

**SOCIAL AND PSYCHOLOGICAL ADJUSTMENT OF FIRST GENERATION  
POLISH IMMIGRANTS TO AUSTRALIA**

Marek Jancz

Submitted in the Department of Psychology  
University of Sydney, for the degree  
Doctor of Philosophy

Sydney, August 2000

## Acknowledgments

I would like to acknowledge the assistance and support of several people without whom this work would not be accomplished, and especially to: Prof. Helen Beh, Prof. Nick Tarrrier, Dr Brian Crabbe, my supervisors Prof. David Kavanagh and Dr Margaret Charles, and the Respondents.

I would like to also thank my little twin sons for their energy, patience and still wordless encouragement.

## Abstract

The primary aim of this research was to find predictors of psycho-social adjustment of Polish immigrants to Sydney, Australia. There were two sets of independent variables considered: i) personal characteristics, including: intelligence, extraversion, neuroticism, style of attribution and self-acceptance and ii) demographic information, consisted of: age, gender, length of residence, marital status, number of children, educational level, yearly income, immigration status (dependent vs. independent immigration) and residential status.

The dependent variables were social (adaptation and assimilation) and psychological adjustment. The hypotheses tested in the study were that each of these personal and demographic characteristics would be associated with adaptation and/or assimilation, and psychological well-being.

The two samples (both studies) were composed of more than 200 first generation Polish immigrants who arrived in Australia after 1980. No significant gender differences were found. The internal consistency and principal components structure of Adaptation and Assimilation were examined, and the measures were refined. There were employed standard measurements (i.e. GHQ, BDI, BAI, EPI, ASQ, Raven Matrices and WAIS-Vocabulary) and newly developed measures (i.e. the Social Adjustment Scale and the Self-Acceptance Questionnaire).

The general results suggested that psycho-social adjustment was best predicted by three pre-arrival characteristics (extraversion, education and self-acceptance), and post-arrival employment status and length of residence. There were, however, some differences in regard to the particular aspects of psycho-social adjustment. Better adaptation was meaningfully related to employment (income) and education in Study 1, and self-acceptance, employment and extraversion in Study 2; better assimilation seemed to be significantly predicted by education, age of arrival and length of residence (Study 1), and self-acceptance, extraversion, education and age of arrival (Study 2). Psychological [mal]adjustment was best indicated by globality and stability in attributing negative events (Study 1), lower self-acceptance and lack of employment status (Study 2).

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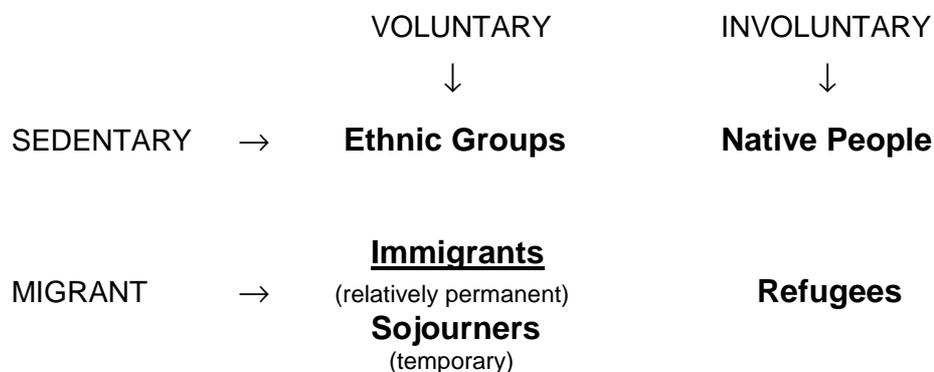
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## Chapter 1 - Introduction: Migration and research

### 1.1 (Im)Migration - a notion of the term

Motion, movement, dislocation and migration are characteristic of all *living* things, most spectacularly they are seen in birds and fishes but are common among all animals, including man, whose history is also a record of constant migration. The term *migrate* comes from the Latin *migrare* (ADH, 1991) and its meaning is described below.

The Oxford Advanced Learner's Dictionary of Current English (Hornby et al., 1987) defines the term *migrate* as 1) '[to] move from one place to another (to live there)' and 2) '(of birds and fishes) come and go with the season; travel regularly from one region to another'. *Migration* (or *migrating*) is [an] 'instance of this; [where] [a] number of persons, animals, etc [are] migrating together'. In the American Heritage Dictionary (1991) the verb *migrate* means: 1) 'to move from one country or region and settle in another' and 2) 'to move regularly from one region to another'. There are a few attributes of human migration separating or distinguishing it from its synonyms like *exodus*, *journey*, *movement*, *shift*, *travel*, *trek*, *voyage*, *wandering* (McLeod, 1989). The first and most important is the notion *to live there* or *settle*. It implies an anticipated and geographically distinctive but also permanent change of a place of settlement of a migrant. The second characteristic lies in the awareness of one's decision to change his/her existential location. In Berry's et al. (1987) review there are five different groups classified in regard to their *mobility* and the *voluntariness* of it:



Thus, the migrant is a *movable* person who *deliberately* and *consciously* decides to change his/her *place of living*. The common term *ethnic group* is used to refer to persons of subsequent generations after the original migration, who exhibit and

identify themselves with a social and cultural heritage of their ancestors. *Refugees*, like *immigrants*, are first-generation arrivals into a host region but the need to migrate has been forced upon them. *Sojourners* are temporary migrants who reside for a specific purpose (study, job, etc) and time period, and who intend to return eventually to their countries of origin (Berry et al., 1987). The term *natives* applies to the original inhabitants of a country, also to those people whose countries were formerly colonised. For example, in the 1950's, the North American Indians adopted the appellation *Native American*, and this term is now routinely used in much of the American press and in day-to-day contexts, by white, black and Hispanic Americans (Burchfield, 1996). Similarly, the native people in Australia are inhabitants of a country *ab origine*, i.e. from its origin (Aborigines/Aboriginals), even if they constitute only a minority group there, today. This bidimensional arrangement seems to also display a factual and clear picture of the social structure of immigrants' recipient/host country.

In the literature, then, both terms: *migration* and *immigration*, have been used interchangeably. More intuitively than by definition, migration refers to a movement within the same country, while immigration involves crossing borders. A newer approach, presented in the Hutchinson Encyclopedia (1996), makes a definite distinction between *emigration* and *immigration* by taking into consideration the perspective of movement: 'emigration is movement from a country [of origin]' and 'immigration is [more or less permanent] movement to a [host] country'.

The next section will present some of the predominant historical reasons for emigration of Poles from Poland, since the 18th Century, and give additional insight into the scope of such movements.

## **1.2 Migration of Poles: a historical background**

There are two large continents, North America and Australia, which in modern times have constituted a destination for most immigrant movements from all over the world. It can be said that these two lands are settled by international migrant groups

(Sporakowski, 1993) that have begun arriving there since the 17th Century, in the case of America, and since the 18th Century for Australia. In the beginning, these settlements were called *colonisations* and were associated with expansive governmental policies of several European countries interested in broadening their own territories. The development of these newly-settled lands was relatively fast because of their natural resources and the use of modern and already tested technology, above all, from Europe. To this day the two North American countries, USA and Canada, represent the most advanced technology, industry, and (technocratic) standard of living. In round figures, these three countries occupy eighteen per cent of the earth's land surface with six per cent of its population. The GNP per capita, accounted in 1977, ranked the United States as 6th out of 125 members of the United Nations, Canada as 9th, and Australia as 13th (van den Berghe, 1983). The Concise World Atlas from 1995 (7th Ed.) placed USA on 5th position, ranked Canada as 11th and Australia as 18th. The three countries together consume one-third of the world's energy. Therefore, they are the most important areas of migrant destination and not surprisingly, this holds true for Polish emigrants as well. At this juncture, a few significant historical facts should be mentioned which will reveal the background of the massive emigrations from Poland.

Up to the 18th Century, Poland was one of the largest and most powerful countries in the world. Between 1772 and 1795, because of internal affairs (weak governmental body) and international intrigues, Poland was partitioned among three new political and military powers in Europe: Prussia, Austria, and Russia (Kaluski, 1984). This occupation lasted for more than a hundred years until 1920 when, after the fall of Tsarist Russia in 1917, the Poles regained independence. Between September 1939 and May of 1945, Poland was once again occupied, this time by Nazi Germany. After World War II, it became one of the East-European Communist countries, politically and economically completely dominated by the USSR. The most important attempts at obtaining independence in 1956, 1968, and 1980-81 coupled with the continuous underground fight with the intruder, after almost 200 years of political, economic, and cultural slavery, gave the Polish nation this dreamed-about result, which was the 1990 free and fair election of a new, independent and democratic Government, with the first post-war Polish president.

### 1.2.1 Poles in America

Polish migration to the United States began in the middle of the 17th Century (Sandberg, 1974). Haiman (1939) distinguished its three different periods:

- the years between 1608 and 1776 as *colonial immigration* which included adventurers and soldiers of fortune (it is worth mentioning that the first officially recorded Polish settlement in the United States took place in Virginia as the Jamestown Colony, in 1607 (Greer, 1974);
- the years 1776 - 1865 as *political immigration* of aristocrats, the banished, and political refugees; and
- 1865 - 1939 as *economic immigration*, which, above all, consisted of Polish peasants.

To Haiman's three periods, one should add the six-years-long period of World War 2 and post-war fifty years.

The number of Polish immigrants in the United States has been differently estimated by different researchers. Sandberg (1974) quotes the Rosten's statistics from 1960 in which Polish immigrants were found to be ten per cent of all Catholics born in the national population that was approximately 4,200,000 people, plus 300,000 Polish-American Roman Catholics. By Bogue, in 1959 (Sandberg, 1974), the number of Polish-Americans was 25.7% of all Roman Catholics in the U.S. (54 million), i.e. - 5,400,000; plus Protestants and other unaffiliated Polish immigrants; altogether about 6 million people. Quoted also by Sandberg, in 1957 Dr. Korczynski estimated Polish-Americans at 7 million, and Wytrwal (1969) at 10 to 15 million, including the fourth and fifth generations.

Based on the information above and accounting for the last 30 years, a reasonable minimum assessment of the number of Poles and Americans with Polish origin, living in the United States, would be about 10 million. This is, of course, a minor part of the American society but quite powerful economically and politically (e.g. Zbigniew Brzezinski, the former US Secretary of State in 1980's). Up to the late 1960's, there were five Polish daily newspapers and several periodicals, giving altogether approximately 750,000 items edited throughout a year. Also at this same time there

were an estimated 831 Polish Roman Catholic parishes, 553 Polish elementary schools, 71 high schools, 6 colleges, 34 Polish hospitals and 150 other Polish institutions throughout the United States (Wytrwal, 1969).

### **1.2.2 Polish immigration to Australia**

The first British settlers to Australia arrived in 1793. Fifty years later, the annual intake of immigrants exceeded 1,000 people. In 1851 Australia's free migrant population reached 438,000 and doubled in less than a decade, after the discovery of gold (Martin, 1981). By 1900 there were 2,914,000 Australian-born and 360,000 overseas-born permanently living there; in 1947 there were 6,835,000 and 7,440,000 (respectively); and 1981 Census indicated 11,412,000 and 3,004,000 (respectively), plus about 160,000 Aborigines (Dugan & Swarc, 1987). Most arrivals were of British and Irish origin (1,135,000), but also from Southern (657,000) and Western Europe (280,000), New Zealand (177,000), Eastern Europe (163,000), South-East Asia (132,000), Middle East (92,000), and South America (39,000).

Altogether, Australia had 14,926,800 citizens in 1981 (Martin, 1981) and receives thousands of immigrants and refugees each year. The annual intake in the late 1980's and early 1990's ranged from 120,000 to 150,000 people (*Sydney Morning Herald*, May 29, 1990) and continued on a similar level till mid '90s.

The first Polish political refugees reached Australia after the 1830 rebellion against the regime of Tsar, but their number was quite small. The next upheaval was in 1863 and thus, the next wave of refugees (Paszkowski, 1962). Kaluski (1985) states that between 1880 and 1914 several million Poles were forced to emigrate from Poland to the US, Canada, Brazil, Germany, and France but there is no explicit information about immigration to Australia. *The Report of the Polish Task Force to the Ethnic Affairs Commission of NSW* (1983a) also does not give any confirmed data about Polish settlement in Australia of that time. It is pointed out only that there were approximately 3,240 Polish-born, many of them of Jewish origin. More specific information comes from the post-war period. Martin (1981) states that between the late 1940s and early 1950s Australia accepted large numbers of immigrants, both British and non-British Europeans, and agreed to accept 'displaced persons' (about

170,000), especially from Eastern and Central Europe, under an arrangement with the International Refugee Organisation. In 1947 alone the total number of post-war immigrants to Australia reached 68,588 people (the Report, 1983a). By 1951, there were 17,147 Poles there, together with their Australian-born children, which was 14.8% of all Net Migration to Australia. Then, up to 1956, the so called *Stalinist Era* made any emigration from Poland impossible, yet the number of Poles in Australia had increased to about 36,000 males and 21,000 females (Census, 1954). Average of 1961/66 Census data placed Poles in Australia as the eight largest immigrating group: 36,423 males and 24,519 females (Stenhouse, 1971). The final big wave of political refugees to this country was noticed in 1981 and 1982, after the *Solidarity* movement, when approximately 9,000 new Polish immigrants arrived.

In 1981, the Polish-born population in Australia reached the figure of 59,441 persons (Kaluski, 1985; Census 1981). Sussex and Zubrzycki (1985) stated that the size of the Polish migration to Australia since World War II (in 1983) could be measured in six-digit figures. Their estimation is based on updating Price's results (Price, 1979) of his

Year	I's	II's	III's	Total	Australia
<b>1978</b>	57439	36137	41042	134668	14263078
<b>1981</b>	69000	42470	44042	155512	14854861
<b>1983 e*</b>	80000	50000	50000	<b>180000</b>	15396950
<b>%</b>				1.17	100.0

\*estimated

Source: Price (1985).

I's, II's, III's - first, second and third generation immigrants

calculations of the first or overseas-born, the second (the first Australian-born), and the third and subsequent Australian-born generations. The difference between both calculations comes most probably from the fact that Price included all groups of immigrants: born in Poland (Polish, Polish-Jewish, and other mixed), overseas-born (Polish and Polish-mixed), Australian-born (Polish, Polish-Australian, Polish-overseas-born); and those of first, second, and subsequent generations, while Kaluski counted only *direct immigrants*, i.e. first generation immigrants: those Polish-born in Poland.

As for 1979, after the Germans, Italians, Greeks, Yugoslavs and Dutch, Poles were the sixth largest non-English ethnic group in Australia, contributing somewhere

between 0.7% and 1.0% of the Australian population (Sussex & Zubrzycki, 1985). The 1986 Census quotes the number 67,691 for the all Polish-born immigrants to Australia (Bureau of Immigration Research, 1991).

An average picture of Polish immigrants in Australia from the period 1947-1979 shows them as ambitious and hard working. More than 80% of Polish families who settled in between those years possessed their own houses, had no debt and represented a similar or even better life standard than the average Australian (Kaluski, 1985). 3,000 to 4,000 Polish-Australians have graduated from Australian universities. Polish communities in all states have established Polish churches, schools and Polish centres in which they have kept their tradition and national customs (see Appendix A). There are a few ethnic radio stations (eg. 2EA, 2000FM in Sydney) and television (SBS) programmes, several Polish publications available in all bigger cities in Australia, and Polish artistic and educational organisations (listed in Appendix A). In 1982-3 Macquarie University (Sydney) received a special Commonwealth Government grant to establish courses in Slavonic Studies (with quite an extensive Polish Section). These courses were also available to students from other parts of Australia (the Australian National University in Canberra and the University of Adelaide) and could optionally be a part of their degrees.

More precise data about educational and occupational qualifications of Poles in Australia and Tasmania, was given by Pakulski [from his own research in 1981 and compared with the 1976 and 1981 Censuses (1985)] and elaborated by the Australian Bureau of Statistics (from 1981-1982 and compared with four other migrant groups). Most Poles shown there (Appendix A: Tables 1-3) were highly educated professionals [the majority of them (45.3%) with Master degrees in all areas of engineering]. These people were able to reach Australia because of a specific policy in job preference at that time and such a trend (higher educational and occupational levels of immigrating Poles to Australia) will be further shown in this research.

### **1.3 Studies in Cross-Cultural Psychology**

The literature associated with cross-cultural studies has been built up since the beginning of the century. In psychology, the areas of research and investigations have

covered not only comparisons between culturally or ethnically based psychological or psychosomatic symptoms and their diagnoses (differences and similarities), but also issues related to the radiation and assimilation of ethnic characteristics from one society to another. These mutual influences have existed as long as humankind, however today, when migrating, immigrating, travelling, studying and working abroad have become daily experiences, cross-cultural studies are becoming substantially more important. Human adaptation, adjustment, acculturation and assimilation with all their implications have been explored from several different perspectives, such as ethnic identity, attitude, perception, language, economic status and so on, and assessed with varying degrees of scientific legitimacy (Berry & Annis, 1988).

The following chapter will contain references to several studies on migrants to show the purpose of major scientific investigations for cross-cultural psychology, throughout the last sixty years. An accurate recognition of the changes in philosophical and scientific approaches, which have taken place during that period, is essential for the meaningful understanding of the aims of this study. It needs to be pointed out that those studies are expected to serve as an exemplification of what has already been done (what kind of scientific trends dominated which period of time and what outcomes were reached) in general terms rather than perceive it as an attempt to carry out an exhaustive review all the research produced to date. Literally thousands of studies concerned with immigration have been conducted, from simpler analyses through to much more complex investigations, and an exhaustive examination of such studies lies beyond the scope of this research. The scientific analyses chosen here are those which contributed most to structure the present investigation in predicting social adjustment of a specific ethnic group of immigrants. Thus, there will be references to studies which helped to generate the design of this research and to establish methodological tools, which allowed the execution of its primary aims. There will also be discussion of some research conducted on Polish immigrants so as to indicate the relative rarity of such explorations (within this particular ethnic group) and a need for this or other similar studies.

### **1.3.1 Early investigations**

A large number of studies on immigrating people have been carried out to investigate their health status as compared to local or host residents. Doctors had already become interested in this topic in the last century, but for a long time their studies have been poor methodological descriptions of a specific phenomenon rather than serious research (Salvendy, 1983). The first scientific investigation of the association between illness and the immigration process was conducted by Odegaard in 1932, on Norwegian immigrants to the US. Odegaard tried to prove that the change of settlement seriously influenced the settlers' health. The problem is that as an assessment of his respondents' well being, Odegaard used *hospital admissions rate*, which in later years appeared to be methodologically rather an ambiguous method to record the state of people's health. This deficient method aside, Odegaard's research provoked many further studies on immigrating people all over the world. Some of the examples of such research will be presented below.

Several studies were conducted on university students. In 1961 Still (quoted by Furnham, 1981) described different health symptoms in foreign students in comparison with local (British) students. While only 14% of the British sample showed evidence of psychological problems, among foreign students studying in England, the results were as follows: Egyptian - 22.5%, Nigerian - 28.1%, Turkish - 21.0%, Iraqi - 28.1%, Iranian - 29.8%, Indian - 17.6%, and Pakistani - 18.7%. There is nothing mentioned about the statistics the author used (if any) to assess the significance of the differences but the major trend is shown: all the foreign students displayed significantly more psychological difficulties than their British counterparts. Also quoted by Furnham, Ward distinguished in 1967 a particular *foreign student syndrome* which was characterised by 'nonspecific physical disturbances, vague[ness], a passive withdrawn interaction style, and unkempt appearance', and Gunn (1979) who found 'higher incidence of digestive, dermatological, and sexual problems' in overseas students. Alexander et al. (in 1976, cited by Klinberg, 1980), also claimed that psychological maladjustment occurred more frequently among foreign than native students. They based their research on Asians and Africans studying in the US, and the results indicated that the overseas students were a high-risk group. These students could be described as losing their status, seeking psychological help only after the exhaustion of all other resources, and with psychosomatic and emotional problems.

Roskies et al. (1975) also indicated a close relationship between gender and illness, suggesting that 'women were more sickness prone than immigrant men'. Melikian and Karapetian (1977) studied Lebanese Armenians students' assimilation into the majority Lebanese Arab culture and also found sex differences. Their results suggested that women tended to change more and assimilate into the culture at a faster rate than men. It must be noted, however, that when earlier gender differences in the native population were analysed, similarly ambiguous results were obtained:

Malleon (1954) - there were no gender differences in mental health between women

and men studying at the London University;

Darey (1957) - female students examined at the Cambridge University were diagnosed to be of poorer mental health than male students;

Kidd (1965) - British women students, studying at the Edinburgh University, displayed better health than men.

Other researchers focused mainly on immigrants' health problems. Engelsman, Murphy, Prince, Leduc, and Demers (1972) analysed mental health of immigrants to Canada. They measured depression, anxiety and psychosomatic complaints, and correlated them with some demographic variables. The results revealed that female immigrants and those with low income suffered significantly more health disturbances. Weissman and Myers (1978) collected data twice on the same U.S. urban community sample (New Haven), in 1967 and 1969. The general result indicated that approximately 16-18% of the population, age 18 and over, at any one time had substantial depressive symptoms. Most subjects, however, recovered over a period of two years. The rates of depression were more frequent among younger respondents, females, separated and divorced, less educated, unemployed, those with lower income and lower social class, and non-white respondents. When the data were analysed in regard to the country of birth or religion, the differences appeared not to be significant in both periods of data collection. The most important difference found by Lasry (1977), in his study on North Africans to Canada, was the level of anxiety, which was significantly higher in immigrants than natives, but this difference gradually diminished with time. The author also indicated a great deal of variation between the results reached by other researchers, but in general they also confirmed

many more psychosomatic symptoms exhibited by immigrants (North Africans and Latinise) than by North Americans. Cohen (1980), who studied mental health of Latin immigrants to U.S., showed that stress level of more recent immigrants was four times larger as compared with established, ethnically the same community group. A high level of stress was expressed by respondents who also reported health problems.

The above and several other similar earlier studies on students, immigrants and samples chosen from bigger populations which included immigrants, have led to a general view that immigrant populations display a plausibly higher risk of psychological complaints. Even if migration itself does not directly initiate the development of mental illness, it involves enormous socio-cultural, political and environmental changes which imply adjustments on the part of an immigrant. These adjustments may be reflected in worsened mental health. Furthermore, these psychological abnormalities seemed to occur more frequently in the first part of the adjustment process which often proves to be the most stressful period, and often relates to self-satisfaction of the immigrating person, his/her gender, socio-economic status, cultural (culture) distance, length of residence, and so on. Taking similar research and their outcomes into account, some scientists tried to compose theoretical constructs which could explain the mechanisms of the causation of higher mental disturbances among immigrating people. The hypothetical constructs, known as social causation theories, were conceptualised in the 1950s' and 1960's and are described below.

The ***social isolation theory*** suggested that a severe limitation of contact and communication with the larger society causes immigrants a great stress in the performance of their social roles, that they normally played in their own culture, and it might directly or indirectly contribute to the onset of mental illness. The feelings of loneliness, alienation and desocialisation among immigrants were found to be associated with higher rates in schizophrenia (e.g. Jaco, 1970; Weinberg, 1966).

The ***cultural change theory*** postulated a disrupting effect of cultural change on the psychological orientation of immigrants undergoing acculturation. Early proponents of this approach (e.g. Papajohn & Spiegel, 1971; Derbyshire, 1969; Abel & Hsu, 1949) argued that the adoption of core host-culture values disorganises the cognitive,

affective and evaluative modes of immigrants' behaviour, which earlier served them as their behavioural guides and which appear to be fairly inefficient under the new cultural circumstances. Such a continuous adoption of unfamiliar values (higher acculturation) may then result in a greater psychological distress (due to the loss of psychological security) and as a consequence it may stimulate higher rates of mental illness.

Another hypothesis, the *goal-striving stress theory*, focused on a particular socio-psychological aspect of immigrants' adjustment problems: their unfulfilled aspirations. The advocates of this model (e.g. Parker, Kleiner & Needelman, 1969; Parker & Kleiner, 1966) argued that such unfulfilled aspirations of immigrants add up to the already existing psychological distress, due to culture change, increasing the likeness for mental disorder.

The fourth theoretical paradigm, the *culture shock theory*, suggested that the immigrants from more culturally different societies undergo greater difficulties with their adjustment (thus, greater psychological distress) than those with a similar cultural background (Oberg, 1960). The culture shock model also points out the mediating power of length of residence: the shorter the immigration period, the greater the shock and predisposition toward mental illness. On the other hand, as immigrants become more adjusted to their new social milieu, the incidence of mental disturbances may diminish.

Apart from viewing immigration from slightly different or even conflicting perspectives, all these theories seem to have one thing in common: the stress accompanying immigration process, which seems to be responsible for immigrants' psychological problems. This stress could be propelled by a disturbance in the performance of social roles played by immigrants in their home countries, or by the disruption of their psychological orientation, or by cultural distance between home and host societies, being also amplified by unfulfilled aspirations. The next sub-chapters will describe later approaches, which emerged from testing and redirecting the hypotheses above, and will show other scientific efforts in understanding the social versus psychological adjustment relationship.

### **1.3.2 Turning point in cross-cultural research**

The 'turning point' in cross-cultural studies is a metaphoric expression and it does not refer to a particular study. It rather implies that the new scientific investigations redirected the ways researchers viewed social adjustment within a new culture. Several studies conducted in the 1970's and 1980's, reported that migrating people did not suffer more psychological disturbances than non-migrants. Some of these studies will be quoted below.

In 1977, Murphy suggested that insufficient attention was paid to the immigrants' culture of origin, their cultural characteristics. Murphy pointed out that many researchers have been interested, above all, in post-arrival factors which are related to the immigration process in the host country, completely ignoring the original cultural (pre-arrival) characteristics of immigrants which could be, in many cases, just as important in predicting social adjustment. To support his view Murphy quoted several studies, including his own from 1961 and 1965, in Israel and Singapore, and in Canada. This research indicated the impact of cultural diversities on contrasted results, obtained in earlier investigations. The study on alcoholism between Scottish and Irish immigrants to England, and native-born British subjects may be shown as an example of such a contrast. The results suggested that the (Scottish and Irish) immigrants' rate of alcohol consumption was significantly higher than the British rate. However, when compared to the average consumption of alcohol in Scotland, Ireland and Britain, the result ceases to be of great importance - the consumption of alcohol in Ireland and Scotland was much higher than in Britain.

Roskies et al. (1975) also conveyed that there were no more individuals reporting illness in their immigrant sample (Portuguese immigrants to Canada) than would be expected in any other population: immigrants did not constitute a high risk group for illness. The other results revealed negative correlation between life changes and length of residence, indicating that most of adjustments take place in the period immediately following arrival, with a strong relationship between illness and gender (immigrant women were more sickness prone than men).

Cochrane et al. (1977) compared several different ethnic groups with the native-born subjects living in England and Wales, in relation to the mental hospital admissions for the year 1971. The results indicated, e.g. that:

- i) Irish and Scottish (also Polish) immigrants showed very high rates of mental hospital admissions in comparison with the native-born;
- ii) Americans and West Indians had rates nearly equal to the natives;
- iii) immigrants from India, Germany, Pakistan, and Italy had much lower rates than the native-born subjects.

As Cochrane pointed out, the results varied and they depended on a type of mental illness, the immigrants' country of origin, age and gender. For example, the figures for Scottish in Scotland showed considerably higher admissions to mental hospitals than for native born in England and Wales; the very elevated rates of suicide among Poles living in England and Wales could be explained by the relatively older age of the Polish population (mostly Polish WW2 veterans) and the fact that suicide rates are higher in older age groups. Cochrane added that the above differences might also depend on a differential self-selection of emigrating groups related to their economic conditions in the countries of origin, and not only to the difficulties of immigration per se.

The next two studies were very close to those of Murphy and Cochrane, and they tried to explain these contradictory outcomes. The first one, made by Simoes and Binder (1980), supported the thesis of no differences between the mental health of immigrants and natives, and was additionally compared with a sample from the immigrants' country of origin. The authors examined the mental health of one hundred Portuguese workers in the Canton of Zurich (Switzerland) and compared this with the two control groups: Portuguese workers in Lisbon (Portugal) and Swiss subjects. The following conclusions were drawn:

- i) there were no special characteristics of the immigrant workers, predisposing them to experience more psychological problems, and associated with their migration process;
- ii) the Portuguese immigrants' mental health was significantly better than that of a

sample of workers in the home country (Lisbon); and  
 iii) there was no difference in mental health status between the immigrant sample (Zurich) and the host population (Zurich), except obsessional-compulsive traits scale  
 for males and paranoid thoughts for female.

The results above seem to confirm a suggestion that immigration does not need to cause psychological discomfort and mental illness.

The second study also concerned the mental health of immigrants as compared with that of the host society, and was published the same year by Brewin (1980). He analysed Indian and Pakistani immigrants to the UK and compared them with a similar sample of white, native-born British. No difference was found between the Asian and English samples in their health status. Brewin concluded that less frequent psychiatric treatment could be a function of different referral practices on the part of [British] general practitioners and that problems with communication between Asian immigrants and English doctors could disturb their diagnoses, because of cultural differences in the presentation of illnesses.

Regarding the thesis of the wide impact of the first immigration period on immigrant mental health, in terms of culture shock, there has been a variety of research, including the legendary study of Adler (1975). Adler named the frustrative experiences of people who met interpersonal, ethnic and socio-cultural problems, *transitional experiences*, and compared them with likely difficulties by people in their own countries. In Adler's opinion, culture shock is not only a form of alienation, causing problems in adaptation and adjustment, but it also includes an attempt to survive and acclimatise in a second culture environment (biological, social, cultural). It means that 'such transitional experiences can be a source of higher levels of personality development' in terms of *positive disintegration*, formulated by Dabrowski in 1964. In such a context, migration has positive and negative consequences, and it was Adler's base to construct a multiphase model (as an extent of pattern proposed by Lifton in 1969; Yushikava, 1980) in which an immigrant goes through a few stages of adaptation: from an initial *contact*, throughout *disintegration* and *reintegration* stages, to *autonomy* and final *independence*. Adler's view has led to

the concentration on the widely understood culture shock, and personal and subjective characteristics responsible for adaptation process, in relation to each of its phases.

Sommer and Lasry (1984) exemplified Adler's suggestions, taking into account also personal characteristics. The main interest of this study was personality structure in connection with stressful life events and pathological reactions of migrating people. The author examined French-Canadian workers, coming from the same ethnic group, divided into four basic groups, according to the length of residence, and in relation to physical and mental health. Concluding, Sommer stated that there were no special personal characteristics protecting immigrants against stress caused by immigration, and that the MMPI scores - used for personality measures - were generally within the normal range. However, the high stress/low illness immigrants were less introvert than average and the high stress/high illness group had higher scores in Depression and Hypomania, which suggested overtension and anxiety. Sommer also distinguished a pattern of neurotic depression among immigrants suffering psychological problems, and concluded that personality seemed to play an important role in adaptation process (as do cognition and coping skills carried out from pre-immigration and developed during post-immigration periods).

The main aim of this review has been to demonstrate the ways and trends in which researchers have analysed relationships between the process of psychological adjustment and the acculturative stress caused by it. Those researchers tried to find different variables, strictly demographic at first and then more personal, which could be considered as responsible for more comfortable, easier and more fulfilling settlement in another country. Two such variables were the introduced with culture shock theory length of residence and immigrants' original behavioural patterns. Other results suggested a negative selection, bias in referral practices or personality structure as being at the core of immigrants well-being within their new societies. The next chapter will deal with researchers' efforts to find more of the determining factors of migrating people's mental conditions.

