic action-oriented approaches in the sense that illness is not seen simply as the dysfunction of body parts. Fulford characterises illness in terms of the individual's inability to perform "ordinary doing" (Fulford, 1989), while Nordenfelt, who focuses chiefly on health and not illness proposes, that health is a person's "second order-ability to realise his or her vital goals, given a set of standard or otherwise reasonable circumstances" (Nordenfelt, 2007, p. 194).

If one perceives the three presented positions regarding mental ill health (in terms, that is, of the symptomatic approach, low subjective wellbeing and the individual's restriction to performing "valued" actions) as non-mutually exclusive ones all of importance for the characterisation of mental ill health, a definition of mental ill health needs to fulfil the following three criteria: 1) the person appraises his or her life in a negative way, 2) a state of mind is manifested by symptoms that are at least partially caused by psychological internal processes or the symptoms are in themselves of psychological nature, 3) the first or the second criterion disables (or these two criteria together disable) the persons from acting as desired. To empirically employ a definition of mental ill health based on these three criteria would require an in-depth knowledge of individuals which would never be fully obtained by the use of self-report instruments or standardised psychiatric interviews. Nevertheless, I believe that such instruments and interviews can be a valuable method for approximating individuals' mental health status. In this thesis low subjective wellbeing and the symptomatic approach are employed to approximate individuals' mental health status. They are employed separately.

3.5 Migration and mental ill health

Before discussing the relationship between migration and mental ill health, I wish to clarify a few points. First, a state's immigrant population or a particular immigrant subpopulation may have fewer mental health problems than the native-born and the prevalence of mental ill health usually varies quite extensively between immigrant groups. Second, I do not regard the theories presented below as mutually exclusive, but rather as emphasising different aspects that are more or less relevant depending on circumstances.

The selection hypothesis and the stress hypothesis are probably the most proposed but also the most abstract theories about the relationship between migration and mental ill health (see Bhugra, 2003, 2004; Littlewood & Lipsedge, 1997). The stress hypothesis can be formulated as follows: migration produces stress that heightens the risk of mental ill health. This theory thus focuses on immigrants' living conditions and experiences in the host community. The selection hypothesis, in contrast, focuses on the pre-migration period and may be presented as: immigrants' mental health status or heightened risk of deterioration of health is established in their original habitat (which may be a result of stress). I here formulate the two hypotheses less

dogmatically and more inclusively than is usual. This in order to make them more realistic and to emphasise that the most important difference, as I see it, actually lies in whether one believes that immigrants' mental health primarily is linked to pre- or post-migratory conditions. It furthermore makes it possible to accommodate two variations of the selection hypothesis encountered in the literature, namely that the sending and receiving countries have different prevalence rates of mental ill health and that the migrants' mental health statuses are not representative of the sending country's population. Pre- and post-migratory conditions may influence the prevalence of mental ill health among immigrant populations either individually or simultaneously. To the first two hypotheses a third one, of partially methodological character, can be added, which concerns the issue of how culturally appropriate various classification or measurements of mental ill health actually are. If the way of measuring or classifying mental ill health is not cross-culturally valid it may result in an over- or under-estimation of some cultural groups' "true" prevalence rates, or in the even worse scenario that one ends up comparing ontologically different phenomena.

3.5.1 Pre-migration factors and the selection hypotheses

The flow of migration between countries is dependent on several factors. Borjas (1989) has argued for the idea of the "immigration marketplace". According to this approach the individual is a rational agent that attempts to maximise his or her wellbeing. When the migration option outweighs the "stay put" alternative, a cross-national journey could be undertaken. This approach has been criticised for its individual focus which neglects the fact that migration decisions are often taken by families (Hugo, 1995). Furthermore, a theory like Borjas's would predict that societies' poorest members are most likely to emigrate. However, empirical studies have shown that this is rarely the case (e.g. Chiquiar et al., 2005). Moreover, the countries where the individual wishes to settle have various differing regulatory systems. This makes it more likely for some migrants with specific characteristics from certain countries to gain residency. The *migration systems theory* is an alternative approach which attempts to deal with some of the problems which are inherent in individual-centred migration theories. Proponents of the migration system theory emphasise that both ends of the

migration flow should be examined and all the linkages between the places concerned studied (Castles & Miller, 2003; Fawcett, 1989).

The selection hypothesis was first introduced by Ødegaard in his famous study in which Norwegians that had migrated to North America were compared with those that had stayed and native-born Americans (Ødegaard, 1932). He found that the first admission for schizophrenia was twice as common among the migrants as among the other two groups. He came to the conclusion that the migrants had personal characteristics making them more at risk for schizophrenia. He based this conclusion on the fact that the migrants usually became mentally ill some years after they came to North America, i.e. not during the period where the strains presumably were most elevated. Moreover, the interviews with relatives in Norway revealed that the migrants were often described as sensitive, out of touch with reality, restless and ambitious. More recent studies have suggested, however, that the heightened risk for schizophrenia observed among several immigrant groups is rather an effect of migration per se and that selective migration cannot solely explain the different incidence rates found (e.g. Cantor-Graae et al., 2003; Selten et al., 2002).

In opposition to Ødegaard's idea that migrants constitute a group that are more prone to ill health is the "healthy migrant effect". This theory also proposes that a selection mechanism is involved in international migration. However, the migrants are in contrast perceived as having a health advantage. The argument goes that as migration usually is an enterprise requiring a substantial effort it is less likely that individuals with poor health have the capacity or strength to become migrants (see e.g. Lu, 2008). This claim can be corroborated by the fact that immigrants are generally fairly young and have a higher level of education than those that remain in their countries (Hedberg et al., 2008), which are circumstances predicting better health status. The "healthy migration effect" has most often been observed and discussed in relation to the North American context for a number of illnesses, including depression and anxiety (see Ali, 2002; Wu & Schimmele, 2005).

General selection mechanism claims concerning migration are problematic. The problem is that they are based on the notion that migration is a free choice made by the individuals themselves, in the sense that migrants on the basis of their knowledge and capacity calculate whether to migrate or not, to wherever desired. This view neglects the structural barriers and facilitators involved. In

the contemporary world the preferred settlement destination usually tries to "choose" the characteristics of its immigrants by establishing specific immigration laws. These can differ substantially between states; with the consequence that some states are more likely to receive immigrants with poor mental health. An illustrative example is the difference between the Canadian or the US immigration law and the Swedish. The North American immigration laws are designed to favour highly skilled immigrants and family reunification immigrants, while the Swedish system favours refugees regardless of skills and immigration on family unification grounds (see Castles & Miller, 2003). In Canada immigrants are moreover generally screened for health problems before entering (Simich et al., 2006).

Even so, there appears to be some support for the workings of self-selection mechanisms as the migrants to Western societies have better socio-economic living conditions than the "stayers", regardless of immigration policy (Hedberg et al., 2008). This circumstance does not, however, imply that they have a health advantage in relation to the native population in the settlement country, quite often the contrary. The gap in prevalence of numerous types of illnesses between the settlement country and the country of origin may be extensive. Differences in living conditions and life events are most likely the most potent explanatory factors when it comes to diverging prevalence rates of mental ill health. It is well substantiated that there is a high frequency of mental health problems in conflict and post-conflict countries as a result of war-related experiences (for a recent review see Murthy & Lakshminarayana, 2006). Against this background it is hardly surprising that refugees more often have poorer mental health than natives. In refugee populations the prevalence rates of depression and post-traumatic stress disorder (PTSD) are usually high, but the variation is considerable (see e.g. Fazel et al., 2005). A Swedish study, for example, found that approximately 40% of the Iraqi refugees were diagnosed as having PTSD on arrival. Moreover, the study suggested that those with PTSD were affected more negatively by negative life events and less positively by positive life events (Søndergaard et al., 2001). Another study showed that the exposure to pre-migration traumas of Cambodian refugees in the United States independently predicted PTSD and major depression more than 20 years after their occurrence (Marshall et al., 2005).

As previously mentioned, the motive for migration may influence the migrants' mental health. It has been found that both those with a high "push"

and a high "pull" motivation have an excess risk of adaptation difficulties (Kim, 1988). In the case of forced migration (push) it can be interpreted as a consequence of unpreparedness or poor psychological resources. When the migration is a highly voluntary decision (pull), the immigrants' high expectations may be difficult to meet, and this could lead to poor mental health (Simich et al., 2006; Bhugra, 2004).

3.5.2 Post-migration factors or the stress hypothesis

The "stress hypothesis" serves as the grand category for all the factors that in one way or another may be associated with stressful experiences among immigrants. These factors have over the years grown into a miscellaneous and substantial group. Some of them have been examined empirically, while others have not, partly probably as a consequence of methodological difficulties in doing so. I will below attempt to pinpoint the most recurrent or important factors. I will start off, however, by saying a few words about the concept of stress and its relation to mental ill health. A more detailed examination of the phenomenon of stress is provided in paper 4.