### **1.3.3 Cross-cultural research in the 1980's and 1990's**

By the mid 1980's, research on immigrants, sojourners and refugees, from all over the world, was so extensive, that it became necessary to organise such a knowledge, to make it more readable, to frame it for the purpose of better inter-cultural understanding. At first, the researchers' interests and research outcomes showed their natural concentration around certain issues related to immigration (e.g. health, ethnicity). Then, a need to establish mutual communication between researchers provoked debates on conceptual definitions of terms. Comparative analyses of studies conducted under similar conditions began to emerge. Methodological tools used in cross-cultural studies were widely discussed and improved. Researchers started to organise face to face cross-cultural meetings, which contributed to the better flow of information between different schools. The 1990's added another advantage - the internet. As a communication base, the internet has given researchers instant access to most of the studies already done or being actually conducted, from nearly every part of the world. The growing public interest in mental health had its continuous impact on the relationship between immigration and mental illness. Some of the researchers opted for explanations organised under *selection theory*, which assumes that people who decide to emigrate, do so on the basis of their already poor mental condition. *Social causation* theorists argued that poorer immigrants' health was the effect of isolation, low socio-economic status, stress and culture-shock. All of the above were still looking for health determinants. The next few studies will demonstrate the utilisation of some new ideas and tools (measures) in cross-cultural research, in the 1980's and 1990's.

Several such studies were conducted on **refugees**, the most disadvantaged of all migrating groups. By definition, refugees are forced to leave their own countries and are rarely prepared to cope with cultural and social changes in a recipient country. Thus, the risk of psychological disturbances in this group seems to be highest. Pfister-Ammende (1980), for example, reported that Tibetan refugees frequently showed psychological reactions usually developed shortly after unexpected or even shocking experiences, and which belong to the category of *traumatic neuroses*. The author went even further and distinguished three neurotic types: 'uprooting neurosis', 'internment neurosis', and 'flight reaction', relating them to the stress situation and its duration. Clark, Callahan, Lichtszajn and Velasquez (1996) compared refugees from Guatemala

and El Salvador with Mexican immigrants. The expected higher psychopathology for refugees from war-torn countries (Guatemala and El Salvador), as compared to immigrants, was not found. All three sub-groups reported feelings of alienation and isolation, numbing, ambivalence, apathy, loneliness and marginality, depression (42%) and avoidance of social activities.

Another often studied migrating group are **sojourners** (e.g. students, employees abroad). In Australia, Oei and Notowidjojo (1990) compared Australian with overseas students on depression and found that overseas students were significantly more likely to experience moderate to severe clinical depression and loneliness than Australians. The authors suggested it was the expectation of difficulties in study and younger age which were responsible for higher depression scores in overseas students. Padilla, Wagatsuma and Lindholm (1984) tried to find personal characteristics predictive of acculturation of Japanese psychology students in the U.S. and they found that [higher] self-esteem, [higher] acculturation and [later] generational levels were the best variables predicting [lower] stress. Stress, anxiety and their correlation with acculturation was also studied by Ghaffarian (1987), on a group of Iranian college students to U.S. The findings confirmed acculturation to be positively related to mental health and revealed that the lower acculturation level among female students resulted in their higher stress and anxiety. Ho (1987) tested 2nd generation Australian-born students on the *Australian Ethnocentrism Scale* and found that [higher] ethnocentrism was correlated with [better] English fluency, older age, [better] employment history and [better] health. Better educated and older students were also more independent and more efficient in supporting themselves. The effects of acculturation and acculturative stress on self-esteem of Hispanic adolescent boys was the main aim in study by Gil, Vega and Dimas (1994). The key findings were that foreign-born Hispanic reported higher exposure to acculturative strains than their U.S.-born counterparts, and despite lower exposure, the U.S.-born appeared more vulnerable to low self-esteem. The authors also found it was family pride that mediated the relationship between acculturative strains and self-esteem, and this pattern held regardless of acculturation level.

The third group of migrating persons are **immigrants**. The examples below show how such investigations were conducted. Van der Stuyft, de Muynck, Schillemans and Timmerman (1989) correlated level of acculturation of Moroccan, Turkish and Italian immigrants to Belgium, with their utilisation of primary health care. They found that out of nine underlying aetiological types, only the levels of psychological and social problems distinguished immigrants from native population: while Belgians had almost twice as many problems of psychological origin, immigrants suffered four times as many social problems. Of the immigrant patients, males showed better acculturation levels: especially young men in contrast to older women.

Golding and Burnam (1990) found that the U.S.-born Mexican Americans scored significantly higher on depression than those born in Mexico. The U.S.-born group were also characterised by low educational attainment and low acculturation level, but represented higher job status and income. The authors suggest that factors responsible for such outcomes might be selective emigration, i.e. immigrants might possess better coping skills, and/or selective return of depressed immigrants, or it might be generational differences. One year later (1991), Golding, Aneshensel and Hough confirmed, that U.S.-born Mexican Americans reported more somatic and negative affect symptoms than did the Mexican-born.

Hurh and Kim (1990) investigated psychological and socio-cultural adaptation of Korean immigrants residing in the Chicago area, U.S. Length of residence was treated here as a variable representing assimilation and ethnic attachment and appeared to be predictive for depression, psycho-physiological impairment and life satisfaction for male immigrants. Married and employed immigrants were less depressed and more satisfied with life than non-married. Depression (CES-D) was generally three to four points higher than that of white Americans.

The relation between unfulfilled goals (regrets) and current goals, and psychological adjustment and life satisfaction were the main focus in a study by Lecci, Okun and Karoly (1994). The results show that the number of regrets was negatively associated with current goals and was positively related to perceived difficulties in attaining them: higher number of regrets were positively related to depression scores.

Landrine and Klonoff (1996) investigated African Americans' acculturation against their physical and mental health. The level of acculturation accounted for statistically significant amount of the variance in psychiatric symptoms among black Americans. Acculturated subjects tended to blame themselves for problems (Taking Responsibility coping style), whereas traditionalists tended to deny problems (Escape-Avoidance and Distancing coping styles).

Other divisions of cross-cultural studies may be designed by a specificity of research objectives rather than the immigrations status (refugee, sojourner, immigrant). Some researchers tend to focus on a particular concept or aspect of migration, such as ethnic identity or the economic aspect of assimilation. A few such studies, well represented in contemporary cross-cultural psychology, are described below.

In social psychological literature **cultural** or **ethnic identity** is defined as being 'that part of individual's self-concept that derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership' (Tajfel, 1981). The sense of ethnic identity emerges when an individual clarifies for him/herself his/her relationship to ethnicity/culture and learns to place him/herself within its socio-cultural context (Hutnik, 1991). Such a view define ethnic or cultural identity as a subjective process, a matter of choice and degree, with its three inherent components: cognitive, evaluative and emotional. Other scientists additionally suggest that, because people usually form only partial identifications with their socio-cultural group(s), a single ethnic label may be inaccurate and multiple ethnic identities may emerge and coexist (Liebkind, 1989). This notion was also proposed within Berry's (1988, 1984) acculturation perspective, as a multi-dimensional structure of ethnic identity, and echoed in Boski's (1992, 1988) research on Poles in Canada, both described earlier in this research (p.29 and p. 23, respectively). The examples of research presented below show contemporary approaches in studying ethnicity (ethnic/cultural identity).

The first study, conducted by Stoller (1996), presented a multidimensional model in the measurement of ethnicity, utilised on second- and third-generation Finnish Americans. Rather than viewing ethnic identity as a subjectively transplanted sense of

nationality, Stoller interpreted it as a variable cultural construct grounded within specific historical contexts, with differing modes of expression and levels of intensity. In such a view, ethnicity gives multiple choices for immigrants: they may choose whether to identify, the importance of such an identification, and the form of its expression. The availability of options from which immigrants tend to construct their cultural identity also include their location within host social structures, their geographical location, and historical time. Stoller's construct (multidimensional model) generated twelve sub-dimensions of ethnic identity, which were then grouped into four high-order dimensions. The overall results showed ethnicity as an important component in the construction of self for all immigrants and indicated the two most significant sources of its variation: age (older immigrants were more fluent in Finnish, lived in ethnic neighbourhoods and had ethnic partners) and generation immigration (while ethnic awareness of older immigrants fitted a parabolic pattern, third-generation format resembled rather a logarithmic function). Other correlated variables, such as economic status and gender, appeared to be less influential in the construction of self, than earlier hypothesised.

In another study, Jasinskaya-Lathi and Liebkind (1998) searched for the content and most dominant predictors of ethnic identity. The subjects were Russian adolescent immigrants in Helsinki (Finland). Ethnic identity was assessed by a modified from Phinney (1992) ethnic identity measure, which examines its bicultural content. There were also four other measures used as predictors of ethnic identity and they covered such components as ethnic and linguistic self-identifications, language use and proficiency, and cultural orientation of contacts. The results of this research revealed two clearly independent dimensions in the identity measure, one reflecting typically Russian and the other typically Finnish ethnic identity. Both linguistic and ethnic self-identifications were related to the extent of and value the immigrants gave to their Russian and Finnish identity, even if they did not differ in their proficiency in the Finnish language. It was the extent to which the immigrants used the respective language in their every-day life and their cultural orientation (contacts) that were found to be direct predictors of the degree of their ethnic identity. There were also gender differences found in relation to family relations' variables and ethnic identity, implying a strong continuity in family culture from fathers to sons.

The examples of studies on ethnic identity presented above are of a quite different nature: one (Stoller's) searching for an operational framework (model) which could make possible the conduct of other studies on other ethnic/cultural groups, and the other one (Jasinskaya-Lathi & Liebkind) looking for an internal structure of cultural identification and plausible predictors. In both cases, the researchers stressed the absence of a consistent and systematic approach in empirical research on ethnic identity, and presented models which might open an avenue to better clarification (through research systematisation) of the subject. Ethnic or cultural identification is often linked with cultural assimilation (acculturation). These two terms seem to be very alike and have been used interchangeably in research; for example, measures assessing both ethnic identity and cultural assimilation may contain similar or even the same items. Both may be viewed from the perspective of an individual or a group, or seen from the position of migrants or members of a recipient country. As Phinney (1990) stated in her review on ethnic identity 'there is no widely agreed-on definition of ethnic identity', nor is there a widely agreed-on construct on cultural assimilation, either. Different psychological, social or anthropological schools represent a variety of approaches, usually regulated by the aims these schools wish to achieve and/or propagate. Perhaps the most suitable distinction was given by Boski (1994), who anchored cultural identity 'in self-definitions, thoughts and affects based on knowledge and evaluation of one's cultural heritage', defining acculturative attitudes (Berry's modes of acculturation, i.e. cultural assimilation) as 'judgments on desirable modes of behaviour'. In such a view, cultural identity seems to be a *deeper level* variable ('A person cannot change his/her cultural identity at will even if he/she wished it strongly and aspired for something different'), while acculturative attitudes appear as less binding. This is a very fragile differentiation, especially as it has evolved from Berry's acculturation construct, which will be discussed later in this research.

Cross-cultural research on **economic adaptation** commonly refers to immigrants' employment conditions in their recipient countries. The most developed nations, which are the most popular migrant destinations (e.g. USA, Canada, Australia), usually have very strict selection criteria for immigrants who wish to settle down

within their borders. These criteria also include employment-related factors (such as specific vocational preparation, occupation, or job experience), so that the large percentage of immigrants is selected on the basis of their high educational attainment and occupational qualifications. There are, however, a few barriers which migrating people face in joining the work force immediately after arrival (e.g. recognition of credentials or technical language efficiency), which then have an impact on both their social adjustment and psychological well-being. As Starr and Roberts (1982) concluded in their research on Vietnamese, those better socially adjusted were also more satisfied with their employment conditions, in general. Similarly, Aycaan and Berry's study on Turkish immigrants in Montreal, Canada (1996), showed high correlation between economic, socio-cultural, and psychological adaptation. In the latter case the authors used specific measures, where: a) *economic adaptation* was assessed by income, the level of correspondence between the intended and achieved financial goals, and self-reported accomplishments in economic life; b) *psychological adaptation* was measured by the Taft's (1986) Satisfaction with Life Scale and satisfaction with living in present conditions as compared to those when living in Turkey, to fellow immigrants, and to native-born Canadians; c) *socio-cultural adaptation* was evaluated by the level of difficulties in managing everyday situations using the Socio-Cultural Adjustment Scale, developed by Searle and Ward (1990). This study also revealed that together with the rise in social and work-related competence the before mentioned barriers seem to diminish over time. Another study, by Reitz and Sklar (1997), also from Canada, shows a different use of economic assimilation. This time the authors made ethnic comparisons in relation to the pace with which seven different cultural/racial groups of immigrants (East and West Europeans, Chinese and West Indians) adapted within the Canadian job market. *Economic assimilation* was assessed by the level of education (foreign and domestic), occupational status and income, while *ethnic attachments* were measured by ethnic identification, ingroup friends, religious affiliation, ethnic language use and non-British accent. The conclusions the authors reached suggested that economic assimilation was negatively affected when 'foreignness' was most pronounced, very selectively for European and universally for racial minorities immigrants.

These two studies above show how differently economic adaptation may be utilised in cross-cultural research. The measurement of this variable may also be operationalised in different ways, dependent on the goals of the researchers. In the Aycan-Berry case, for example, income (as a part of the economic adaptation measure) was calculated by a specially developed scale, where immigrants were asked to indicate the level of financial ease in engaging in certain activities (such as going on vacation or making some investments) and in purchasing certain products (e.g. a car or computer), which made possible comparisons between monthly salaries in the original and host countries. In the second example (Reitz-Sklar) only Canadian earnings were taken into consideration, as it was an immigrant groups' comparison.

All studies cited above were examples of a variety of approaches in analysing the relationship between immigration and social and psychological adjustments. Different scientific disciplines, different ethnic groups and different variables were investigated, extending our knowledge not only to the better understanding of immigration experience per se, but also to the more 'reality reflecting' conceptual frameworks and methodologies utilised in cross-cultural research. Some of such studies were carried on or involved Polish immigrants and the next chapter will present such examples.

#### **1.3.4 Studies on and involving Polish immigrants**

There is a variety of reports on Polish immigrants, however a great part of these descriptions are of a sociological nature: studies of Polish communities settled all over the world, their cultural organisations and their achievements in all areas of human activity. There are several documentary descriptions which show Polish immigration movements: patterns of settlement, and some well-known Poles in North America (Renkiewicz, 1982; Babinski, 1977; Wyrwal, 1969, 1977) and in Australia (Kaluski, 1985; Sussex & Zubrzycki, 1985). Similar materials are created each year on the basis of national censuses, and Polish catholic and cultural organisations' reports. There are also psychological, mostly comparative, analyses which more or less scientifically portray some distinctive characteristics of the Polish nation abroad. A short review, to indicate the general directions of such investigations and to validate the importance for conducting this study, is presented below.

The first main area of such cross-national investigations tended to identify similarities and/or dissimilarities between Poles living in Poland and Polish immigrants abroad. A few studies will be quoted as examples of such comparisons:

Two studies examined patterns of alcohol intake and hypothesised different preferences in the alcohol consumption between American and Polish university and college students. Engs et al. (1991) revealed that Polish university students consumed twice as much alcohol (strong drinks/spirits) and eight times as much wine as American students. In the second case [Forgays et al. (1992)] adolescents boys and girls, from Poland and the U.S., were tested on alcohol use and the results were correlated with personality traits (Trait Personality Inventory, EPQ, and Type A Behaviour Scale). Forgays noticed that alcohol users on a regular basis (about 30% in each sample) displayed significantly more anger, nonconformity, and impulsiveness.

Ruzyllo (1986) analysed positive and negative characteristics of Poles attributed by Poles (in Poland) and Polish immigrants (additionally by foreign adults who had never been to Poland). He concluded that attributions held by a native population (Poles in Poland) were based on current information and therefore were more reliable, while foreign attributions were made on more historical data.

The second type of cross-cultural research identified the relationship of some variables between Polish and other ethnic groups in a third country. Mostly, there were studies on assimilation into a host society and its various consequences. Three such studies, as examples, are shown below:

Cochrane (1977) investigated admissions to mental hospitals in England and Wales by place of birth, age, gender and the type of mental illness. The findings showed significantly poorer mental conditions of Polish immigrants (both males and females) in the case of schizophrenia, paranoia and affective disorders when compared to native-born, but similar (health conditions) to West Indies and Irish Republic immigrants. In the case of Poles, such high rates of admissions were partly accounted for by the age structure of the Polish sample.

Other interesting research was conducted on several ethnic groups (including Polish immigrants) by J. Krupinski and his colleagues in Victoria, Australia (1967, 1973, and

1984). As an epidemiologist, Krupinski investigated relationships between mental health and the processes of immigrants' assimilation. The author(s) concluded that the question as to which comes first, the problems with assimilation or the psychiatric illness, should be considered as a two-way relationship. For example, Schaechter (1965) stated that a great part of those immigrants who were admitted to mental health institutions (in- and out-patients), especially during the first three years of their stay, had an established mental illness prior to migration. Krupinski also found that the incidence of mental disorders was lower in immigrants who arrived there in their later age than those who came during the prime of life. There were also significant gender differences in the incidence of schizophrenia as a function of length of residence.

Baker (1988 and 1989) studied Polish and Czech refugees to the US. The author examined cultural differences, political views, employment and language efficiency as 'most significant factors of assimilation/adaptation'. The results indicated that the immigrants experienced a smooth transition to life in the US, and that their ethnicity did not play a significant role in their new lives (cultural similarity with Americans was found to be helpful in aiding assimilation). The most prominent negative factor in assimilation was unrealistic expectations about the strength of the US economy.

The third class of cross-cultural analyses presents results obtained from within particular immigrant samples. A couple of such studies on Polish samples are quoted below:

Between 1960 and 1965, Taft and Johnston studied 60 Polish Catholic immigrant families to Perth (Australia). The authors had two general purposes: i) to assess assimilation levels of Polish adults and their children, and ii) to find assimilation differences in these children with regard to their age and sex. The interview schedule was based on a 5-point Likert-type scale and measured levels of external and subjective assimilation, and indicated the presence of cultural tensions between parents and their children. The results demonstrated significant differences in assimilation between immigrant generations. Thirty six per cent of the children felt themselves to be Australians as compared to only six per cent of their parents. There were no differences between boys and girls, or between various ages of children. The earlier mentioned cultural tensions were highest for lower assimilated parents,

particularly in the case of non-assimilated mothers and their highly assimilated sons. The general conclusion of the authors was that ethnic cultural pressures emanating from parents on their adolescent children had only a limited impact on their assimilation (Taft & Johnston, 1965).

Boski (1988, 1991, 1992) examined the national self-identity of Polish immigrants in Canada. His sample of 61 Polish-Canadians, in majority living in Ontario Province, was divided by gender and three generations (recent immigrants who had come to Canada since 1980 versus older immigrants who arrived in the late 1940s versus second-generation born in Canada from Polish parents). To estimate *criteria identity*\* Boski assessed responses from personal relevance to fifty symbol-words (22 Polish, 19 Italian, and 9 Japanese/ /Nigerian, and representing for example historical dates, foods, sport teams). For the measurement of *correlated identity*\* he used the Q-sort technique, asking immigrants about their responses toward certain statements on behaviours and beliefs in values. The main purpose was to investigate 'the scope of stability and change in identity characteristics over time'. The results show that self-identity was positively correlated with length of residence and differed across generations: older and second-generation immigrants identified themselves more as Canadians than Poles.

The amount of descriptive analyses conducted on or including Polish immigration seems to be minor and there are mostly sociological studies and descriptions of a rather simple nature. Some of them explored immigrants' ethnic identity (Zaleski, 1992;), mental health (Aroian, 1990; Cohen et al., 1988; Harari et al., 1988; Knab, 1986; Krupka-Matuszczyk & Leksowski, 1984; Burvill et al., 1983; Burvill, 1973; Mostwin, 1976), assimilation (Kunz, 1971), and adaptation (Scott & Scott, 1985), cognition and immigration reality (Marszal-Wisniewska, 1989), social-class status and psychological functioning (Kohn et al., 1990). There are no available studies on Polish immigrants, acquainting people (who would like to take a risk and emigrate) about the complexity of the process of immigration and the core characteristics (demographic and personal) needed by such potential immigrants, firstly to make a decision about emigrating and then to adjust into a new society. Thus, there is an excellent opportunity and a great need to conduct such an investigation. The next chapter will specify several variables, which were indicated by other researchers and which seem

to contribute significantly to a better understanding of social and psychological adjustment's difficulties.

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\* Tajfel's (1981) distinction between *criteria* and *correlated* (dimensional) attributes.

## Chapter 2 - Adaptation, Assimilation and their predictors

The concept of *adaptation* varies and depends on a specific approach represented by different disciplines of science. Anthropologists used to discuss the phenomenon *acculturation*, sociologists - *assimilation*, and psychologists usually spoke about *adaptation*, *adjustment* and *ethnic identity*. This chapter will examine these variations and will show how science tried to categorise them.

### 2.1 Adaptation and Adjustment

Both the terms *adaptation* and *adjustment* have been described in a very similar way. The Oxford Advanced Dictionary defines the verb *adjust* as “to make [something] suitable or convenient to use” and the term *adapt* as “to make [something] suitable for a new use, need, situation, etc.”, emphasising a gained state [well-adjusted] as a living “in harmonious relations with other persons” (Hornby, 1987, pp. 10-11). Statt (1990), writing about *adjustment*, asserts that it is a phenomenon “similar to adaptation, especially in a social context but usually implies a greater purpose and awareness on the part of [an] individual faced with environmental demands” (p.3).

*Adaptation* defined by Chaplin (1985) means “structural and functional change that enhances the organism’s survival value” (p.11). *Adjustment* has two descriptions; (i) as the “establishment of a harmonious relationship with the physical and social environment”, putting less emphasis on skills but extracting the idea of social accommodation; and (ii) as a “variation in the activities of the organism in the order to surmount a barrier and satisfy needs”(p.12) - which expresses exactly the same connotation as that found in adaptation, implying a problem-solving situation in order to fulfil an individual’s needs that cannot be met by habitual means (in such situations behaviour is varied until a proper response brings satisfaction). In both explanations the role of the active behaviour of individuals (in order to satisfy their needs, being still in an adequately balanced relationship with their environment) is strongly emphasised.

The problem with interpreting the meaning and the differences between these terms lies in the method by which these phenomena are being analysed. Clarification could be accomplished by employing the ‘activeness-passiveness’ dimension in regard to the subject’s action. From this point of view, people who adjust seem to act more in a direction to satisfy environmental demands. In other words, for the purpose of living comfortably and in harmonious relations with their milieu, they change mostly their own behaviour. It could also be seen as a more ‘extraverted’ process. Adaptation in this context would be a more dynamic activity in which people (for the same purpose) perform in both directions, converting their own behaviour and influencing dynamically their environment. It could be considered as an active process in which people fulfil external (environmental) demands and actively benefit from being a part of the environment.

Keeping with this idea but expressing a more developed psychological view on adaptation, is the definition proposed by Jarosz (1986), who describes it as a change of behaviour making it possible for an organism to live and operate competently in a certain environment. Using this definition people tend to fulfil their needs by using the means best suited to their realisation, in which their attitudes and other characteristics of personality manifest themselves. People who possess such a developed and shaped personality tend to actualise their own aims, being able to simultaneously tune to their social and physical environments:



The definition above includes all the important elements of the adaptation process, emphasising structural and functional changes. While the personal attitudes and individual traits of adapting people are revealed, i.e. learning/adopting additional means by which to accomplish the actualisation of important needs in a new situation, they achieve a satisfactory harmony with an environment. Therefore, a mutual satisfaction (personal and environmental) could be considered to be a function of the level of individual adaptation.

If one would like to indicate a process in which people perform in the direction of achieving their own goals, which would constitute adaptation, but also fulfil host society members' expectations (by establishing comfortable relationships with them), one would have to consider adding and analysing other terms, such as assimilation and acculturation. These two terms are the subject of the next section.

## **2.2 Assimilation and Acculturation**

In 1921, Park and Burges described *assimilation* as a process of interpretation and fusion in which persons and groups acquire the memories, sentiments, and attitudes of other persons, and, by sharing their experience and history, are incorporated with them in a common cultural life. Nine years later, Park added the main aim of an assimilative process that was reaching a common national existence of people of different racial and cultural origins. B. Berry (1951) described *assimilation* as a process whereby groups with different cultures come to have a common culture. An equally simple interpretation was given by Cuber, in 1955, who defined *assimilation* as a gradual process whereby cultural differences (and rivalries) tend to disappear. The authors considered values, memories, sentiments, ideas, and attitudes as the principal components of assimilation.

Both definitions cited above seem to describe only one aspect of the assimilative process, i.e. *acculturation*, "comprehending those phenomena which results when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups" (Redfield et al., 1936, p.149).

Different views on the *process of assimilation* were shown by other theorists. Herbart has identified assimilation with "the interpretation of new facts by assessing them with existing knowledge". Thorndike claimed that assimilation is "the animal's utilisation of a learned response in a new situation where the old and new have elements in common" (both cited by Chaplin, 1985, p.36). For Piaget "assimilation is the process of taking in new information and interpreting it - sometimes even distorting it - to make it agree with the available mental organisation" (Summers et al., 1989, p.427). All three interpretations seem to stress the process of learning, and could

be associated with assimilation. In Jung's interpretation assimilation is "the alteration of an object or situation to fit the individual needs" (also quoted by Chaplin, 1985, p.36). In this case assimilation is treated as a part of the adaptive process, in which individuals try to find solutions in order to reach their personal goals.

Regarding the postulates above and taking into consideration the phraseological connotations from the Collins Thesaurus (1989), both terms, acculturation and assimilation, could be defined as follows:

*Acculturation* - the part of an assimilative process (Gordon, 1964), which concerns the acquisition of cultural patterns of a new society caused by being in a continuous, first-hand contact (Redfield et al., 1936).

*Assimilation* - the most extended term, containing three basic elements such as: (1) learning and acquiring new and characterised host society responses; (2) unreversible changes related to the acquiring or absorbing cultural, historical, and intellectual patterns of a new, host society; and (3) becoming a full-right social member of that society as a final result of the process.



Assimilation could then be defined as the processes of growing in a host society (and a new environment), using learned responses adopted from this society and finally becoming a member of the society with a common and harmonious view (idea) of the whole sphere of the member's life (physical/environmental, psychological, and social).

There are other theoretical propositions, which terminologically stand in contrast to the definitions quoted above. Berry (1988, 1984), constructed four modes of acculturation, which arise from answers given to two questions (quoted below) and were designed to determine immigrants' attitudes toward their acculturation:

Question 1: 'Is it considered to be of value to maintain

		cultural identity and characteristics?	
		'YES'	'NO'
<u>Question 2:</u> Is it considered to be of value to maintain relationship with other groups?	'YES'	<b>Integration</b>	<b>Assimilation</b>
	'NO'	<b>Separation</b>	<b>Marginalisation</b>

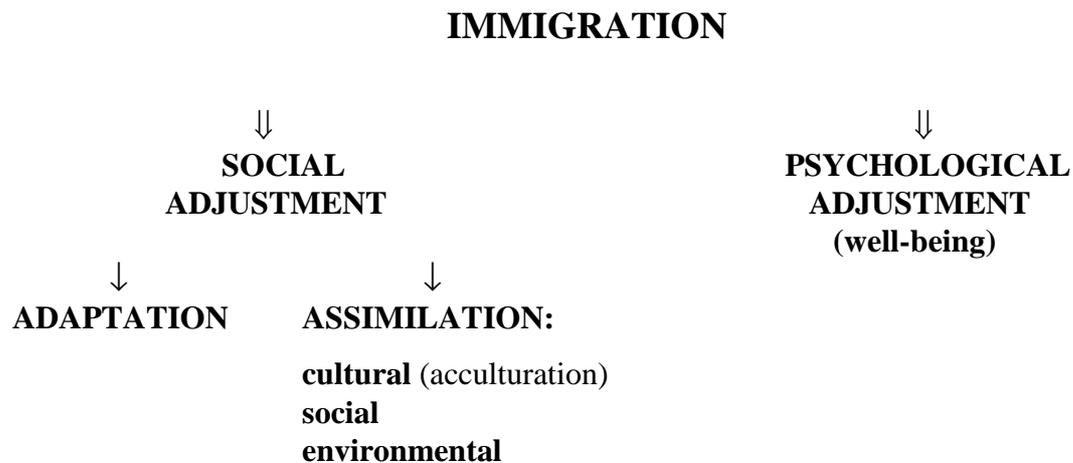
In such a view, *assimilation* becomes one of the aspects of acculturation process, where an immigrant willingly acquires the cultural heritage of a host society, refusing the cultivation of his own cultural identity. In the case of *integration*, an immigrant refines his own identity by cultivating traditional values (of the country of origin) and incorporating host society cultural traditions. Then, there is *separation*, indicating only partial willingness to assimilate in a host country, and *marginalisation*, where the identity of an immigrant seems to be lost in the process of immigration (such a person neither feels as belonging to his ethnic group, nor as a member of a new society). Consequently, different attitudes toward acculturation produce different kinds of responses, and on both sides: from the perspective of an immigrant and as viewed by a host society. The division above has already achieved scientific recognition, but it may be questioned, especially when combined with Berry's description of migrant groups (pp. 1-2). By definition, an immigrant is a person who decides for a permanent settlement in another country (usually, a country of his/her choice) and who does it voluntarily. There seems to be a logical conflict between this description and the existence of the acculturation mode of marginalisation: why would an immigrant be expected to reject both his/her original and the host cultures at the same time? Or maybe such a dual rejection belongs to a different psychological area, not necessarily being a result of maladjustment? If we can not reject a possibility of answering 'yes' to the last question, then we may strip that division from the mode of marginalisation, and there will be three subgroups left: assimilation, integration or biculturalism, and separation. Then, these three subgroups can be expressed (back) on one continuous scale:

- high assimilation (where an immigrant leans towards 'being alike' members of host culture)
- medium assimilation (integration or biculturalism, where both cultures are appreciated)

- low assimilation (or separation, where identification with original culture is of a primary importance to an individual).

Such a simple and continuous rather than dichotomised scale seems to be more useful from the methodological perspective. It also honours the efforts of earlier scientists, who introduced and developed the concepts of assimilation, acculturation and adaptation, leaving less place for terminological ambiguity. As a confirmation of this type of analysis, there is another division of assimilation, proposed by LaFromboise et al. (1993). The authors utilised a 'ratio of absorption into a new culture' as a differentiating element and distinguished its four alternative levels: *assimilation* (relinquishing of culture of origin in favour of the dominant culture), *acculturation* (assimilation with some important aspects of the culture of origin retained), *alternation* (where the dominant culture is added to the culture of origin) and *multiculturalism* (biculturalism). It also is a simple, one-dimensional model, reflecting reality in a more credible fashion.

On the basis of the analysis above and for the purpose of this research, we will use the term *socio-psychological adjustment*, to include its social as well as psychological component, as both these terms seem to indicate facets of the same and simultaneously occurring process. In such a sense, social adjustment would serve as an indicator of *adapting within* and *assimilating to* the new circumstances of existence, during the process of immigration. Psychological adjustment would refer to *psychological* (emotional) *well-being* of immigrants. Such a model follows the theoretical achievements of several researchers and it seems to adequately describe the existing reality (next page). Adaptation and assimilation represent here the social aspect of adjustment within/to a new society. The psychological side of immigration includes emotional costs immigrants pay during the process and personal growths learned from that experience (well-being).



The model presented above was chosen to be representative for this research.