3.5.2.1 Stress

Stress is in this thesis regarded a phenomenological concept, which in many respects is similar to how it has been outlined by Lazarus and Folkman (1984). This phenomenological foundation means that stress is brought about by a transactional/dialectical process between the subject and the object. The meaning of the object is provided by the subject and it is therefore always to some extent "constructed". Stress is according to this position an experience involving interpretation. It is not just any experience, however – it is a kind of experience that entails a threat to something of value to the individual. When an individual manages to alleviate such a threatening experience the individual has *adapted.* Stressful experiences can of course be of varying magnitude and duration, which may make some of them more difficult to deal with. Moreover, individuals are not equally equipped to deal with stress. A high coping ability can serve as a buffer, making the adaptation process less painful (Wheaton, 1985). Closely linked to coping are resources, as coping is in fact quite often a question of making use of the available resources in order to adapt. These resources can be of several kinds, e.g. psychological, physical, material or social, and may be useful for tackling many types of stressful

experiences. Nevertheless, the perception of coping-resources as being inadequate is a necessary condition for stress; otherwise the "object" is stripped of its threatening element and hence by definition becomes a non-stressful experience. An adaptation process ends when the individual is no longer experiencing stress and a sense of stability has been achieved. This stable state of mind can be either beneficial or unfavourable to the individual in question. Individuals that have successfully managed to reach this stable condition of adaptation have either 1) redefined the stressful experience so that it becomes non-threatening, i.e. "his aggressive behaviour was after all not directed towards me", 2) increased their resources so that they can master the situation, i.e. "with this money I'll be able to pay off the loan sharks" or 3) a combination of 1 and 2, i.e. "if I move away from this big tree it is not likely that I'll be struck by lightning, anyway the thunderstorm isn't fierce as I first thought". An unsuccessful adaptation is probably best described as capitulation

Stress may lead to several different outcomes within a wide range of emotional or psychological states (Lazarus et al., 1985). Mental ill health can be looked upon as one of many possible consequences. In the acculturation literature it has become a common practice to make a distinction between psychological and socio-cultural adaptation. Psychological adaptation concerns, according to Ward and colleagues, adaptive outcomes within the affective/emotional domain, while socio-cultural adaptation refers to outcomes of a behavioural nature (Searle & Ward, 1990; Ward, 1996; Ward & Kennedy, 1993). Stress concerns psychological adaptation while socio-cultural adaptation as an outcome relates to the learning paradigm. However, socio-cultural adaptation is empirically connected to psychological adaptation as the former is a kind of resource that may enable immigrants to cope with stress (Berry et al., 2002, p. 370).

3.5.2.2 The initial migration phase

The first time in a new environment is often characterised by a sense of instability or uncertainty. Many studies have reported that the immigrants'/sojourners' level of stress or wellbeing fluctuates during this period. The most established view is that it follows a U-curve (Lysgaard, 1955), where few problems are experienced in the beginning, followed by a period of more stress, and finally the stress level returns to normal, presumably as a consequence of an increased coping capability. However, the

empirical base for this theory is weak. For some groups in certain conditions it might hold, but as a general theory it appears flawed (Ward et al., 1998; Church, 1982). The length of the period it takes for immigrants to obtain some sort stability is not agreed upon either, but that it should at least have occurred within 3 years seems to be a common position (Markovizky & Samid, 2008; Ritsner & Ponizovsky, 1999; Westermeyer et al., 1984). It can well be argued, though, that the attempt to discover general stage-like processes of immigrants' adaptation is futile, as an immigrant's adaptation process is moderated by numerous factors (see e.g. Berry et al., 2002, p. 368).

During the first period in a new country many immigrants live in uncertainty as to whether or not they will obtain legal residency. This uncertainty may be perceived as very stressful for them (Teshome et al., 2006). A Dutch study concerning Iraqi asylum seekers showed that a long asylum procedure was associated with psychopathology (Laban et al., 2004).

3.5.2.3 Resources

The same types of resources are beneficial for immigrants' and non-immigrants' mental health. However, the migration may result in significant deterioration of these resources. Sometimes they may have deteriorated prior to arrival, for example when war-related experiences have hampered psychological capacities. Social networks are usually poor initially for immigrants and it may take considerable time and effort to create such a network. It is made even more complicated if the immigrants lack skills to communicate in the host country's dominant language or does not have appropriate venues, like the workplace, to meet new acquaintances. Moreover, migrants' occupational skills may be inadequate in the new society or regarded as inadequate by potential employers (Moritsugu & Sue, 1983). In either case the consequence is unemployment or that the migrants have to seek non-preferred types of employment. Unemployment usually entails a shortage of financial resources which can hamper the ability to cope with stressful experiences. The loss of professional prestige and social status can moreover accentuate the risk of mental ill health among immigrants (Ritsner et al., 2001).

Setting specific socio-cultural resources are something immigrants typically lack, e.g. language skills and knowledge of behavioural codes. It has been shown that lack of language proficiency (e.g. Beiser & Hou, 2001; Ying & Liese,

1991; Nicassio et al., 1986; Bayard-Burfield et al., 2001) as well as unawareness of social axioms (Kurman & Ronen-Eilon, 2006) (i.e. common and basic beliefs that guide behaviour in a society) predicts mental ill health. The most culturally distant immigrants thereby become more at risk for developing mental ill health, as they will have greater difficulty in acquiring these types of socio-cultural skills (Ward & Searle, 1991). However, cultural distance may be linked to mental health in other ways as well. Such a link, may derive, for example, from the circumstance that the more culturally distant individuals experience the life changes in the new country with greater intensity than do those that are less culturally distant (Ward et al., 2001, p. 95).

3.5.2.4 Experiences

Perceived ethnic discrimination has in numerous recent studies been shown to be a risk factor for various types of mental illness. These findings have most often also been confirmed in studies with a longitudinal design (see Paradies, 2006). Experiences of racism are not randomly distributed within a population. It has been suggested that racism or ethnic discrimination is a factor contributing to the observed disparities in health among ethnic groups (Williams & Collins, 1995; Williams, 1999). Immigrants that have traits that make them stand out from the "typical native" are more likely to encounter racism. It should be noted, however, that perceived ethnic discrimination is dependent on the individuals' interpretation of the situation. Furthermore, given that racism quite often is not directly observable; individuals may come to perceive a similar situation rather differently.

Stressful experiences may also be a direct result of the acculturation, i.e. a consequence of intercultural contact. Direct in the sense that the stressful experience is not rooted in the lack of sufficient socio-cultural skills as described above. It can be regarded as a question of a cultural conflict that has surfaced because of incompatible cultural values. It has been suggested that severe conflicts within the relational sphere are more common among culturally distant immigrant groups living in western countries (Yakushko et al., 2008). Many of these conflicts can be interpreted as occurring when a family member assumes behaviour, values etc common in the host community but clashing with those to be found in the original cultural environment. Both spousal and intergenerational conflicts have been particularly highlighted in the immigrant context (e.g. Bhugra & Ayonrinde, 2004; Yakushko et al., 2008; Darvishpour, 2002). Wong and colleagues (2007) have in their study about

older Chinese and Korean immigrants in Canada shown that living with adult children and living with a spouse were associated with lower subjective wellbeing. These counter-intuitive findings could suggest that family conflicts have a significant influence on at least this immigrant group's mental health status.

3.5.2.5 Acculturation strategies

How the four acculturation strategies described earlier are associated with various health-related measures has been investigated extensively (Berry & Sam, 1997). However, these studies have not always generated the same results. Usually, though, the integration strategy has been shown to be the most beneficial for immigrants, while the marginalisation strategy is the strongest predictor of poor health or low wellbeing (Berry & Sam, 1997). Unfortunately, the studies have most often been cross-sectional (i.e. based on individual data collected at a single point in time), making it difficult to evaluate whether mental ill health is mainly a result of the acculturation strategies or the reverse. Particularly problematic is the marginalisation strategy, which appears to be a very strange individual choice, as it is much more plausible as a consequence of mental ill health (see Kosic, 2002; Rudmin & Ahmadzadeh, 2001).

3.5.3 Cultural idioms of distress and culture-bound syndromes

Experiences of distress, like all other types of experiences, can be shaped by representations specific to certain cultural environments. Cultural representations may influence distressing experiences in numerous ways, including being instrumental in the production of them (see e.g. Ong, 1988; Hahn, 1997; Hahn & Kleinman, 1983). Lawrence Kirmayer writes: "Culture provides categories and a lexicon for emotional experiences, making some feelings salient and others more difficult to articulate. … Culture influences the source of distress, the form of illness behaviour, symptomology, the interpretations of symptoms, modes of coping with distress, help-seeking, and the social response to distress and disability" (Kirmayer, 2001, p. 23).

The concept "cultural idioms of distress", which was first introduced by Nicher (1981), refers to cultural modes of expressing distress. It has for example been observed that some ethnic groups have a greater tendency to express mental distress through somatic symptoms. The ethnic variation in somatisations appears to be the result of several circumstances (for a review see Kirmayer & Young, 1998). It may be that the stigmatisation of mental illness is more substantial in some cultures. It has been stated that if one family member in certain more collectivistic societies has a mental illness, it can have a stigmatising effect on the entire family (Lauber & Rössler, 2007). Raguram and colleagues have shown that self-stigmatisation is associated with more somatic symptoms among depressed individuals (Raguram et al., 1996). It has also been suggested that a health-care context where psychiatrists or psychologists are uncommon may lead to less "psychologisation" and more "somatisation" as individuals tend to adapt to their socio-cultural context (Lauber & Rössler, 2007). It should be noted that in most developing countries these occupational groups are quite rare. Kirmayer and Young have in addition stressed that a group's relative familiarity with the health-care system or pathways to care contributes to group variation in symptom presentations (Kirmayer & Young, 1998).

The renowned psychiatric anthropologist Arthur Kleinman has warned cross-cultural researchers against committing *category fallacies*, which may occur when applying Western-developed psychiatric nomenclature to individuals of non-Western heritage. Kleinman describes a category fallacy as "the reification of a nosological category developed for a particular cultural group that is then applied to members of another culture for whom it lacks coherence and its validity is not established" (Kleinman, 1987, p. 452). In order to avoid the pitfall of category fallacy in psychiatric epidemiology it thus needs to be established whether the symptoms or symptom profiles that are under investigation are present and given equivalent meanings across the studied cultural communities. If the manifestations/expressions are dissimilar it may be interpreted either as the working of non-culturally universal idioms of distress or as being a question of different phenomena altogether.

Culture-bound syndrome is the term often applied to folk illnesses that are unique to a culture or a geographical area. Helman describes a culture-bound disorder as "a specific cluster of symptoms, signs or behavioral changes recognized by members of those cultural groups and responded to in a standardized way" (Helman, 2000, p. 186). According to Guarnaccia and

Rogler (1999) it has historically been a common practice to try to "squeeze" various culture-bound syndromes into already existent Western classifications systems (DSM and ICD). They write: "Thus, the classification of culture-bound syndromes into professional diagnostic categories usually is based on a perception of their predominant symptoms. But the issue itself of identifying predominance of symptoms is problematic" (Guarnaccia & Rogler, 1999, p. 1323). A "predominant symptom identification strategy" is most certainly a reductionistic procedure and it is especially objectionable in instances when it essentially distorts the character of the culture-bound syndrome. The underlying assumption with a procedure like that appears to be that the cultural variation of symptom manifestation is merely an effect of cultural idioms of distress. Moreover such a line of conduct is founded on a strong universalistic (if not absolutistic) perception of distress, meaning that these human phenomena are governed by similar anatomical or psychological processes irrespective of cultural background (see further Segall et al., 1998). The true nature of the phenomena is believed to be hidden and could be uncovered to perform accurate classifications according to Western psychiatric concepts. Observed cross-cultural differences in the manifestation of psychopathology have for example been described as "psychoplastic" or a consequence of specific "illness behaviours" whose true nature can be laid bare by trained psychiatrists or through culturally adapted psychiatric interviews (Cheng, 2001). From within this research tradition, findings have been presented to support the contention that many psychiatric experiences are universally recognisable (see e.g. Bebbington, 1993; Weisman et al., 1996, 1997).

Emberson (1983) has pointed out the risk of *construct underrepresentation*, which occurs when the phenomenon of interest is not fully captured by the measurement. Group comparisons may in such situations become severely biased, especially when the manifestation of the phenomenon is quite different in the compared groups. A pragmatic way to, at least partially, deal with the issues of cultural idioms of distress and culture-bound syndromes in quantitative analyses is to avoid operationalisations based on the notions of particular psychiatric disorders and instead deploy higher-order expressions of distress, in order to try to tap into a universal dimension of mental ill health.

This thesis is grounded on a universalistic approach, in contrast to the culture-relativistic position whereby human phenomena are *only* to be meaningfully understood from within the cultural context in which they appear or belongs

(e.g. ethnopsychiatry), and to the absolutist position that "human phenomena are basically the same (qualitatively) in all cultures: honesty is honesty, depression is depression no matter where one observes it" (Segall et al., 1998, p. 1103). Berry (1969) takes a universalistic position when arguing that cross-cultural research should be conducted from a "derived etic" perspective (the etic concept refers here to research conducted from a position outside the system), implying that the categories/concepts employed should be developed so as to be empirically relevant in all the studied cultures. This in opposition to "imposed etic", which for example would be the case when applying research concepts constructed in one cultural context to another, when it is not appropriate.

So, to conclude, the cultural influence on mental ill health potentially makes comparisons between ethnic groups biased. Most importantly, the operationalisation of mental ill health should be performed around a conceptualisation that is universally valid. The conceptualisation may thus also be an empirical issue, the resolution of which could be facilitated by ethnographic research. In this thesis two of the mental health measurements employed are statistically examined to evaluate their appropriateness, when comparing non-Western immigrants with Scandinavians (paper 3). As a part of this examination the instruments' items' cross-cultural equivalence was tested to see whether they are similarly associated with mental ill health in both groups.

4. AIMS

The overarching aim of this thesis is to increase the knowledge of what, and to some extent how, cultural, social, economic and immigrant-specific factors and experiences influence or are associated with mental ill health among immigrants in Sweden. The focus lies on post-migration factors and experiences.

The main aims can be specified as follows:

1. To examine to what extent social and economic factors could account for the different prevalence rates of mental ill health among Swedish-born people and immigrants.

2. To investigate if immigrant-specific factors, i.e. socio-cultural adaptation, acculturation strategies and perceived ethnic discrimination, are associated with mental ill health after adjustment for traumatic experiences and social and economic living conditions.

3. To evaluate the appropriateness of the mental health instruments Hopkins Symptom Checklist-25 and WHO (ten) Wellbeing Index for use in multicultural settings by testing the cross-cultural equivalence between Scandinavians (Swedes and Finns) and immigrants from the Middle East (Iraqis and Iranians).

4. To examine whether the operationalisation of mental ill health in terms of low subjective wellbeing or as a high symptom level generates similar results in comparative studies of different ethnic groups in Sweden.

5. To investigate with the aid phenomenological notion of stress what types of stress immigrants may experience in the host community.

6. To explore what and how representations produced within the Middle Eastern cultural sphere influence the evolvement of stressful experiences among Iraqi and Iranian migrant women in Sweden.

5. MATERIAL AND METHODS

This thesis is based on data from two population-based surveys and data acquired through individual in-depth interviews. The first paper uses questionnaire data collected in Stockholm between 1998 and 2000 in a project called the PART study. The second and the third paper employ data from a survey conducted in 2005 concerning a few selected immigrant groups residing in and around the town of Linköping, Sweden. The fourth study is based upon qualitative data collected in 2005 and 2006, consisting of interviews with 11 women of Iraqi and Iranian origin residing in Linköping.

5.1 The PART study (paper 1)

The PART study is an ongoing prospective epidemiological research project about mental health, work and relations. The first wave of data collection was started in 1998 and ended in 2000. A second data collection phase has been completed. The population register of the County of Stockholm, Sweden, was used to select the participants. The initial study population consisted of 19,742 randomly selected Swedish citizens between the ages of 20 and 65 all residing in the county. These potential respondents received a questionnaire by mail that took approximately 45 minutes to one hour to complete. The questionnaire included a variety of questions about demographics, life events, employment status, working conditions, social support and alcohol consumption. In addition, several instruments intended to detect different forms of mental illness were included (further information about the PART study can be found in Hällström et al. (2004)). Ten thousand four hundred and forty-one (53%) of the randomly selected individuals returned the questionnaire. These 10, 441 questionnaires comprise the cross-sectional dataset used for examining to what extent poor socio-economic living conditions can account for immigrants' excess risk for mental ill health (paper 1). One thousand one hundred and nine of the responders reported that they were born in a foreign country.

5.2 The survey "Health among foreign- and native-born Swedes" (papers 2 and 3)

"Health among foreign- and native-born Swedes" is a cross-sectional population-based dataset collected by mail in 2005. The sample was drawn from RTB (*Registret över totalbefolkningen* [the Register of the Total Population]) administered by Statistics Sweden. The questionnaire went out to a random stratified sample of individuals born in Sweden (200), Iraq (601), Iran (501) and Finland (402). The reasons for choosing these three immigrant populations were several; a) they are all big immigrant groups in Sweden, b) they have predominantly arrived in Sweden during different periods, c) the motive for migration is overall different between the Middle Eastern and the Scandinavian immigrants. Moreover, to be eligible for participation the potential respondent should be between 20 and 75 years old, have resided in Sweden for 3 years or more and be currently listed as a resident of the municipality of Linköping, Sweden.

A high non-response rate was anticipated in the Iraqi and Iranian groups. The regional and stratified nature of the sample made it feasible to take some pro-active measures to minimise the dropout rate. In particular efforts to increase the legitimacy of the survey prior to its execution were prioritised. The following measures for this purpose were taken: issuing a press release to the local media, discussing the project and its execution, as well as anchoring the project among relevant local immigrant organisations, supplementing the postal item with a list of all the agencies and immigrant organisations that supported the project (17), providing the Kurdish respondents with information as to who they could turn to for assistance filling out the questionnaire, sending out two versions of the questionnaire to the Middle Eastern subjects, one in Swedish and one in Farsi (Persian) or Arabic. In addition the potential respondents from Iraq and Iraq were reminded by phone. The subjects born in Iraq were contacted by a co-worker speaking Arabic, Assyrian and Kurdish. The final dataset consisted of 814 valid questionnaires giving a total response rate of 47.9%. The response rates in the respective subpopulations were: 46.0% for the Swedish-born, 52.5% for the Finnish-born, 49.9% for the Iranian-born and 43.1% for the Iraqi-born.

The questionnaire concerned demographics and general protective and risk factors such as position on labour market, social network, self-mastery,

traumatic episodes. Several immigrant-specific factors were also assessed, e.g. perceived ethnic discrimination, socio-cultural adaptation and acculturation strategies.