### **2.3 Measurements of Social Adjustment**

The measurement of the processes of social adjustment (assimilation and adaptation) of immigrants could be seen as one of the largest and most problematic issues in the field of cross-cultural psychology. As was seen in the introductory chapter, different researchers have employed various techniques to assess the level of adaptation, assimilation or acculturation. Each selection was dependent on a specific professional and theoretical approach and on the time in which the researcher's study was conducted. The researchers who based their work on sociological and anthropological criteria tried to cover the whole area of assimilation or acculturation. Other researchers worked only on a particular aspect, for example immigrants' subjective satisfaction, which could be regarded as the domain of adaptation or psychological adjustment (well-being).

The three techniques described below and used in determining social adjustment levels of immigrants, show how the perception of the process of adaptation, assimilation and/or acculturation have been evaluated over time: from a rather simplistic and formal four-item measure to much better organised, bicultural assimilation/adaptation scales:

Chance's measure (1965) included: (1) amount of formal education, (2) knowledge of English, (3) salaried employment, and (4) access to mass media (radio, newspapers, magazines).

Scott and Stumpf (1984), in their Scale of Adaptation covered: *satisfaction* with life circumstances, friends, community, possessions, environment, recreation, family, housework, national government, schools, job; *subjective well-being*, measuring general health (mainly depression), anxiety, task competence, interpersonal comfort and morale; improvement in and importance of most of the factors above; and English vocabulary and fluency.

The assessment made by Hurh and Kim (1990) was composed of 62 questionnaire items and measured: (1) the *degree of acculturation*, i.e. English proficiency, exposure to the host country mass media, and the proportion of immigrants' first names changing to a name familiar to the residents of the host country; (2) the *degree of assimilation*, by rate of close relationships and rate of participating in the host society voluntary associations; and (3) the *degree of ethnicity*, by the rate of participating in ethnic voluntary associations, rate of close relationships in an ethnic group, exposure to the ethnic mass media, and exposure to the ethnic culture.

The development of such measurements of adjustment, however, did not focus exclusively on the assessment of immigrants' assimilation and/or acculturation. For example, Berry and Annis (1988), and also Myambo and O'Cuneen (1988) assessed the level of adjustment using two methods: (1) the General Adjustment Score, which included questions about culture shock, family situation, work roles, identity, friendships, and perceived control; and (2) the Subjective Satisfaction Scale, which covered one's satisfaction with his/her present lifestyle. The first measure could generally refer to the previously given description of assimilation and the latter seems to express the adaptive aspect of immigrants' social adjustment.

Other researchers measured immigrants' attitudes toward their acculturation (Berry, 1988, 1984; Patrige, 1988), as the responses to two questions which constitute the modes of acculturation (quoted earlier); the degree of differences between immigrants and members of the host society in their value structures (Ghaffarian, 1987; Hull, 1979; Feather, 1975); preferences in: food (Landrine & Klonoff, 1996; Ghaffarian,

1987; Padilla, Wagatsuma & Lindholm, 1984; Smither & Rodriguez-Giegling, 1982; Taft, 1965), clothes (Van der Stuyft, de Muynck, Schillemans & Timmerman, 1989; Taft & Johnston, 1965), language (Gil, Vega & Dimas; 1994; Hurh & Kim, 1990; Van der Stuyft et al., 1989; Ghaffarian, 1987; Padilla, Wagatsuma & Lindholm, 1984) and music (Ghaffarian, 1987; Padilla, Wagatsuma & Lindholm, 1984; Cuellar, Harris & Jasso, 1980).

These examples are the basis for the selection of indicators of social adjustment in this study. Thus, preferences in food and clothing (very distinguishing aspects of daily living for Polish people), social contacts (including the 3-item Social Relation Index; Berry, 1988), and English fluency were chosen to assess assimilation. Subjective satisfaction with living in Australia and personal perception of employment/job market in Australia were selected to measure adaptation. The next will report some of immigrants' personal characteristics and a set of demographic variables, shown to affect the adjustment process.

## **2.4 Predictors of Social Adjustment**

The literature suggests several factors as having significant impact on migratory adjustments. There also are several divisions or groupings of them. One of the simplest distribution could be found in Salvendy's research (1983), who divided such factors into those having negative and positive consequences in social adjustment. The negative factors which affect the process were:

- one's previous psycho-social maladjustment;
- large socio-cultural gap between the society of origin and the host country (cited from Murphy, 1974);
- change in socio-cultural status (quoted from Abraham, 1966);
- troubled economy in the host country;
- unrealistic expectations (Salvendy, 1983).

The positive factors were:

- adequate information and preparation prior to immigration;
- mastery of the language of the host society;

- existence of a large local ethnic community (cited by Salvendy from Kranz, 1969; Mintz & Schwartz, 1964).

Other divisions grouped such factors into characteristics with which immigrants emigrate (**pre-arrival**, as seen from an investigator's perspective) and those which describe the conditions of their immigration (**post-arrival**). Both pre-arrival and post-arrival variables may be of **personal** and **demographic** nature. Higher *educational status* is one of the most often quoted pre-arrival determinants, significantly increasing the chances of successful adjustment (Lipset, 1960; Adorno et al., 1950). Kolker and Ahmed (1980) suggested that education is associated with 'psychological openness to change, tolerance for ambiguity and cultural relativity, and capacity for self-detachment [...] which [...] enable an individual to preserve his self-image in the face of temporary degradation of status, which accompanies immigration' and in result, with an individual's higher ability to learn new roles of the host society and to internalise its values, adjustment becomes easier and more rewarding. Also Chance (1965) found that more educated immigrants had fewer emotional problems. Saran (1980) indicated that those who were highly educated and possessed higher professional qualifications adapted relatively easily: 'they did well in schools, had steady jobs, owned property and their social and organisational relationships were well developed'. Similar conclusions have been reached by other researchers (Berry & Annis, 1988; Patridge, 1988; McGuire & McDermott, 1987; Fong, 1974, 1963). Other authors (Coelho, Yuan & Ahmed; 1980) distinguished *independent* from *dependent* immigration. Independent immigrants would be those who have no close relatives in the host country and have to go through a rigorous selection process. Dependent immigrants have close and familiar relationships, and usually are invited and sponsored by their relatives. It was assumed that the acquisition of information about the host culture prior to immigration would affect the adjustment process and the results verified this assumption: independent immigrants appeared to be more knowledgeable about their new country and had fewer difficulties in integrating into the new society, than dependent immigrants (e.g. only 26% of the dependent immigrants, compared to 85% of the independent ones, were able to communicate in English). Other pre-arrival determinants often included *age at arrival*, *gender*, *occupation*, migrants' psychological traits (such as *extraversion*, *locus of control*,

*levels of anxiety, self-esteem, flexibility, ability to cope with difficulties*) and *intellectual capacities*, while the post-arrival determinants usually covered *age* at the time of conducting research, *length of residence, wage employment*, and the actual host-governmental policies toward immigration.

Both pre-arrival and post-arrival (of personal and demographic nature) variables were repeatedly shown as having significant effects on immigrants' adjustment: socio-cultural and/or psychological. Several of these determining factors will be utilised as independent variables in this study: they may become supportive in a fuller understanding of the immigration process per se, and helpful in finding the best predispositions and social conditions that promote smoother transitions from one society to another.

If one wanted to use social adjustment (adaptation, assimilation) as a predictor of mental health (psychological or emotional well-being), the third dependent variable of this thesis, described earlier in the chapter on Studies in Cross-Cultural Psychology, it would be difficult to determine such a one-directional impact. The question, whether the difficulties of immigration cause health problems or the opposite, or which is the function of which, seems to be of a more complex nature. It would be, therefore, most reasonable to treat both areas (social and psychological adjustment) separately, assessing their impact on each other, and then draw some conclusions about the relationship between them.

## **Chapter 3 - Model of the research**

### **3.1 Implications for research**

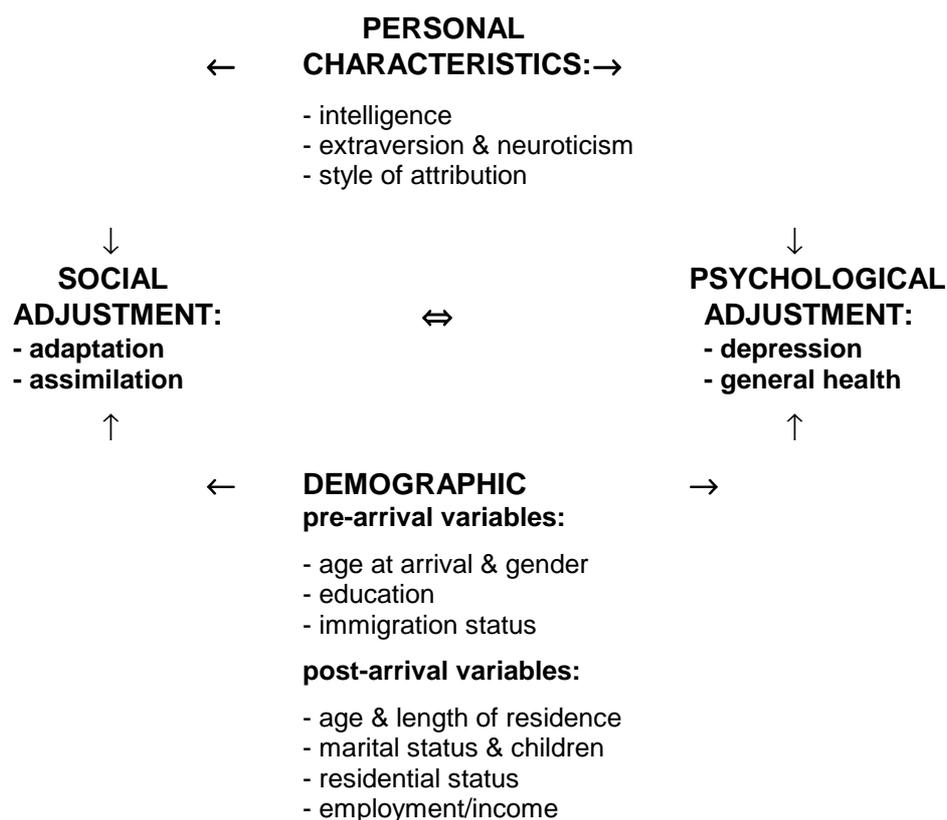
It seems apparent from the literature that in different stages all migrating people experience some difficulties with their social adjustment into a new society. Some of these people endure their problems more easily and they are able to cope with difficulties which they meet but others suffer psychological and mental complaints, as results of their unfulfilled needs or aims which they can not attain.

Many studies on different ethnic groups describe which factors bear responsibility for successful adaptation/assimilation but there is little research examining Polish immigrant groups. These studies usually concern sociological/documentary descriptions and they do not explain several significant aspects of adaptation and assimilation processes, especially from the psychological point of view. Thus, a more psychologically oriented scientific investigation, with the use of a set of methodologically adequate measures, would be very useful in understanding the most important and effective conditions, or the lack of them, on the adaptation/assimilation process of Polish immigration of the 1980's in Australia. There is yet another issue which should be raised before the research design will be proposed, in the next section. On the basis of information gathered before this research was conducted (and confirmed in further contacts), it should be noted that the Polish immigration of 1980s was generally of an economic nature. Contrary to the official propaganda and in the majority of cases, Poles emigrated from Poland not because they were forced politically or they were unable to survive in their own country. Polish emigrants seemed to emigrate rather in search of a more comfortable life, economically and professionally. It would not be appropriate to consider them as refugees but rather as immigrants, thus people who consciously and without external pressures decided to change their social environment. This seems to be a very important consideration, as the lack of any forced movement (as in the case of refugees) allows several other options available to a person making such decisions. Consequently, the immigrating persons would be willing to bear more responsibility for their social adjustment as well as psychological well-being. Such a distinction seems to be important in predicting the research outcomes and also in preparing the research design.

### 3.2 Main research aims

The principal objectives of this study are the mutual interrelationships between four major variable areas: i) social adjustment (adaptation and assimilation), ii) psychological adjustment (mental health), and iii) personal characteristics and iv) demographic variables as predictors of the first two. All of these variable areas are composed of particular variables, and measured by appropriate methodological tools (see descriptions in Chapter Four on Methodology). Taking into consideration the range of possibly significant intra- and inter-category relationships expected to be revealed between variables, a relative

Figure 3.1. Research design: Mutual intercorrelations between variable areas and their measures.



simplicity in the research design (Figure 3.1) was needed. Thus, social adjustment will be assessed by the measurement of adaptation and assimilation levels. Psychological well-being will be evaluated by the use of depression and general health inventories. Among predictor variables personal characteristics such as intelligence, extraversion, neuroticism, and a style in which immigrants tend to attribute hypothetical events will be measured. The second set of predictor variables will cover demographic

information: gender, age, length of residence, marital status and children, educational status, employment and income, immigration and residential status.

### 3.3 Hypotheses

The following hypotheses, resulting from the literature review and research aims, were constructed to cover major and detailed variable interrelationships. It would be useful to remember that social adjustment is being conceptualised in terms of **adaptation** (how an immigrant is coping with everyday life and how is he/she satisfied as a result) and **assimilation** (to what extent do immigrants socialise within the new society, e.g. who are their closest associates, what kind of food and clothing do they prefer). By the earlier definition (Chapter 1.3), the process of immigration can be characterised by both its social and psychological components. Thus, the assimilative and adaptive facets of social adjustment of immigrants and their **psychological adjustment** will be treated here as three simultaneously occurring aspects of the same immigration process. All three dimensions or perspectives of immigration are expected to influence each other. Two hypotheses rise from the above:

(1) *The assimilation level of well-adapted immigrants should be higher than those who are considered as poorly-adapted, as assimilation within another culture and adaptation to a new environment seem to represent two views of one and the same process stimulated by immigration process.*

(2) *Differences in the mental health status (psychological adjustment) will appear between the well-adjusted and the less-well-adjusted: better socially adjusted (adapted and assimilated) immigrants will manifest fewer psychological disturbances than those whose social adjustment level is poor.*

These two hypotheses represent the logic and understanding of the issues portraying the process of immigration, and mirror the results of a majority of studies: they indicate the existence of high inter-dimensional correlations. There are three dependent variables involved - adaptation, assimilation and health - and they are expected to display different patterns of interrelationship. The differentiation of social from psychological adjustment seems to be easier: the second being mostly recognised

as a health-illness dimension. Most research indicate one of two ‘loops’\* created by these two variables: (*negative*) poorer social adjustment induces psychological difficulties and additional psychological problems (caused by the process of immigration) do not help social accommodation; or (*positive*) better social adjustment reinforces well-being and better psychological adjustment facilitates social accommodation. An average level of social adjustment seems to have a neutral impact on well-being of immigrants, and vice versa. The main question of this study is ‘What kind of immigrants engage the positive loop?’ or ‘What type of immigrants escape the psychopathological description?’. The choices immigrants make to find themselves well within a new society describe their ability to cope with challenges (ability to adapt - adaptation), and their acceptance of this new environment (assimilation to a new social-political and cultural structure). The main goal of an immigrating person seems to be changing his/her life (and eventually that of their children) into a better one. The immigrants know they will have to go through a struggle which immigration exposes them to, and they eventually make their decisions, with pictures in their minds of their better future. They do not yet know, for sure, how they will be in a year or two, but they believe in their abilities to adapt and to create a new net of social contacts. It is reasonable, then to assess ‘What do those immigrants feel?’, ‘How are they satisfied, with what they have accomplished so far?’, ‘How is their well-being?’. In other words, it seems quite relevant to

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\* The positive correlations between immigrants’ social and psychological adjustment, expressed here metaphorically as positive and negative ‘loops’, refrain from indicating one of them as the causing agent, for the lack of appropriate data prior to immigration. It seems appropriate, however, to assume that the extremity in one case does influence the results in the other, as social and psychological adjustments portray the same process of migration.

analyse immigrants' psycho-social adjustment within a new society, by asking: (1) about their self-satisfaction from using their adapting skills (adaptation); (2) about their new social nets and cultural preferences (assimilation: social and cultural); (3) and about their mental health status (psychological well-being). It seems relevant to investigate how all these three aspects of immigration influence each other. The hypothesis is that there should be different variables best predicting these three aspects of immigration. It would also be desirable, within this research framework, to ask about personal and demographic characteristics of those immigrants who have experienced more positive outcomes in their lives, both social and psychological. The next eleven hypotheses will address these questions, by suggesting several correlations between immigrants' levels of adjustment versus their personal and demographic attributes.

### **Personal Characteristics**

The variations in immigrants' personal characteristics are expected to have a differential impact on the level of their psychological and social adjustment, adaptation and assimilation. All personal variables are considered to be of **pre-arrival** nature (temporally prior to immigration, unlikely to be affected by the process).

*(3) Less-extravert immigrants will be better adapted as they would tend to direct the focus of their activities in fulfilling more of their personal needs and desires; extraverts will display better assimilation levels for they require more social feedback for their functioning.*

The third hypothesis presupposes a significant influence of one's level of extraversion on his/hers functioning, also in a host country. The major tendency of extraversion seems to be the need for an external motivation to act and a social feedback (Statt, 1990; Chaplin, 1985), thus it is quite understandable that more extravert immigrants would work (also during their immigration process) on extending their social network to get motivated, for example, or to obtain an evaluation of their own actions. Hypothetically, more extravert immigrants should learn/acquire a variety of rules of their new social environment much quicker than the less extravert ones (Nadith & Morrissey; 1976). In the case of adaptation, this relationship might show reverse outcomes, especially in the first few years of the immigration process, for an

immigrant has to depend mostly on his/her own abilities/skills to adapt. With time, it may be suggested, the 'extraversion-adaptation' relationship should become less significant as an immigrant also learns and adds to his/her repertoire new skills and develops new abilities to cope with ever changing life conditions.

**(4) *Immigrants who will be considered as emotionally more stable (less neurotic) should be better socially adjusted (adapted and assimilated) and should also display less psychosomatic problems.***

By definition, less neurotic people could be characterised by more adequate, better functioning within a society, and this relates also to immigrating persons. Immigrants who developed psychological disorders in their country of origin or in a host country (such as deeper level of anxiety, obsessions, compulsions or phobias), are more likely to be biased in their perceptions and actions, and ultimately they become less functional in a new social environment. There is also a high risk of being rejected and stigmatised. As neuroticism is related to the health-illness dimension, it would be expected that more neurotic immigrants should display more psychological problems with their adjustment within a relatively unknown host society.

**(5) *Immigrants of a higher intellectual level will be better adapted than those of a poorer intellectual level, as this competency seems to promote a quicker and more appropriate recognition of the self within a new milieu; and the same intellectual differences will be less significant in regard to assimilation status, for people tend to establish relationships regardless of such a competency.***

If intelligence could be characterised as an ability to learn (perceive and act more adequately: quickly, logically, etc.), then those immigrants labelled as more intelligent should demonstrate higher levels of adaptation. A different outcome is expected in the case of assimilation. Several researchers have already found a high correlation between levels of immigrants' social adjustment (assimilation, acculturation) and educational status (e.g. Ying, 1996; Lindstrom & Massey, 1994). It seems that more educated persons tend to assimilate selectively: they resist abandoning their social/cultural heritage or the best part of it, and they acquire only the best from the new society. As intelligence seems to be closely related to the level of education (learning ability, flexibility), it is predicted that it may play a similar role in

immigrants' discriminative assimilation. In Berry's theoretical model, the desired assimilative level would be called integration (an immigrant extends his own cultural identity by adding the host society cultural traditions) and in LaFromboise's et al. (1993) - acculturation (assimilation with some important aspects of the culture of origin retained).

*(6) Immigrants who attribute positive life events more to themselves (feel more responsible for their occurrences) will be better psychologically and socially adjusted (adapted and assimilated) than those who attribute the same life episodes more to external circumstances and other people. In the case of attributing hypothetically negative events, the opposite should be true: those immigrants who feel more responsible for negativity in their lives should also display more social and psychological problems (be less satisfied).*

The issue of perceiving control over life circumstances and in relation to the process of migration is already documented in the literature (e.g. Ward et al. 1992; Yum; 1987). Attributional style, recognised here as a relatively fixed psychological tendency to internalise-externalise and/or generalise experiences of similar kind, may be of significant value in socio-psychological adjustment of immigrants. Theoretically, it goes even beyond the locus of control and may additionally indicate yet another human predisposition: an inclination to group similar experiences together into an attitude or a general belief, which may affect one's perception and make it easier or more difficult to act. So called positivism-negativism (positive vs. negative attitudes towards self and/or life) arose from everyday observations and is well described in popular literature. In such a sense, it is expected that those immigrants with more positive attitudes would cope better with their psycho-social adjustment.

### **Demographic Variables**

The level of social and psychological adjustment of immigrating persons should be characterised and predicted by selected demographic factors. Age at arrival, educational and immigration status are treated as **pre-arrival** variables. Current social or **post-arrival** factors will include length of residence, residential, marital and family status. The hypothesised correlations are detailed below.

**(7) *Immigrants who were younger on arrival will be better socially adjusted (adapted and assimilated) than the older ones, as youth seems to promote more cognitive and emotional flexibility required for successful alterations within self and against new circumstances.***

Younger immigrants are likely to experience fewer migration-related difficulties (e.g. Faragallah et al., 1997; El-Badry & Poston, 1990; Kim, 1988; Szapocznik et al., 1980), for they seem to be more flexible with respect to the changes required to adjust to a new society. Additionally, if they came as a part of family, they were still under protection of their parents or older siblings.

**(8) *Immigrants of a higher educational level will be better adapted, as the majority immigrated to Australia under the promoted structure of educational preferences; educational level should be less relevant for assimilation.***

Education was introduced in the previous hypothesis. Several studies already confirmed such a link: Ying (1996), Lindstrom and Massey (1994), Berry and Annis (1988), McGuire and McDermott (1988), Patridge (1988), Yum (1987), Taft (1987, 1977), Salvendy (1983), Kolker and Ahmed (1980), Saran (1980), Chance (1965) and Fong (1974). Education seems to be even more important in the case of Polish immigrants to Australia, as the Australian immigration policy in the early 1980's was governed by the preferential criteria. These preferential criteria included educational status as one of their most differentiating benchmarks. Many of Poles immigrating to Australia were sponsored and as such had better chances of obtaining appropriate jobs (professional). The influence of education on assimilation level is expected to be less marked (if at all), for highly educated immigrants tend to preserve their cultural heritage.

**(9) *Independent immigrants (those who were sponsored by the Australian government) will be better socially adjusted (adapted and assimilated) than those indicated as dependent (mostly invited and sponsored by their families and friends).***

As suggested by Coelho et al. (1980), independent immigration is expected to facilitate better social adjustment, as independently immigrating people seem to prepare themselves prior to immigration: they acquire information about the chosen

country, learn appropriate languages and so on. Immigration seems to be their conscious decision.

***(10) Immigrants who have been in Australia a longer time will be better adjusted (adapted and assimilated) than those of a shorter period of residence, due to a better knowledge of and broader contacts within the new social structure.***

This prediction comes from a variety of studies (e.g. Faragallah et al., 1997; Legge, 1997; Patel et al., 1996; Phinney; 1990), which indicated that a greater exposure to a new society/culture produces or accelerates social/cultural transformation. Length of residence is one of the most frequently used variables in determining psycho-sociological adjustment, under any of its forms: adaptation, assimilation, acculturation, psychological satisfaction, psychological adjustment, etc. Hence, it would be reasonable to include such an important variable in establishing its impact on the adjustment process of Polish immigrants in Australia. The expected general outcome is that the time spent in a host country promotes better psycho-social adjustment.

***(11) Immigrants with Australian citizenship will be better socially adjusted (adapted and assimilated) than those who remain in Australia as permanent residents (familiarity with the country, ideological and cultural identification).***

The residential status of an immigrating person (permanent residency or citizenship) should both promote and indicate his/her adjustment level. This variable is strongly linked to the length of residence, as obtaining citizenship depends on a few rules, one of which is some time period before an immigrant can be naturalised.

***(12) Married immigrants will be better socially adjusted (adapted and assimilated) than those who are not presently married, in that a close relationship (especially marriage) seems to help people to cope with stressful circumstances such as the process of immigration; and***

***(13) Immigrants living as families with children will be better socially adjusted (adapted and assimilated) than those living alone (for similar reasons as quoted above).***

Social and psychological adjustment seem to be facilitated by the presence and support of other immigrants of the same country of origin (Coelho et al., 1980). It is expected, that those immigrants who are married\* and have children\* (either brought to a host country or born there) should be more flexible in engaging psychological and social changes required by new life circumstances. The mutual support within a family can assist smoother transition into the unknown. Additionally, immigrants' children are likely to accelerate the acculturative process of the whole family through their formal social involvement (e.g. schools), their cultural and intellectual flexibility (less cultural attachments, better learning capabilities).

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\* Even if some Polish immigrants were married and had children before they arrived in Australia, it was a minority of cases. Most of them came under a specific preferential policy, which included not only particular professions/occupations, but also gender (males), age (25-35), etc. There also were several cases of marriages taken in third countries, where Poles waited for a permission to enter Australia (permanent residency). Therefore, both variables are treated here as post-arrival (current social) factors.

## **Chapter 4 - Methodology**

The conceptual framework of this study was elaborated to capture possible interdependencies between four areas of variables; (1) those measuring social adjustment (assimilation and adaptation), (2) those representing personal characteristics, (3) those showing psychological well being conditions, and being studied from (4) the demographic data perspective.

The available methodology, such as psychological inquiries and/or statistical tools, forces a researcher to specify research strategies, often narrowing the range of choices finally accepted. Both the time available for a particular interview and the size of the sample must be of a reasonable proportion. As suggested by Berry (1984), the temptation to include too many variables and to have too large a sample may be in conflict with the quality of the research. For example, very long questionnaires may discourage respondents from carefully answering the whole questionnaire. Too complex and/or ambiguous questions as well as the language applied may have the same negative impact.

Taking this into careful consideration and bearing in mind the essential goal of this study, this work covers the most important variables. The study employed standard and recently developed multiple choice questionnaires in Polish translation. Some of these, for example the General Health Questionnaire (to assess psychological well-being) and the Attributional Style Questionnaire (to measure locus of control), were also reverse translated by the researcher with the help of two professional translators. Other variables will be assessed by standard questionnaires already adopted in Poland, such as the Beck Depression Inventory; the Raven's Progressive Matrices and the WAIS-Vocabulary to measure intelligence; the Eysenck Personality Inventory to assess extraversion and neuroticism; and the Rokeach Value Survey to assist the measurement of assimilation.

## **4.1 Sample**

### **4.1.1 Recruitment**

300 Polish immigrants, living in three suburbs of Sydney which have been traditionally settled by Poles (Ashfield, Bankstown, and Cabramatta), were sent a letter. The letter contained an explanation of the purpose of the study as well as a request for cooperation and an introduction from the Department of Psychology (signed by the Head of Department) to show the research project was legitimate. Each letter also included eleven demographic questions and the Rokeach Value Survey plus thirty questions assessing a respondent's level of adaptation and assimilation (see Appendix B: Questionnaires). The addressees were provided with a postage paid reply envelope and the researcher's university address. There was also a request to allow the researcher further contact in order to continue the study with an assurance of a complete anonymity of all people participating in it.

The sample was completed by working through four Polish organisations (the Polish Welfare and Information Bureau of NSW; Polish 2EA Ethnic Radio; Contal travel agency and the weekly Polish News), as well as through personal contacts.

#### **4.1.1.1 Criteria for the selection of subjects**

To qualify, subjects had to be between the ages of 20 and 50 years and had to have arrived in Australia after 1980. The year 1980 was chosen as it was the beginning of the post-solidarity emigration from Poland and the third bigger wave of Polish immigration to Australia.

#### **4.1.1.2 Subjects**

The total of 145 sets of questionnaires, which had been received from the subjects, were reviewed. Of these, 47 were only partly analysed because of their partial incompleteness, of either the initial letter or the third follow up part (the mental health examination questionnaires - see Appendix B: Inquiries) or a lack of willingness of the subject to participate in the interview.

A final sample of 98 subjects (54 women and 44 men), who answered the initial letter and were available for the follow up interview, were included in the study. Two members of the sample (females) have a psychiatric treatment history. No differences were found in any demographic variables in regard to the respondents' gender (see the Results section for the statistics on the sample characteristics).

## **4.2 Procedure**

After a positive reply to the initial/introductory letter, each classified respondent was seen individually by the researcher and each session lasted 45 to 70 minutes. All interviews were conducted by the researcher in the Polish language. At this stage any additional questions which the immigrant posed were answered and his/her intelligence was estimated by the means of two standard tests (the Raven Progressive Matrices and the WAIS- Vocabulary) which required the presence of the researcher. The mental health examination questionnaires along with the reply paid and addressed envelope were left to be returned after completion.

## **4.3 Assessment Materials**

The assessment components included the recently developed questionnaires for the assessment of respondents' social adjustment (adaptation and assimilation) level and the questionnaires for the measurement of personal characteristics and psychological well-being. These materials are described below and their original forms compose Appendix B.

### **4.3.1 Inquiries for Social Adjustment measurement**

Social adjustment was assessed by newly created **Social Adjustment Scale (SAS)**. The scale was composed of 30 questions, measuring adaptation and assimilation levels of immigrants, and a more detailed description is provided below.

#### **4.3.1.1 Adaptation Subscale**

Adaptation level was assessed by applying the scores obtained from answers to 20 Likert-type scale questions (each question scored from 0 to 4 points). The questions

were derived from similar measures used in previous studies by Taft and Johnston (1965), Lasry (1988), and Berry and Annis (1988).

The questions covered essentially three areas, often quoted as the most significant aspects of adaptation: (1) *subjective satisfaction* (i.e. 'How satisfied are you with your life in Australia, in general?' or 'How satisfied are you, considering the educational possibilities and the future for your children in Australia?'); (2) *language efficiency* (i.e. 'While at work or participating in a party among Australians, do you experience difficulty in conversing in English with them?' or 'If you had to describe your complaints to a doctor in English, would it be difficult or easy for you?'); and (3) *work role* (i.e. 'Do you think your present job corresponds with your work/educational qualifications (acquired in Poland or learned in Australia)?' or 'If you could choose your job, would you stay in your present job or would you change it?').

This scale differs from other satisfaction measures in terms of its focus. Perceptions of job and living conditions in Australia, and selective areas of English efficiency all relate to the personal satisfaction of self-accomplishment. If one is satisfied with, for example, job conditions, one tends to perceive job conditions also as good.

The scoring procedure is typical to the Likert-type scales: from 0 points for an answer indicating dissatisfaction to 4 points identifying full satisfaction (0-1-2-3-4). The total scores range from 0 to 80 points (the complete scale is included in Appendix B).

#### **4.3.1.2 Assimilation Subscale**

The measurement of the Assimilation Scale was based on ten questions to which a 5-point (0 to 4) Likert-type scale was applied. These questions included the more peripheral aspects of assimilation in which changes would be obvious to an outside observer, such as preferences in food and clothes (i.e. 'What type of food is usually prepared/cooked in your home?' from: 'entirely Polish' to 'entirely Australian') (Taft, 1965). Social contacts (i.e. 'People with whom you have the most intimate contacts are: 'Poles', 'Poles above all but also Australians', 'half and half', 'most of them are Australians but also Poles' and 'only Australians?') and respondents' attitudes toward

their acculturation (i.e. 'How friendly an attitude do you have toward Australian citizenship for your children?' (Berry, 1984, 1988; Patrige, 1988).

Assimilation is treated here as *learning* something *new* from the host culture and either accepting this new knowledge (internalisation) or rejecting it. There is a range of possibilities between the two (acceptance vs. rejection), and in practice there usually is a mixture of selective acceptance and selective rejection.