5.2.1 The translation of the questionnaire

Several of the instruments included in the questionnaire were first translated and back-translated to be used in an out-patient study within an immigrant-dense community (i.e. Hopkins Symptom Checklist-25 (HSCL-25), traumatic episodes, items concerning social situation, some questions regarding the migration and experiences of Swedish society) (Al-Saffar et al., 2003). The entire translated questionnaires were furthermore scrutinised independently by three highly competent bilingual persons (i.e. one professional Arabic interpreter, one health researcher from Iran, one student doing a doctorate in the Persian language). A small pilot-study was also conducted where the respondents were asked to make comments regarding any unclear phrasing. From these procedures we got numerous comments, which were considered by the researches involved in collaboration with the initial translator. Several alterations were made as a result of this.

5.3 In-depth interviews (paper 4)

Eleven individual interviews with women born in Iraq or Iran were conducted in the autumn of 2005 or spring of 2006. All of these women had previously responded to a questionnaire in which they had given their consent to being contacted for a follow-up interview. In order to acquire an increased understanding of what experiences in Sweden could be linked to poor mental health and stress we tried to set up interviews with individuals that had resided in Sweden for at least five years and did not appear to suffer from posttraumatic stress syndrome according to SIP-22 (Hovens et al., 1994**)** that had originated in episodes experienced prior to migration. Moreover, the participants were selected to ensure that all major ethnic groups in the region were represented (i.e. Arabs, Assyrians Kurds and Persians).

The interviewees were given the opportunity to decide where the interviews should be conducted as long as it meant they could be conducted undisturbed. The result, in fact, was that all interviews were conducted at the university

department. To further ensure that the interviewed subject felt at ease and comfortable enough to disclose sensitive matters, the interviews were conducted by a female research colleague. The ambition was to create a non-judgemental and relaxed atmosphere. A strategy based on emphatic listening was used for this purpose (Myers, 2000).

The interviews had an open character that started with the questions: How do you experience and how have you experienced being an immigrant from Iraq/Iran in Sweden? What positive and negative experiences have you had when living in Sweden? However, in order to ensure that six important life spheres − family, occupation, social life, relation to country of origin, relation with authorities and native Swedes, relation with fellow countrymen/women and other immigrants in Sweden − were covered satisfactorily, an interview guide with probing questions was used when needed. The interviewer followed up unclear accounts and encouraged the women to elaborate on issues of particular interest. The length of the interviews ranged from 60 to 120 minutes.

5.4 Ethical considerations

The Swedish Research Council (2002) has adopted four ethical principles that are to be adhered to in the humanities and social sciences. The principles concern: *information* (i.e. that the research subjects are adequately informed about the study objectives), *consent* (i.e. that the research subjects agree to take part in the study), *confidentially* (i.e. that the presentation of data preserves the research subjects' anonymity), *data utilisation* (i.e. that the raw data is only available for the involved researchers and used for research purposes). These four ethical requirements have guided the execution of this dissertation project.

The PART study was approved by the ethical committee at the Karolinska Institute (Dnr. 96-260). The survey "Health among foreign- and native-born Swedes" and the interview study were jointly reviewed and approved by the regional ethics committee in Linköping (Dnr. 191-05).

So as to meet the said four ethical requirements in the interview study, all participants first received written information about its purpose. This letter also stated that the interviews would be recorded, that no one except members

of the research group would have access to these recordings or transcriptions of them, that information obtained through the interviews would only be used for research purposes, that one could choose not to respond to questions during the interview without having to disclose the reason for this, that one was free to terminate the interview at any time regardless of reason and that any presentation of statements or other individual-specific information would be done without displaying identification markers. All this information was repeated orally at the start of each interview. The participants' informed consent was also obtained in writing.

To interviewed individuals who appeared to have serious psychiatric problems, assistance in seeking professional care was offered.

5.5 Measuring mental ill health

The Major Depression Inventory (MDI), which is a symptom-based instrument designed to identify depression as it is characterised in DSM IV (Bech et al., 2001),[2] and the WHO (ten) Wellbeing Index, which focuses on individuals' own evaluation of their living situations (Bradley, 1994), were used to estimate mental health in paper 1. In papers 2 and 3 the Hopkins Symptom Checklist-25, intended to measure depression and anxiety (Derogatis et al., 1974), was employed together with the WHO (ten) Wellbeing Index. The dichotomisations of these three instruments were done according to the following cut-offs: 19 for the MDI (Forsell, 2005), 1.75 for the HSCL-25 (Sandanger et al., 1998), 30 for the WHO (ten) Wellbeing Index (Forsell, 2004). In the methodological paper (paper 3), however, the scales used were applied as continuous variables.

5.6 Independent variables

The participants in both surveys were requested to state their country of birth. In the first paper, based on PART data, this self-reported information was used to classify the respondents into four categories: born in Sweden, born in other Scandinavian countries, born elsewhere in Europe and born outside Europe. However, immigrants from the USA, Canada, New Zealand and

[2] In paper 1 an incorrect reference is given to MDI (reference no. 3).

Australia were incorporated in the European-born group. This was done in order for the categories to become better proxies of the individuals' cultural distance to Swedish society. In the second survey, which was conducted in Linköping, the respondent's country of birth was retrieved from *RTB*, which made it possible to determine individuals' birth country when such information had not been supplied. It was only done, however, when register and questionnaire data could be matched with regard to age and sex. This matching procedure did moreover reveal that 37 of the questionnaires were answered by someone else than intended. These individuals were nonetheless included in the final sample, as it was believed to be predominantly a result of the fact that an intended participant had responded to another family member's questionnaire. It should be noted that it was common that several individuals in the same household received questionnaires. In the second paper, which only concerned immigrants, the country of birth was employed as a predictor variable, i.e. Finland, Iraq or Iran. In the third paper the respondents were collapsed into a Scandinavian-born group (Sweden or Finland) and a Middle-Eastern born group (Iraq or Iran).

The variable *labour-market position* in paper 1 included seven categories. Those that were actively employed were classified as white-collar workers, blue-collar workers or self-employed. These categorisations were made in accordance with the SEI coding system (*Socioekonomisk indelning* [Socio-economic classification]) (Statistics Sweden, 1989). The rest of the respondents were categorised as unemployed, students, retired as a result of poor health or retired on voluntary grounds. In the second paper the individuals were classified as either employed, unemployed, students or others.

In both papers 1 and 2 *economic security* was assessed with the question "If you suddenly encountered an unforeseen situation and had to get hold of 14,000 Crowns (approximately 1,750 US$), would you be able to manage that?". Answers were given on a four-point ordinal scale.

The *level of education* variable had the following three categories in paper 1: 9 years or less of schooling, 10-12 years and more than 12 years. In the second study the following almost identical classification scheme was used: 9 years or less, 10 years or more without a university degree and 12 years or more with a university degree.

In the first paper individuals were classified as cohabiting with another adult person or not. In the second paper register data was used to classify the individuals' *marital status* into the following categories: married, unmarried and divorced/widow/widower**.** However, for 37 respondents such register data was not available to us (see above). For these individuals questionnaire data was employed instead. Those who had ticked the cohabiting/married response alternative were classified as married.

The annual household income was included as a variable in the first study. The self-reported responses were grouped in the following five categories: "Less than 100,000 SEK'', ''between 100,000 and 149,000 SEK'', ''between 150,000 and 199,000 SEK'', ''between 200,000 and 299,000 SEK'' and ''more than 300,000 SEK''. In these estimates subsidies should not be included.

Six questions about the availability of social integration (AVSI) (see Henderson et al., 1980; Undén & Orth-Gomer, 1989) were used in paper 1 to evaluate the individuals' *social support network*. These questions were added up and the persons belonging to the lowest quartile were regarded as having a poor social support network. In the second paper a different, but essentially equivalent measure was employed. Poor *social network* was here indicated if the respondent reported that he or she did not have a close friend, did not have a friend outside the family or did not socialise with friends.

Traumatic episodes were measured in papers 2 and 3 by presenting a list of nine types of traumatic episode (Al-Saffar et al., 2002). These types were: serious accidents, losing a relative through an accident or violence, physical abuse, rape, torture, imprisonment, arrested by police, threat to one's life and acts of war. The list was supplemented with a question as to whether other, not mentioned traumatic episodes had been experienced. The respondent answered these ten items separately with a "yes" or a "no". A separate continuous variable was constructed for the total number of experienced types of traumatic episode ranging from 0 to 10. Respondents that did not answer any of the 10 items were excluded. If a respondent had a missing response on any item this was interpreted as a negative response. This is the only predictor used as a continuous variable. For complete success when adjusting for continuous predictors it is required that the predictor is linearly associated with the outcome measure. In logistic regressions this can be expressed as the linearity of the predictor values' log odds in relation to the outcome (see Concato et al., 1993). The linearity requirement was regarded as being

sufficiently met. This conclusion was drawn after examination of the plots of standardised residuals of the trauma variable in relation to standardised predicted values of the two outcomes as continuous measures (Osborne & Waters, 2002), as well as of the log odds of the trauma scores in relation to the binary outcomes.

To estimate the immigrant's level of *socio-cultural adaptation* the question "How well in general are you able to make yourself understood in Sweden?" was used. The response alternatives were "very well", "rather well", "rather poorly" and "very poorly". Respondents ticking the very poorly or rather poorly alternatives were collapsed to a single category indicating a low level of socio-cultural adaptation. Those choosing the "rather well" option were regarded as having an intermediate level, while choosing the "very well" option was regarded as indicating a high level of socio-cultural adaptation.