The scoring procedure is similar as in the previous case (Adaptation Scale): 0 points indicating rejection of host culture and 4 points pointing to its' full acceptance (0-1-2-3-4). The total scores may range from 0 to 20 points. The complete questionnaire is enclosed in Appendix B.

### **4.3.2 Personal Characteristics**

In this study three scales for measuring personal characteristics, suggested to have an important impact on immigrants' social adjustment - were employed: (1) Raven Matrices combined with WAIS-Vocabulary to assess *intelligence*; (2) EPI to assess levels of *Extraversion* and *Neuroticism*; and (3) Attributional Style Questionnaire to indicate respondents' *style of attribution*. These scales are also included in Appendix B.

#### **4.3.2.1 Intelligence**

By definition, intelligence is 'the ability to meet and adapt to novel situations quickly and effectively' (Chaplin, 1985). Chaplin's meaning of intelligence proves to be most suitable for the purpose of this study. The definition promotes intelligence as one of the most substantial cognitive traits in dealing with everyday life and will be investigated in this study.

Some psychologists, like Spearman (1927) and Vernon (1979), popularised the general or universal factor (the *g* factor) as the most important facet of intelligence. They considered the *g* factor as an equivalent to horsepower in an automobile machine: the more 'power' (*g* factor) one has, the more capable one is intellectually. Another view is that intelligence consists of two major components: verbal and nonverbal. Verbal tests utilise language both in administration and in the subject's

responses. Nonverbal (performance) tests employ concrete, nonverbal material, such as form boards, incomplete pictures, and coloured block designs (Chaplin, 1985). Combined verbal and nonverbal intelligence measures have been systematically used in this type of research (Sweetland & Keyser, 1983).

**Raven's Standard Progressive Matrices (SPM)** are an excellent example of the nonverbal test - purportedly a 'pure' measure of the *g* factor and probably the most widely used test across cultures. Progressive Matrices consist of designs with missing parts the examinee must supply from the options presented. The test is composed of 60 matrices, divided into five equal 12 item series (A, B, C, D, and E), each set containing 12 problems. In each problem, the subject is presented with a pattern or figure which has a part missing. The subject then selects one of six possible parts as the correct one. The patterns are arrayed from simple to complex. Each correct answer is scored 1, so the total scores range from 0 to 60 points.

Verbal intelligence was assessed by the verbal subtest (Vocabulary) of the **Wechsler Adult Intelligence Scale (WAIS)**, widely considered to be one of the best in that field; translated and standardised in several countries, also in Poland. WAIS consists of 11 subtests divided into two major divisions yielding a verbal and performance intelligence (IQ). For the purpose of this research only one verbal test was used: **Vocabulary**. Vocabulary contains 32 words, from easiest to most complex (Polish version), and the subject is asked to explain their meanings. The results obtained are then compared to standardised answers included in the manual and scored according to the level of explanation given. There are 3 levels of interpretations (understanding) scored from 0 (incorrect answer) through .5 (partly correct) to 1 point (correct), so that the total scores range from 0 to 32 points.

#### **4.3.2.2 Extraversion and Neuroticism**

One of the most frequently used personality scales for cross-cultural comparison studies is the Eysenck Personality Inventory (Eysenck, 1963). The EPI is an instrument to measure two independent dimensions of personality: extraversion and neuroticism (Chaplin, 1985; Sweetland & Keyser, 1983). According to Jung, an extravert displays a basic personality dimension of openness and outward looking

sociability in contrast to an introvert being of a withdrawn, inward looking, quiet and passive nature. Neuroticism or emotionality represents a dimension ranging from instability, being moody and touchy, to stability, characterised by an even temper and leadership (Statt; 1990).

The basic form of the EPI, for grades 9-16 and adults, is a 57 item *yes-no* inventory and was normalised on more than 30,000 respondents. There are two parallel versions (Form A and B) containing 24 questions each measuring extraversion and neuroticism and a 9 item lie scale. There is also an abbreviated version of the EPI composed of 12 items - a 6 item Extraversion Scale and a 6 item Neuroticism Scale and this version was used in the present study. The abbreviated EPI was normalised by Eysenck (1964) on the basis of the factor analysis of responses from 1053 males and 874 females. The estimated correlation coefficient between the complete 57 EPI item and its abbreviated 12 item version was .82 and .79 for extraversion and neuroticism, respectively (Sanocki, 1986).

#### **4.3.2.3 Style of attribution**

The ways people attribute causes to their behaviour has been considered as one of the most important issues in the aetiology of depression (Peterson et al., 1988, 1982, 1981; Seligman et al., 1979; Abramson et al., 1978). It would also be reasonable to assume that such an attributional style plays a significant role in people's perception and then coping with everyday life, even more when the life circumstances are extreme, as in the case of [im]migration.

To detect such styles of attributing life events, the **Attributional Style Questionnaire** was chosen. The measure was developed by Peterson et al. (1982) and consists of 12 theoretical events: six positive life occurrences (i.e. 'You become very rich' or 'You do a project that is highly praised') and six aversive (bad) events (i.e. 'You have been looking for a job unsuccessfully for some time' or 'You go out on a date and it goes badly'). The respondent's task is to give a reason for such occurrences and place his/her feelings (the manifestation of attitudes) on a 7-point scale (0-6 points). The scale displays three dimensions that indicate the internality (determining if the case was perceived to be caused by the respondent or by external

circumstances), stability (determining if the respondent's attitude was stably recurrent) and globality (determining if the attitude is generalised) of that person's attributional style. The measurement of attributional style could vary but the most widely used form is to assess the internality of attributions (first dimension) and their generality (stability and globality of such attributions). A different scoring system may also apply and, for the purpose of this research, raw and combined points were used: 0-36 points for the internality and 0-72 points for the generality dimension. Both ASQ versions, English and Polish, are included in Appendix B.

### **4.3.3 Psychological health evaluation**

For the purpose of this study, the respondents' psychological health was assessed by the General Health Questionnaire (used widely in similar research, i.e. Scott and Scott, 1985; Scott and Stumpf, 1984; Cochrane et al., 1977) and the Beck Depression Inventory (Polish version available since 1973).

The **General Health Questionnaire** (GHQ) is a multiple item self-report, paper-pencil measure requiring a minimum of subjective responses from the examinee. It is design to detect non-psychotic psychiatric disorders in community settings. The GHQ might be used with adolescents and adults of any age. The test is not diagnostic, but may be used to screen for acute conditions. (Goldberg & Williams, 1988). Since 1972, when Goldberg created the first version of the 140-item questionnaire, the GHQ has been translated into 38 languages and validated in more than 50 studies. There are four present forms (60-, 30-, 28-, and 12-item) available to psychiatrists, qualified medical doctors, clinically experienced psychologists and counsellors (Goldberg & Williams, 1988; Sweetland & Keyser, 1983). For this research purpose the 30-item form of GHQ was chosen. Each question asks the respondent whether he/she has recently behaved in a particular way or experienced a particular symptom on a scale ranging from 'less than usual' to 'much more than usual'. There are two possible scoring methods: (1) Likert-type four-point response scale (0 - 'less than usual'; 1 - 'no more than usual'; 2 - 'rather more than usual'; and 3 - 'much more than usual') with weights assigned to each position; and (2) GHQ scoring method - a dichotomous (0-0-1-1) response scale where only pathological deviations ( 1 - 'rather more than

usual' and 1 - 'much more than usual') signal possession of the item ('less than usual' and 'no more than usual' are scored 0). The Likert-type method eliminates the error of central tendency and this method was chosen within this approach. For the 30-item long version, the scores could theoretically range from 0 to 90 points.

The decision to choose the GHQ-30 was forced by the main goal of the study, to investigate variables from different areas (the limitation of time and interview/questionnaire space). The Cronbach (1951) alpha coefficient for the internal consistency, ranged (for the 30-item version) from .84 to .93 in different studies. The test-retest reliability coefficient of 87 psychiatric cases, with a six months follow up, was .90 (Goldberg and Williams, 1988) and it seems to be a reliable and valid measure of psychological health. This questionnaire was translated into Polish (with reverse translation) by the researcher and with the help of a professional translator. The GHQ, in English and Polish, is included in Appendix B.

The **Beck Depression Inventory** is a measure for depression, developed by Beck et al. in 1961. All 21 items were derived from clinical observations of specific attitudes and symptoms of depressed patients. Each category describes a specific behavioural manifestation of depression, ranking from neutral to maximal severity of the symptom (series of four to five self-evaluative statements). The inventory covers categories related to the open and observable behavioural manifestations of depression such as mood, pessimism, sense of failure, lack of satisfaction, etc. The 25 years review of the use of BDI (Beck et al., 1988) estimated its internal consistency mean coefficient alpha as .81.

The Beck Depression Inventory was chosen for two main reasons: (1) to accompany the assessment of the GHQ, which was translated into Polish for the very first time, and (2) because it is one of the most accepted and reliable instruments for measuring depression (Wilson et al., 1989) also adopted in Poland, by Jucha (1973).

#### **4.3.4 Demographic variables**

A set of independent demographic variables, indicated in several earlier research reports and important from a theoretical perspective (the importance for considering these data was described in Chapter 2), chosen for the present study are as follows:

**pre-arrival** - gender, level of education, kind of immigration (dependent vs. independent);

**post-arrival** - age of immigrants, marital status, present employment status, income, type of residence in Australia (permanent residence vs. citizenship), and length of residence in Australia.

## Chapter 5 - Results: Study N° 1

The results of the study are reported below in three main sections. The first section portrays the development of the Social Adjustment Scale (SAS). After a theoretical assessment, by 65 psychology students in Poland and Australia, of all 30 items of the Scale, psychometric analyses were carried out. As a result, the originally 30-question long Social Adjustment scale was abbreviated to 25 items, and its subdivisions: the Adaptation measure was created out of 13 items and the Assimilation subscale was composed out of 12 items. All three measures appeared to display good internal consistency and reliability.

The next section informs about the subjects' demographic and personal characteristics, and third group of results reported are the outcome data of particular relationships between the variable areas (social and psychological adjustment, personal characteristics and demographic data). In order to review simultaneously a range of variable interdependences, hierarchical multiple regression analyses were conducted.

### 5.1 Social Adjustment Scale (SAS) development

The 30 items composing the Social Adjustment Scale were derived, in identical or slightly changed forms, from similar measures suggested and already described in the literature (Myambo & O'Cuneen, 1988; Hurh & Kim, 1984; Berry & Annis, 1984; Chance, 1965; Johnston, 1965). The items were formed as 5-point Likert-type questions and they ask about immigrants' subjective satisfaction with living in Australia, their job conditions, English efficiency, clothing and food preferences. The answers (and their scoring) are typical for such a type of scale and all 30 questions are presented below, together with examples of the answers (for details see Appendix B: questionnaires):

1. What kind of food do you really prefer:
  - [0] only Polish
  - [1] Polish above all
  - [2] equally: Polish and Australian
  - [3] more Australian than Polish
  - [4] only Australian?

2. If such a situation arose that you could provide yourself with Polish clothes here (either having them made or bought) which would you provide yourself with: Polish or Australian?
3. For all the contacts you have with other people would you say: [that your contacts are typically with Poles or Australians]?
4. What kind of food do you eat at home [Polish or Australian]?
5. Do you feel that naturalisation is only a formality, or does it really involve a change of loyalty from one's old country to a new country?
6. If all the variety of Polish food were available in Australia which food would you buy: Polish or Australian?
7. How much are you in favour of Australian citizenship for your children?
  - [4] very much
  - [3] moderately so
  - [2] indifferent
  - [1] rather against it
  - [0] completely against it
8. What kind of clothes do you usually wear: Polish or Australian clothes?
9. People with whom you have the most intimate and long-lasting contacts are: Polish or Australian?
10. Do you feel yourself to be more Australian than Polish now, or the reverse?
11. In general, are you satisfied with your present job or not?
  - [4] very satisfied
  - [3] satisfied
  - [2] yes and no
  - [1] unsatisfied
  - [0] unsatisfied very much
12. Being in work or at a party among Australians, is it difficult for you to speak to them in English?
13. Since you arrived in Australia, have you succeeded in your life as much as you expected?
14. Could you indicate how much are you satisfied with the place you live in?
15. Are your present friends members of your family, your childhood friends or completely new people?
16. Excluding a possibility of spending holidays abroad,, would you like to live in Australia to the end of your life?
17. To which extent are you satisfied with the work and employment market in Australia?
18. When you watch TV or listen to the radio in English, is it easy for you or do you have some difficulties?
19. Is a conversation by phone in English easy or difficult to you?
20. To which extent are you satisfied if you consider the education possibilities and the future of your children?
21. To which extent are you satisfied with the general standard of living in Australia?
22. Are your contacts, with most of your colleagues (acquaintances), easy or difficult?
23. Would it be difficult to you to express in English your health complaints to a doctor?

24. Do you think the job you have (if) corresponds with your professional qualifications (learned in Poland or here in Australia)?
25. If you had a free choice, would you rather stay with your present job or would you change it?
26. Comparing to your life in Poland, could you indicate how happy you are living in Australia?
27. Not accounting for holiday abroad, would you like your children to live the rest of their lives in Australia?
28. Are your contacts with your employers easy or difficult (problematic)?
29. In general, are you satisfied with your life in Australia?
30. Could you, generally, assess your English efficiency?

The possible answers and the scoring method to the questions above ranged from a total negation (0 points), through partial disagreement (1 point), neutral point [neither or both (2 points)], partial agreement (3 points) to a complete acceptance (4 points) of the content of an item. The first 10 items were intended to assess assimilation and questions 11-30 were to measure adaptation.

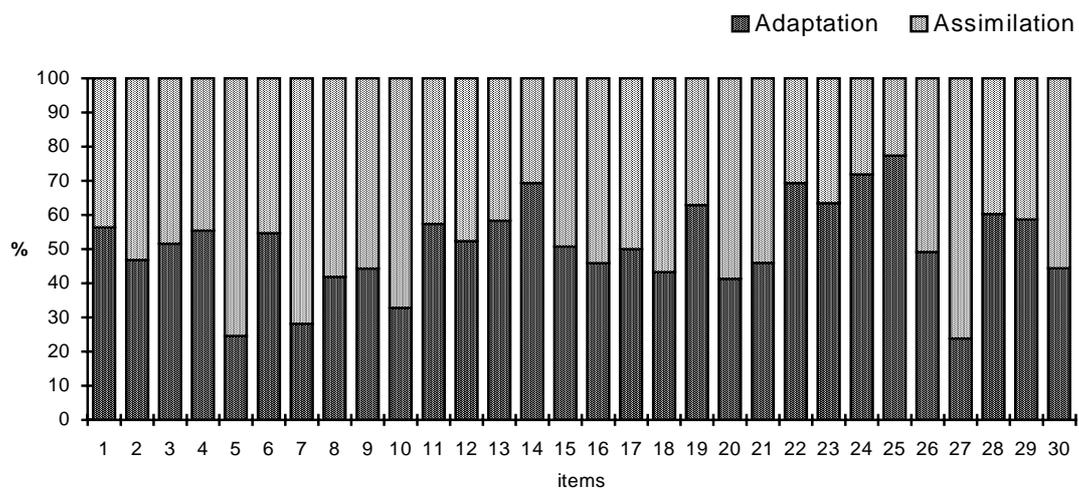
These 30 items were then judged by psychology students and principal components analysis was employed to establish a firm division between items hypothetically related to adaptation and assimilation. Such a procedure became the empirical base for the extraction of most valuable items, which eventually constituted the internally consistent and reliable measure of Social Adjustment.

### **5.1.1 Hypothetical structure vs. competent judges**

The theoretical construction of the Social Adjustment Scale, with its subdivisions for Adaptation and Assimilation subscales, was first examined by 65 Polish and Australian university students. The Polish sample (23 persons) were 3rd year psychology students from the University of Lodz (Poland). These students were approached by the author at one of their lectures (May, 1995), in a group, and then the task was verbally explained to them. The 42 Australian, first year psychology students (the University of Sydney) were found through an advertisement at the Department of Psychology. These students were asked to meet the author individually and the purpose of their involvement was explained to them. Having written definitions of adaptation and assimilation, both groups of students were asked to evaluate each of the 30 questions and decide which items were related to Adaptation and which

described Assimilation. Hypothetically, twenty of the items were supposed to measure Adaptation and ten of them were constructed to assess Assimilation. The outcome (combined for Polish and Australian students), displayed in the graph below, shows how the students judged these 30 items. The majority of the questions were found to be in the middle range, suggesting neither Adaptation nor Assimilation. This result echoed similar difficulties in differentiating or separating the subscales as they already exist in the literature (as noted in earlier chapters). The Polish students tended to categorise their judgements more in accordance with the hypothetical structure of the measurement, but the general outcome was that all 30 items appeared ambiguous to the majority of judging persons. As these results were not supportive of the hypothetical division of the Social

Figure 5.1. Percentage of the Social Adjustment Scale items due to its division for Adaptation and Assimilation subscales (N= 65; 42 Australian and 23 Polish psychology students).



The first 10 items were intended to measure immigrants' assimilation; items 11-30 were constructed for the assessment of adaptation.

Adjustment Scale into Adaptation and Assimilation, the dimension had to be justified on the basis of the actual results obtained from the research (on immigrants), and analysed from the statistical perspective. The next part of this chapter will reveal the psychometric properties of the Scale and its statistical adjustments.

### 5.1.2 Initial analyses of Social Adjustment scale

In order to determine the internal consistency of the Scale, **reliability analysis** was carried out. Here, the squared correlation coefficients are measures of the variation in one item accounted for by variations in other items. The calculated  $\alpha = .89$  alpha coefficient for the whole scale was quite satisfactory (Table 5.1). The item-total correlations were used as a criterion for the elimination of items. There were two items with negative correlations with the total score; 5th and 15th (marked bold). Question 21 appeared to be inconsistent as a hypothetical component of Adaptation. Question 22 had very small loadings (marked bold). Item 28 was a part of the three-item long Social Relation Index (together with already deleted questions: 15 and 22) and as such was also removed. These 5 items did not

Table 5.1 Reliability analysis for Social Adjustment scale: Item-Total statistics

Item No:	CORRECTED ITEM TOTAL CORRELATION	SQUARED MULTIPLE CORRELATION	ALPHA IF ITEM DELETED
1	.381	.512	.886
2	.429	.524	.885
3	.418	.473	.886
4	.460	.489	.884
5	<b>-.149</b>	<b>.230</b>	<b>.898</b>
6	.397	.603	.886
7	.439	.458	.885
8	.387	.450	.886
9	.290	.480	.888
10	.361	.419	.886
11	.519	.650	.883
12	.559	.743	.882
13	.498	.522	.884
14	.393	.375	.886
15	<b>-.031</b>	<b>.211</b>	<b>.891</b>
16	.578	.758	.882
17	.613	.624	.880
18	.618	.718	.882
19	.594	.808	.882
20	.388	.432	.886
21	.364	.497	.886
22	<b>.226</b>	<b>.190</b>	<b>.888</b>
23	.482	.614	.884
24	.553	.647	.882
25	.415	.574	.886
26	.548	.592	.882
27	.581	.718	.882
28	.416	.423	.886
29	.649	.720	.881
30	.604	.756	.882
		<b>ALPHA</b>	
<b>RELIABILITY COEFFICIENTS</b>			
<b>30 ITEMS</b>			<b>.8884</b>

appear to contribute to the internal consistency of the Scale and were, therefore, deleted from the Scale. When the reliability analysis was repeated on 25 items, the alpha coefficient increased to .90.

The next step in investigating the psychometric properties of the Scale was to find how the remaining 25 scale items correlated with each other and if there were any correlation patterns that could indicate and justify the measure division into its subscales. Thus, a **principal components analysis** was carried out. The 6 components of the analysis, shown in Table 5.2, had eigenvalues greater than 1.0 and the proportion of variance accounted for by these 6 components before rotation was 67.2%. The first component is structured

Table 5.2 Six components solution with oblimin rotation (Pattern Matrix; N=145)

Item No:	Component 1 (English)	Component 2 (Australia)	Component 3 (food)	Component 4 (job)	Component 5 (contacts)	Component 6 (clothing)
<b>Q19</b>	<b>.85</b>	-.06	.04	.11	.12	-.05
<b>Q12</b>	<b>.83</b>	-.03	-.04	.05	.18	-.04
<b>Q23</b>	<b>.79</b>	.15	.20	-.04	-.25	.09
<b>Q30</b>	<b>.78</b>	-.08	.02	.05	.11	-.24
<b>Q18</b>	<b>.74</b>	-.00	-.08	.13	.15	-.17
<b>Q16</b>	-.19	<b>.78</b>	.16	.11	.10	-.09
<b>Q07</b>	.01	<b>.73</b>	.02	.10	-.07	.07
<b>Q20</b>	.22	<b>.70</b>	.15	-.09	-.28	.15
<b>Q27</b>	-.20	<b>.69</b>	.22	.13	.03	-.20
<b>Q29</b>	.11	<b>.63</b>	-.16	.25	.20	-.03
<b>Q10</b>	.14	<b>.56</b>	-.03	-.20	.14	-.11
<b>Q26</b>	-.02	<b>.45</b>	-.06	.12	.31	-.29
<b>Q06</b>	.08	.05	<b>.78</b>	.05	-.01	-.12
<b>Q01</b>	-.03	.07	<b>.74</b>	.06	.13	-.13
<b>Q04</b>	.14	.19	<b>.61</b>	.04	.05	-.12
<b>Q25</b>	-.04	-.01	.18	<b>.84</b>	-.06	.17
<b>Q11</b>	.13	.09	-.15	<b>.80</b>	-.04	.11
<b>Q24</b>	.02	-.21	.22	<b>.76</b>	.05	-.24
<b>Q17</b>	.18	.10	.01	<b>.66</b>	.08	-.02
<b>Q13</b>	.21	.28	-.32	<b>.49</b>	-.09	-.12
<b>Q14</b>	-.09	.33	-.21	<b>.40</b>	.08	-.15
<b>Q09</b>	.15	.03	.03	-.12	<b>.82</b>	.03
<b>Q03</b>	.17	.04	.41	.11	<b>.62</b>	.24
<b>Q08</b>	.10	.01	.16	-.07	-.05	<b>-.80</b>
<b>Q02</b>	.20	.04	.13	-.02	-.11	<b>-.72</b>

entirely of questions asking about efficiency in English; the second relates exclusively to satisfaction with living in Australia; the third indicates preferences in food; the fourth asks about job conditions; the two-item fifth component asks about social contacts; and the sixth describes clothing preferences. All items loaded high on the appropriate component. The calculated inter-component correlation coefficients (Table 5.3) show that the separate components were relatively independent but they did not distinguish proposed subscales.

Table 5.3 Social Adjustment Scale - Component Correlation Matrix (N=145)

	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6
Component 1	1.00					
Component 2	.22	1.00				
Component 3	.20	.12	1.00			
Component 4	.19	.29	.02	1.00		
Component 5	.19	.11	.11	.16	1.00	
Component 6	.24	.24	.15	.17	.20	1.00

The rationale for the selection of items did not reveal a clear pattern on the division of Social Adjustment into Adaptation and Assimilation, either when judged by assessors or analysed as principal components. To resolve this ambiguity a **two-factor principal component analysis** was suggested and carried out (Table 5.4). The Assimilation subscale included questions asking about efficiency in English, social contacts, and food and clothing preferences (12 items); job conditions and satisfaction with living in Australia composed the Adaptation sub-scale (13 items).

Table 5.4 Two components solution with oblimin rotation (Pattern Matrix; N=145)

Item No:	Assimilation	Adaptation
Q30	.88	-.08
Q19	.87	-.06
Q12	.82	-.07
Q18	.77	.05
Q23	.70	-.05
Q06	.56	-.01
Q04	.54	.12
Q03	.53	.04
Q02	.53	.10
Q08	.50	.06
Q01	.49	.04
Q09	.48	-.05

continued

Item No:	Assimilation	Adaptation
Q16	-.03	.77
Q29	.08	.75
Q27	.01	.72
Q11	-.07	.68
Q07	-.07	.68
Q14	-.13	.65
Q13	.00	.65
Q25	-.07	.59
Q17	.19	.58
Q26	.18	.55
Q20	.08	.44
Q24	.24	.44
Q10	.21	.34

The proportion of variance accounted for by these 2 components (with eigenvalues greater than 1.0) before rotation was now 42.3%. Reliability analyses conducted on both subscales (components) indicated alpha coefficients .88 and .87 for Assimilation and Adaptation, respectively.

The correlation between Adaptation and Assimilation ( $r = .41$ ) was probably due to, and expressed the difficulties in, the process of structuring the items themselves and the differences in their meaning for the respondents, and also due to the practical indistinctiveness of both processes in real life. For example, the component assessing the level of language efficiency could mean *assimilation* for a person who focuses on gaining knowledge and cultural values of a host society, who wants to establish and extend social contacts, etc. For others, the same language efficiency could be understood as a simple operating tool in finding a job, communicating somatic or psychological discomforts to a professional, and so on (attributes of *adaptation*).

The Social Adjustment Scale (SAS) scores were obtained by adding individual item scores from 5-point Likert-style questions (0-1-2-3-4 points). Thus, the SAS results ranged between 0 and 100 points (25 x 4), Adaptation 0-52 (13 x 4) and Assimilation 0-48 (12 x 4).

## 5.2 Subjects' Characteristics

Tables 5.5 and 5.6 summarise the demographic and personal characteristics of the sample by gender. A series of simple t-tests and Chi-square analyses were conducted to test for gender differences. These calculations were carried on the results obtained from the 98 persons who participated in all three parts of this study. No significant differences were found between male and female respondents (all analyses based on alpha level of .05), in regard to their demographic or personal characteristics. The age of respondents (total sample) ranged from 22 to 56. All of the respondents came to Australia after 1980.

Table 5.5 Demographic characteristics of the total sample and by gender (N=98)

	Sample N = 98		Female N = 54		Male N = 44		Gender differences
	Mean	(sd)	Mean	(sd)	Mean	(sd)	
<b>Age</b>	36.63	(7.74)	36.41	(7.66)	36.91	(7.91)	t (96) = .32
<b>Length of residence</b>	5.29	(3.63)	5.36	(3.54)	5.20	(3.80)	t (96) = .21
<b>Distribution of respondents:</b>							
<b>Marital status:</b>							
- never married	15		6		9		$\chi^2 (3) = 4.03$
- married	73		41		32		
- separated	6		3		3		
- divorced	4		4		0		
<b>Number of children:</b>							
- none	35		15		20		$\chi^2 (3) = 3.45$
- one	36		23		13		
- two	20		12		8		
- three and more	7		4		3		
<b>Income:</b>							
- up to \$10,000	29		19		10		$\chi^2 (4) = 3.20$
- \$10,001 - 20,000	21		10		11		
- \$20,001 - 30,000	33		18		15		
- \$30,001 - 40,000	11		6		5		
- more than \$40,000	4		1		3		
<b>Employment:</b>							
- unemployed	26		16		10		$\chi^2 (1) = .61$
- employed or studying	72		38		34		
<b>Educational level:</b>							
- secondary and high school	23		12		11		$\chi^2 (1) = .10$
- tertiary education	75		42		33		

continued

	Sample	Female	Male	Gender differences
<b>Distribution of respondents:</b>				
<b>Immigration status:</b>				
- dependent	52	34	18	$\chi^2 (1) = 4.74^*$
- independent	46	20	26	
<b>Kind of residence:</b>				
- permanent resident	37	18	19	$\chi^2 (1) = 1.00$
- citizen	61	36	25	

\*  $p < .05$

The average stay for the whole sample was five years and three months, ranging from 3 months to 12 years. Fifty two respondents described themselves as dependent immigrants (those who had close and familiar relationships in the host country, and were invited and sponsored by their relatives) and forty six as independent (those who had no such relatives in the host country and had to go through rigorous selection processes). Relatively more men (59%) than women (37%) came to Australia as independent immigrants and it was the only variable on which the gender difference was found to be statistically significant ( $\chi^2 = 4.74, p < .05$ ). This finding could be explained by the governmental selection criteria of the early 1980's, which gave notable preferences to professionals (especially engineers), males and a particular age range (25-35 years old). The criteria, mentioned above, also

Table 5.6 Personal characteristics of the total sample and by gender (N = 98).

	Sample N = 98		Female N = 54		Male N = 44		Gender differences	
	Mean	(sd)	Mean	(sd)	Mean	(sd)	t(96)	p
<b>Raven's Matrices</b>	46.14	6.48	45.59	6.67	46.82	6.26	-.94	n.s.
<b>WAIS Vocabulary</b>	31.18	4.75	31.13	4.15	31.25	5.46	-.12	n.s.
<b>Extraversion</b>	3.77	1.28	3.70	1.26	3.85	1.31	-.57	n.s.
<b>Neuroticism</b>	2.15	1.22	2.24	1.26	2.04	1.18	.79	n.s.
<b>AG - internality</b>	28.98	4.89	29.61	4.44	28.20	5.35	1.40	n.s.
<b>AG - generality</b>	61.30	7.31	61.50	6.78	61.04	7.98	.30	n.s.
<b>AB - internality</b>	26.47	4.75	26.28	4.75	26.70	4.82	-.44	n.s.
<b>AB - generality</b>	52.17	8.72	51.70	8.89	52.75	8.58	-.59	n.s.
<b>BDI</b>	6.30	6.99	6.22	6.80	6.37	7.30	-.11	n.s.
<b>GHQ</b>	28.02	12.44	26.57	12.27	29.80	12.55	-1.28	n.s.

BDI - the Beck Depression Inventory  
 GHQ - the General Health Questionnaire events

AG int. - internality of attributions for good events  
 AG gen. - generality (stability + globality) of attributions for good events

AB int. - internality of attributions for bad events  
 AB gen. - generality (stability + globality) of attributions for bad events

explain the very high educational level of the immigrants - 75% of them had a university degree. Immigrants' individual characteristics such as their intellectual level and the levels of extraversion and neuroticism are shown below (Table 5.6). Respondents' intellectual levels (as measured by Raven's Matrices and WAIS Vocabulary), their levels of extraversion and neuroticism, and their attributions for hypothetically good and bad life events were not significantly different for female and male respondents.

The results obtained from both health measures (psychological adjustment) show no gender differences. The distribution of the predictor variables were close to normal.

### **5.3 Outcome Results**

This section is divided into three parts. The first part reports predictors of Social Adjustment, both personal and demographic. The next part explores correlations between respondents' personal and demographic characteristics and their psychological well being. Marital status was treated as a dichotomous variable (married versus not married), as there were very few separated and divorced immigrants. Similarly, number of children was reduced to a dichotomy, i.e. having children versus not having children.

#### **5.3.1 Predictors of Social Adjustment**

The section below describes correlations between the dependent measure (Social Adjustment) and independent variables (demographic and personal data). A few significant differences between the results obtained from correlating Adaptation and Assimilation scores with the personal and demographic data are also indicated.