Three items were used to assess the respondents' level of *perceived ethnic discrimination*. These items have previously been used by Finch and colleagues (Finch et al., 2000), but were slightly modified to become relevant for the survey participants. The three questions read: "How often do people dislike you because of your ethnic origin?" "How often do people treat you unfairly because of your ethnic origin?" and "How often have you seen friends, with the same ethnic origin as you, being treated unfairly?" An average item score was calculated for each respondent on the four point ordinal scale ranging from 0-3 (where 0 is never and 3 is always). Individuals with an averaged score below 1 were classified as having a low level of perceived ethnic discrimination and those between 1-1.50 as having an intermediate level. Those acquiring a score above 1.50 were classified as perceiving a high level of ethnic discrimination.

The three acculturation strategies integration, separation and assimilation were measured separately. The *integration strategy* was assessed by averaging two items retrieved from a scale constructed by Berry and colleagues (Berry et al., 1995): "I think that people from my country should keep their own traditions, but also adjust to Swedish traditions" and "I might just as well marry a Swede as a person from my own country". The responses could range from 0 to 4, "disagree completely" (0) to "agree completely" (4). The assertions regarding the respondents' attachment to the *assimilation and separation strategies* were in the same vein (also ranging from 0 to 4), but reformulated so that high values instead indicated strong attachment to separation or

assimilation strategy. The averaged score on these two assertions was used to create a three-point ordinal scale where 0-1.50 equals low commitment and scores ranging from 1.50 to 2.50 and 2.51 to 4.00 were classified as indicating a moderate or a strong level of commitment.

5.7 Analytical procedures

5.7.1 Paper 1

Multiple logistic regression analyses were used to test the hypothesis that socio-economic disadvantage was able to account for immigrant groups' higher prevalence of mental ill health in relation to the Swedish-born group. All predictors were entered in the models as dummy variables, while low subjective wellbeing and depression were used as dependent variables. Odds ratios (ORs) with 95% confidence intervals (CIs) were used to approximate relative risks. To examine the "robustness" of the statistical models, Hosmer-Lebeshow's tests were performed.

5.7.2 Paper 2

The difference in demographic characteristics between respondents and non-respondents was examined by means of Pearson's χ^2 tests (two-tailed). Multiple logistic regression analysis was the analytical method used to test the factors' association with the two outcomes anxiety/depression and low subjective wellbeing. Odds ratios with 95% confidence intervals were displayed for each factor after adjustment had been made. All tested factors in the models except "number of traumatic episodes" were entered as dummy variables. In addition, multiple linear regression analyses were executed to evaluate whether the cut-offs employed biased the results generated from the logistic analyses. Effect modifications were examined by testing all two-way interactions of potential risk factors. In order to adjust for multi-comparison problems, only interactions that were significant on the 1% level were regarded as "true". The explorative objective of ascertaining whether the immigrant groups were influenced differently by the predictive factors was

approached by separately entering the interaction term between country of origin and the predictors in the two adjusted models, (i.e. the anxiety/depression model and the low wellbeing model). All statistical models were subjected to Hosmer-Lemeshow's test to evaluate their "goodness of fit".

5.7.3 Paper 3

Heterogeneity concerning relevant factors between the Middle Eastern (Iraq and Iran) and the Scandinavian (Sweden and Finland) group were examined by means of Pearson's χ^2 (two-tailed) and student t-tests. The remaining statistical analyses could be separated into three related parts.

Testing the construct equivalence of HSCL-25 and the WHO (ten) Wellbeing Index was done by comparing the two groups' factor loading scores generated from separate exploratory factor analyses (EFAs). The level of agreement between the loading scores was examined with Tucker's Phi and Identity Coefficient tests. EFAs were conducted with the alpha factoring method and the numbers of factors to extract was decided by identifying the inflection point (elbow) on the scree plots. In cases where more factors needed to be extracted, promax was the applied rotation technique.

Screening for differential item functioning (DIF) was done by using the instruments' items as dependent variables in separate ANOVA models (one for each item). In each model the following predictors were included: age group, sex, numbers of traumatic episodes, cultural origin (i.e. Middle Eastern or Scandinavian descent), instrument score level and the interaction term between cultural origin and instrument score level. The two score level variables (one for each instrument) were constructed by splitting up the respondents into quartiles. Uniform DIF of an item was suggested when cultural origin predicted the item response. Non-uniform DIF was regarded as present when the interaction between cultural origin and instrument score level significantly predicted the item response.

Scalar equivalence was examined by specifying two ANOVA models to predict the instruments' total *continuous* score. In scenarios where the groups exhibit similar slopes and intercepts, scalar equivalency is suggested. Non-significant effect of the cultural origin variable would suggest that the groups

have similar intercepts, while non-significant interaction effects of cultural origin and a universal risk factor could be interpreted as slope similarity.

5.7.4 Paper 4

Firstly, all available stressful experiences present in the interviews were identified. Reports of uneasiness, troubles, wants etc. that appeared to threaten a vital value were classified as indicating stressful experiences. Secondly, themes were constructed by scrutinising the identified stressful experiences through the lens of the following questions: 1) In which relational context, if any, did the experience appear? 2) Can the involved *noema* be placed in time and space? If so, where and when? 3) Which personal resources could alleviate the threat or make it completely disappear? Thirdly, the themes of stressful experiences were interpreted to understand what representations made these types of experiences possible. A special emphasis was here placed on what part non-universal representations spread within the interviewees' communities played. In order to elucidate relevant representations for this purpose, the transcriptions of the interviews were carefully reread in search of clues. In particular three questions were used in order to accomplish this: 1) What do the interviewed women value in life? 2) What is causing the identified stressful experiences according to the women? 3) What resources are lacking when it comes to achieving vital values and enable an enhanced coping ability?

6. SUMMARY OF THE STUDIES

6.1 Paper 1

To what extent may the association between immigrant status and mental illness be explained by socioeconomic factors?
Petter Tinghög, Tomas Hemmingsson & Ingvar Lundberg

Background: Immigrants in Sweden have a higher rate of mental illness than the native Swedes. This study investigated to what extent the association between immigrant status and mental illness can be explained by a different distribution of known risk factors for impaired mental health between groups of immigrants and persons born in Sweden.
Method: The study is based on data from the Swedish PART study, designed to identify risk factors for, and social consequences of, mental illness. The study population consists of a random sample of 10,423 Swedish citizens, whereof 1,109 were immigrants. The data was collected in the year 2000. The immigrants were divided into three groups based on country of origin (Scandinavians born outside Sweden, Europeans born outside Scandinavia, non-Europeans). The occurrence of mental illness among immigrants and native Swedes were compared not adjusting and adjusting for indicators of socio-economic advantage/disadvantage (education, income, labour market position, etc). Mental illness was approximated with the WHO (ten) Wellbeing Index and depressive symptoms were measured with the Major Depression Inventory (MDI).
Results: Immigrants' excess risk for low subjective wellbeing was completely accounted for by adjustment for known risk factors in all the immigrant groups. However, socio-economic disadvantages could not account for the non-European immigrants' higher prevalence of depression (MDI), although the increased relative risk found in univariate analyses was substantially reduced.
Conclusions: The findings in this study suggest that the association between immigrant status and mental illness appears above all to be an effect of a higher prevalence of social and economic disadvantage.

6.2 Paper 2

The associations of immigrant- and non-immigrant-specific factors with mental ill health among immigrants in Sweden
Petter Tinghög, Suad Al-Saffar, John Carstensen & Lennart Nordenfelt

Background: It has often been shown that immigrants are particularly at risk for mental ill health. The aim of the study was to investigate the association of immigrant- and non-immigrant-specific factors with mental ill health within a diverse immigrant population.
Method: An extensive questionnaire was sent out to a stratified random sample of three immigrant populations from Finland, Iraq and Iran. The 720 respondents completed a Swedish, Arabic or Farsi (Persian) version of the questionnaire including the WHO (ten) Well-Being Index and the HSCL-25.
Results: The results indicate that mental ill health among immigrants is independently associated with non-immigrant-specific factors (i.e. high number of types of traumatic episodes, divorced/widowed, poor social network, economic insecurity and being female) and immigrant-specific factors (i.e. low level of socio-cultural adaptation). These results were obtained regardless of whether mental ill health was operationalised as low subjective well-being or a high symptom level of anxiety/depression.
Conclusions: These findings support the notion that mental ill health among immigrants is a multi-faceted phenomenon that needs to be tackled within a wide range of sectors – e.g. the healthcare system, the social service sector and, of course, the political arena.

6.3 Paper 3

Cross-cultural equivalence of HSCL-25 and WHO (ten) Wellbeing Index: findings from a population-based survey of immigrants and non-immigrants in Sweden
Petter Tinghög & John Carstensen

Background: To estimate accurate and comparable prevalence rates of mental ill health in culturally diverse populations, the instruments need to be cross-culturally equivalent. The aim of this study was to investigate whether the Hopkins Symptom Checklist-25 (HSCL-25) and the WHO (ten) Wellbeing

Index are cross-culturally equivalent by comparing Scandinavians with Middle Eastern immigrants in Sweden
Method: The study was based on a stratified random sample comprising native-born Swedes and immigrants from Finland, Iraq and Iran. The 814 respondents were inhabitants of a midsize Swedish town. A multi-method approach was employed.
Results: Both instruments loaded on a single factor in the respective populations. The items also loaded very similarly, i.e. the agreement coefficients were above 0.99. A few of the items did not discriminate or predict equally well in the groups. However, it was found that these non-equivalent items only marginally influenced the instruments' total scores in both groups. Further scrutiny of the biased items indicated that the HSCL-25 items "Headaches", "Suicidal ideation" and "Crying frequency" were functioning differently as a consequence of cultural differences, which was also the case regarding the item "Waken up feeling fresh and rested" in the WHO (ten) Wellbeing Index. Moreover, it was found that the groups had similar intercept and slope when the exogenous factor traumatic episodes was used to predict the measurement scores, suggesting scalar equivalency.
Conclusions: The results support the use of these instruments in population-based surveys within multicultural Western societies.