##### **5.3.1.1 Selection of independent variables for multiple regression analyses**

On the basis of 98 respondents who participated in all three parts of this socio-psychological research, several significant correlations between independent variables were observed (Table 5.7, below). Those immigrants who scored better on both tests measuring their intellectual capabilities - Raven's Matrices and WAIS-Vocabulary -

were not married at present and without children, most of them had Australian citizenship and Polish tertiary diplomas. Higher scores obtained in Raven's Matrices (indicating a higher intelligence) correlated negatively with age and with length of residence: these immigrants were younger and had resided for a shorter time in Australia. Respondents who tended to attribute hypothetically positive events more to external circumstances than to themselves (external locus of control) had also relatively better results in WAIS-Vocabulary (intelligence). Younger respondents tended to be more extraverted. They had also been in Australia for a shorter time, had fewer children and lower income; many of them were unemployed and/or studying, classified as dependent on entry, and still on Polish passports (permanent residency). Relatively more males than females came to Australia as independent immigrants. Those who had been longer in Australia also came independently, had better employment histories and salaries, tended to be Australian citizens, and attributed negative events rather to external conditions than to themselves. Non-married respondents (never married, separated or divorced) were also more extraverted and better educated. Stated income had positive correlation with employment and both of these were positively related with residential status (citizenship). The four subscales of Attributional Style Questionnaire shared some inter-correlations: internality of attributions (locus of control) for

Table 5.7 Correlation Matrix of independent variables: product moment coefficients (N = 98)

Variables:	1	2	3	4	5	6	7	8
1 Raven	1.00							
2 WAIS-Vocabulary	<b>.48**</b>	1.00						
3 Extraversion	.11	-.02	1.00					
4 Neuroticism	-.04	.08	.17	1.00				
5 AG int.	-.03	<b>-.22*</b>	.06	-.07	1.00			
6 AG gen.	-.03	-.03	.12	.06	<b>.38**</b>	1.00		
7 AB int.	-.01	-.08	.14	.17	.02	.13	1.00	
8 AB gen.	.02	.02	.13	<b>.27**</b>	-.06	<b>.37**</b>	<b>.33**</b>	1.00
9 Age	<b>-.34**</b>	-.05	<b>-.21*</b>	-.10	-.04	.04	.12	.09
10 Gender	.09	.01	.06	-.08	-.14	-.03	.04	.06
11 Length of residence	<b>-.31**</b>	-.15	-.06	-.11	-.02	.09	<b>-.20*</b>	.01
12 Marital Status	<b>.21*</b>	<b>.35**</b>	.04	.04	.08	.14	.12	.17
13 Children	<b>-.20*</b>	<b>-.24*</b>	-.17	-.07	-.02	-.07	<b>.25**</b>	.01
14 Education	<b>.24*</b>	<b>.51**</b>	.01	.10	-.09	.08	-.07	.10
15 Income	-.03	-.06	-.02	-.16	.03	.05	-.14	<b>-.21*</b>
16 Employment	-.10	-.01	.04	-.12	.05	.15	-.12	-.09
17 Immigration Status	.03	.06	.02	-.12	.01	.16	.02	.13
18 Residential Status	<b>-.29**</b>	<b>-.21*</b>	-.07	-.08	.04	.15	-.17	.09

AG int. - internality of attributions for good events; AG gen. - generality of attributions for good events;  
 AB int. - internality of attributions for bad events; AB gen. - generality of attributions for bad events

continued

	9	10	11	12	13	14	15	16	17
9 Age	1.00								
10 Gender	.03	1.00							
11 Length of residence	<b>.47**</b>	-.02	1.00						
12 Marital Status	-.01	-.08	-.03	1.00					
13 Children	<b>.36**</b>	-.12	.08	-.09	1.00				
14 Education	.04	-.01	-.16	<b>.21*</b>	-.09	1.00			
15 Income	<b>.27**</b>	.12	<b>.46**</b>	.06	.10	.03	1.00		
16 Employment	<b>.23*</b>	.08	<b>.39**</b>	.04	-.01	.12	<b>.55**</b>	1.00	
17 Immigration Status	<b>.27**</b>	<b>.22*</b>	<b>.36**</b>	-.19	-.03	.02	.11	.01	1.00
18 Residential Status	<b>.32**</b>	-.10	<b>.75**</b>	-.13	.04	-.17	<b>.32**</b>	<b>.34**</b>	.18

\* p &lt; .05; \*\* p &lt; .01

hypothetically positive life events were positively linked with generality of such attributions: respondents who tended to feel more in charge for the positive conditions of their lives, were also relatively more stable and global in their feelings. Internality of attributions for hypothetically bad (unfortunate) events were significantly related to generality for negative events: immigrants who felt responsible for the unpleasant life conditions, were also more stable and global in their opinions. Moreover, stability and globality (generality) of attributions were positively correlated with internality for such hypothetical conditions (AGi with AGg, ABi with ABg) and between themselves (AGg with ABg).

The correlations between Social Adjustment, Adaptation, Assimilation and respondents' personal and demographic characteristics are presented in Table 5.8. Longer residence period, higher level of education, employment and income, and possessing Australian citizenship were associated with better social adjustment. Stronger self-attributions of hypothetically unfortunate life events predicted lower social adjustment. The adaptive capabilities of immigrants were best indicated by length of residence, income and employment: immigrants who had resided longer in Australia and displayed higher satisfaction with their job conditions and were more satisfied generally with living here were also better adapted. Personal characteristics, such as intelligence, extraversion and neuroticism, and the style of attributions were not significantly related to Adaptation. Quite different were the correlations between demographic and personal data, and Assimilation scores. Better assimilated immigrants stayed longer in Australia, were younger and better educated, and attributed hypothetically unfortunate events more to external circumstances than to themselves.

Table 5.8 Social Adjustment, its subdivisions (Adaptation and Assimilation) by Personal Characteristics and Demographic Data (for N=98)

Variables:	SAS <i>r</i>	Adaptation <i>r</i>	Assimilation <i>r</i>
Raven	.12	.11	.11
WAIS-Vocabulary	.14	.13	.11
Extraversion	.13	.08	.15
Neuroticism	-.01	-.03	.01
AGi	.05	.11	-.04
AGg	-.08	-.04	-.11
ABi	<b>-.23*</b>	-.16	<b>-.23*</b>
ABg	-.11	-.09	-.10
Age	-.08	.04	<b>-.20*</b>
Gender	-.12	-.16	-.02
Length of residence	<b>.30**</b>	<b>.27**</b>	<b>.24*</b>
Marital Status	.17	.13	.17
Children	-.03	.13	-.05
Education	<b>.25*</b>	.19	<b>.24*</b>
Income	<b>.31**</b>	<b>.35**</b>	.16
Employment	<b>.32**</b>	<b>.35**</b>	.17
Immigration Status	-.08	-.01	-.14
Residential Status	<b>.23*</b>	<b>.25**</b>	.09

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

AG int. - internality of attributions for good events  
 AG gen. - generality of attributions for good events  
 AB int. - internality of attributions for bad events  
 AB gen. - generality of attributions for bad events

Variables such as intelligence, neuroticism, age, gender, having children and immigration status, which were hypothesised to affect the process of social adjustment (either Adaptation or Assimilation) of Polish immigrants in Australia, appeared not to have significant relationships in zero-order correlations. Age was transformed into **age at arrival** (by subtracting length of residence), as the age at which immigrants begin to cope with a new environment seemed to be more important for the process of social adjustment than the actual age when the questionnaire was answered. Age at arrival was negatively correlated with social adjustment ( $r = -.18$ ,  $p < .05$ ) and Assimilation ( $r = -.36$ ,  $p < .01$ ): those immigrants who were younger on arrival were also better socially adjusted (and assimilated). The next section will report the results obtained from multiple regression analyses.

### Hierarchical regression analyses

Hierarchical regression analysis was chosen as the most suitable for measuring the simultaneous and cumulative impact of such predictor (independent) variables, that

could be categorised as pre- and post-arrival characteristics. The choice of a particular sequence of the sets of predictor variables (rather than single variables) was made in advance and dictated by the purpose and logic of this research (Cohen & Cohen, 1983). These regression analyses were carried out on the results only from respondents who participated in all three parts of the study (N=98). This sample size constrained a careful selection of predictor variables. As the first criterion the independent variables' inter-correlations were taken into consideration. This stage was crucial for the elimination of strongly correlated items which could bias further results. For example, the length of residence correlated quite strongly with residential status (permanent residency vs. citizenship) of respondents ( $r = .75$ ); employment with income ( $r = .55$ ). The dichotomous residential status variable seemed to be less important than the period the immigrants had already spent in Australia (continuous scale) and, therefore, was excluded from the multiple regression analyses. The 5-point income scale was chosen as more representative for further calculations than the dichotomous employment variable.

After such an examination eight pre-arrival variables [i.e. age at arrival, gender, education (coded: secondary-tertiary), extraversion, internality and generality of attributions for good and bad events (2x2)] and three post-arrival variables [income, marital status (coded: not married-married) and length of residence] were chosen. The hierarchical regression analyses for Social Adjustment (Table 5.9) is shown and described below. The set of eight pre-arrival variables were entered first into the equation, followed by the set of three post-arrival variables. Entry of the pre-arrival variables was significant ( $p < .01$ ), accounting for 20% of the variance in Social Adjustment. As the first stage of analysis shows, two variables - education and age at arrival ( $\beta = .28$ ,  $p < .005$  and  $\beta = -.21$ ,  $p < .05$ , respectively) made independent contributions: better adjusted immigrants were younger on arrival in Australia, and better educated.

Table 5.9 Multiple regression analyses. Social Adjustment by 11 Personal and Demographic data (N=98)

	<b>Social Adjustment</b>	
	<b>R</b>	<b>.45</b>
<b>Block No 1</b>	<b>R<sup>2</sup></b>	<b>.20</b>

						<b>F</b>	<b>2.77</b>
						<b>p</b>	<b>.009</b>
<b>Independent variable:</b>							
	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>		
Age at arrival		-.42	-.21	2.08	<b>.04</b>		
AG - internality		.25	.09	.88	.38		
AG - generality		-.23	-.13	-1.13	.26		
AB - internality		-.42	-.15	-1.40	.16		
AB - generality		-.03	-.02	-.20	.84		
Gender		-2.55	-.10	-.98	.33		
Education		8.92	.28	2.86	<b>.005</b>		
Extraversion		1.27	.12	1.21	.23		
<b>Block No 2</b>						<b>R<sup>2</sup> Change</b>	<b>.17</b>
						<b>F Change</b>	<b>7.52</b>
						<b>p Change</b>	<b>.001</b>
<b>Independent variable:</b>							
	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>		
Age at arrival	-.18*	-.49	-.25	-2.67	<b>.01</b>		
AG - internality	.05	.30	.11	1.14	.26		
AG - generality	-.08	-.38	-.21	-1.98	<b>.05</b>		
AB - internality	-.22*	-.19	-.07	-.67	.50		
AB - generality	-.11	.00	.00	-.02	.98		
Gender	-.12	-2.74	-.10	-1.15	.26		
Education	.25*	9.82	.31	3.29	<b>.001</b>		
Extraversion	.13	1.29	.12	1.36	.18		
Income	.31**	2.25	.19	1.84	.07		
Marital Status	.17	1.55	.12	1.35	.18		
Length of residence	.30**	1.01	.27	2.64	<b>.01</b>		
*p<.05; **p<.01;						AG int. - internality of attributions for good events	
						AG gen. - generality of attributions for good events	
						AB int. - internality of attributions for bad events	
						AB gen. - generality of attributions for bad events	

The addition of the set of three post-arrival variables was also significant ( $p$  Change  $< .001$ ), accounting for a further 17% of the variance in Social Adjustment. It was the length of residence ( $\beta = .27$ ,  $p < .01$ ) which added significantly to the proportion of variability. The results above demonstrate that better socially adjusted immigrants were better educated, younger at immigration, had already spent more time in Australia, and tended to be more specific and less stable in attributing hypothetically positive life circumstances.

Further analyses show how the same 11 independent variables contributed to the prediction of Adaptation and Assimilation, separately (Table 5.10). The same set of eight pre-arrival variables entered first into the equation, followed similarly by post-arrival predictors. Entry of the pre-arrival variables was not significant for Adaptation, with the first eight predictor variables accounting for only 12% of the variance ( $p < .18$ ). In predicting Adaptation and in terms of pre-arrival predictors, the only

significant independent contribution was made by education ( $\beta = .21$ ,  $p < .05$ ): with all other variables equal, immigrants of a higher educational level tended to be better adapted.

Table 5.10 Multiple regression analyses. Dependent variables: Adaptation and Assimilation. Independent variables: 11 Personal and Demographic data (N=98).

Block No 1	Adaptation					Assimilation				
	R	.34				R	.50			
	R <sup>2</sup>	.12				R <sup>2</sup>	.25			
	F	1.47				F	3.66			
	p	.18				p	.001			
Independent variable:	r	B	Beta	T	p	r	B	Beta	T	p
Age at arrival	-.07	-.06	-.06	-.52	.61	-.35	-.34	-.34	-3.43	.001
AG - internality	-.24	-.13	-.13	-1.23	.22	.02	.01	.01	.13	.90
AG - generality	-.02	-.10	-.10	-.86	.39	-.12	-.12	-.12	-1.11	.27
AB - internality	-.23	-.13	-.13	-1.15	.25	-.18	-.12	-.12	-1.21	.23
AB - generality	-.02	-.02	-.02	-.15	.88	-.02	-.02	-.02	-.18	.85
Gender	-2.41	-.14	-.14	-1.38	.17	-.04	.00	.00	-.03	.98
Education	4.26	.21	.21	2.02	.05	4.72	.28	.28	2.97	.004
Extraversion	.67	.10	.10	.95	.35	.59	.11	.11	1.11	.27
Block No 2		R <sup>2</sup> Change .16					R <sup>2</sup> Change .11			
		F Change 6.20					F Change 4.81			
		p Change .001					p Change .004			
Age at arrival	-.09	-.12	-.10	-.97	.34	-.36**	-.37	-.36	-3.79	.001
AG - internality	.11	.27	.15	1.46	.15	-.04	.04	.03	.26	.80
AG - generality	-.04	-.21	-.18	-1.61	.11	-.11	-.17	-.17	-1.66	.10
AB - internality	-.16	-.10	-.05	-.52	.61	-.23*	-.09	-.06	-.61	.55
AB - generality	-.09	.04	.04	.33	.74	-.10	-.04	-.05	-.47	.64
Gender	-.16	-2.93	-.17	-1.78	.08	-.02	.19	.01	.15	.88
Education	.19	4.61	.22	2.25	.03	.24*	5.21	.31	3.31	.001
Extraversion	.08	.65	.10	1.00	.32	.15	.64	.12	1.27	.21
Income	.35**	2.15	.29	2.56	.01	.16	.10	.02	.16	.87
Marital Status	.13	.55	.07	.69	.49	.17	1.00	.15	1.64	.10
Length of residence	.27**	.43	.18	1.64	.10	.24*	.58	.30	2.86	.005

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

AG int. - internality of attributions for good events  
 AG gen. - generality of attributions for good events  
 AB int. - internality of attributions for bad events  
 AB gen. - generality of attributions for bad events

In predicting Assimilation, entry of pre-arrival variables was significant and accounted for 25% of the variance ( $p < .001$ ). These independent contributions at Step 1 were seen for education ( $\beta = .28$ ,  $p < .004$ ) and age at arrival ( $\beta = -.34$ ,  $p < .001$ ): well assimilated immigrants were better educated and relatively younger on arrival.

The addition of the set of three post-arrival variables was significant, explaining a further 16% of the variance in Adaptation ( $p$  Change  $< .001$ ) and 11% in Assimilation

( $p$  Change < .004). The addition of these three variables showed that higher scores in Adaptation were predicted by higher education ( $\beta = .22$ ,  $p < .03$ ) and higher income ( $\beta = .29$ ,  $p < .01$ ).

Assimilation was best indicated by education ( $\beta = .31$ ,  $p < .001$ ), age at arrival ( $\beta = -.36$ ,  $p < .001$ ) and length of residence ( $\beta = .30$ ,  $p < .005$ ): well assimilated immigrants tended to be better educated (tertiary diplomas), came to Australia earlier in their life and stayed here longer. All three variables had significant relationships with Assimilation earlier, in the zero-order correlations.

In all cases, where the multiple regression model was involved, analyses of residuals indicated no outliers or violations of assumptions.

The results above provide much a clearer understanding of the differences between Adaptation and Assimilation: the better adapted immigrants had higher educational status and higher salaries, while better assimilated immigrants not only had tertiary education diplomas but were younger on arrival and had stayed in Australia for a significantly longer period of time.

### **5.3.2 Predictors of psychological well-being**

This section reports the outcome results on the relationships between health questionnaires (BDI and GHQ) and predictor (independent) variables. Firstly, correlation coefficients were computed and these results helped to select variables for the final analytical approach, multiple regression analysis. The last section covers the health results compared with the health norms.

#### **5.3.2.1 Health questionnaires vs. Personal/Demographic Data**

Before the core correlations between health questionnaires and predictor variables took place, the health measurements' scores were correlated. The results obtained from such relationships between BDI and both GHQ versions (the same questionnaire with different score calculation methods) were predicably high ( $r = .73$  and  $r = .72$ ; respectively for GHQ-1 and GHQ-2). The correlation between GHQ-1 (rudimentary version) and GHQ-2 (detecting major health problems) was predicably high,  $r = .91$ .

The GHQ-2 was omitted from further analyses as it did not provide any additional information.

The two independent variable areas, personal and demographic data, were correlated with the Health (Psychological Adjustment) results in order to evaluate their impact on each other (Table 5.11).

Table 5.11 Beck Depression Inventory and General Health  
Questionnaire by Personal and Demographic Data (N=98)

	<b>BDI</b>	<b>GHQ</b>
<b><u>Personal</u></b>		
<b><u>Characteristics:</u></b>	<i>r</i>	<i>r</i>
<b>Raven's Matrices</b>	-.07	.08
<b>WAIS-Vocabulary</b>	-.01	.06
<b>Extraversion</b>	.13	-.02
<b>Neuroticism</b>	.19	.19
<b>AG - internality</b>	.01	-.10
<b>AG - generality</b>	.00	-.07
<b>AB - internality</b>	<b>.21*</b>	.05
<b>AB - generality</b>	<b>.42**</b>	<b>.26**</b>
<b><u>Demographic Data:</u></b>		
<b>Age</b>	-.06	-.03
<b>Gender</b>	.01	.13
<b>Length of residence</b>	-.10	-.10
<b>Marital Status</b>	-.02	<b>-.20*</b>
<b>Children</b>	-.09	-.12
<b>Education</b>	-.12	-.06
<b>Income</b>	-.17	-.16
<b>Immigration Status</b>	.12	.16
<b>Kind of residence</b>	.05	.02

\*p<.05; \*\*p<.01; AB int. - internality of attributions for bad events;  
AB gen. - generality of attributions for bad events

Predictably, the BDI was significantly linked with generality and internality of attributions for hypothetically negative events: those respondents who were more global and stable in their attributions and felt responsible for them, also scored relatively higher on depression (were more depressed) and on GHQ. Married immigrants were indicated as having more health problems than their non-married counterparts (as measured by GHQ and not BDI). There were no significant zero-order correlations between health questionnaires and any of the other demographic variables. Age at arrival was changed back into the age of conducting this research, as it was hypothesised that age at arrival would affect an immigrant's present psychological status to a lesser degree than his actual age (on the average; residential period exceeded 5 years).

### Hierarchical regression analyses

Four theoretically most important demographic data (age, gender, marital status and length of residence) and three personal characteristics (neuroticism, internality and generality of attributions for hypothetically negative events) were chosen for the selection of predictors for **multiple regression**. The results are presented in Table 5.12. The first computation covered two status variables and three personal characteristics: namely age and gender, internality and generality of attributions for hypothetically bad life events, and neuroticism. Entry of such predictors (Block No 1) was significant ( $p < .001$ ) in the case of depression, accounting for 20% of the variance. The same five variables entered into the equation predicting GHQ scores, but were only of marginal significance ( $p < .06$ ),

Table 5.12 Hierarchical multiple regression predicting psychological well being (measured by BDI, GHQ; N=98)

	Beck Depression Inventory					General Health Questionnaire				
<b>Block No 1</b>	R	<b>.44</b>				R	<b>.33</b>			
	R <sup>2</sup>	<b>.20</b>				R <sup>2</sup>	<b>.11</b>			
	F	<b>4.53</b>				F	<b>2.19</b>			
	p	<b>.001</b>				p	<b>.06</b>			
<b>Independent variable:</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>
<b>Age</b>		-.09	-.10	-1.06	.29		-.05	-.03	-.32	.75
<b>AB - internality</b>		.13	.09	.86	.39		-.16	-.06	-.57	.57
<b>AB - generality</b>		.31	.39	3.78	<b>.001</b>		.34	.24	2.20	<b>.03</b>
<b>Gender</b>		-.11	-.01	-.08	.93		3.25	.13	1.32	.19
<b>Neuroticism</b>		.31	.05	.55	.58		1.50	.15	1.41	.16

continued

	Beck Depression Inventory					General Health Questionnaire						
<b>Block No 2</b>	R <sup>2</sup> Change	<b>.01</b>				R <sup>2</sup> Change	<b>.07</b>					
	F Change	<b>.46</b>				F Change	<b>2.47</b>					
	p Change	<b>.71</b>				p Change	<b>.07</b>					
<b>Independent variable:</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>		
<b>Age</b>		-.06	-.07	-.08	-.71	.48		.03	.04	.02	.22	.83
<b>AB - internality</b>		.21*	.12	.08	.78	.44		.05	-.19	-.07	-.69	.50
<b>AB - generality</b>		.42**	.32	.40	3.70	<b>.001</b>		.26**	.39	.27	2.47	<b>.02</b>
<b>Gender</b>		.01	-.21	-.02	-.16	.88		.13	2.79	.11	1.13	.26
<b>Neuroticism</b>		.19	.28	.05	.49	.63		.19	1.36	.13	1.31	.20
<b>Income</b>		-.17	-.15	-.02	-.22	.82		-.16	-.56	-.05	-.44	.66
<b>Length of residence</b>		-.10	-.07	-.04	-.29	.77		-.10	-.34	-.10	-.80	.42
<b>Marital Status</b>		-.02	-.67	-.10	-1.04	.30		-.20*	-2.78	-.24	-2.38	<b>.02</b>

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

AB int. - internality of attributions for bad events;  
 AB gen. - generality of attributions for bad events

and accounted for 11% of the variance. In both cases, however, being less specific (global) and more stable in attributing negative life conditions did appear to have a significant independent contribution to psychological well-being ( $\beta_{BDI} = .39, p < .001$  and  $\beta_{GHQ} = .24, p < .05$ ).

The addition of three post-arrival demographic variables (Block No 2), i.e. income, length of residence and marital status, was not significant in either case and accounted for only a further 1% of the variance in BDI and 7% in GHQ. When controlling for other variables, only one predictor variable - generality of attributions for hypothetically unfortunate life circumstances - was statistically significant in predicting depression ( $\beta = .32, p < .001$ ) and two variables had significant impact on general health: the same generality of attributions for hypothetically unfortunate life circumstances ( $\beta = .27, p < .02$ ) and marital status ( $\beta = -.24, p < .02$ ). Married immigrants and those whose attributions were more global and stable toward hypothetically negative events were significantly less-well adjusted psychologically.

At this stage of analysis, neither internality of attributions for bad events, nor neuroticism (both had significant relationships in zero-order correlations) could be considered as good predictors of psychological adjustment of immigrants. Neither age and gender nor other post-arrival variables (income and length of residence) seemed to contribute to the prediction of psychological well-being.

### **5.3.3 Social vs. Psychological Adjustment**

Social Adjustment and Adaptation had negative and significant relationships with respondents' health (psychological well-being): better socially adjusted and adapted immigrants indicated relatively fewer health problems. Thus, aspects of adaptation such as job conditions and satisfaction with living in Australia promoted better health: those respondents who were satisfied with the conditions of living in Australia for themselves and their children, and had stable and satisfactory jobs were also of better psychological health. Assimilation did not have a significant relationship with the BDI but was negatively correlated with the GHQ (Table 5.13).

Table 5.13 Social Adjustment and its components, Adaptation and Assimilation by Health measures (N=98)

	<b>BDI</b>	<b>GHQ</b>
	<b>r</b>	<b>r</b>
<b>Social Adjustment</b>	<b>-.31**</b>	<b>-.28**</b>
<b>Adaptation</b>	<b>-.35**</b>	<b>-.27**</b>
<b>Assimilation</b>	<b>-.16</b>	<b>-.21*</b>

To investigate the question of whether the fact of immigrating creates health problems, another set of comparisons was calculated: respondents health versus health norms (as measured by the Beck Depression Inventory), in relation to social adjustment and adaptation levels (Table 5.14).

Table 5.14 Social Adjustment by Health (in regard to the Polish norms).

<b>Depression:</b>	<b>Beck Depression Inventory - norms</b>			<b>Sample</b>		
	<b>US norms<sup>a</sup></b>	<b>Polish norms<sup>b</sup></b>	<b>%<sup>b</sup></b>	<b>SD</b>	<b>n</b>	<b>%<sub>n</sub></b>
<b>- none</b>	up to 11	up to 10.9	83	1	79	81
<b>- mild</b>	12 - 18	11.0 - 18.7			11	
<b>- moderate</b>	19 - 25	18.8 - 25.4	17	2	5	19
<b>- severe</b>	more than 26	more than 25.5			3	

<sup>a</sup> Source: Beck et al. (1961) <sup>b</sup> Source: Jucha (1973)

This simple (above) division for respondents who did not show depressive symptoms and those who did, revealed that when such a simplified (within 2 standard deviations) sample distribution of BDI scores (79 + 19) was compared to the simplified normal distribution (84 + 16), the calculated Chi-square was .84 [df(1); p = .36]. These results suggest that the immigrant population does not differ significantly from the normative Poles (in Poland), or even Americans residing in urban areas (in the U.S.) (Weissman & Myers, 1978). This could mean that the relative frequency of depression amongst immigrants is not significantly different from that established in the Polish norms. When both distributions were extended to 3 standard deviations and then compared, the  $\chi^2 = 19.3$  was statistically significant [df(2); p < .001]. This result may suggest a higher severity of depression amongst immigrants. In other words, there were more cases in immigrants with very high BDI scores than would be expected from the norms. The importance of such an outcome will be discussed in further chapters.

## Chapter 6 - Discussion of Study 1

The primary aim of the study was to investigate the most plausible and influential predictors of social adjustment of Polish immigrants in Sydney, Australia. There were two independent variable areas taken into consideration: i) personal and ii) demographic characteristics. These variables were hypothesised to be the most important in differentiating the subjects, in relation to their reactions to the life changes during their adjustment process. The first area included the measurement of respondents' intellectual level, extraversion, neuroticism and style of attribution. The second independent variable area involved a search for significant demographic characteristics. Eight basic demographic attributes were suggested as having quite a considerable impact on immigrants' social adjustment: age, gender, years already spent in Australia (length of residence), marital status, number of children, educational level, yearly income, immigration status (dependent vs. independent immigration) and residential status (permanent residency vs. citizenship).

The dependent variables were social and psychological adjustment, often suggested to be significantly devastated by the fact of such existential, sometimes extreme, life changes. The hypotheses tested in the study were whether these personal and demographic characteristics could predispose and/or help immigrants to feel comfortable and happy after experiencing such changes (well adjusted) or not (less adjusted; unsatisfied and on some occasions, wanting to leave the country).

The study also developed a Social Adjustment Scale to measure concepts of Adaptation and Assimilation. The 30 items of the scale were derived from Taft (1965), Johnston (1965), Lasry (1988), Barry and Annis (1988). A two-factor principal component analyses helped to analyse and refine the content. Such a procedure allowed identification of components which measured both assimilation and adaptation. Coefficient alpha indicated a high level of internal consistency in the subscales, as well as in the total scale.

The first study prediction was that the immigrants' **adaptation** and **assimilation** levels should be related, i.e. the scores obtained from both sub-scales of the Social Adjustment Scale should be positively correlated. This prediction was supported. The

question, however, why both subscales were so highly correlated needs to be examined. One possible reason is the similar meaning of the terms, which have been used interchangeably in the literature since their introduction. Theoretically they appear to be subtly distinguishable, but in practice are nearly impossible to uncouple. Thus, the high correlation between adaptation and assimilation may lie in the very fact that both processes, when the case of immigration is analysed, happen simultaneously: in addition to adapting him/herself to a new life conditions, the immigrant is also perceiving and eventually acquiring new ways (strategies, values) of coping within an unfamiliar milieu, by borrowing them from a host society and then internalising them as his/her own knowledge (assimilation). Both terms, for example, use facility in the language of the new country as their key component. It is true that people, when living under culturally different circumstances, become much more *operational*, if they have a good command over a language that is commonly used there (adaptation). It is also true that such a language expresses this new/host culture's heritage and undoubtedly has effects on that individual's identity (assimilation). Another example also shows the difficulty of a complete separation of the scales. Two very direct questions about immigrants' attitudes towards their new citizenship and Australian citizenship for their children, which comprised the most important component of assimilation, can be interpreted either: i) as an indicator of identification with Australian society (assimilation) or ii) as a desirable confirmation of a legal status that benefits people (adaptation). As a practical solution, a forced two component analysis was employed to distinguish the Adaptation and Assimilation scales. Such a procedure placed Australian citizenship within the measurement of adaptation and exposed facility in English more as an aspect of assimilation.

The second research hypothesis arose from a more controversial issue described in the literature (see Chapter I): the relationship between **social** and **psychological adjustment**. The assumption was that the difficulties of social adjustment should negatively affect psychological well-being (psychological adjustment), and it was only partly confirmed. **Assimilation** did not correlate significantly with the Beck Depression Inventory but had a negative relationship with the General Health Questionnaire. **Adaptation** was significantly correlated with both measures. In other words, better adapted immigrants manifested fewer psychological and somatic

disturbances than those who were less well adapted. As suggested by Adler (1975), Cochrane (1977), Murphy (1977), the interpretation of this result should be carefully considered. Comparing the BDI results with the Polish norms (Jucha, 1973) revealed that even though the Adaptation scores were significantly correlated with respondents' health, there was a predictable number of such cases, corresponding to the normal population distribution. This finding implies that there are no differences in psychological adjustment (as measured by BDI) between Polish immigrants in Australia and Poles living in Poland. In other words, the fact of immigrating may not cause mental health disturbances in immigrants per se. The data above could be comparable with these of Pernice and Brook (1996), Simoes and Binder (1980), Lasry (1977), Murphy (1977), and Krupinski (1967, 1973, 1984).

Personal attributes of respondents, analysed in this study, were expected to have a significant impact on the level of social adjustment (adaptation and/or assimilation). The third hypothesis assumed that immigrants with more outward personalities, more social and active, conditioned more by external events, more **extraverted**, should display a better assimilation level than their less outgoing counterparts (Nadith & Morrissey; 1976). Adaptation, on the other hand, was not expected to be significantly related to extraversion. The results did not support these hypotheses: extraversion appeared not to have a significant impact on either of the measures. Similarly, **neuroticism** did not appear to be a reliable predictor of either adaptation or assimilation. Neither BDI nor GHQ scores (psychological well-being) were related to the level of neuroticism. Thus, this variable was not considered in further analyses.

The **intellectual level** of immigrants was expected to affect Social Adjustment more through Adaptation, being less important to Assimilation. However, intelligence was not found to be significantly related to either adaptation or assimilation, whether it was measured by Raven's Matrices or by the Polish version of the WAIS-Vocabulary. This outcome could be explained by the composition of the research sample: more than half of the respondents reported at least 2 years of tertiary education.

The sixth hypothesis concerned relationships between social adjustment and the styles of attribution. The **Attributional Style Questionnaire** covered twelve

hypothetical life events: 6 positive (e.g. becoming rich) and 6 negative (e.g. unsuccessful job seeking), and measured respondents' *locus of control* (internality vs. externality, plus generality of attributions). Zero-order correlations revealed that better assimilated respondents assigned the unfortunate circumstances more to external conditions than to themselves, positive life events being attributed relatively equally. When included in the multiple regression model, however, this relationship was not apparent. Thus, the hypothesis that the immigrants who attribute positive life events more to themselves should be better socially adjusted (adapted and assimilated), was not supported. Nor did better assimilated immigrants assign negative circumstances more to external conditions than to themselves.