6.4 Paper 4

A phenomenological approach to the study of stress among immigrants – the case of Iraqi and Iranian women in Sweden
Petter Tinghög, Bengt Richt, Mimmi Eriksson & Lennart Nordenfelt

Background: It has been shown that a high symptom level of anxiety/depression is particularly common among Iraqi and Iranian women in Sweden. This study begins with a discussion of stress as a phenomenological concept. A general phenomenological theory of stress is outlined. It is argued that stress can be understood as individuals' ability to respond and their actual response to the following four questions: What is it? What is the consequence of it? Does it threaten any vital values? And have I sufficient resources to deal with this threat? The first aim was to theoretically work out a typology of stress among immigrants. The second aim was to identify and characterise the Iraqi- and Iranian-born women's stressful experiences in Sweden. The third aim was to interpret these identified stress categories, with

a special focus on the role that cultural representations found in Iraq and Iran play. The interpretations were facilitated by applying the outlined phenomenological model.
Method: Eleven in-depth interviews with Iraqi- and Iranian-born women were conducted. The interviews were centred on the women's experiences in Sweden. All participants had lived in Sweden for 5 years or more and strategic sampling was employed to enable the detection of a wide range of stressful experiences.
Results: It was revealed that domestic disputes and intergenerational conflicts were stressful experiences of a major magnitude. It was also revealed that these two types of stressful experiences were amplified by non-universal representations found in Iraq and Iran. Furthermore, the usefulness of a typology of immigrants' stressful experiences on the basis of the two distinctions immigrant/minority-specific and non-immigrant/non-minority-specific stress and culturogenic and non-culturogenic stress, is argued for.
Conclusion: Non-universal representations present in Iraq and Iran can amplify, or even be necessary for the evolvement of, certain types of stressful experiences among immigrant women from these countries living in Sweden.

7. DISCUSSION

In this section I will discuss the results from the four included papers in relation to one another and also in the light of previous findings in an attempt to place the results in a wider context.

All the studies concern immigrants in Sweden and stress or mental ill health. Stress is the explicit focus in one of the studies (paper 4). In the first and second papers, however, stress is the mechanism linking poor socio-economic living conditions, traumatic episodes and other non-immigrant- and immigrant-specific factors to mental ill health. The third study is a methodological inquiry about the cross-cultural equivalence of mental health instruments. In papers 1 and 2 mental ill health is directly dealt with, while stress is indirectly dealt with. Paper 3 focuses on mental ill health and paper 4 focuses on stress.

In paper 4, entitled "A phenomenological approach to the study of stress among immigrants – the case of Iraqi and Iranian women in Sweden", two distinctions are discussed: a) minority/immigrant-specific and non-minority/non-immigrant-specific stress, and b) culturogenic and non-culturogenic stress. These two distinctions are furthermore combined, generating the following four types of stress that might be experienced by immigrants: 1**)** *non-minority/non-immigrant-specific stress of non-culturogenic type* (i.e. stressful experiences possible for all individuals regardless of cultural belonging), 2) *non-minority/non-immigrant-specific stress of culturogenic type* (i.e. stressful experiences possible for all individuals but involving culture-specific representations), 3) *minority/immigrant-specific stress of non-culturogenic type* (i.e. stressful experiences only possible for immigrants or ethnic minorities and are not dependent on culture-specific representations), 4) *minority/immigrant-specific stress of culturogenic type*, (i.e. stressful experiences that only are possible for immigrants or ethnic minorities and involving culture-specific representations). This typology does not enable us to classify all stressful experiences equally well, as the interpretation process preceding a stressful experience is so complex and often involves both culture-specific and non-culture-specific representations. Nevertheless, I believe it is a useful typology for facilitating a greater comprehension of the multi-faceted nature of stress

among immigrants. This typology will provide the frame when the results are discussed.

The first study (paper 1) sets out to test whether uneven distribution of poor socio-economic living conditions could account for the higher prevalence of mental ill health among immigrants with Swedish citizenship. The socio-economic living conditions are mainly resources which are valuable for individuals regardless of their cultural belonging and immigrant status. Lack of these resources may be linked to stress in several ways. Firstly, it can make the acquisition of vital values more difficult or place individuals in situations where vital values are more likely to be threatened (Noh & Avison, 1996; Turner & Turner, 2005) Secondly, poor resources can have a negative effect on individuals' coping ability (Pearlin, 1999) Thirdly, lack of resources may also sometimes be a stressful experience in itself. Poor socio-economic living conditions are thus likely, in different ways, to increase the level and/or magnitude of stressful experiences, which subsequently will increase the probability of developing mental ill health. The "universality" of the association between disadvantaged socio-economic living conditions and mental ill health is corroborated by multiple research findings in various societies (e.g. Clark & Oswald, 1994; Cohen & Syme, 1985; Dooley et al., 1994; Horwitz & Scheid, 1999; Hudson, 2005; Johnson et al., 1999; Kessler et al., 1994; Lorant et al., 2003; Patel et al., 1999; Power et al., 2002; Seeman, 1996; Stansfeld et al., 1997; World Health Organization, 2001). The study indicated that immigrants' poorer social network, less favourable position on the labour market and poorer economic security were to a great extent able to account for their excess risk of mental ill health. However, the non-European immigrants retained a significantly increased risk for depression after adjustments for these factors had been made. One of the reasons for conducting the second study was actually to investigate whether certain immigrant specific-factors would be likely to account for this unexplained excess risk. A second reason was that we wanted to perform analyses on a different type of immigrant sample, which also included immigrants without Swedish citizenship and where those with poor mastery of Swedish were more likely to be participants.

The second epidemiological study (Paper 2) was based on a random stratified population sample of Finnish, Iraqi and Iranian immigrants. In this study numerous factors' associations with mental ill health were investigated. The socio-economic factors which were part of paper 1 were also part of this investigation, but others were tested as well. The properties of these additional

factors were much more heterogeneous in relation to the ones in the aforementioned study. Of particular interest were the immigrant-specific factors: socio-cultural adaptation, acculturation strategies and self-perceived ethnic discrimination. These factors may be linked to mental ill health through stress in various ways. Socio-cultural adaptation is mainly a resource that can be used for coping purposes, acculturation strategies are attitudes/behaviours which may increase or decrease the number, or the magnitude, of encountered stressful life events, and self-perceived ethnic discrimination is an experience likely to be stressful per se. Status incongruence and number of types of traumatic episodes were included in the multivariate models, which best can be characterised as non-minority/non-immigrant-specific factors of a non-culturogenic character. Essentially this study confirmed the former study's finding that socio-economic living conditions had a major influence on immigrants' mental health. The association observed in the former study could thus not be discarded because of the confounding effect of the immigrant-specific factor and the theoretically more plausible confounding effect of experienced types of traumatic episode. Among the immigrant-specific factors socio-cultural adaptation stood out since it predicted mental ill health the best. It could not, however, be statistically substantiated that self-perceived ethnic discrimination and acculturation strategies were independently associated with immigrants' mental ill health, irrespective of whether mental ill health was operationalised in terms of low subjective wellbeing or anxiety/depression symptoms (HSCL-25). The analysis showed, however, that high commitment to the separation strategy predicted symptomatic mental ill health, while there was a tendency that a high level of self-perceived ethnic discrimination predicted low subjective wellbeing

The Iraqi migrant women's own accounts of life in Sweden (Paper 4) provided some information about *how* resources could be involved in the stress process. Inadequate economic means were quite often reported as having a hampering effect of their ability to maintain or achieve valued outcomes. Just to give a few examples: the lack of means made it more difficult to go on holiday, visit relatives, buy modern clothing for their children and help out friends and relatives in even greater economic need. A good social network was often described as something valued in itself, but it was also described as instrumental with regard to self-confidence or as serving as an emotional and practical support when needed. The interviewed women's socio-cultural adaptation levels were relatively high, nevertheless some pointed out the lack of Swedish "commonsense" knowledge, like familiarity with characters in

Astrid Lindgren's books, and inadequate Swedish skills sometimes put them in somewhat awkward situations.

A striking finding in the second paper was that the Iranian and particularly the Iraqi migrant women had a high prevalence of mental ill health. The Iraqi women's excess risk in respect of a high symptom level of anxiety/depression as compared with the Finnish women could not be accounted for by factors included. It therefore seemed highly relevant and important to focus on these women's experiences in Sweden (paper 4), to search for factors that could help us to better understand why depression/anxiety appeared to be so common among these women. The qualitative analysis uncovered two factors that appeared especially plausible candidates: domestic disputes and intergenerational conflicts. It was further shown that both these stressful types of experience were amplified or sometimes even caused by unshared representation within the families. In a way paper 4 is thus an extension of paper 2. However, the empirical investigation in paper 4 also complements the epidemiological studies as it primarily focuses on how shared representations produced and transmitted in a foreign cultural context influence the development of stress. Hence, the ideal stress types focused on are the *non-minority/non-immigrant-specific culturogenic* and the *minority/immigrant-specific culturogenic* types, which were not studied in the other papers.

Both paper 1 and paper 2 utilise two outcome measures of mental ill health. One consists of symptom items (i.e. the Major Depression Inventory (MDI) in paper 1 and the Hopkins Symptom Checklist-25 (HSCL-25) in paper 2) and the other consisted primarily of subjective wellbeing items (i.e. the WHO (ten) Wellbeing Index). An interesting finding is that the unadjusted excess risk of symptomatic mental ill health was substantially greater for non-Europeans in relation to Swedes or Finns than when measured in terms of wellbeing (i.e. there were higher odds ratios). The implication of this is that the different types of instrument to estimate mental ill health will provide quite different pictures of how serious the mental health problems in various non-European immigrant groups are. In spite of this it should be emphasised that the studies showed that the risk factors are to a large extent the same regardless of which of the two instruments was employed. This observation is in line with a Swedish study in which three general ill health indicators were compared. That study showed that age, gender, occupational class, education and economic resources were related approximately in the same way to all three investigated indicators (Wikman et al., 2005).

In the first and second papers the cut-offs were used to indicate mental ill health. A possible explanation of the difference in odds ratios, described above, can theoretically be the cut-off values used. To test if the obtained variations in odds ratios were likely to be a consequence of this, supplementary linear regression analyses were performed, which means that the two mental ill health measurements were included in regression models as continuous variables. In these new tests the single predictor country of birth (Scandinavians coded as 0 and non-Europeans as 1 in the PART material and Scandinavians (Swedes and Finns) as 0 and Middle Easterners (Iraqis and Iranians) as 1 in the second dataset) showed markedly lower standardised regression coefficients in relation to wellbeing than in relation to the symptom based measurements. This suggests that the cut-offs used are not responsible for the observed variation in odds ratios.

The third study (paper 3) is different from the others as it deals with the issue of cross-cultural equivalence of mental health measurements and primarily has a methodological objective. Nevertheless, I believe it strengthens the credibility of the results obtained from the two epidemiological studies. The results from the third study suggested that both the HSCL-25 and the WHO (ten) Wellbeing Index were likely to generate estimates that would be comparable between Scandinavians and Middle Eastern immigrants. It is more debatable, however, to what extent these findings are applicable to the cross-cultural validity of MDI used to measure depression in paper 1. But given that MDI is made up of depressive symptoms fairly similar to the items in HSCL-25 and that the immigrant sample in study 1 has been more exposed and thereby more influenced by Swedish society, it seems plausible that prevalence rates produced by MDI are quite accurate for the subpopulations. The question why the two types of measurements produce different odds ratios when comparing Scandinavians with culturally distant groups thus remains unanswered. An alternative hypothesis is that the association between group belonging and low subjective wellbeing is "confounded" by some circumstance that make the non-Europeans *feel* less deprived than the Scandinavians who have the same living conditions. Some support for this hypothesis is provided by the fact that economic security, in paper 3, modifies the association between cultural group and low subjective wellbeing. The argument is that the immigrants from non-European countries have lower expectations regarding their economic situation as a result of harsher previous living conditions, making poor economic circumstances a stronger predictor for how Scandinavians evaluate their lives (i.e. wellbeing). A similar argument

has been proposed by Burnam et al. (1987) when trying to explain why Mexicans immigrated to the USA had less psychological distress than Mexicans born in the USA. This hypothesis, however, both needs and deserves a more careful examination.

7.1 Validity

There are some methodological issues in particular that need to be acknowledged and discussed. Most of them are general and of relevance to several of the papers, while others are more study-specific.

7.1.1 Cross-sectional study design

The datasets used are cross-sectional, which makes causal relationships difficult to establish. One could more or less successfully argue, however, that detected associations from cross-sectional samples in fact have particular causal directions. The temporal sequence of associations from cross-sectional studies may be supported in at least three ways. First, the casual directions between factors have been shown in studies using a prospective research design. Second, the cause is theoretically linked to the outcome, and the reverse causation is theoretically implausible or has empirically been shown to be marginal or non-existent. Third, the stipulated causal relationship is unlikely to be a consequence of confounding effects of non-considered factors.

In the epidemiological studies included in this thesis the temporal order of the predictors and the outcomes was quite often uncertain. It is for example likely that mental ill health to some extent causes poor social living conditions (the social selection mechanism) as well as being caused by such living conditions (the social causation mechanism) (Dohrenwend, 1975; Dohrenwend et al., 1992; Link et al., 1993). To better understand the causal influences of the investigated factors on migrants' mental health, prospective studies on the subject are preferred.

7.1.2 Misclassification

Misclassifications can either be non-differential (random) or differential (non-random). Non-differential misclassification refers to instances where the misclassification of a predictor is unrelated to the outcome status or vice versa, while differential misclassification refers to instances where the misclassification of a predictor is related to the outcome status or vice versa. Non-differential misclassifications will result in a weakening of the association. Hence the association between the predictor and the outcome can in these cases never be overestimated.

Non-differential misclassification of confounders can, however, result in an overestimation of an association. This could, for example, be the case concerning the unexplained excess risk (OR) of mental ill health for non-Europeans in paper 1 and Middle Easterners in paper 2. Differential misclassifications of this type may lead to either underestimation or overestimation of "true" associations (Greenberg, 2005).

A third possible type of misclassification, of a somewhat different character, has been labelled "common method variance" (Podsakoff et al., 2003; Kline et al., 2000). Such misclassifications occur when the outcome and the predictor are influenced by a common factor distorting the measuring accuracy of both variables, which can make it appear that the outcome and predictor are associated in spite of the fact that the association is actually "untrue". Social desirability responding may be a factor responsible for misclassification of this type, e.g. when respondents' answers are influenced by a perceived stigma or by what is believed to be politically correct (see further e.g. Podsakoff et al., 2003; Kline et al., 2000). It has moreover been suggested that associations based solely on self-reported data are more vulnerable to the "common method variance" bias (Kline et al., 2000).

The predictors in this thesis were probably to some extent non-differentially misclassified. This is on the other hand not unique to the studies which are a part of this thesis. All survey-based studies as well as register studies (but perhaps to a lesser extent) have the same problem. It should be acknowledged that non-differential misclassifications may have influenced some associations. There is no reason, however, for believing that this would have biased the study findings in any significant way. That differential misclassification or "common method variance" would be of concern is not likely either. One can

nonetheless assume that the acculturation strategies, which are partially based on attitudes, are more affected by the social desirability factor than the other predictors. That social desirability responding has biased the measuring of mental ill health does not on the other hand appear to be plausible, as it was assessed with multiple items in anonymous questionnaires. The "common method variance" bias therefore appears to be of no relevance in that case.

7.1.3 Specification errors

Specification errors are also a potential bias that can distort the estimation of investigated associations. Model specification is a theoretical question that should be informed by previous research findings. Two types of specification error that can occur may be of some relevance here. The first type is when confounding factors are not taken into consideration. The second type occurs when mediating factors are included in the prediction model. These two types of specification error will distort a factor's "true" association. However, inclusion of mediators may nonetheless produce accurate estimations of a specific factor's direct (unmitigated) influence on the outcome of interest. The two types of specification error are sometimes related. When trying to avoid the first type (under-adjusting), the risk of making the second type (over-adjusting) may increase. The reason behind such a trade-off situation is that predictors often can be assumed to simultaneously be both confounders and mediators. In other words there exists a reciprocal causation pattern between the predictors (see e.g. Cohen, 2003). Regarding the two epidemiological studies in this thesis, under-adjustment is more likely to have biased the first (paper 1) than the second (paper 2). A limitation of the first study could be that traumatic episodes were not adjusted for, which may have resulted in an overestimation of the effect of socio-economic living conditions on mental ill health. The second study is in comparison more likely to have been biased as a consequence of over-adjusting, because in that study more predictors that may be reciprocally causatively associated with one another were incorporated into the statistical models.

7.1.4 Attrition and generalisabilty

The non-response rates were substantial in both the datasets employed. In the PART study a thorough attrition analysis has been conducted, where it was

shown that respondents were more likely to be of female gender, over 50 years of age, have a higher income, have higher education and be born in the Nordic countries. It was also shown, however, that the odds ratios for all these factors were remarkably similar for respondents and non-respondents in relation to received psychiatric diagnosis in in-patient care, suggesting that analyses based on odds ratio associations would be fairly accurate (Lundberg et al., 2005).

The survey "Health among foreign- and native-born Swedes", like the PART study, involved answering a quite extensive questionnaire that focused on issues of a private and sensitive nature. These two aspects have probably contributed to the magnitude of the non-response rates observed in both surveys. In comparing the non-respondents' and the respondents' demographic profile in the Linköping survey, it was seen that those below 35 years old, not married and with low annual income were underrepresented, while gender and non-Swedish citizenship were not associated with non-participation. It is difficult to assess how this might have affected the generalisabilty of the studies based on this data material. Considering, though, that marital status and income are usually associated with mental health and that the immigrants who had experienced severe state prosecution prior to migration were probably less inclined to participate, the prevalence of mental ill health is likely to have been underestimated. On the other hand, all the quantitative papers deal with odds ratio associations, which are often fairly unaffected when samples are not entirely representative (Lundberg et al., 2005; Martikainen et al., 2007; Søgaard et al., 2004).