A set of demographic data was taken into account while searching for the most plausible predictors of respondents' levels of Social Adjustment. **Age at arrival** in Australia and **length of residence** were two such variables, and it was assumed that the younger immigrants and those who had resided in Australia longer should be better adapted and assimilated. As well as zero-order correlations, multiple regression analyses revealed that age at arrival was a significant predictor for assimilation but not for adaptation: those immigrants who were younger on arrival tended to be better assimilated (Faragallah et al., 1997; El-Badry & Poston, 1990; Kim, 1988; Szapocznik et al., 1980). Similarly, length of residence was strongly predictive of assimilation and not of adaptation: those immigrants who had been longer in Australia were better assimilated. These findings are consistent with those of Faragallah et al. (1997), Legge (1997), Patel et al. (1996), Phinney (1990).

**Single immigrants** (never married, separated, divorced and widowed) tended to be better socially adjusted than married. Married immigrants seemed to look for company among other Poles and have fewer social contacts in general. Their activities may have been more concentrated on their own relationship (home, work, etc.), and a greater urgency to adjust and survive in a new setting (especially, if they were raising children). On the other hand, single immigrants tended to enjoy more options, socialising with the members of host country. This finding contradicts the assumption that **married immigrants** should be better socially adjusted. Neither adaptation nor assimilation was predicted by this demographic characteristic. There was, however, a relationship between marital status and GHQ scores (not BDI): unmarried respondents

displayed significantly less health related problems. Having **children** was also not found to be a statistically significant predictor of either social or psychological adjustment.

It was predicted that the **educational level** of an immigrant would assist in faster adaptation with less of an impact on assimilation. The results showed that education was positively correlated with adaptation and had an even stronger relationship with assimilation. As Lindstrom and Massey (1994) suggested, 'human capital' in the form of education is a powerful predictor of assimilation, and this research confirms it, staying also in accordance with the outcomes reached by Berry and Annis (1988), McGuire and McDermott (1988), Patridge (1988), Yum (1987), Taft (1987, 1977), Salvendy (1983), Kolker and Ahmed (1980), Saran (1980), Chance (1965) and Fong (1974). Education did not have a significant impact on respondents' psychological well-being.

**Immigration status** was not found to be a good predictor of social adjustment. Neither the fact of already having family and/or friends in Australia before immigration, nor succeeding in the selection processes appeared to be of predictive value. Thus, the suggestion by Coelho, Youn and Ahmed (1980) that immigration status (independent vs. dependent immigration) should positively affect the process of social adjustment of immigrants was not supported by this study. It was predicted that those immigrants with **Australian citizenship** (vs. permanent residency) would be better assimilated, but that their citizenship should not impact adaptation level. The results suggested the opposite: having Australian citizenship correlated positively with adaptation, but did not correlate with assimilation.

Another two items of demographic data, **employment** and **income**, were taken into consideration but were not listed as hypotheses. They both seemed to indicate the outcome of adaptation rather than acting as determinants. They both could be treated as predictors of social adjustment in a host country if they were related to the history of employment and the history of income, prior to immigration, in immigrants' home countries (or transit countries). Employment and income were predicably correlated with the Social Adjustment Scale, but were also quite highly correlated between themselves. Thus, it become reasonable to drop one of these variables from a multiple

regression analysis. Employment status was a dichotomous item: employed-unemployed, while income covered five possibilities (up to \$10,000; \$10,001-20,000; \$20,001-30,000; \$30,001-40,000; and \$40,001 and more), being potentially a more *sensitive* correlate. For this reason, it was decided to drop the employment variable for further analyses. **Income** was significantly correlated with Social Adjustment Scale scores, indicating better adaptation, but was not significant in relation to immigrants' assimilation levels, nor to their psychological adjustment.

Another demographic variable, **gender**, so ambivalent in the literature (described earlier) was not covered by the hypotheses, but its correlates were examined. No gender differences were found between immigrants in regard to their personal characteristics, and only one demographic item differentiated male from female respondents: more women than men were classified as dependent immigrants (those who were helped by their families and/or friends to come and settle in Australia). Gender was not found to be a significant predictor neither of social nor psychological adjustment.

Overall, the results partly supported the research hypotheses. More demographic rather than psychological characteristics differentiated socially well-adjusted immigrants from their less-well-adjusted colleagues. Such a picture suggests that well-adjusted Poles (satisfied with living in Australia, efficient in English, satisfied with the job market, having close relationships with other Australians, enjoying non-typically-Polish food and multicultural fashion) arrived in Sydney at a younger age, were well-educated (mostly with tertiary education diplomas), not married, employed and with higher salaries. They were also less depressed and had fewer somatic complaints. The results obtained from hierarchical regression analyses showed that the assimilation of Poles immigrating to Australia was best predicted by two pre-arrival factors, age at arrival and educational status, and post-arrival length of their residence. Adaptation was best indicated by the same educational level and income. Psychological adjustment (as measured by both BDI and GHQ), on the other hand, was significantly related to the generalisation of attributions for hypothetically negative life events. The majority of these predictor variables, however, are typically demographic and such a picture does not indicate what kind of psychological traits make the process of social adjustment in another country easier. The suggested locus

of control (Ward et al. 1992; Yum; 1987), assessed here by the use of the Attributional Style Questionnaire, and also the intellectual capabilities of Polish immigrants to Australia were not found to be effective predictors of their social and/or psychological adjustment. Hence, an attempt was made to find a more predictive psychological variable in a follow up study.

## **Chapter 7 - Study 2**

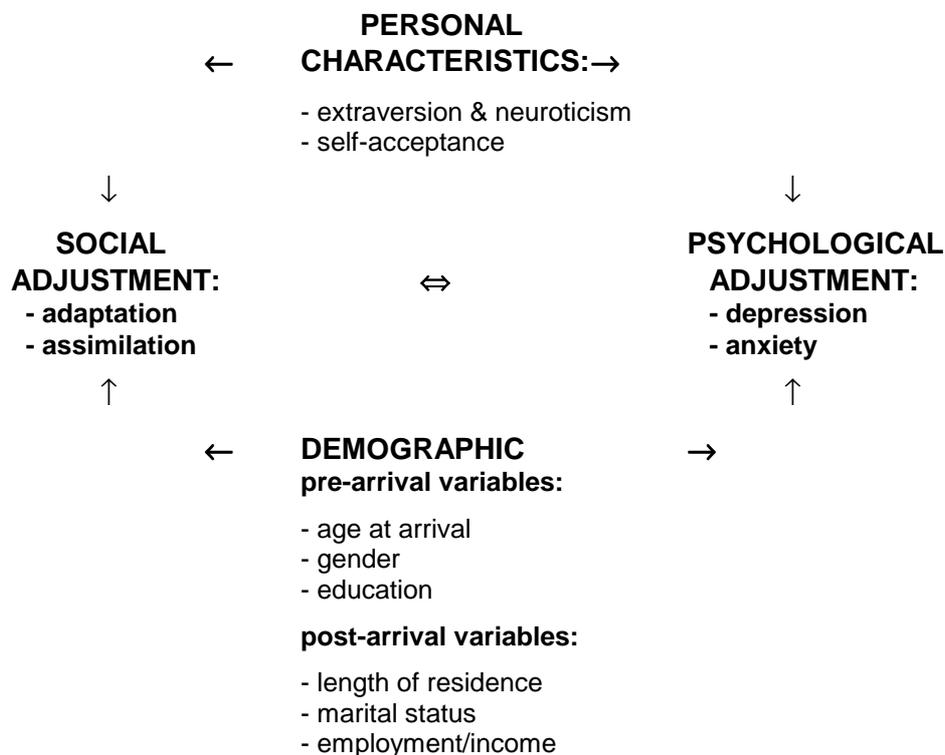
The second study was suggested for two major reasons. Firstly, there was a requirement for psychological measures which would better indicate the conditions of immigrants' adjustment process. Neither intelligence, as measured by the Raven's Progressive Matrices and WAIS-Vocabulary, nor attributional style appeared to be influential predictors of social and psychological adjustment. Hence, there was a need to search for other psychological characteristics, which may play a significant role in the process. Contemporary trends in the literature suggest such concepts as self-acceptance, self-esteem or self-efficacy as relevant variables, because of the meaningful and active roles they may play in the process of coping with constantly changing (often very difficult or even adverse) life circumstances. Self-acceptance differs from self-esteem and self-efficacy in that self-acceptance is considered as a belief about self that does not change, whereas self-esteem and self-efficacy seem to be contingent upon external circumstances such as approval of others (Watson, 1985). Thus, self-acceptance was chosen as an additional predictor variable. The Beck Anxiety Inventory replaced General Health Questionnaire within the area of psychological health assessment.

Secondly, there was a desire to extend the sample size within the framework of the set of predictors. The second approach would cover a similar number of respondents and would also reduce the time required for completion of the questionnaires.

### **7.1 Model of the Second Study**

By the need of future comparisons, the structure of this study is similar to the previous one. There were, however, a few changes made on the basis of the first study results and in regard to the new measures to be involved (Figure 7.1, next page). Two of the measures assessing personal characteristics, the Attributional Style Questionnaire and both measurements of intelligence (Raven's Matrices and WAIS-Vocabulary), were replaced by a questionnaire assessing immigrants' self-acceptance. Psychological well-being was assessed by Beck's Depression (as in the previous case) and Anxiety Inventories (instead of the General Health Questionnaire).

Figure 7.1. Study 2 design: Mutual interrelations between variable areas and their measures.



All demographic variables remained unchanged for the purpose of future comparisons. It was expected that these modifications would clarify some of the variable relationships which appeared to be unclear in the first study, e.g. locus of control measured by the Attributional Style Questionnaire (especially, the internality of attributions for hypothetically positive life events, which appeared not to differentiate between well and less-well socially adjusted immigrants) in the first approach, was assessed by the use of the Self-Acceptance Questionnaire, which seemed to relate more to immigrants' perceptions of their life circumstances, and extended across time (past, present and future).

## 7.2 Further hypotheses

The following hypotheses were produced on the basis of general aims and were guided by the Study No 1 results. Those predictions which were explained in detail in Chapter 3 (see Study No 1; hypotheses) will be stated as singular statements. Those

which involve new variables or were re-directed by the Study 1 results will be more detailed.

*(1) Better socially adjusted immigrants (adapted rather than assimilated) will show fewer psychological disturbances than those who will be considered as less-well-adjusted. This is due to the fact that both social and psychological adjustment seem to be two aspects of the one process.*

This prediction was supported by the results of the first study and considered as one of the most important relationships of the whole research. The Study 1 outcomes suggested a relatively strong relationship of social with psychological adjustment - especially adaptation which mainly indicated immigrants' personal satisfaction with their life in Australia and personally perceived chances for satisfactory employment. Adaptation and psychological well-being share a common base, even if they arise from two hypothetically different sources (individual satisfaction as a result of one's ability to adapt versus one's mental health condition, measured by the presence-absence of depression and anxiety). Thus, an investigation of the relation described above will be carried out.

There are two **personal pre-arrival characteristics**, namely extraversion and the level of self-acceptance, whose relationships with socio-psychological adjustment will be investigated (Hypotheses 2 and 3).

*(2) Immigrants with more outgoing personalities (extraverts) will be relatively better assimilated, as the process of assimilation provides a better performance-feedback; extraversion level should not have such an impact on adaptation scores.*

As indicated in Study 1, extraversion did not appear to have significant links with social adjustment as a whole, nor with its sub-divisions (adaptation and assimilation). There were, however, several research indicating extraversion as having such relationships, and this variable will be present in further examinations.

*(3) As self-accepting people seem to be freer to take risks and participate in social activities without fear of being rejected, those immigrants with higher self-acceptance will also be better socially adjusted and should display fewer psychological disturbances.*

Self-acceptance is expected to affect the whole process of immigration. In this case, self-acceptance is understood as a personal and fundamental attitude or belief about self which does not depend upon external occurrences, such as goal accomplishments or approval by others. When one accepts him/herself, one is free to take risks in learning and acting, without fear of being rejected. Research on university students (Rienzi, Scrams & Uhles; 1992) revealed a significant positive correlation between self-acceptance and academic success. It seems that this variable might play an important role in peoples' lives generally, and it could have a considerable impact on immigrants' psycho-social adjustment, in particular.

Amongst the **demographic variables** characterising immigrants and predicted to be related to socio-psychological adjustment in Australia, there are two pre-arrival (Hypothesis 4) and three post-arrival characteristics (Hypothesis 5). The hypothesised correlations of these variables with socio-psychological adjustment of immigrants are detailed below.

*(4) Immigrants who were younger on arrival and those with higher educational status will be better socially adjusted.*

The Study 1 results confirmed the influence of these variables on social adjustment of immigrating to Australia Poles. Similar impacts are expected in the second study.

*(5) Non-married immigrants and those who had already been in Australia a longer time will be better socially adjusted. Employment and income will be linked to better adaptation, as employment and salaries provides immigrants with the means for achieving their goals.*

Employment and income were not contained in the construction of Study 1 hypotheses. They were, however, computed together with other independent variables. As the previous results indicated, employment and income were significantly correlated with adaptation. Thus, both variables will be tested again in this part of the research.

### **7.3 Methodology**

Each questionnaire set contained an explanation of the purpose of the study and an approval of the research project by the Human Ethics Committee (University of Sydney), eleven demographic questions, Social Adjustment Scale, Self-Acceptance Questionnaire, Beck Depression and Anxiety Inventories and 12-item Eysenck Personality Inventory. The addressees were provided with a postage paid reply envelope with the researcher's university address, researcher's, his supervisor's and the University Ethics Committee's telephone numbers. The addressees were assured of a complete anonymity of their participation. As in the previous study, the subjects were contacted through the Polish Welfare and Information Bureau of NSW, the Contal Travel Agency and with the help of the participants from the first study, as well as other personal contacts.

### **7.3.1 Sample**

Out of 100 surveys that were produced, a total of 65 sets of completed questionnaires were received. Of these, 61 were included in the study (4 sets of questionnaires were incomplete). Such a response rate for analysis and reporting is described as acceptable (Babbie & Wagenaar, 1992). The sample was composed of 36 women and 25 men, and no gender differences were found in regard to the demographic information provided (see Results: Study 2 - sample characteristics).

### **7.3.2 Assessment Materials**

The assessment materials included the 11 questions on demographic characteristics that were used in Study 1, the 40-item Social Adjustment Scale, measurement of extraversion (EPI), the newly constructed 10-item Self-Acceptance Questionnaire and the Beck Depression and Anxiety Inventories. All these materials, in both languages (Polish and English), are included in Appendix C.

#### **7.3.2.1 Social Adjustment measurements**

Ten new Likert-type questions were added to the previous initially 30-item long Social Adjustment Scale. Such items included watching Polish TV programmes (SBS), listening to any of the Polish radio-stations available in Sydney, reading Polish

press (edited in Australia such as Polish News or imported from Poland), being supported or helped by any of the Polish organisations in Sydney (e.g. welfare, English classes), belonging to any of the Australian professional associations/societies and displaying an interest in contemporary policies of the Australian Government (see Appendix C). The answers to these 10 new questions were added to and then correlated with the 12-item Assimilation Scale. Further analyses, however, suggested that this procedure did not improve the reliability and discrimination power of Assimilation subscale and were omitted in further analyses (see the chapter on Study 2 results).

### 7.3.2.2 Self-Acceptance

The respondents' self-acceptance was assessed by a Self-Acceptance Questionnaire, that was developed for this study. Self-acceptance is recognised as an ability of accepting the self without any external requirements or conditions. While self-esteem seems to be the extent to which people value themselves within their life circumstances, self-acceptance is recognised as an ability of accepting the self without external requirements or conditions. Thus, self-acceptance differs from self-esteem in that it is a belief about self that does not change, whereas self-esteem is contingent upon occurrences such as goal accomplishments or approval by others (Ellis, 1972). A self-accepting person seems to be freer to take risks in learning and communicating with others, without a fear of being rejected. Self-acceptance would then promote a broader responsibility for and a stronger control of the self (acceptance and ownership of behaviour), and through it, more control over life circumstances.

The Self-Acceptance Questionnaire includes an evaluation of the past (2 questions), as a necessary base or function of the present life conditions (6 items), and indicates the awareness of feeling responsible for the future self (2 items). The items, as they appeared in the questionnaire sheets, are presented below:

1. If you would like to look into your entire life and you had the ability to change something in it,

would you be willing for such a change? If yes, how much of your past would you like to change? (Please, answer by circling an appropriate percentage, below)

0    10    20    30    40    50    60    70    80    90    100%

2. How much do you accept yourself as you are now (at this moment of your life)?
3. How much responsibility for yourself (and what has happened to you in your life) would you be willing to take on your shoulders?
4. When you think about your future, you obviously expect something. How much of your future would you like to change from the expected, if you could do that?
5. To which extent do you feel (think), you control the circumstances (conditions) of your present life?
6. How much do you like and accept (generally) your own image in a mirror?
7. How successful do you feel, globally, in your present life?
8. To which extent do you trust yourself, to accomplish what you want?
9. If you have an ideal picture of yourself and you compare it to yourself as you are now, how much would you have to change to perfectly match the ideal picture?
10. If you could instantly change yourself into somebody different (your look, health, abilities, etc.), how much of yourself would remain unchanged?

The respondents are asked to indicate their feelings in percentages, which then are converted into scores (0 - 10). Three of the questions (1, 4 and 9) are reverse scored and indicate the desire for a hypothetical change (equally related to the past, present and future). The total scores range from 0 to 100 points. The Questionnaire is included in Appendix C.

### **7.3.2.3 Anxiety**

The Beck Anxiety Inventory was employed to assess the level of anxiety. The BAI is composed of 21 items, which describe specific cognitive (e.g. nervous, scared) and physiological (e.g. indigestion, sweating) manifestations of anxiety, ranging from neutral (lack of symptoms) to maximal severity of the symptom. Similarly to the BDI, the respondents are asked to indicate how much they have been bothered by each symptom during the past week. The scoring method discriminates between the absence of a symptom (0 points), through mild (1 point: 'it did not bother me much') and moderate (2 points: 'it was very unpleasant but I could stand it') to the continuous presence of such a symptom (3 points: 'I could barely stand it'). The total scores can range from 0 to 63 points. The Beck Anxiety Inventory appears to be an internally

consistent (Cronbach's alpha = .94) and acceptably reliable ( $r = .67$ ) tool measuring anxiety (Fydrich et al., 1992), and was chosen for the second study to accompany the BDI, within psychological well-being evaluation (Appendix C).

## Chapter 8 - Results: Study 2

The second study results are described as follows: the first section covers the statistical verification of the Social Adjustment Scale and the newly adopted Self-Acceptance Questionnaire. The second part describes personal and demographic characteristics, and outcome results of the Study N° 2, including predictors of social adjustment and correlates of psychological well-being. The third part describes and reviews the results of Study 2. The last section compares the results obtained from the first and the second study. This enabled the researcher to determine the similarities and differences between both studies and samples, and eventually to evaluate the methodological tools used in this research.

### 8.1 Analysis of the Social Adjustment Scale

The Social Adjustment Scale was extended up to 40 items, as provided in the original questionnaire (see Appendix C), but after much deliberation the 30-item version was taken into account. The reason to drop these ten newly formulated questions was threefold: (1) four of the items did not possess any differentiating power, (2) the addition of the remaining six items did not improve the reliability of the scale and (3) would bias further comparisons between both studies. Thus, the original 30-item Social Adjustment Scale was again analysed on its reliability with the result ( $\alpha_{\text{Study2}} = .89$ ) which appeared to be very close to its previous version ( $\alpha_{\text{Study1}} = .90$ ). Both subscales (Assimilation and Adaptation) reached satisfactory and similar results when compared with their previous versions (Adaptation:  $\alpha_{\text{Study2}} = .82$ ;  $\alpha_{\text{Study1}} = .86$  and Assimilation:  $\alpha_{\text{Study2}} = .90$ ;  $\alpha_{\text{Study1}} = .88$ ). The correlation between Adaptation and Assimilation was  $r = .26$ .

### 8.2 Self-Acceptance Questionnaire (SAQ): internal consistency

The Self-Acceptance Questionnaire consists of 10 questions, The alpha coefficient statistic was employed to assess the reliability of the SAQ. The result ( $\alpha = .82$ ) was quite satisfactory and confirmed the internal consistency of the scale. The SAQ was composed of 10 questions (each scored from 0 to 10 points, thus with 0 points as the

minimum Scale scores and 100 points as its maximum), and appeared to be quite homogenous (Table 8.1).

Table 8.1 Reliability analysis for Self-Acceptance  
Questionnaire: Item-Total statistics (N = 61)

Item No:	CORRECTED ITEM TOTAL CORRELATION	ALPHA IF ITEM DELETED
1	.506	.802
2	.579	.794
3	.378	.814
4	.458	.807
5	.446	.808
6	.568	.795
7	.741	.779
8	.572	.794
9	.359	.817
10	.442	.808
<b>RELIABILITY COEFFICIENT: 10 ITEMS</b>		<b>.818</b>

The reliability coefficient of all 10 items is higher than after deleting any of its components and even the lowest item-total correlations (Q-9 = .36 and Q-3 = .38) are acceptable.

### 8.3 Characteristics of the respondents

The sample demographic, personality and health characteristics are displayed in Tables 8.2 and 8.3 (next pages). The t-tests and Chi-square analyses revealed a few significant differences in regard to respondents gender. The age of respondents ranged from 19 to 58, with males on average 4.5 years older than females and this difference was found to be significant ( $t = 2.13$ ;  $p < .05$ ). Male immigrants also tended to have higher salaries ( $t = 2.76$ ;  $p < .01$ ) than their female counterparts (on average, males' income could be placed in the income range of \$20,001 - 30,000 and females' in \$10,001 - 20,000). All respondents came to Australia in or after 1980, with an average stay of ten and a half years. The period of residing in Australia ranged from 2.5 to 17 years and did not differ on average between male and female respondents. Similarly, marital status, the number of children, employment, educational level and residential status did not differentiate the sample in regard to gender. As in the previous study, the statistically

significant demographic difference between men and women was their immigration status: relatively fewer women (37%) than men (64%) came to Australia as independent immigrants ( $\chi^2 = 4.60$ ;  $p < .05$ ), i.e. those who went through a rigorous selection process.

Table 8.2 Demographic characteristics of the sample and by gender (N = 61).

	Sample N = 61		Female N = 36		Male N = 25		Gender differences
	Mean	(sd)	Mean	(sd)	Mean	(sd)	
<b>Age</b>	38.21	(8.76)	36.36	(9.35)	40.88	(7.18)	t(59) = <b>-2.13*</b>
<b>Length of residence</b>	10.61	(3.82)	10.31	(3.83)	11.04	(3.85)	t(59) = <b>-.74</b>
<b>Income</b>	2.95	(1.37)	2.56	(1.38)	3.52	(1.16)	t(59) = <b>-2.76**</b>
<b>Distribution of respondents:</b>							
<b><u>Marital status:</u></b>							
- married	36		23		13		$\chi^2 (1) = .86$
- non-married	25		13		12		
<b><u>Employment:</u></b>							
- unemployed	9		7		2		$\chi^2 (1) = 1.54$
- employed or studying	52		29		23		
<b><u>Educational level:</u></b>							
- secondary and high school	32		22		10		$\chi^2 (1) = 2.64$
- tertiary education	29		14		15		
<b><u>Immigration status:</u></b>							
- dependent	32		23		9		$\chi^2 (1) = 4.60*$
- independent	29		13		16		
<b><u>Kind of residence:</u></b>							
- permanent resident	7		4		3		$\chi^2 (1) = .01$
- citizen	54		32		22		

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

Neither the levels of extraversion nor neuroticism (Table 8.3, next page), as measured by the Polish version of EPI, differentiated male from female respondents. The 9 points (on average) higher scores obtained from the Self-Acceptance Questionnaire by male immigrants suggest that they tended to feel more responsible for their past, present and future life conditions, and were relatively more satisfied with their self-image than the female respondents ( $t(59) = 2.78$ ;  $p < .01$ ).

Both Beck's inventories, assessing levels of depression and anxiety (measures of psychological well-being), did not indicate significant differences between male and female immigrants (Table 8.3).

Table 8.3 Personal characteristics and Health by gender (N = 61).

	Sample N=61		Female N=36		Male N=25		Gender differences
	Mean	(sd)	Mean	(sd)	Mean	(sd)	t(59)
<b><u>Personal</u></b>							
<b><u>characteristics:</u></b>							
<b>Extraversion</b>	3.32	(1.39)	3.46	(1.23)	3.12	(1.60)	.89
<b>Neuroticism</b>	2.16	(1.28)	2.33	(1.25)	1.90	(1.30)	1.30
<b>Self-acceptance</b>	63.69	(13.90)	59.89	(14.15)	69.16	(11.77)	<b>-2.78**</b>
<b><u>Health:</u></b>							
<b>Depression</b>	7.85	(7.64)	8.44	(8.01)	7.00	(7.14)	.84
<b>Anxiety</b>	7.44	(7.55)	8.47	(8.33)	5.96	(6.11)	1.41

\*\* p < .01

When the results above were compared to those of the first study, a few differences emerged. The length of residence in Australia was higher ( $M_{\text{Study1}} = 5.3$  and  $M_{\text{Study2}} = 10.6$ ;  $p < .01$ ) and it was probably due to the fact that Study 2 was conducted about 4 years later. It could suggest that the majority of Polish immigrants came to Australia at approximately the same time, but it has to be pointed out that in both studies there were immigrants who had been in Australia less than one year (Study 1) and less than 2.5 years in Study 2. There was a significant increase in income ( $t(59) = 2.99$ ,  $p < .003$ ), which is quite understandable because of the natural inflation and the better employment ratio of participants of the second study (Study 1 = 73% and Study 2 = 85%). There was also a difference in educational level: while in the first study 75% of respondents had university degrees, in the second study 48% of immigrants had university diplomas. Other sample characteristics, such as levels of extraversion, neuroticism, age, number of children, or immigration status, were very similar for both groups.

## 8.4 Outcome results

The outcome results are divided into two basic sections; the first covering zero-order correlations between independent variables (personal and demographic data) and correlated with social adjustment (and its sub-divisions), the second analysing the same independent variables relationship with psychological well-being of respondents. Both sections include hierarchical regression models as final analyses in

finding the most significant correlates (variables with the highest contributions). In the end of this chapter the comparison of the results of both studies will be shown.

### 8.4.1 Predictors of social adjustment

Intercorrelations of the independent variables are displayed in Table 8.4. Extraversion had significant relationships with age, income, immigration status and marital status: more outgoing and socially open respondents tended to be younger, had relatives and/or friends in Australia prior to their immigration who helped them to settle down, had lower incomes,

Table 8.4 Correlation Matrix of independent variables: product moment coefficients (N = 61)

Variables:	1	2	3	4	5	6
1 Extraversion	1.00					
2 Neuroticism	.17	1.00				
3 Self-acceptance (SAQ)	-.05	<b>-.58**</b>	1.00			
4 Age	<b>-.41**</b>	-.10	.01	1.00		
5 Gender	-.12	-.17	<b>.33**</b>	<b>.26*</b>	1.00	
6 Length of residence	-.24	.09	-.18	.23	.10	1.00
7 Marital Status	<b>.25*</b>	.21	-.01	-.19	.12	.06
8 Children	.02	-.11	-.10	.16	-.02	-.03
9 Education	-.09	<b>-.30*</b>	<b>.42**</b>	.14	.21	-.10
10 Income	<b>-.31*</b>	-.02	.18	<b>.31*</b>	<b>.33**</b>	.11
11 Employment	.01	.03	.07	-.01	.16	.11
12 Immigration Status	<b>-.29*</b>	-.04	.16	.22	<b>.28*</b>	<b>.34**</b>
13 Residential Status	-.07	-.04	-.08	.04	-.02	<b>.32**</b>

	7	8	9	10	11	12
7 Marital Status	1.00					
8 Children	<b>-.34**</b>	1.00				
9 Education	-.19	.06	1.00			
10 Income	-.20	-.08	<b>.35**</b>	1.00		
11 Employment	.16	-.23	.12	<b>.53**</b>	1.00	
12 Immigration Status	-.13	.02	.15	<b>.30*</b>	.03	1.00
13 Residential Status	.17	-.05	.24	.16	<b>.28*</b>	.14

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

and were presently not married. Those immigrants who were more satisfied (accepting) with themselves and their life conditions were also relatively less neurotic, better educated and male. Male respondents were older, had higher salaries and came to Australia as independent immigrants. Length of residence had significant relationship with immigration and residential status: those immigrants who had stayed longer in Australia had come as independent immigrants and had already been granted Australian citizenship. Respondents with higher incomes tended to be older, males, employed, better educated and came to Australia selected by Australian government

(independent immigration). Independent immigration was also positively correlated with being an Australian citizen.

Correlations between Social Adjustment (and its sub-division into Adaptation and Assimilation) and personal and demographic characteristics are presented in Table 8.5.

Table 8.5 Social Adjustment, its subdivisions (Adaptation and Assimilation) by Personal and Demographic Data (N=61)

<u>Personal Characteristics:</u>	<b>Social Adjustment</b>	<b>Adaptation</b>	<b>Assimilation</b>
<b>Extraversion</b>	<b>.32*</b>	.23	<b>.32*</b>
<b>Neuroticism</b>	-.20	-.22	-.13
<b>Self-acceptance</b>	<b>.57**</b>	<b>.56**</b>	<b>.41*</b>
<u>Demographic Data:</u>			
<b>Age</b>	-.16	.04	<b>-.32*</b>
<b>Age at arrival</b>	-.15	.07	<b>-.34**</b>
<b>Gender</b>	.10	.14	.02
<b>Length of residence</b>	-.02	-.07	.04
<b>Marital Status</b>	.15	.07	.20
<b>Children</b>	-.23	-.16	-.23
<b>Education</b>	<b>.27*</b>	.16	<b>.30*</b>
<b>Income</b>	.21	<b>.25*</b>	.09
<b>Employment</b>	<b>.38**</b>	<b>.38**</b>	<b>.27*</b>
<b>Immigration Status</b>	-.02	-.15	.13
<b>Residential Status</b>	.07	.05	.07

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

Employment and income in Study 2 were treated separately, as fewer variables were to be included in this analysis (Howell, 1997). The results show that social adjustment was significantly related to self-acceptance ( $r = .57$ ;  $p < .01$ ), extraversion ( $r = .32$ ;  $p < .01$ ), employment status ( $r = .38$ ;  $p < .01$ ) and education status ( $r = .27$ ;  $p < .05$ ). In other words, better socially adjusted immigrants were better educated, tended to be more outgoing and socially open, had jobs and were inclined to more fully accept themselves and the circumstances under which they were living. Age, gender, years already spent in Australia, marital status and number of children, income, immigration and residential status were not significantly correlated with respondents' social adjustment.

As in the previous study, the division of Social Adjustment into Adaptation and Assimilation allowed an identification of correlates which helped to differentiate these particular aspects of Social Adjustment. Some noteworthy differences were found: while Adaptation scores were significantly related to self-acceptance ( $r = .56$ ;  $p < .01$ ),

employment status ( $r = .38$ ;  $p < .01$ ) and income ( $r = .25$ ;  $p < .05$ ), Assimilation was associated mainly with extraversion ( $r = .32$ ;  $p < .05$ ), self-acceptance ( $r = .41$ ;  $p < .05$ ), age [both: the age at arrival to Australia ( $r = -.34$ ;  $p < .01$ ) and the age at the moment of conducting this research ( $r = -.32$ ;  $p < .05$ )], education ( $r = .30$ ;  $p < .05$ ) and employment ( $r = .27$ ;  $p < .05$ ). In other words, better adapted immigrants were employed and with higher salaries, and tended to more fully accept themselves and their life conditions as a result of their own actions. Well assimilated respondents appeared to be relatively more socially outward and outgoing, more self-accepting and younger, either on arrival to Australia or at the time of answering the research questions, were well educated and employed.