Finally, it needs to be pointed out that neither of the two datasets included the most recently arrived immigrants. Therefore the findings presented in this thesis may not be applicable to this population.

7.1.5 Trustworthiness

To evaluate the validity of qualitative studies in terms of concepts such as generalisabilty and misclassification is often inappropriate, as these concepts are based on certain ontological and epistemological assumptions that are usually of no relevance for qualitative inquiries (see e.g. Sale et al., 2002). It has instead been advocated that the validity of qualitative studies should concern the issue of *trustworthiness* (Lincoln & Guba, 1985; Graneheim &

Lundman, 2004). The following three concepts will be used for discussing the trustworthiness of the qualitative study in this thesis: *credibility, dependability and transferability* (see Lincoln & Guba, 1985; Graneheim & Lundman, 2004).

Credibility, for the qualitative study included in this thesis, mainly concerns the question of how appropriate the interviews and analyses were for accomplishing the study objectives. That the interviews were conducted in Swedish (except one where the person was interviewed with the assistance of an interpreter) may have introduced bias as it was not the participants' first language. It is likely that some of the participants' accounts would have been more nuanced if the interviews had been performed in their first language. The risk that the results are substantially biased as a consequence of this is slim, however. This because all accounts provided by the participants are situated in the context of an entire interview, providing the opportunity to interpret unclear accounts accurately. A second threat to the credibility may be that certain types of experiences will be intentionally excluded by the participants. To try to prevent this, all 11 participating women were interviewed by a female interviewer who was employing an emphatic listening strategy (Myers, 2000). It was believed that a female interviewer would make the women feel more comfortable and thus reduce the risk of topics being excluded or distorted because of uneasiness about opening up and revealing sensitive matters to a male interviewer. That gender relations turned out to be such a common theme in the interviews, probably made the interviewer's female gender particularly advantageous. The main analysis was not, however, performed by the interviewer, which could be considered a limitation of the study. To counter this potential weakness the first author of study four, who performed the main part of the analysis, carefully listened to each recorded interview and discussed them all in great detail with the interviewer. The credibility claim is also strengthened by the fact that several individuals were involved in, and were in agreement as to, the interpretation of the results.

One problematic task involved in qualitative research is to maintain the same focus during the data collection phase or for that matter the analytic procedure. Issues of this sort concern the dependability aspect of trustworthiness. An interview guide with questions intended to probe for stressful experiences after migration, structured around 6 areas – family, occupation, social life, relation to country of origin, relation with authorities and native Swedes, relation with fellow countrymen/women and other

immigrants in Sweden – was developed. This interview guide was consulted during each interview session to ensure that all these areas were adequately covered. However, the ambition was to use the probing questions as sparsely as possible, to avoid steering the interviews too much. The analytic procedure was facilitated by the use of a priori formulated questions in order to scrutinise all detected stressful experiences. The fact that such a systematic approach was incorporated in the analytic process strengthens, I believe, the trustworthiness of the study.

The eleven interviewed Iraqi and Iranian women were not intended to be representative. The purpose was rather to select the interview participants to enable us to detect a wide range of stressful experiences in Sweden. The study was an attempt to provide some insights that could be transferable to other individuals or groups. An important aspect to consider when pondering over a qualitative study's transferability is the composition of the participants. It needs to be emphasised that all the participants had lived in Sweden for five years or longer and only one of them appeared to suffer from posttraumatic stress disorder as a result of pre-migration events. If other selection criteria had been used, it might have generated rather different results, where other types of stressful experiences would be more prominent. Since this thesis is about how immigrants' post-migration living conditions influence and are associated with stress or mental ill health, it was more appropriate, though, to have a sample where the initial confusion of settling down in a foreign environment and pre-migration events were likely to be less dominant features of the accounts presented. When it comes to the transferability of the results, the way in which certain representations are involved in the evolvement of stressful experience is probably of relevance for all individuals with similar representations who are living in comparable circumstances. In fact it is hardly the case that any of the representations discussed in relation to the themes of stressful experience are unique to Iraqi and Iranian communities.

8. CONCLUSIONS

In this thesis it is shown that immigrants' mental health is a complex and multi-faceted issue. The immigrants' culture, post-migratory social and economic living conditions as well as factors linked to immigration or minority status are all of importance when it comes to understanding and explaining the high prevalence of mental ill health observed among immigrants in Sweden.

More specifically the major findings from the thesis suggest that:

The higher prevalence of mental ill health among immigrants in Sweden than among native-born Swedes may to a very high extent be accounted for by the fact that immigrants are more exposed to poor socio-economic living conditions.

Poor socio-cultural adaptation is independently associated with mental ill health, while neither a high level of perceived ethnic discrimination nor a high level of commitment to any of the acculturation strategies could be fully substantiated as an independent risk factor.

The WHO (ten) Wellbeing Index and HSCL-25 are instruments that seem to produce estimates that are comparable between Scandinavians and immigrants of Middle Eastern descent. This finding supports the notion that both instruments are cross-culturally equivalent and may be appropriate for use in multicultural Western settings.

Operationalisation of mental ill health in terms of symptoms of anxiety/depression is likely to show greater relative risks for non-European immigrants in relation to native-born Swedes than a wellbeing measurement would do.

To consider to what extent immigrants' stressful experiences are influenced by culture-specific representations and whether the experiences are immigrant/minority-specific appears to be a fruitful approach to comprehending stress among immigrants.

Non-universal representations that can be found in Iraq and Iran have the potential to amplify, or even be necessary ingredients of, certain types of stressful experiences among immigrant women from these countries. It also appears that the most long-lasting and difficult experiences for this group of women are a result of value conflicts between family members who have not internalised Swedish culture to the same extent.

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10. APPENDIX

When assessing factors in paper 1, 2 or 3 with more than one item the following items were used:

Major Depression Inventory (MDI) (paper 1)
1. Have you felt low in spirits or sad?
2. Have you lost interest in your daily activities?
3. Have you felt lacking in energy and strength?
4. Have you felt less self-confident?
5. Have you had a bad conscience or feelings of guilt?
6. Have you felt that that life wasn't worth living?
7. Have you had difficulty in concentrating, e.g. when reading the newspaper or watching television?
8a. Have you felt very restless?
8b. Have you felt subdued?
9. Have you had trouble sleeping at night?
10a. Have you suffered from reduced appetite?
10b. Have you suffered from increased appetite?

HSCL-25 (Paper 2 and 3)
1. Headaches
2. Difficulty falling asleep or staying asleep
3. Feeling hopeless about the future
4. Feeling tense or keyed up
5. Feeling lonely
6. Feeling everything is an effort
7. Spells of terror or panic
8. Feeling restless, not being able to sit still
10. Feeling fearful
11. Faintness, dizziness, or weakness
12. Worrying too much about things
13. Loss of sexual interest or pleasure
14. Feeling low in energy, slowed down
15. Thoughts of ending one's life
16. Trembling

17. Poor appetite
18. Crying easily
19. Feeling trapped or caught
20. Being suddenly scared for no apparent reason
21. Blaming oneself for things
22. Feeling blue
23. Feeling no interest in things
24. Nervousness or shakiness inside
25. Heart pounding or racing

WHO (ten) wellbeing index (paper 1, 2 and 3)
1. Downhearted and blue
2. Calm and peaceful
3. Energetic, active and vigorous
4. Waken up feeling fresh and rested
5. Happy, satisfied, or pleased with personal life
6. Well adjusted to life situation
7. Living the life wanted
8. Eager to tackle daily life and make new decisions
9. Easily handle or cope with any serious problem or major change in life
10. Daily life has been full of things that were interesting

Social support network (AVSI) (Paper 1)
1. How many persons do you know who have the same interests as you? (both at work and outside work)
2. How many persons who you know do you meet or talk to during an ordinary week? (do not include persons that you are unlikely to meet again, e.g. costumers in a shop)
3. How many friends can come home to you at anytime and feel at home? (persons that would not care if it was untidy or if you were eating)
4. How many are there, in your family and among your friends, who you can talk freely with?
5. There are persons in my surroundings whom I easily can ask for things (e.g. borrow tools or kitchen ware)
6. Apart from those at home, there are others I can turn to if I am in trouble, that I easily can met, that I trust and can get help from when I'm troubled.

Types of traumatic episodes (Paper 2 and 3)
1. Losing a relative through an accident or violence
2. Been in a serious accident
3. Been physically abused
4. Been raped
5. Been tortured
6. Been in prison
7. Been arrested by police
8. Experienced threat to one's life
9. Been exposed to acts of war
10. Other extremely disturbing events

Perceived ethnic discrimination (Paper 2 and 3)
1. How often do people dislike you because of your ethnic origin?
2. How often do people treat you unfairly because of your ethnic origin?
3. How often have you seen friends, with the same ethnic origin as you, being treated unfairly?

Integration strategy (Paper 2 and 3)
1. I think that people from my country should keep their own traditions, but also adjust to Swedish traditions
2. I might just as well marry a Swede as a person from my own country

Assimilation strategy (Paper 2 and 3)
1. I think that people from my country should adjust to Swedish traditions and not keep their own traditions
2. I would rather marry a Swede than someone from my country.

Separation strategy (Paper 2 and 3)
1. I think that people from my country should keep their own traditions and not adjust to Swedish traditions.
2. I would rather marry someone from my country than a Swede.

Social network (Paper 2 and 3)
1. Do you have a friend outside the family?
2. Do you socialise with friends?
3. Do you have a close friend?