To measure the simultaneous impact of independent variables on Social Adjustment and its sub-scales, the hierarchical regression model was employed. The personal and demographic data chosen for such analyses were those that had significant zero-order correlations (extraversion, age at arrival, education, employment), and/or appeared to be significant in the first study (income and years already spent in Australia). Because of the very high correlations of dependent variables with self-acceptance scores, the analyses were conducted separately, with and without SAQ, and are shown in Tables 8.5-7 (next pages). This procedure was adopted because self-acceptance and social adjustment were seen as being closely related structurally.

### **Hierarchical regression analyses**

The first analysis (Block 1), with the set of three pre-arrival variables (i.e. age at arrival, educational level and extraversion), indicates extraversion ( $\beta = .32$ ;  $p < .01$ ) and education ( $\beta = .32$ ;  $p < .01$ ) as significant predictors of social adjustment. Entry of these three variables was significant and accounted for 20% of the variance in Social Adjustment ( $p < .005$ ). The addition of the three post-arrival variables, i.e. employment, income and years already spent in Australia, was also significant ( $p < .03$ ), accounting for a further 12% of the variance in Social Adjustment. The final result (Block 2) indicated

pre-arrival extraversion ( $\beta = .35$ ,  $p < .01$ ) and education ( $\beta = .25$ ,  $p < .04$ ), and post-arrival employment ( $\beta = .29$ ,  $p < .04$ ) as best predictors of social adjustment. In other words, higher educated and employed immigrants, and those with more outward personalities appeared to be better socially adjusted.

Table 8.5 Multiple regression analyses. Social Adjustment by Personal and Demographic data, with and without Self-Acceptance Questionnaire (N=61)

<b>Social Adjustment</b>									
<b>Block No 1</b>	<b>without self-acceptance</b>					<b>with self-acceptance</b>			
	<b>R</b>	<b>.45</b>			<b>R</b>	<b>.68</b>			
	<b>R<sup>2</sup></b>	<b>.20</b>			<b>R<sup>2</sup></b>	<b>.46</b>			
	<b>F</b>	<b>4.80</b>			<b>F</b>	<b>11.90</b>			
	<b>p</b>	<b>.005</b>			<b>p</b>	<b>.001</b>			
<b>Independent variable:</b>									
	<b>r</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>
<b>Age at arrival</b>		-.18	-.11	-.88	.38	-.18	-.11	-1.10	.28
<b>Education</b>		8.73	.32	2.62	.01	2.29	.08	.75	.45
<b>Extraversion</b>		3.16	.32	2.53	.01	3.20	.32	3.10	.003
<b>Self-acceptance</b>						.56	.56	5.17	.001
<b>Block No 2</b>		<b>R<sup>2</sup> Change</b>			<b>.12</b>	<b>R<sup>2</sup> Change</b>			<b>.12</b>
		<b>F Change</b>			<b>3.16</b>	<b>F Change</b>			<b>5.03</b>
		<b>p Change</b>			<b>.03</b>	<b>p Change</b>			<b>.004</b>
<b>Age at arrival</b>	-.15	-.14	-.09	-.70	.49	-.10	-.06	-.62	.54
<b>Education</b>	.27*	6.94	.25	2.06	.04	.87	.03	.30	.76
<b>Extraversion</b>	.32*	3.49	.35	2.68	.01	3.79	.38	3.67	.001
<b>Self-acceptance</b>	.57**					.57	.58	5.71	.001
<b>Employment</b>	.38**	11.27	.29	2.08	.04	10.84	.28	2.52	.02
<b>Income</b>	.21	.99	.09	.59	.55	.70	.07	.53	.60
<b>Length of residence</b>	-.02	.11	.03	.24	.81	.45	.12	1.25	.22

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

When Social Adjustment was analysed with the inclusion of self-acceptance scores, entry of these four variables (i.e. age at arrival, education, extraversion and self-acceptance) accounted for 46% of the variance in Social Adjustment ( $p < .001$ ); with the highest contribution of self-acceptance ( $\beta = .56$ ;  $p < .001$ ) and extraversion ( $\beta = .32$ ;  $p < .003$ ). The addition of employment, income and length of residence was also significant ( $p < .004$ ), explaining another 12% of the variance in Social Adjustment and adding employment as the third independently contributing variable ( $\beta = .28$ ;  $p < .02$ ) [with self-acceptance ( $\beta = .58$ ;  $p < .001$ ) and extraversion ( $\beta = .38$ ;  $p < .001$ )].

The same statistical analyses were conducted to test the relationships with Adaptation and Assimilation. The results are presented in Tables 8.6 and 8.7, with and without the Self-Acceptance Questionnaire.

Table 8.6 Multiple regression analyses: Adaptation and Assimilation by Personal and Demographic data (N=61).

	Adaptation					Assimilation				
	R	R <sup>2</sup>	F	p		R	R <sup>2</sup>	F	p	
<b>Block No 1</b>		<b>.31</b>					<b>.56</b>			
		<b>.10</b>					<b>.31</b>			
		<b>2.16</b>					<b>8.64</b>			
		<b>.10</b>					<b>.001</b>			
<b>Independent variable:</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>
<b>Age at arrival</b>	.12	.13	.13	.97	.34	-.30	-.34	-.34	-2.87	<b>.006</b>
<b>Education</b>	2.75	.16	.16	1.29	.20	5.99	.39	.39	3.45	<b>.001</b>
<b>Extraversion</b>	1.72	.28	.28	2.16	<b>.04</b>	1.43	.26	.26	2.21	<b>.03</b>
<b>Block No 2</b>		<b>R<sup>2</sup> Change</b>		<b>.15</b>			<b>R<sup>2</sup> Change</b>		<b>.04</b>	
		<b>F Change</b>		<b>3.49</b>			<b>F Change</b>		<b>1.23</b>	
		<b>p Change</b>		<b>.02</b>			<b>p Change</b>		<b>.31</b>	
<b>Age at arrival</b>	.07	.13	.14	1.03	.31	-.34**	-.28	-.31	-2.47	<b>.02</b>
<b>Education</b>	.16	1.44	.09	.67	.50	.30*	5.50	.36	2.99	<b>.004</b>
<b>Extraversion</b>	.23	1.89	.31	2.29	<b>.03</b>	.32*	1.60	.28	2.25	<b>.03</b>
<b>Employment</b>	.38**	7.45	.32	2.17	<b>.04</b>	.27*	3.82	.18	1.29	.20
<b>Income</b>	.25*	.74	.12	.71	.48	.09	.24	.04	.27	.79
<b>Length of residence</b>	-.07	-.01	-.01	-.05	.96	.04	.12	.06	.49	.63

\*p<.05; \*\*p<.01

The same set of three pre-arrival variables entered first into the equation and their entry was not significant for Adaptation, accounting for only 10% of the variance in Adaptation ( $p < .10$ ), but was significant for Assimilation (31% of the variance in Assimilation;  $p < .001$ ). Well adapted respondents tended to be relatively more extravert ( $\beta = .28$ ;  $p < .04$ ). Those immigrants who revealed more outgoing personalities were also better assimilated ( $\beta = .26$ ;  $p < .03$ ), were younger on arrival ( $\beta = -.34$ ;  $p < .006$ ) and better educated ( $\beta = .39$ ;  $p < .001$ ). The addition of post-arrival variables did not change the structure of such relationships and was significant only in the case of Adaptation ( $p < .02$ ), explaining a further 15% of its variance. When controlling for all other independent variables, Assimilation was best predicted by extraversion ( $\beta = .36$ ;  $p < .004$ ), age at arrival ( $\beta = -.31$ ,  $p < .02$ ) and employment ( $\beta = .28$ ;  $p < .03$ ). Income and length of residence made no independent contribution to adaptation and assimilation levels. This result might be explained by the length of residence itself: it seems that the residence extended over 10 years had no impact on

earnings, fluency in English, preferences in food and clothing, or general satisfaction with living in Australia.

The degree to which immigrants accepted themselves and their life conditions, when included in the model, had a significant impact on predicting both Adaptation and

Table 8.7 Multiple regression analyses: Adaptation and Assimilation by Personal and Demographic data, with Self-Acceptance Questionnaire (N=61).

	Adaptation					Assimilation				
<b>Block No 1</b>	<b>R</b>	<b>.63</b>				<b>R</b>	<b>.64</b>			
	<b>R<sup>2</sup></b>	<b>.39</b>				<b>R<sup>2</sup></b>	<b>.42</b>			
	<b>F</b>	<b>9.11</b>				<b>F</b>	<b>10.04</b>			
	<b>p</b>	<b>.001</b>				<b>p</b>	<b>.001</b>			
<b>Independent variable:</b>	<b>r</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<b>r</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>
<b>Age at arrival</b>	.12	.12	.12	1.12	.27	-.30	-.34	-.34	-3.12	<b>.003</b>
<b>Education</b>	-1.39	-.08	-.08	-.72	.48	3.68	.24	.24	2.08	<b>.05</b>
<b>Extraversion</b>	1.75	.29	.29	2.66	<b>.01</b>	1.45	.26	.26	2.40	<b>.02</b>
<b>Self-acceptance</b>	.36	.60	.60	5.19	<b>.001</b>	.20	.36	.36	3.18	<b>.002</b>
<b>Block No 2</b>		<b>R<sup>2</sup> Change</b>	<b>.14</b>				<b>R<sup>2</sup> Change</b>	<b>.05</b>		
		<b>F Change</b>	<b>5.30</b>				<b>F Change</b>	<b>1.61</b>		
		<b>p Change</b>	<b>.003</b>				<b>p Change</b>	<b>.20</b>		
<b>Age at arrival</b>	.07	.16	.17	1.54	.13	-.34**	-.26	-.29	-2.54	<b>.01</b>
<b>Education</b>	.16	-2.41	-.14	-1.32	.19	.30*	3.28	.21	1.80	.08
<b>Extraversion</b>	.23	2.08	.34	3.17	<b>.003</b>	.32*	1.71	.30	2.62	<b>.01</b>
<b>Self-acceptance</b>	.56**	.36	.60	5.70	<b>.001</b>	.41**	.21	.37	3.30	<b>.002</b>
<b>Employment</b>	.38**	7.18	.31	2.63	<b>.01</b>	.27*	3.66	.17	1.34	.18
<b>Income</b>	.25*	.56	.09	.67	.50	.09	.14	.02	.17	.87
<b>Length of residence</b>	-.07	.20	.09	.89	.38	.04	.24	.12	1.07	.29

\*p<.05; \*\*p<.01

Assimilation (Table 8.7). The addition of SAQ to the set of variables which entered first into the equation, changed the percentages accounting for the total variances in Adaptation (from 10% to 39%) and Assimilation (from 31% to 42%). Both Adaptation and Assimilation were predicted by extraversion ( $\beta_{Ad} = .29$  and  $\beta_{Ass} = .26$ ) and self-acceptance ( $\beta_{Ad} = .60$  and  $\beta_{Ass} = .36$ ): well adapted and assimilated immigrants tended to be more outgoing, socially open and were more satisfied with themselves. Assimilation was also predicted by age at arrival (younger immigrants scored better on this scale:  $\beta = -.34$ ;  $p < .003$ ) and education ( $\beta = .24$ ;  $p < .05$ ). In the case of Adaptation, the addition of employment status, income and length of residence was significant ( $p < .003$ ), accounting for a further 14% of the total variance, and adding the third independently contributing variable, i.e. employment ( $\beta = .31$ ;  $p < .01$ ) [with self-acceptance ( $\beta = .60$ ,  $p < .001$ ) and extraversion ( $\beta = .34$ ,  $p$

< .003)]. When analysing Assimilation, the addition of employment and years already spent in Australia was not significant ( $R^2 = .05$ ;  $p < .20$ ). Self-acceptance ( $\beta = .37$ ,  $p < .002$ ), extraversion ( $\beta = .30$ ,  $P < .01$ ) and age at arrival ( $\beta = -.29$ ,  $P < .01$ ), once other variables were taken into consideration, were the independently contributing predictors for Assimilation. Analyses of residuals, in all cases where the multiple regression model was involved, indicated no outliers or violations of assumptions.

#### 8.4.2 Psychological well-being correlates

In Study 2, the well-being of respondents was assessed by the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). BAI was introduced as a replacement for the General Health Questionnaire (GHQ), used in the first study, and it was expected that such replacement might give additional information about psychological adjustment of Polish immigrants living in Australia. Table 8.8 shows correlations of depression and anxiety with personal and demographic characteristics, some of which were then chosen for further investigations. These results suggest that psychological well-being was significantly related to respondents' neuroticism ( $r_{BDI} = .41$  and  $r_{BAI} = .38$ ; both  $p < .001$ ) and the level they were willing to accept themselves and the conditions of their present existence ( $r_{BDI} = .65$  and  $r_{BAI} = .61$ ; both  $p < .01$ ). Within the whole range of relationships with demographic data, only employment status had a significant correlation with anxiety ( $r = -.32$ ;  $p < .05$ ): unemployed immigrants tended to be more anxious, most probably due

Table 8.8 Psychological adjustment by Personal and Demographic Data (N=61)

	Depression (BDI)	Anxiety (BAI)
<b><u>Personal Characteristics:</u></b>		
Extraversion	-.07	-.16
Neuroticism	.41**	.38**
Self-acceptance	-.65**	-.61**
<b><u>Demographic Data:</u></b>		
Age	.16	.16
Gender	-.11	-.17
Length of residence	.22	.21
Marital Status	-.09	-.09
Children	.21	.16
Education	-.17	-.24
Income	-.12	-.21
Employment	-.23	-.32*

<b>Immigration Status</b>	.13	-.06
<b>Residential Status</b>	.24	-.12

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

to the recession, which became more evident in Australia at that time (1995-96). These three variables and two other, age and length of residence, were chosen for hierarchical regression analyses (with and without Self-Acceptance Questionnaire), and are presented in Tables 8.9 and 8.10 (pages 105 and 106).

### Hierarchical regression analyses

First, age of immigrants and their the level of neuroticism (considered as pre-arrival variables) were entered into the equation. Their entry was significant and accounted for 22% of the variance in depression ( $p < .001$ ) and 18% in anxiety ( $p < .003$ ). While neuroticism appeared to be significant for both depression ( $\beta = .43$ ;  $p < .01$ ) and anxiety ( $\beta = .39$ ;  $p < .01$ ), the age of immigrants was significant only in the case of depression ( $\beta = .24$ ;  $p < .05$ ). More neurotic and older respondents tended to also be more depressed. The addition of employment and years already spent by immigrants in Australia was also significant, accounting for a further 8% of the total variance in depression ( $p < .04$ ) and 14% in anxiety ( $p < .005$ ). At this stage of analysis, neuroticism and employment status predicted both depression ( $\beta_{\text{Neu}} = .42$ ;  $p < .001$  and  $\beta_{\text{Emp}} = -.26$ ;  $p < .02$ ) and anxiety ( $\beta_{\text{Neu}} = .38$ ;  $p < .001$  and  $\beta_{\text{Emp}} = -.37$ ;  $p < .002$ ).

Table 8.9 Multiple regression analyses: Health by Personal (without SAQ) and Demographic data (N=61).

	Depression					Anxiety				
<b>Block No 1</b>	<b>R</b>	<b>.47</b>				<b>R</b>	<b>.42</b>			
	<b>R<sup>2</sup></b>	<b>.22</b>				<b>R<sup>2</sup></b>	<b>.18</b>			
	<b>F</b>	<b>8.25</b>				<b>F</b>	<b>6.30</b>			
	<b>p</b>	<b>.001</b>				<b>p</b>	<b>.003</b>			
<b>Independent variable:</b>	<b>r</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>	<b>r</b>	<b>B</b>	<b>Beta</b>	<b>T</b>	<b>p</b>
<b>Age</b>		.21	.24	2.02	<b>.05</b>	.18	.21	1.74	.09	
<b>Neuroticism</b>		2.57	.43	3.70	<b>.001</b>	2.29	.39	3.24	<b>.002</b>	
<b>Block No 2</b>		<b>R<sup>2</sup> Change</b>			<b>.08</b>		<b>R<sup>2</sup> Change</b>			<b>.14</b>
		<b>F Change</b>			<b>3.36</b>		<b>F Change</b>			<b>5.83</b>
		<b>p Change</b>			<b>.04</b>		<b>p Change</b>			<b>.005</b>
<b>Age</b>	.20	.17	.20	1.69	.10	.17	.14	.16	1.44	.16
<b>Neuroticism</b>	.41**	2.52	.42	3.74	<b>.001</b>	.37**	2.24	.38	3.41	<b>.001</b>
<b>Employment</b>	-.23	-5.62	-.26	2.34	<b>.02</b>	-.33*	-7.53	-.37	3.22	<b>.002</b>
<b>Length of residence</b>	.21	.32	.16	1.37	.18	.20	.34	.17	1.50	.14

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

The inclusion of self-acceptance, as the third independent variable (with age and neuroticism), on entry (Block 1, Table 8.10, next page) was significant and already accounted for 47% of the variance in depression, and 39% in anxiety. In both cases (BDI and BAI) self-acceptance appeared to be the strongest correlate ( $\beta_{BDI} = -.61$  and  $\beta_{BAI} = -.57$ ; both  $p < .001$ ). Those immigrants who were less accepting of themselves also tended to be more anxious and depressed. Age was significant in the case of depression ( $\beta = .21$ ;  $p < .05$ ): older persons displayed more depressive symptomatology.

The addition of two post-arrival variables, i.e. employment and length of residence (Block 2), to the model was significant only in the case of anxiety ( $R^2 = .09$ ;  $p < .01$ ). Such addition showed both depression and anxiety were best indicated by self-acceptance ( $\beta_{BDI} = -.57$ ;  $p < .001$  and  $\beta_{BAI} = -.51$ ;  $p < .001$ ) and employment status ( $\beta_{BDI} = -.20$ ;  $p < .05$  and  $\beta_{BAI} = -.30$ ;  $p < .003$ ): those immigrants who accepted themselves as they were (less discrepancy between actual and wishful self-images, feeling responsible for own decisions and behaviours) and had jobs, were also of better psychological health (less depressive and anxious).

Table 8.10 Multiple regression analyses: Health by Personal (with SAQ) and Demographic data (N=61).

	Depression					Anxiety				
<b>Block No 1</b>	R	.68				R	.63			
	R <sup>2</sup>	.47				R <sup>2</sup>	.39			
	F	16.75				F	12.36			
	p	.001				p	.001			
<b>Independent variable:</b>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<i>p</i>	<i>r</i>	<b>B</b>	<b>Beta</b>	<b>T</b>	<i>p</i>
<b>Age</b>		.18	.21	2.14	.04		.16	.18	1.76	.08
<b>Neuroticism</b>		.41	.07	.58	.57		.29	.05	.39	.70
<b>Self-acceptance</b>		-.34	-.61	5.15	.001		-.31	-.57	4.50	.001
<b>Block No 2</b>		<b>R<sup>2</sup> Change</b>		<b>.04</b>			<b>R<sup>2</sup> Change</b>		<b>.09</b>	
		<b>F Change</b>		<b>2.35</b>			<b>F Change</b>		<b>4.89</b>	
		<b>p Change</b>		<b>.10</b>			<b>p Change</b>		<b>.01</b>	
<b>Age</b>	.20	.16	.19	1.93	.06	.17	.14	.16	1.58	.12
<b>Neuroticism</b>	.41**	.55	.09	.78	.44	.37**	.50	.08	.70	.49
<b>Self-acceptance</b>	-.65**	-.31	-.57	4.80	.001	-.60**	-.28	-.51	4.21	.001
<b>Employment</b>	-.23	-4.30	-.20	2.10	.05	-.33*	-6.36	-.30	3.07	.003
<b>Length of residence</b>	.21	.16	.08	.82	.42	.20	.20	.10	1.01	.32

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

Analyses of residuals indicated no outliers or violations of assumptions in all cases above.

### 8.4.3 Social vs. psychological adjustment

Social Adjustment, as well as its both sub-divisions, significantly correlated with psychological well-being (Table 8.11), i.e. immigrants who were less-well socially adjusted (adapted and/or assimilated) also manifested significantly more psychosomatic symptoms related to depression and anxiety, and vice versa. As in the previous study, the correlation between scores obtained in Social Adjustment by immigrants who did not show depressive symptoms (65%) and those who showed them (35%), in regard to the Polish norms (Jucha, 1973), revealed significant differences: those immigrants who were classified as depressives (on mild, moderate, and severe levels) were also significantly less-well socially adjusted (adapted and assimilated).

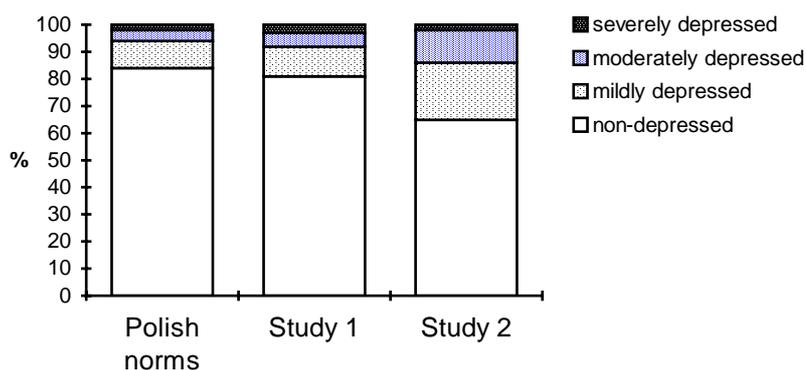
Table 8.11 Social Adjustment, Adaptation and Assimilation by psychological well-being measures (N=61)

	<b>BDI</b>	<b>BAI</b>
	<i>r</i>	<i>r</i>
<b>Social Adjustment</b>	<b>-.49**</b>	<b>-.44**</b>
<b>Adaptation</b>	<b>-.49**</b>	<b>-.45**</b>
<b>Assimilation</b>	<b>-.34**</b>	<b>-.30*</b>
<b>Self-acceptance</b>	<b>-.66**</b>	<b>-.61**</b>

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

Also when the distribution of scores obtained in depression from this study [non-depressed = 40 (65%), mildly = 13 (21%), moderately = 7 (12%) and severely depressed = 1 (2%)] was compared to that of Study 1 [non-depressed = 79 (81%), mildly = 11 (11%), moderately = 5 (5%) and severely = 3 (3%)], the  $\chi^2$ -test of independence revealed a significant difference [ $\chi^2$   $df(1) = 4.52$ ;  $p < .05$ ], indicating a higher ratio of depression in immigrants examined at the later time (Figure 8.1).

Figure 8.1 Percentage of the depression scores obtained by immigrants in Study 1 and Study 2; according to Polish norms\* (N<sub>Study 1</sub> = 98 and N<sub>Study 2</sub> = 61).



\*Source: Jucha (1973)

These outcomes will be analysed in detail in further chapters.

## 8.5 Summary of Study 2

As in the first study, the dependent variables were social adjustment and psychological well-being. The hypotheses tested in the study were whether there were some particular personal and demographic characteristics of immigrants that could lead to a better social adjustment and, as a result, better psychological comfort. The results obtained within the second study partly supported such hypotheses and are described in the following section. As this is a summary of Study 2, more detailed explanations will be given in the following chapter.

The first hypothesis examined the relationship between the dependent variables: **social adjustment** and **psychological well-being**. It was assumed that difficulties in social adjustment (adaptation rather than assimilation) might affect psychological well-being of immigrating people. The results obtained supported this assumption: less-well socially adjusted immigrants experienced significantly more psychological difficulties and vice versa (as measured by BDI and BAI). Similar correlations were found in relationship to **adaptation** and **assimilation**: less-well adapted and assimilated immigrants were more depressed and anxious, and better adjusted persons tended to be relatively free from the symptoms of depression and anxiety.

The second prediction was that those immigrants with more outgoing personalities (more extravert) should display a relatively better social adjustment level (better

assimilated rather than adapted). The zero-order correlations supported this hypothesis: **extraversion** was significantly and positively related to social adjustment as well as to both subscales. When a multiple regression analysis was conducted, extraversion was found to be a significant predictor of both assimilation and adaptation (either with or without addition of the Self-Acceptance Scale), a finding similar to that of Nadith and Morrissey (1976), and Sommer (1984).

The Self-Acceptance Scale was created to assess the level of willingness to acknowledge responsibility for life conditions (including immigration per se and its difficulties), covering past, present and the expected future circumstances. The theoretical prediction was that those immigrants whose **self-acceptance** level was higher would be more active in achieving their goals and, as a function of this, better adjusted socially (better adapted and assimilated), and also relatively free from depression and anxiety. This hypothesis was fully supported by this study.

**Age at arrival** was hypothesised to influence the level of social adjustment in that relatively younger immigrants were expected to display better social adjustment (adaptation and assimilation). This assumption was entirely supported by the results reached in Study 2, and in the case of assimilation it was seen that the younger the age at the time of arrival in Australia, the better the assimilation.

On the basis of the results obtained in the first study, it was predicted that **gender** and **length of residence** might differentiate well-adapted from less-well-adapted immigrants, but it should not have such an impact on assimilation. These hypotheses were not supported by the results obtained in Study 2: neither gender nor years already spent in Australia appeared as significant predictors of social adjustment (adaptation or assimilation). Similarly, **marital status** did not differentiate between well and less-well adjusted immigrants.

It was predicted that higher **educational status** should promote better social adjustment (Berry & Annis, 1988; McGuire & McDermott, 1988; Patrige, 1988; Yum, 1987; Salvendy, 1983). This hypothesis was validated for assimilation only. When multiple regression analyses were conducted without the inclusion of self-acceptance, higher education played a major role in predicting better assimilation. However, the

inclusion of SAQ scores and three post-arrival variables (employment, income and length of residence) made educational status only marginally predictive.

**Employment status** (being employed) was predicted to promote better social adjustment (adaptation rather than assimilation) and psychological well-being. The study results supported this hypotheses: those immigrants who were employed tended to be well adapted (and socially adjusted) and experienced less depression and anxiety. Such a relationship was not found to be significant in the case of assimilation. Employment, however, played a crucial role in predicting depression and anxiety and in both regression analyses (with and without addition of self-acceptance): employed immigrants were less anxious and displayed less depressive symptomatology.

## 8.6 Study 1 vs. Study 2

When both studies were compared, several differences emerged. Some of these differences were the result of the replacement of measures (the Attributional Style Questionnaire was replaced by the Self-Acceptance Questionnaire, the General Health Questionnaire by the Beck Anxiety Inventory), some by the reduction of the number of variables involved in the multiple regression model and some were caused by the differences in sample characteristics. It appeared that these few changes had a very important impact on both studies in predicting social adjustment of immigrants (Table 8.12), as well as their psychological well-being (Table 8.13).

Table 8.12 Multiple regression analyses' final (Block 2) and significant predictor variables for Social Adjustment (adaptation and assimilation): Study 1 vs. Study 2

Variables:	Study 1 n=98			Study 2 n=61		
	SAS	Ad	Ass	SAS	Ad	Ass
	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>	<i>p</i>
Age at arrival	+	*	*	+		*/ <sub>2</sub>
Extraversion	+			+	*/ <sub>2</sub>	*/ <sub>2</sub>
Self-acceptance				+	* <sub>2</sub>	*/ <sub>2</sub>
AGi	+					
AGg	+	*				
ABi	+					
ABg	+					
Gender	+					
Education	+	*	*	+	*	*
Length of residence	+	*	*	+		
Marital Status	+					
Employment				+	*/ <sub>2</sub>	*/ <sub>2</sub>

Income	+	*	+
AG int. - internality of attributions for good events			+ - variables included in multiple regression model
AG gen. - generality of attributions for good events			
AB int. - internality of attributions for bad events			* - $p$ significant
AB gen. - generality of attributions for bad events			* <sub>2</sub> - $p$ significant when SAQ was included

In the first study, social adjustment was best indicated by 4 (out of 11) independent personal and demographic variables, namely education level, length of residence, age at arrival, and stability and globality of attributions for hypothetically positive life events. In the second study, the most important predictors of social adjustment were 3 variables (out of 7 involved): levels of self-acceptance and extraversion, and employment status (also education, when SAQ was not included).

In the case of adaptation, there were two demographic variables, namely education and income, which appeared to have a significant contribution in predicting this dependent variable in Study 1; and three predictors in Study 2, such as extraversion, self-acceptance and employment. Assimilation (in the first approach), with the same number of independent variables involved, was best indicated by educational status, age at arrival and length of residence. In Study 2, the most contributing variables in predicting assimilation were levels of self-acceptance and extraversion, and again age at arrival, with a marginal influence of education.

Psychological well-being of immigrants - measured by BDI and GHQ in the first approach, and by BDI and BAI in the second - was best indicated by generality of attributions for negative events in Study 1, and by self-acceptance and employment status

Table 8.13 Multiple regression analyses' final (Block 2) and significant predictor variables for psychological well-being: Study 1 vs. Study 2

Variables:	Study 1 n=98		Study 2 n=61	
	BDI	GHQ	BDI	BAI
	$p$	$p$	$p$	$p$
Age	+		+	
Neuroticism	+		+	*
Self-acceptance			+	* <sub>2</sub>
ABi	+			
ABg	+	*		
Gender	+			
Length of residence	+		+	
Marital Status	+			
Employment		*	+	*/* <sub>2</sub>
Income/Employment	+			*/* <sub>2</sub>

+ - variables included in multiple regression model AB int. - internality of attributions for bad events

\* -  $p$  significant

AB gen. - generality of attributions for bad event

\*<sub>2</sub> -  $p$  significant when SAQ was included

in Study 2. Thus, the first study suggests that when all other variables included were constant, those immigrants whose attributions for negative life circumstances were more global and stable also experienced relatively more psychological and psychosomatic discomforts. The second approach suggested that immigrants accepting themselves and their present life conditions, and having jobs were relatively free from such psychological disturbances (less depressed and anxious).

Both studies and their outcomes will be discussed and probable explanations proposed in the next chapter.

## Chapter 9 - Discussion and Conclusions

Immigration is recognised as one of the most stressful events in people's lives. The totality of personal and social alterations an immigrant has to undertake, especially during the first few years of settlement in a new country, seems to be so overwhelming that it often results in psychological and/or (consequently) somatic perturbances. Many immigrants become distressed to such an extent that their *normal* functioning is disturbed: some of them try to find professional help, some (when possible) re-immigrate, and some become socially marginalised. It is not unusual for some research to show such serious consequences of immigration. There also is, however, another much larger group of immigrants, those who adjust well: are successful in their personal lives, satisfied with their jobs, healthy and easy to be liked in a host society. The main objective of this research was to find what type of characteristics differentiated both groups of immigrants, those who become welcomed members of a host society from those who were unsuccessful with their social adjustment. Several such characteristics have been suggested by scientific investigations in the past sixty years. Some of these attributes are of typically demographic nature: age on arrival, gender, immigration status, length of residence, education, professional level/work skills, previous socio-economic status, marital status, culture distance, ethnicity and the size of ethnic community in a host country, etc. Other characteristics concerned personal qualities of immigrants, such as intelligence, cognitive flexibility, extra-introversion, locus of control, attributional differences, self-esteem, attitudes towards assimilation, knowledge of the host language, experiences with other cultures, the ability to cope with difficulties and personal expectations. A few of the features listed above, which seemed to be most successful in differentiating well from less-well adjusted immigrants, were chosen for this study.

The novel aspect of this research lies in the number of characteristics chosen as predictor variables of social and psychological adjustment of immigrants and the fact that such investigations have not been done on Polish immigrants. Another initiative, shown here, was the separation of social from psychological adjustment, and the

division of social adjustment into adaptation and assimilation. Such an artificial isolation of investigated variables was introduced for the purpose of finding clearer relationships between them. The conclusive outcome of this research suggests, however, that social and psychological adjustment should be viewed together, as all these three processes (or three aspects of the same process, rather) run synchronously.

Social adjustment was measured by the Social Adjustment Scale, initially composed of 30 items derived from other studies (Berry, 1988; Berry & Annis, 1988; Patrige, 1988; Lasry, 1988; Scott & Stumpf, 1984; Chance, 1965; Taft & Johnston, 1965), and assessed methodologically via principal component analysis. One might argue about the appropriateness of choosing such indicators of social adjustment (particularly: adaptation or assimilation), as there is a whole range of other possibilities. Hurh and Kim (1984), for example, chose the proportion of immigrants' first names changed to the names more familiar to residents of a host society. It would be a good indicator of assimilation, however, in the case of this study, with its 206 participants (Polish immigrants to Australia), only three of them altered their names and in connection with their businesses rather than because they wished to be perceived (or felt themselves) as more Australian-like. These cases constituted less than 2% of the whole research sample and seemed to indicate more accurately adaptation (specifically in this study) than assimilation. Similarly low is the proportion of inter-ethnic marriages for Poles living in Australia and this too could not be taken into consideration when the Scale was constructed. Finally, it seems that the selection of indicators for measuring social adjustment is second to the purpose they serve: if food or clothing habitual (ethnic) preferences are altered or modified, because of a changed social environment (assimilation), and such a variation has enough discriminative power, it can be regarded as a good indicator of such a process. Two items of the 3-item Social Relation Index [suggested by Berry (1988) and included here], as another example, had to be removed from the Scale because they did not differentiate the research sample, having very low or negative item-total correlations. Such an outcome might imply ethnicity and culture distance as important factors when similar measures are constructed: some *well-formed* items work well in some instances and not in others, and this is a great challenge and attractiveness of cross-cultural research.

Thus in this study, the Social Adjustment Scale contained two measures: (1) an 13-item Adaptation subscale, assessing job conditions and general satisfaction with living in Australia; and (2) a 12-item Assimilation subscale, asking about English efficiency, food and clothing preferences, and most preferable social contacts. The whole Scale, as well as both its divisions, appeared to display good consistency and reliability in both studies.

Psychological adjustment was assessed by the measure of depression (BDI) and general health (GHQ) in the first study, and depression (BDI) and anxiety (BAI) in the second approach. The exchange of GHQ into BAI was suggested by the first study outcome, as the GHQ only echoed the results obtained from BDI and did not add any new information about psychological well-being of immigrants. The involvement of this new measure (BAI) was suggested by the outcomes in other research (e.g. Pernice & Brook, 1996; Zayas & Bush-Rossnagel, 1992) and was expected to facilitate a better insight in understanding the depth of difficulties the immigrants were undergoing, but it too reflected only the results obtained from BDI. Thus, one of the suggestions arising from this research would be that psychological well-being might be assessed by measuring depressive symptomatology alone, as depression seems to precede and eventually facilitate future major emotional and psychological problems. It would be interesting to investigate anxiety in similar research, however, not as a final product of a highly stressful process (like immigration) but as a personality trait.

The permanent question in the literature of how socio-cultural adjustment relates to the well-being of migrating people was not unambiguously resolved by this research. As Berry (1994) and Schmitz (1994) pointed out, immigration processes are so complex that any universal statement about its positive or destructive psychological outcome is bound to be false. Oddly enough, the remark above seems to be present also in our research. Generally, however, immigration which incorporates such a massive amount of changes on the part of an individual is bound to cause psychological strains, and in turn may attract psychological difficulties. In this research, social and psychological adjustment were highly related to each other: those immigrants who were less-well socially adjusted, also experienced emotional and psychological problems. The first study of this research, however, indicated the

bottom line of such a relationship (analysed on the BDI results): the number of immigrants classified as depressed (on mild, moderate and severe levels) appeared not to be significantly different from comparable numbers of Poles in Poland, in accordance with Polish norms (which are very similar to US norms). This finding suggests that the immigration per se, being regarded as a very highly stressful life event, may provoke but not necessarily cause health problems. It seems that depression, as in the theory of stress, may play an important role in coping with a socially different environment, by indicating personal dissatisfaction with mental and emotional changes, and then by prompting other directions of self-initiated actions to achieve desired goals. Such a pattern would be consistent with the theory of *positive* disintegration proposed by Dabrowski (1964) and brought into cross-cultural research by Adler (1975), Murphy (1977) and others.

It is also worth noticing that the correlation between social and psychological adjustment, in the first approach, was significant in the case of adaptation only and not in the case of assimilation. Thus, it may be assumed that an unsatisfying job or unemployment, and general dissatisfaction with living in Australia promote emotional and psychological problems. The lack of such a significant relationship between immigrants' psychological well-being and assimilation (as measured by English efficiency, types of personal contacts, and preferences in food and clothing) would follow suggestions postulated by other researchers (Pernice & Brook, 1996; Ward et al., 1992; Berry, 1988), that well functioning immigrants do not necessarily need to identify themselves with the culture and ideology of the host country. This assumption was especially related to the well educated immigrants and such is the case of Polish immigrants to Australia: 75% in the first study and 50% in the second study had tertiary education diplomas.

The second study results, within the same area of investigation, did not support such outcomes of Study 1. Both Adaptation and Assimilation were negatively correlated with health measures: less-well adapted and assimilated immigrants tended to undergo psychological difficulties and displayed higher levels of anxiety. There are a few possible explanations for these differences.

Firstly, it should be pointed out that the majority of Poles emigrated from their country, in the 1980s and 1990s, for purely economic reasons (a more comfortable and fulfilling life), so as to achieve what was much less achievable under Soviet occupation. To some extent, these natural desires were never fulfilled due to biased or misleading information about Western countries (USA, Canada, Australia), in many cases based on western culture products (movies, advertisements, etc.). In cross-cultural investigations, unreal expectations (also through the lack of experiences with other cultures) are often quoted as becoming the first source of confusion, followed by depression in immigrating persons (e.g. Berry, 1988; Taft, 1987; Salvendy, 1983). Thus, the relationship between social and psychological adjustment, and length of residence were investigated (e.g. Sommer, 1984; Lasry, 1977), and they revealed that after a few months of initial recognition of a host country's social structure (housing, job market, education, etc.), which is relatively free from complaints, there usually comes a period of much fuller awareness of self-limitations (e.g. language, skills, willingness to change, psychological exhaustion) and external socio-cultural constraints, producing feelings of high tensions and helplessness. This seems to be the exact moment in which an immigrant may resist stress, become more open (flexible), structure new or restructure previously established goals (or the ways to achieve them), and create a new and exciting image of the future. The studies, mentioned above, show that the majority of immigrants cope with such adverse circumstances and after one to two years become relatively satisfied with their settlement. This is what Adler named a 'transitional experience' (1975), which "can be a source of higher levels of personality development", leading from initial intense difficulties, through *positive disintegration*, towards a more desirable and autonomous stage. Of course, there will always be a number of people who will not resist the stress caused by extreme circumstances such as immigration, and will develop a variety of psychological and/or psychosomatic problems, making their social adjustment even more difficult or eventually impossible. Such people would most probably have similar reactions to other stressful life events in their countries of origin. This might also be the case of Polish immigrants to Australia. The average length of residence in Australia for depressed immigrants was 8 years (S.D. = 5.2), ranging from 1 to 17 years, and 7 years (S.D. = 4.2) for non-depressed, ranging from 3 months to 16 years, for both studies. These data seem to confirm the earlier described pattern (not being

able to conquer initial problems and a long-term depression as a result), however, there could be other more recent issues involved, which were not directly related to immigration process per se, e.g. separation, problems with grown up children, changing jobs, and so on. It would be reasonable to assume that in a few instances this was the case, thus not directly related to the relationship of immigration and health.

Another possible explanation for such a strong correlation between social and psychological adjustment lies in a comparison of socio-economic conditions in Poland and Australia, in mid 1990s, when the second study was conducted. After a 15-year long period (1980-1995) of political and economic changes, the Polish economy began to stabilise in its development, with future predictions of joining West European countries (EEC) in 2003. Many possibilities became open for individuals with a strong desire for achievement. At the same time, the Australian economy was undergoing political and economic changes which could be perceived as less promising, especially for first generation immigrants (unemployment ratio for immigrants was much higher than for the Australian-born population). Thus, immigrants might experience self-doubts and confusion not only about their earlier decision but also about their present and future situation.

Social adjustment of immigrants may pertain to immigrants' health in yet another way. Some researchers (e.g. Golding, Aneshensel & Hough, 1991; Golding & Burnam, 1990; Padilla, Wagatsuma & Lindholm, 1984) investigated generational differences in mental health of immigrating people and discovered that second generation immigrants were prone to undergo more problems and disturbances than first generation. These differences were mainly attributed to, for example, disruptions in inter-generational communication, which might then produce tensions between family or group members, resulting in poorer health. Second generation immigrants are often portrayed as better assimilated than their parents and this could be the very source of their psychological difficulties. If one may assume that the high socio-technological development present in host countries brings not only better living conditions, but also accelerates the tempo of living, with its side-effects (stress, confusion, depression, etc.), one may also logically conclude that the assimilation process includes the learning of typical, host society responses to everyday life difficulties and challenges. In other words, the members of highly developed societies

may teach their new members (immigrants) their own behaviours, including e.g. depressive reactions (symptomatology). Such a perspective definitely relates immigrants' health problems to the process of their social adjustment within a new environment, but not necessarily to the immigration circumstances themselves. While Murphy (1977) and Adler (1975) postulated immigrants utilise their own, habitual ways of reacting to life conditions (Irish drinking habits), the opposite can also be suggested: newly learned and internalised responses, including -for example - depressive reactions, may become specific by-products of the assimilation process itself. This explanation might relate more strongly to the second and subsequent generations of immigrants, or to those more culturally distant from host societies, or the younger on arrival, but it also illustrates the possibility that the health problems experienced by immigrating people, and measured by methodological tools constructed by host societies, may be due to acquiring a host society perspective by immigrants. As the creator of the influential depression scale, Beck himself suggested that depression is a learned response, thus depressive symptomatology might be culturally based and induced. Hence, as it may be quite a radical approach, it would be logical to conclude that immigrating people, while assimilating, acculturating or adapting within a new country, are exposed to characteristic host societies responses, such as depressiveness (helplessness, hopelessness).

Length of residence was only one of several variables taken into consideration in this research, when both social and psychological adjustment were analysed. There are two groups of predictor variables considered in the literature to have a significant impact on immigration. The first group constituted demographic variables (in this study), such as age at arrival in Australia, gender, length of residence, formal education, profession, marital status and children, immigration status (dependent vs. independent immigration), employment and residential status. The second cluster of predictor variables, attracting more and more attention of researchers, are personal characteristics of immigrants, and in this research they were: extraversion, intelligence, attributional preferences (locus of control), neuroticism and self-acceptance. While all the demographic characteristics stayed from Study 1 to Study 2, for the purpose of further comparisons, some changes were made within the personal data set. As a result of the first study outcomes and new approaches in cross-cultural

research, the measures of intelligence and attributional preferences were exchanged into the assessment of self-acceptance.

It should be explained here, why the self-acceptance idea (and the creation of a new scale) was chosen. Firstly, the author theorised that the level to which people accept themselves may be proportionally related to their self-awareness: the more one is self-aware, the fuller the acceptance of the self one should display, and vice versa. The main presupposition of such an approach is that people are who they are as a function of all the past and present individually perceived conditions, together with an imagined anticipation of future circumstances, including all kinds of relationships involved, and regardless of time and geographical position. Self-identity seems to lie on the ground of all the subjectively perceived experiences that have already happened in the past, are happening now and are expected (through own imagined predictions) to happen, and evaluated by people against their own value structure. In yet other words, if one fully accepts oneself, one has to accept oneself regardless of time, psychological, biological, social, geographical and other conditions. For example, if it was possible to change something in the past (one of the Scale questions) and one did such a change, one would already be a different person at the time such a change occurred. The identity of such a person would change instantly. This idea seems to be strongly connected with self-responsibility and locus of control: if we view all the happenings of our lives as the results of our own decisions (or lack of them, which is a kind of deciding to leave decisions to others), we become more self-aware and, as a result, more responsible for our own lives. This is also congruous with the therapeutic approach publicised (and taught) by Bandler and Grinder, the co-founders of the Neuro-Linguistic Programming, and other NLP practitioners: first one has to accept and acknowledge one's present status (including self) as one's own accomplishment and then attempt desirable changes (e.g. McDermott & O'Connor, 1996; O'Connor & Seymour, 1993; Andreas & Andreas, 1987; Bandler, 1985; Bandler & Grinder, 1982; Grinder & Bandler, 1981).

Secondly, the acceptance of self seems to be perceived much more personally than the concepts related to self-esteem evaluation, which is more specific and socially oriented (thus, creating an uncomfortable gap between the real and the desired (ideal) self, and promoting an unintentional dishonesty). This newly created Self-Acceptance

Scale questions ask *generally*, i.e. does not indicate any particular territory of concern, thus giving respondents much greater freedom in choosing their own interpretations of reality, and prompting more straightforward and sincere answers. Such an approach remains in line with some basic NLP presuppositions, which might also be a way of validating its practical quality.

The psychological well-being of immigrants was correlated with all the demographic and personal variables, mentioned above. Study 1 results indicated higher levels of neuroticism, the internality and generality of attributing hypothetically negative life events and marital status as valuable predictors of depression (and general health). That means, that immigrants who are more neurotic or less stable emotionally and/or those who felt more responsible for the hypothetical downs in their lives, also suffered more psychological and psychosomatic discomforts in their present times. When these three and other theoretically important predictors were analysed within the hierarchical regression model, the most significant contribution was marked by the generality of attributions for bad events and marital status. This seems to specify the globality and stability of negatively oriented perception of reality as one of the leading reasons for going into depression and suffering its psychological discomforts. If such an attributional tendency was regarded as a more stable aspect of personality, it would surely have a disastrous effect on such a person's life. It should be noted here, that the negative perception - depression relationship seems to work in both directions: negatively oriented perception might escalate psychological discomforts, and psychological difficulties might generate/organise negative interpretation of reality (experiences). The other variable predicting depression, i.e. marital status, was a surprise discovered in this study. It was assumed that having a trusted and supporting life partner would be beneficial in coping with immigration struggles. It was found, however, that it may cause additional strains and result in depression, in a significant number of cases. It may be due to the cultural differences between Polish and Australian perceptions of marriage: generally the Polish attitude towards marriage is still very catholic and strict, but the Australian attitude is less rigorous. The divorce ratio, for example, among immigrant populations in Australia proximate around fifty percent and such a situation may add more problems to the already strained immigration process, resulting in depression.

Study 2 results confirmed emotional confusion (neuroticism) as a good predictor of depression and anxiety, and added self-acceptance and lack of job as two other major predictors. The model revealed that when self-acceptance was included in analyses, it became the most influential variable in predicting both health measures, followed only by unemployment. Thus, the extent to which immigrants accept themselves within the whole range of circumstances of their lives, the extent to which people become aware about their individual impact on these circumstances and feel responsible for it, seems to be of greatest importance in predicting their well-being. It is worth noticing that in zero-order correlations self-acceptance had significant relationships with only three other predictor variables, namely: [lower level of] neuroticism, gender [masculinity] and [higher] education, with the last two not playing significant roles in predicting psychological well-being. Thus, self-acceptance itself appears to be a reflection of emotional stability, higher education as a more cognitive flexibility and better understanding of reality or more socially appreciated cognitive abilities, and still better defined social roles for males.

In this research, social adjustment into a new society was indicated by two of its aspects: adaptation and assimilation. Adaptation was characterised by the immigrants' job satisfaction (as the base for achieving their goals) and their general perception of living in Australia (for themselves and their present or hypothetical families). The first study outcomes suggested a few variables to be considered as significantly differentiating less-well from well adapted immigrants. Firstly, the well adapted immigrants were those who were younger on arrival (becoming fluent in English more quickly) and had already stayed for longer periods in Australia; they also tended to be better educated and males (both with better job opportunities, favoured by governmental policies at the time), employed and with higher salaries. Generally, none of the personal characteristics reached a significant level in distinguishing well from poorly adapted immigrants. The second study confirmed education and employment as being crucial demographic variables in predicting adaptation, but pointed also to two personal characteristics, i.e. self-acceptance and extraversion, as having even better independent contribution in explaining such a difference (between well and less-well adapted).

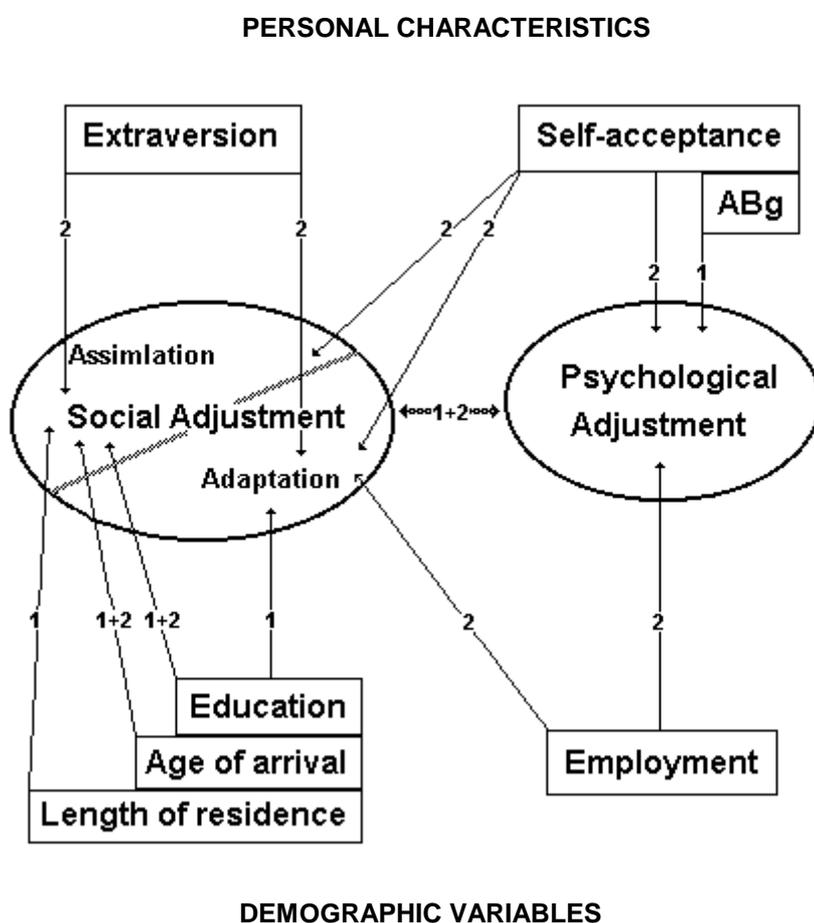
Assimilation was measured by immigrants' willingness in changing their older (Polish) habits, such as food and clothing preferences, and establishing a new range of personal and social relationships (Poles versus Australians), and also by their ability to communicate in the host country language (English). Consistent with Berry's four modes of acculturation and his study results (Berry, 1988), also confirmed by other researchers (Dona & Berry, 1992; Ward et al., 1992), where fuller assimilation appeared to be more desired by host society members rather than by immigrants (usually willing to partly maintain their cultural identity), it was not expected that Polish immigrants to Australia would tend to fully assimilate (completely change their identity and cultural characteristics). This research results indirectly confirmed such an expectation when the assimilation theoretical score ranges were compared to the raw scores obtained from our questionnaires. A hypothetical picture of fully assimilated immigrants would show them as having closest and most personal social contacts with host society members, with completely changed preferences in food and clothing, with a lost interest in keeping any social or cultural relationship with the members of the same ethnic group. The possible scores, in the 12-item version of Assimilation sub-scale, ranged from 0 to 48 points, with the average 23 raw points (mode also 23) obtained from questionnaires (S.D. = 7.0, min = 6, max = 42). Similarly in Study 2, with the same range of 0 to 48, 25 points as the average were obtained from questionnaires (mode = 26) (S.D. = 7.8, min = 7, max = 40). Thus, even the highest scores obtained in the Assimilation subscale suggest the integration mode as predominant rather than a complete change of identity (the integration mode is characterised by cultivating by immigrants their original cultural characteristics permitting some changes).

Among the variables which appeared to have the best independent contribution in predicting assimilation were extraversion (in Study 2), education (both studies), age at arrival (both studies), years already spent in Australia (Study 1), and self-acceptance (Study 2). Extraversion could be defined as sociability (outgoingness) and as such its impact on assimilation is understandable.

When the outcomes of the whole research were viewed from a broader perspective, despite some specific differences between the studies, a much clearer picture of the relationships between the variables emerged (Figure 9.1, next page). Taking into

consideration both sets of results, the similarities and differences between them, it was possible to distinguish three personal characteristics (self-acceptance, extraversion and attributional style) and four demographic variables (education, age at arrival, length of residence and employment) as having a fundamental impact on the difference between well and less-well social and/or psychological adjustment of the first generation Polish immigrants to Australia. These seven variables most significantly contributed in predicting the general outcome of immigration, with five of them (self-acceptance, extraversion,

Figure 9.1 Predictors of social and psychological adjustment of Polish immigrants to Australia



ABg - generality of attributions for negative events

1 - sign. in Study 1  
2 - sign. in Study 2

education, age at arrival and style of attributions) being classified as pre-arrival and the other two (length of residence and employment status) as post-arrival characteristics.

**Extraversion** and **educational level** seem to significantly affect social adjustment, having an impact on both adaptation and assimilation: well adapted and assimilated immigrants were better educated (usually, with tertiary education diplomas) and more socially oriented (outgoing, open and outward-looking). In other words, better educated and more socially oriented immigrants are less likely to experience great difficulties with their transitions, and are more likely to adjust satisfactorily within a particular social environment.

**Style of attribution** or, more specifically, generality of attributing hypothetically bad life circumstances (ABg) correlated with immigrants' well-being. It appeared (Study 1) that one's tendency to globalise his/her attributions towards negative life conditions (even hypothetically) and holding in such globalisations (stability), may have significant implications for one's health. In other words, people who tend to globalise negativity seem to be prone to experience more depressive symptomatology and have significantly more general health problems. Internalisation of such generalisations for bad events (locus of control: feeling responsible for them) also predicted higher scores in BDI, in zero-order correlations, but became less important when included in a multi-regression model. It is interesting to note, that it was expected that generality (AGg) and internality (AGi) of attributions for hypothetically positive life circumstances might have health preventive effects, but unfortunately this was not the case. The only point in which AGg reached a significant level was in predicting social adjustment as a whole (Table 5.9). One plausible explanation of this phenomenon may be due to the fact that people seem to be more preoccupied with their daily survival (especially immigrants) and have less possibilities to acknowledge themselves, and learn from their past experiences.

**Age at arrival** and **length of residence** appeared to be predictive of assimilation in the case of Polish immigrants to Australia. Youth (with its flexibility and openness) and wider/longer experience in a host country seem to be important in becoming a full member of a new society. These two variables were most consistently of predictive value in related research (e.g. Faragallah et al., 1997; Legge, 1997; Patel et al., 1996; El-Badry & Poston, 1990; Phinney, 1990; Kim, 1988; Szapocznik et al., 1980). It

seems very logical, for younger immigrants bring with themselves less cultural heritage and are usually still open to new learning. They seem to be widely open for exploration and challenge, despite the change of circumstances.

**Employment status** (being employed rather than having a higher income) appeared to be a good predictor of adaptation and psychological comfort. The use of this variable as a predictor of social adjustment in this research requires an additional explanation, however. In several earlier studies and under different names, e.g. *wage employment* (Berry, 1988), *salaried employment* (Chance, 1965), *work roles* (Berry & Annis, 1988; Myambo & O’Cuneen, 1988), employment status was used as an index of adaptation. However, when cultural and historical differences between the subjects of those studies and the Polish immigrants were to be considered, it became reasonable to treat employment as a predictor variable. It should be noted that in Poland up to the late 1980’s there was no official unemployment as such. In other words, everyone (considering age and health, in general) had a job and had to work (unemployment benefits, unlike in Australia, were non-existent). The salaries were much lower than in Western countries, but there were always more job vacancies (even created artificially, within the scope of communist policies at that time) than volunteers. In such a context, Poles were adjusted to work and had work experience. The major element differentiating employed people was job satisfaction. Thus, and as in Scott’s and Stumpf’s study (1984), for example, job satisfaction was one of the indicators of adaptation. A significant correlation between employment and adaptation was expected and found in this research, but the results obtained showed a particular structure of such a relationship. In both studies employment and income predicted adaptation scores. In Study 2, adaptation (not assimilation) also had a positive and significant relationship with employment status, but not with income, even if significantly more immigrants were employed (as compared to those in Study 1). However, while hierarchical regression analysis indicated income as significantly contributing in predicting adaptation (not assimilation) in Study 1, similar analyses of separate employment and income in Study 2 only partly confirmed such correlations: employed (plus self-accepting and extravert) immigrants were also better adapted. Income did not contribute significantly in predicting neither adaptation nor assimilation. On the other hand, when self-acceptance scores were excluded from

analysis, neither employment nor income contributed significantly in predicting adaptation (or assimilation). It could indicate that employment and job satisfaction were relatively well differentiated by Polish immigrants. These practical outcomes and the social and cultural differences may justify the initiative to choose employment status as the post-arrival predictor of social adjustment (adaptation and assimilation) rather than treat it as an index of adaptation. Day-to-day observations seem also to support this view: there are so many employed people who are not satisfied with their jobs. Could those people be considered as well-adapted? On the other hand, there also are unemployed people in Australia, who are capable of being employed, but living from social security benefits and focused on other aspects of their lives (e.g. sole parents, students). Could those people be considered as less-well-adjusted? The latter may also partly explain why income did not play a significant role as predictor of social adjustment.

Higher **self-acceptance** seems to promote better adaptation (fluency in English, job satisfaction and general perception of living in Australia), fuller assimilation (closer relationships with members of the host society: Australians and other ethnic groups) and psychological well-being (less tension, anxiety and depressive symptomatology). There is a resemblance in the structural composition of self-acceptance and adaptation, as both concepts relate to the issue of self-satisfaction; it was one of the reasons for conducting multiple regression analyses in Study 2 with and without Self-Acceptance scores. However, while subjective satisfaction seems more time-specific, self-acceptance was developed in such a way as to consider immigrants' past, present and future, as a particular organisation of perception of the self within a social milieu. Thus, self-acceptance was treated as a personality characteristic, much more stable and relatively difficult to change. An analogous problem might be pointed out when self-acceptance was used to predict psychological adjustment, assessed by depression and anxiety inventories. Also in this case, all three concepts seem to share a similar conceptual base and again - BDI and BAI are time-specific, asking subjects about their psychological difficulties within the past week, while SAQ seems to be more time-general. Even if several studies indicate that people's perception is influenced by feelings of depression and anxiety, it would be interesting to investigate to what extent these feelings have an impact on well-being. It may be that higher self-acceptance

promotes quicker and more efficient re-integration (as opposed to learned hope- or helplessness), using the concept of positive disintegration, proposed by Dabrowski (1964). It may be reasonable in the future to use any of the self-esteem or self-efficacy measures\* to predict social adjustment, but these concepts also are associated with depression, anxiety and helplessness (Bandura, 1995) and using them would also carry similar problems.

There were other two variables - **neuroticism** and **gender** - related to self-acceptance (also education), psychological well-being and adaptation. Higher scores obtained in self-acceptance were correlated with higher education, masculinity and emotional stability. Higher scores obtained on the Neuroticism scale seemed to enhance psychological discomforts, as neuroticism, depression and anxiety seem to underline the same predisposition: neuroticism could be equally well used as an index of well-being. By definition, however, neuroticism is considered as more resistant to change, as are personality traits. On the other hand, level of anxiety might be treated as a state (well-being) or a personality attribute. In the case of this study, neuroticism was considered as a personal characteristic (being a part of the Eysenck Personality Inventory) and anxiety was meant to assess psychological adjustment (as the Beck Anxiety Inventory relates to a present time rather than long-term responses). While the influence of emotional instability on self-acceptance and psychological well-being seems to be quite a common phenomenon, the relationship between self-acceptance and gender could be explained by still better defined social roles (thus, governmental preferences) for male immigrants.

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\* Very recently, a 10-item Perceived Self-Efficacy scale was adopted in 14 cultures (including Poland, by Juczynski; 1997) and several cross-cultural comparisons were made by Schwarzer (1998)

**Weaknesses/limitations of the research and suggestions for future studies.**

Although this research specifies the variables that might be responsible for a smoother transition of social adjustment (of Polish immigrants to Australia), there are also some inconsistencies between the results obtained from both studies. For example, there was a significant difference in the number of immigrants who were classified as depressed. In Study 1, they constituted one fifth of the sample which, according to Polish norms, is comparable with the percentage of depressed Poles in Poland. Such a finding might suggest that immigration as such did not have such a disastrous effect on immigrants psychological well-being. However, the number of depressed immigrants in Study 2 constituted one third of the sample which was significantly above the norms and seemed to indicate much stronger relationship between the process of immigration and psychological adjustment. Possible explanations of such differences have been discussed, but they can not be considered as conclusive. Such discrepancies arose partly from the fact that both studies were cross-sectional. Similarly uncertain outcomes could be eliminated by conducting a longitudinal study, by tracing changes in the contribution that predictor variables would have on psycho-social and/or psychological adjustment over a period of time. Such an approach, however, requires substantial resources and could not be accomplished in the present study. The substitution of measures used in both studies (the GHQ and ASQ utilised in Study 1 was substituted by the BAI and SAQ in Study 2), may also be perceived as a limitation. A reasonable explanation for these changes was not given earlier and it might create some difficulties for a reader to draw appropriate comparisons between both studies. Firstly, the General Health Questionnaire (adopted in the Study 1 to assess psychological well-being of immigrants, in conjunction with BDI) showed moderate correlations but seemed to offer no additional information beyond that of the BDI results. For this reason, in an attempt to improve prediction of psychological well-being, it was decided to use the Beck Anxiety Inventory in Study 2. The second substitution (ASQ→SAQ) was of a different nature: the ASQ was included in an attempt to reveal immigrants' attitudes towards their feelings of control over their own lives. The results obtained from the ASQ (Study 1) were significant in the case of negative life events only. Although, these results may be important, they did not satisfy the author's desire to find a tool which could additionally assess the attitudes of 'positiveness' or 'confidence in self'.

Thus the Self-Acceptance Questionnaire was generated and used in Study 2. Its significant correlations with both immigrants' social and psychological adjustment seem to justify this substitution.

Other propositions for further research might include immigrants' type of predominant motivation (negative vs. positive) for short- and long-term goals, or primary perception (visual vs. auditory vs. kinesthetic) which can facilitate the speed of learning (acquiring new knowledge). It might be of value to investigate immigrants' time-lines, (James, 1989) shapes are supposed to play a significant role in goal settings, emotional attachments and so on. All these and other ideas may eventually bring us closer to understanding such complex processes as immigration, adjustment, acculturation, health. Further research seem to become even more important, when one wants to be aware of the *informational* globalisation taking place all over the world. As was mentioned in the beginning of this study, people adapt and adjust themselves to new environments every moment of their lives, and maybe it will not be necessary to emigrate to be challenged by similar difficulties as encountered by immigrants - the world is changing more and more rapidly in every place and there is no end to such transformations.

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